Business Process Modelling For Interdepartmental Collaboration Improvement

BSC THESIS – INDUSTRIAL ENGINEERING AND MANAGEMENT

UNIVERSITY OF TWENTE.

ECARE

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Management summary

In this dissertation, the execution of a qualitative research on how business process modelling can be used to improve collaboration between a company's departments is given. The research has been performed at Ecare, a SME that produces and sells IT solutions for small/medium healthcare organisations. First, an introduction to the research is given: here, the managerial dilemma is taken as starting point for further elaboration, until identification of the core problem that has been tackled. From the identification of the core problem, the main research question has been derived: *"How can the business processes performed by the Puur and Plein departments be reorganised in order to improve process collaboration?"*.

To answer the question, theory on which business process modelling techniques can be used for the topic has been researched. To tackle the research, first the processes in place have been identified, together with their supplier/customer relations. Next, information has been gathered on the individual processes and used to develop a business process model of the current situation: an As-Is model. Business tasks represented within the model have been used, together with RASCI charting, to assess the current resource allocation at the two departments, therefore giving more context to the processes. The current collaboration between the departments has been examined using the As-Is model in combination with a collaboration maturity model, the CollabMM.

Analysis of the interdepartmental collaboration maturity revealed it to correspond to the lowest CollabMM level. Here, collaboration activities take place only as a result of initiative by the involved process actors and is not structurally integrated into the processes. It has been agreed with key stakeholders at Ecare that the desired level of collaboration corresponds to the reflexive level, i.e. the highest collaboration maturity level. Distinctive traits of processes at the latter level are definition of communication channels, joint planning, monitoring of collaboration activities, direct (e.g. communication) and indirect (e.g. storage of information) information sharing, and evaluation of the collaborative activities within the processes.

Hence, a gap between the current and the desired collaboration levels has been identified. To fill the gap, an improved business process scenario for the two departments has been modelled in a To-Be business process model. In this model, three major scenarios have been distinguished: the first one, whenever a new Ecare customer is implemented by either one of the two departments; in this case, it is important that the involved department documents and stores customer information into a shared repository (e.g. Ecare's intranet), in order to make the information accessible and usable by the other department for an eventual future contact with the customer. The second scenario is when a customer, already implemented at one of the two departments, needs to be implemented at the other department. In this case, a meeting should be held between the advisors of the two departments responsible for this customer, where information on the customer should be shared. Information should also be retrieved from the common repository. These actions should be undertaken prior to the start of the implementation, in order to gain in advance information on the customer and therefore shortening the process. In the third scenario, the implementation needs to be carried out for the two departments simultaneously: in this case, prior to the start of the process, a common planning should be made and tasks should be allocated. The latter can be easily done using RASCI matrices. Monitoring of the process should be done by a coordinator, regular meetings between the coordinator and the department stakeholders should be held and the collaboration should be evaluated at the end of the process. Customer information, along with planning and tasks divisions should be documented and stored into the common repository. The latter interventions, among suggestions for future work, are proposed and discussed in the conclusion of this dissertation.

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Table of contents

List of tables and figures

Tables

Figures

Chapter 1: Introduction

In this chapter, an introduction to the research is provided. First, the company under investigation is introduced along with situational context; next, the managerial dilemma is further elaborated into the research's action problem. Identification of problems linked to the action problem is provided by means of a problem cluster, which is on its turn used to define the core problem that has been tackled by the research. Next, the research objective and scope are defined, followed by the research methodology and deliverables. The research questions linked to the various phases of the assignment are discussed and approaches to tackle them are defined. Finally, an overview of the research design is given: here, the research type is elaborated, followed by a description of the research population and the applied data gathering and analysis methods.

1.1: Ecare

In this section, background information to the company is provided along with a description of the managerial dilemma that has been used as starting point for this research.

1.1.1: The company

Ecare is a SME that helps healthcare organizations in supplying their health services in the most optimal way as possible. Ecare's vision on optimal health supply can be summarized as follows: the healthcare provider must be able to concentrate on his/her primary task, being the healthcare supply, without being limited by other non-health related matters. In order to achieve that, the healthcare employee must (i) have a proper (digital) working space, (ii) with a proper operative system and (iii) with all secondary non-health related tasks being outsourced to an external party. These three major points are practically translated into the three product categories Ecare provides: (i) Plein, being the digital working space. Plein is a PAAS (platform as a service), where all relevant applications and data to the health employee are easily accessible. Within Plein, purchase of Google licenses followed by data migration and optimisation of the IT landscape are offered, along with the supply of Google hardware. (ii) Puur, which is software for online patients dossiers. The software is designed for either homecare, neighbourhood care or both, and supports Ecare's customers in performing daily operations, like storage of patient information and invoicing of health services. Finally, (iii) Shared Services is a service where the customer's administration tasks such as declarations for health insurers or salary administration are directly performed by Ecare.
These three products were originally provided separately by three different Ecare companies: Bo provided Shared Services, Echt provided Plein and eCare provided Puur. The management has decided to unify the three companies under Ecare's unique brand; this merger has taken place by the end of April 2020. The three companies can now be seen as three departments within the new Ecare, with each their unique product. The reason behind this decision was the intention of moving from the offer of the three separated products towards a more aggregated, package-like offer.

1.1.2: The managerial dilemma

As mentioned in the previous section, the management team at the company wishes to move the offer of its three products from a separated fashion to a unique combined proposition. To achieve the latter, the management team wondered what actions can be undertaken in order to enhance collaboration between the three departments, and subsequently commissioned the execution of this research. This managerial dilemma has been taken as a starting point to further investigate the reasons behind the perceived need for collaboration enhancement within the company.

1.2: Problem identification

In the previous section, background to the company and the managerial dilemma were provided. Within this section, the managerial dilemma is further elaborated until a defined action problem. The action problem is then used as starting point for the identification of a casual chain of problems, all schematically depicted in a problem cluster. The problem cluster is finally used for the identification of the core problem. As further explained in section 1.3.2, these steps are derived from the Managerial Problem Solving Method proposed by Heerkens and van Winden (2017).

1.2.1: The action problem

As stated in section 1.1.2, the managerial dilemma, hence the question on how to enhance collaboration between the three major departments within Ecare, has been taken as starting point to identify the reason for the management to believe there is a need for collaboration enhancement. As already discussed, the three main departments within Ecare are specialized in three separate products (Puur, Plein and Shared Services), and have been operating as three separate companies until recent times. To distinguish them, the departments are called with the same name as their respective products.

Interviews have been conducted first with the commissioners, Ecare's management team. These interviews were semi-structured, as means to being able to elaborate on answers given by the respondents and so to gather additional insights on the current situation at the company. Responses from the management team shifted the scope of the research towards the departments of Puur and Plein: here, incidents had occurred with regards of customer management and information sharing for common customers of the two former companies. Problems emerged when either one of the two parties had acquired information by having contact with the customer: this information was often not being shared, leaving the customer in a position of 'coordinator' between the two. This kind of development has led in several situations to embarrassment at Ecare's side paired with damage to their image towards the client.

Here, an action problem is clearly visible: relevant customer information is not being shared accordingly between the Puur and Plein departments. According to Heerkens and van Winden, an action problem is a *discrepancy between the norm and reality, as perceived by a problem owner* (Heerkens, H. & van Winden, A., 2017). A norm expresses the desired situation, while the reality represents the situation the company experiences. The reality of the action problem (the insufficient knowledge sharing) is that stakeholders at both sides have a higher frequency of contacts with the customer than would be necessary, as similar pieces of customer information are being retrieved separately (and not shared within the departments). The reality of the action problem is also that, as information is not shared and collected with separate meetings with the same customer, more employees than needed are involved in contact with the client. Finally, the action problem leads to incidents, where one department is not aware of agreements the other department made with the client: this has customer dissatisfaction as consequence. The norm on the other hand, would be having less frequent contact moments with the customer and a smaller group of employees responsible for the customer management and responsible for sharing relevant information with the involved departments, as this would avoid the kind of situations mentioned above and thus provide the client with a better service.

In the next section, problems related to the action problem are discussed and schematically represented within a problem cluster. Finally, the core problem is identified.

1.2.2: Problem cluster and core problem motivation

As previously mentioned, for this phase of research, denoted as Problem Identification phase, the Managerial Problem Solving Method has been applied. The choice of this methodology is motivated

by its simple and effective tools for finding a proper core problem to tackle. A core problem is a problem that is not specifically caused by another one. The importance of choosing a core problem as issue to solve relies in the fact its solution may probably solve other problems being caused by it (Heerkens, H., van Winden, A., 2017). The authors of the method propose the usage of a problem cluster as tool to identify core problems. A problem cluster is a schematic representation of the (causal) relationships of identified problems connected to the action problem.

To identify the problems behind the action problem, semi-structured interviews with members of Ecare's management team and employees with experience at both departments have been conducted, as they have sufficient knowledge on the current situation at both Puur and Plein.
The interviews revealed two main reasons for the poor information sharing, namely: insufficient documentation and the absence of a coordinator. Documentation at the company is something that at present is not done properly in most cases. An example can be found when looking at notes of meetings within the client teams at Puur (teams that manage contact with the clients of that specific product): the agenda points are just mentioned, with very few information on what practically has been discussed and which actions need to be undertaken.
An objective cause for this problem hasn't been found yet; however, this seems to be a known issue at the company, and is currently being tackled, making it out of scope for this research.
On the other hand, the absence of a coordinator for collaborations between Puur and Plein seems to be a problem as well. Information is not shared because no one feels responsible for doing so. An example occurred in the past, when a customer had purchased an assistance service in concordance with an advisor of a client team at Puur, but this had not been communicated to the support line at the Plein department. This resulted in the support line being unaware of this information and initially refusing to provide support when this client asked for it. This problem is related to the fact that tasks are assigned within departments internally, but there isn't a clear task allocation when it comes to actions that involve both departments, like communication.
Finally, the lack of agreements on inter-departmental tasks can be attributed to the fact that for a long time, Puur and Plein have been separate companies, with separate internal organizations and with very few interaction. Hence, the processes that are performed at the respective sides are not aligned and their business structures are not aggregated.

The problems discussed above can be found schematically in the problem cluster in Figure 1.

To find core problems, one should iterate backwards from the action problem within the causal relationships in the problem cluster until problems are found that are not caused by other problems (Heerkens, H., van Winden, A., 2017). In this case, the two core problems are the poor documentation of information and the lack of business process alignment for Plein and Puur. As it has been understood the documentation problem is already being tackled internally, the lack of process alignment has been selected as the core problem for this research, as depicted in Figure 1.

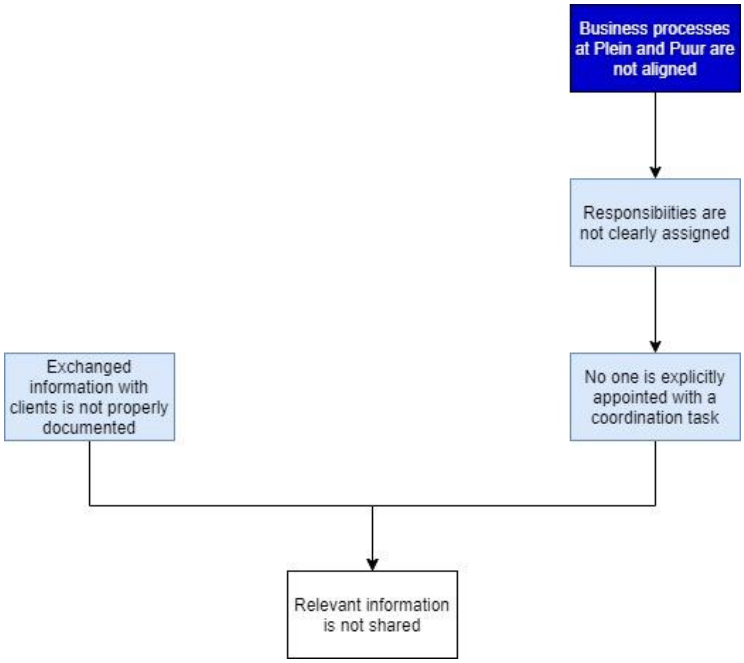


Figure 1: Problem cluster

1.3: Research approach

In this section, the objective of the research is defined, followed by the research scope. Then, the methodological framework used for the research execution is discussed. In the following section, the research deliverables are defined. Finally, research questions related to the different research phases are discussed, and approaches to tackle them are formulated.

1.3.1: Research objective and scope

As explained in section 1.2.2, business processes at the departments of Puur and Plein are not aligned. To solve this problem, this research aims at providing Ecare with advice on how to structure their business processes in such way to improve interdepartmental collaboration.
The scope of the research is limited to the formulation of a feasible solution for the core problem; implementation and monitoring of the proposed solution are out of scope, due to the limited amount of time available.
In section 1.2.1 it is mentioned the focus of this research lies on the departments of Puur and Plein; this means investigation of the business processes at the department of Shared Services is out of scope. The exclusion of Shared Services from the research scope is motivated by the absence of miscommunication accidents alike the ones described in section 1.2.
Moreover, the objective of tackling the core problem (lack of alignment for the business processes at Plein and Puur) is to contribute solving the action problem (relevant information not being shared between the two departments). The information in question is acquired by having contact with a common customer: therefore, the processes of interest for the research are solely the ones involving contact with the customer. This has consequences for the research population involved in the research, as explained in section 1.4.2.
Finally, interdepartmental collaboration has been specifically analysed from a structural/organizational point of view: other aspects like communication systems in use or interpersonal relationships among employees haven't been considered, as again this requires more time than available.

1.3.2: Methodological framework

Until now, the actions described have been performed following the Managerial Problem Solving Method (MPSM) by Heerkens and van Winden (2017). The first phase of this methodology, the Problem identification phase, focuses on finding and defining a core problem to be tackled. As aforementioned, this is done by finding the action problem that is linked to the managerial dilemma, identifying problems linked to the action problem in a causal relations chain until no problems can be found, connecting problems into a problem cluster and finally iterating back to core problems and selecting a core problem to be tackled (Heerkens, H., van Winden, A., 2017).
The reason for choosing the MPSM as starting method is the detail it supports in effectively identifying a right problem to tackle. For the continuation of the research, the use of alternative methodologies has been explored as well.

The Design Science Research Methodology (DSRM) by Peffers et al (2007) is a method that specifically supports the design of an artifact in order to solve a problem. As the authors define it, "artifacts are potentially constructs, models, methods, or instantiations or new properties of technical, social, and/or informational resources. Conceptually, a design research artifact can be any designed object in which a research contribution is embedded in the design" (Peffers, K., et al, 2007). Whereas both methodologies are problem-centered, the DSRM specifically supports designing as means for solving the identified problem, while the MPSM is more generic.
The identified core problem, the lack of business process alignment between Puur and Plein, implicitly points out to the absence of a model to represent how the company's business should be organized. Given the latter and the superiority of the DSRM in supporting the design of a model, it has been chosen to adopt this methodology for the execution of the remaining research phases.
Hence, this research is performed following a mixed methodological framework: for the problem identification, the steps within the first phase of the Managerial Problem Solving Method have been followed; for the design of a solution and its evaluation, the steps proposed by the Design Science Research Methodology are followed.

The phases of the DSRM are depicted schematically in Figure 2.
These phases, together with emerging knowledge problems within each research phase, are addressed further in section 1.3.4.

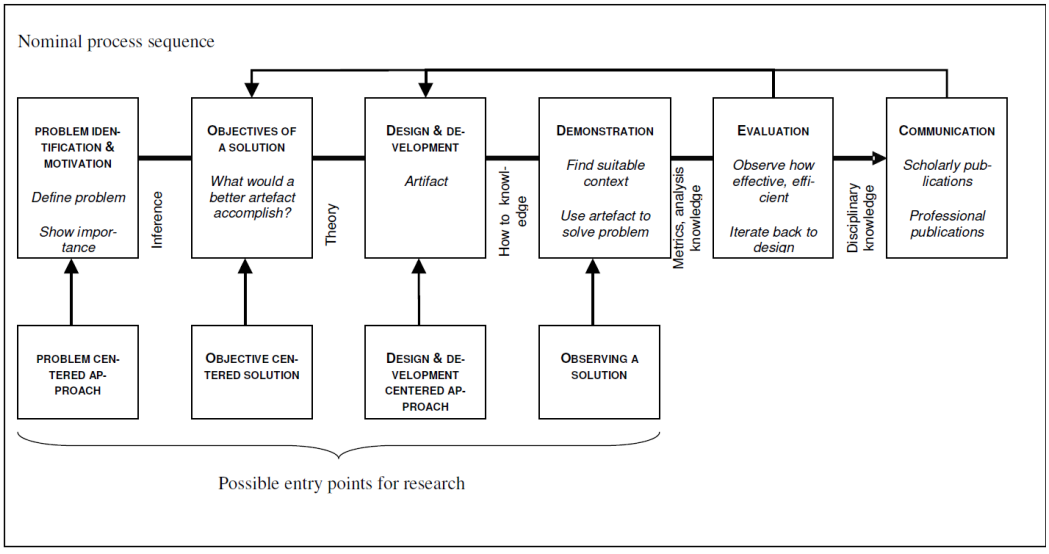


Figure 2: The Design Science Research Methodology (Peffers, K., et al, 2007)

1.3.3: Research deliverables

As will be explained in section 1.3.4, a brief scoping research has been conducted to explore the applicability of modelling to tackle the identified core problem. The results indicated the practice of business process modelling as a suitable solution; as better explained in section 1.3.4 and chapter 2, theory on business modelling practices has been researched: this resulted in choosing the combination of a BPMN model and a RASCI matrix as the artifact to be designed throughout this research. In particular, two models have been designed: an As-Is model, representing the current situation, and a To-Be model, representing an improvement of the As-Is model. For more detail please refer to chapter 2.
Based on the above, the following research deliverables were determined:

- A report containing advice for Ecare and possibly of inspiration for similar research, containing:
    - Problem definition, value of solution and research approach
    - Data gathered and implementation into the business process model
    - Analysis of the model
    - Conclusions, recommendations and evaluation of research
- An As-Is business process model, representing the current situation at the investigated departments at Ecare and a To-Be business process model containing suggestions for improvement.

Both deliverables have been met and incorporated into this dissertation.

1.3.4: Research questions

In this section, an overview of the phases of the DSRM that have been applied to this research are given, each with corresponding research questions. These questions, together with the approaches used to address them, are discussed.
A research question is formulated to address a knowledge problem. A knowledge problem arises when a researcher needs to acquire knowledge in order to understand something about a reality (Heerkens, H., van Winden, A., 2017).

Altogether, the answers obtained to research questions listed below should provide with sufficient knowledge to answer the main research question of this research, which has been derived from the core problem:

How can the business processes involving the delivery of Puur and Plein as a combined product be reorganised in order to improve process collaboration?

The phases of the DSRM are the following:

Phase 1: Problem identification and motivation
This phase has already been addressed using the MPSM in the preliminary phase of the research. Its execution has already been discussed in section 1.2.

Phase 2: Objectives of a solution
During this phase, knowledge needs to be gathered on what possible solutions can be used to tackle the identified problem, in order to define the objectives of the solution (Peffers, K., et al, 2007). As preluded in the methodological framework section (section 1.3.2), to address the absence of an aggregated structure, modelling seems intuitively as a proper approach to problem solution. A brief scoping research has been performed in literature to check whether modelling would be a valid solution. This research revealed a lot of references to business process modelling approaches to

improve collaboration and create more aggregated business structures within companies. Therefore, the focus of this phase had shifted to the business process modelling theoretical perspective. To address this knowledge gap, the following research question has been formulated:

1. Which business process modelling techniques can be used in order to improve inter-process collaboration?

In this case, core concepts under investigation are business process modelling and inter-process collaboration, where the relationship under investigation is how respectively the first concept is related to enhancement of the second one; to answer this question, a systematic literature review has been performed; as a result, theories have been compared and a theoretical method to approach the research has been formulated. The execution of this phase along with addressing of this research question is performed in chapter 2.

Phase 3: Design and development

As a result of the found theories during the objectives definition phase, a business process model enriched by a RASCI matrix has been identified as the artifact to be designed during this phase. A business process model consists of a set of activity models and execution constraints between them. Each business process model acts as a blueprint for a set of activity instances within an organization (Weske, M., 2012). A RA(S)CI matrix or responsibility assignment matrix is a tool to assign several degrees of responsibility for each activity performed in a company to the members of an organization, such as who is in charge of undertaking the activity and who must be informed once the action is complete (Cabanillas, C., et al, 2012). More detail on the theory can be found in chapter 2.

The design of the business process model can be divided into two major parts: the first should represent the current situation at the company, in order to spot major flaws in collaboration between the two departments, while the second one should depict an alternative situation where the identified flaws are solved. These two parts of the model are called respectively the As-Is and To-Be business process models (more information in chapter 2). To be able to design these models, information needs to be gathered on the current situation at the Puur and Plein departments, more specifically on: (i) how operations are currently executed and (ii) who is responsible for which tasks. This necessity translates to the following questions:

2. What is the current operations flow?

3. Who is responsible for the identified business tasks?

The two research questions are related, as to identify the responsibility assignment for business tasks (second problem), the executed business tasks must be identified first (first question). For both cases, the research population consists of a selected group of company employees and data gathering has been performed with the use of a Delphi study and interviews. These two research questions are addressed in chapter 3.

Phase 4: Demonstration

During this phase, effectiveness of the artifact is proven by solving one of the identified problems. In order to do so, the As-Is model had to be designed, analysed, requirements to improve the current situation set, and finally, the To-Be model had to be designed. Following the theoretical model identified during phase two, this has been done by as follows. First, information for the design of the As-Is business process model has been elicited following the multi-view process modelling perspective; next, the designed As-Is model has been analysed using a maturity model for collaboration assessment (the CollabMM), where the collaboration level between the departments

of Puur and Plein has been determined. From here, a target maturity level has been set, and requirements proposed from the CollabMM maturity model have been used to redesign processes in the improved To-Be model. In addition to that, RASCI matrices obtained from the Delphi study have been analysed and complementary interventions formulated. An overview of the applied theory and model of the research approach can be found in sections 2.2.6 and 2.4.

For this phase of the research, knowledge was required on how an As-Is business process model could be designed and how to move from there to the formulation of the To-Be business process model. Therefore, the following research questions have been formulated :

4. How can an As-Is business process model be designed?

5. How can a To-Be business process model be designed?

Again, the two research questions are related, as the design of a To-Be process model can be achieved only once the As-Is model has been designed. These research questions have been answered by performing a literature research, and are further addressed in chapter 2 (additional theory related to question 5 is included in section 5.1.1).

Phase 5: Evaluation

During the evaluation phase, the results obtained from the demonstration phase have been examined and an assessment on the degree to which they provide a solution to the initial problem has been made. In order to perform this evaluation, opinions from the participants to the study were collected regarding the current situation. Then, the same questions have been asked with regards of the proposed solution. The collected results have been compared to assess the value of the proposed solution. Besides that, a separate evaluation has been performed by means of a semi-structured interview with Ecare's direction. The main question here is:

6. How can the design be evaluated?

The core concept for this research question is the evaluation of the designed model. The research population are stakeholders at the company, identified in the research design. This research question is answered in chapter 6.

Phase 6: Communication

In this phase, the results of the research are communicated to relevant audiences. These include Ecare, the examination committee and the academic world. This is done with the thesis defense and publication of the thesis dissertation. No knowledge problems arise from this phase.

In Table 1, the identified knowledge problems are given schematically, together with the motivation of the importance to solve them, the planned data gathering methods and the corresponding deliverables.

Table 1: Research cycles for the knowledge questions

Knowledge question	Motivation	Data gathering	Deliverables	Addressed in:
Which business process modelling techniques can be used in order to improve inter-	This knowledge is needed to define the objectives of a solution: relevant theory that can be	Systematic literature review	Theoretical framework for the research	Chapter 2

process collaboration?	used to tackle the core problem			
What is the current operations flow?	This is needed to develop the As-Is BP model	Delphi study and semi-structured interviews	As-Is business process model	Chapter 3
Who is responsible for the identified business tasks?	This is needed to the develop the As-Is BPM model and RASCI matrix	Delphi study	As-Is business process model and RASCI matrices	Chapter 3
How can an As-Is business process model be designed?	This information is needed to design the model that represents the current situation at the company	Systematic literature review	Theoretical framework for the modelling of the current situation at Ecare	Chapter 2
How can a To-Be business process model be designed?	This information is needed to design the model that represents an improved situation to the one modelled in the As-Is model	Systematic literature review	Theoretical framework for the modelling of an improved business processes organization at Ecare	Chapter 2 (partly section 5.1.1)
How can the design be evaluated?	To evaluate the usefulness of the model, it is important to understand the value of the findings of the results from phase 4 by understanding which solutions are possible and feasible for Ecare	Questionnaires, Semi-structured interviews	Set of recommendations for the company and evaluation of the model	Chapter 6

In the next section, an overview of the research design is given.

1.4: Research design

In this section, an overview of the research design is given. This includes the type of performed research, the research population, the utilized methods for data gathering and analysis and the techniques used to evaluate the designed solution.

1.4.1: Research type

To label the type of research, several of its aspects have been considered and labelled following the indications provided by Cooper and Schindler (2014).

Starting with the degree of research question crystallization (i.e. how well-defined is the research question), a research can either be described as exploratory or formal study. Respectively, the first type has as main objective to discover future research domains, while the second one aims at either verifying an hypothesis or answer research questions (Cooper, D. R., Schindler, P. S., 2014).

Following this definition, it becomes clear this research can be labelled as a formal study type.

A second major classification category proposed by Cooper and Schindler is the purpose of the study: reporting studies are concerned with reporting summation of data to achieve deeper understanding of a phenomenon; descriptive studies focus on finding the who, what, when, where and how much of a research field; causal-explanatory studies investigate why phenomena happen while the causal-predictive study attempts to predict the behavior of a research variable by manipulating another variable (Cooper, D. R., Schindler, P. S., 2014). This research falls mostly within the category of a descriptive study, as it is concerned mostly with understanding what the current situation is at Ecare in order to formulate advice for improvement of the current situation.

The research also has to be classified based on the means by which the research purpose is reached. Here two main categories are distinguishable: qualitative research, which aims to gain an in-depth understanding of a situation by drawing data from sources such as people, organizations, texts, settings; and quantitative research, which attempts precise measurement of something (Cooper, D. R., Schindler, P. S., 2014). The research that has been performed is qualitative, as all major data collected consists of either descriptive information of Ecare's business processes or opinions, and no further direct measurement has been performed.

A final distinction can be made with regards of the temporal aspects of a research: it can be either cross-sectional (a snapshot at one point of time is represented) or longitudinal (repeated over an extended period). As this research has been performed focusing the current situation and will not be repeated in future times, it can be considered cross-sectional.

1.4.2: Research population

The main subjects for this research are employees of Ecare, in particular the ones active at the departments of Plein, Puur or both. They have been involved throughout the research in the problem identification, design and development, and evaluation phase.
As described in section 1.2, during the problem identification phase, members of the management team have first been interviewed to understand the underlying reasons that made them believe collaboration between Puur and Plein could be improved. They have been selected first as they are effectively the problem owners, the ones with a perceived problem. Their responses lead to identify the action problem (refer to section 1.2.1). To elaborate further on the action problem, two Ecare employers that have been active in both departments have been interviewed. Their responses contributed to identify the causal problem chain related to the action problem (as described in section 1.2.2).

For data gathering in the design phase, it has been chosen to perform a Delphi study (this part is discussed in further detail in section 1.4.3 and chapter 3). Within a Delphi study, relevant experts are selected and then invited to the study (Dijk, F. W. van, 2017). As mentioned, collaboration at Ecare should be enhanced; this is tightly bound to the domain of information sharing on the company's customer. Therefore, employees not directly involved in customer management, are not considered in the research. The execution of this expert selection and invitation is described in detail in section 3.2.

For the evaluation phase, the value of the results has been assessed together with the management team and the expert selection from the Delphi study, as both have certain opinions in how the company should be organized and therefore provide the best insights into what solution is to be considered value-adding and or feasible to improve the current situation. More detail of this part is given in chapter 6.

1.4.3: Data gathering and analysis

As preluded in 1.4.1, the majority of data gathered throughout the research is qualitative: this majorly consists of information, insights, opinions on the current situation at Ecare. For data collection, several qualitative gathering methods have been applied. Data has been gathered throughout the research during the problem identification, design and development, demonstration and evaluation phases.

Data gathering: semi-structured interviews

One data gathering method used for multiple phases of the research was semi-structured interviews. These are interviews that generally start with a few specific questions and then further elaborate on the responses given by the interviewee (Cooper, R.D., Schindler, P.S., 2014). When used in this research, the reason for choosing this data gathering method is the flexibility it provides in both directing the gathering towards a specific direction but still giving the interviewer freedom to gain deeper understanding of the responses given by the interviewee.

Semi-structured interviews have been conducted in the problem identification phase, as already mentioned. In that case, being able to elaborate on responses and thus asking further was seen as essential in order to discover the existing problems at Ecare and the casual relations between those problems. The use of this semi-structured interviews has also been made during the design and development phase: in this case, interviews have been conducted in order to ask clarifications for some of the respondents' answers to questionnaires (that have been used in this phase as main data gathering method) or whenever certain questions hadn't been answered. In the demonstration phase, (brief) semi-structured interviews have been used to set a target collaboration level (using a collaboration maturity model, the CollabMM, which is further explained in chapter 2) for the design of the To-Be model. Finally, semi-structured interviews have been conducted with the management within the evaluation phase of this research; not only opinions on the proposed solution were sought but also the reasonings behind these opinions, making semi-structured interviews a suitable data gathering method.

Data gathering: structured interviews

Structured interviews have a predefined set of questions that are asked in a specific order; the interviewer doesn't deviate from the questions and therefore keeps neutrality for this data gathering method (Cooper, R.D., Schindler, P.S., 2014). This method has been used within the demonstration phase of the research. As explained further in chapter 2, this research has made use of a maturity model (the CollabMM) to assess the level of collaboration as depicted in the As-Is model. This maturity model provides with a set of closed-ended questions (yes/no questions) that can be used to determine a collaboration maturity level of the process under examination. As explained in chapter 4, two relevant process stakeholders of the departments of Puur and Plein have been interviewed with this set of questions in order to establish the collaboration level that is in place for the two departments.

Data gathering: questionnaires

For data gathering in the design phase, it has been chosen to perform a Delphi study. A Delphi study is a method to gather data and feedback iteratively by means of questionnaires, and is widely used for the development of artifacts in Information Systems (Dijk, F. W. van, 2017). The reasons for choosing this method is that it helps validating the model developed simultaneously to its design: the model is constructed and adjusted using feedback and then feedback on the adjusted model is asked in the next cycle; iteration can be performed until consensus on the model by participants is reached (Dijk, F. W. van, 2017). More detail on the design of the Delphi study is given in 3.2.

As explained further on in this dissertation, the data gathered within the Delphi study can be summarized into three categories: information to build the As-Is business process model, information on responsibilities for the execution of tasks and opinions of participants regarding the current collaboration status between Puur and Plein. These types of data have been collected in different ways. The data gathered for the design of the As-Is model has been mainly collected in the form of open-ended questions. The reason for doing so was to solicit participants to give an much as information as possible on the different parts of the elicited business processes, in order to be able to give a detailed overview of the current situation. As described in more detail in chapter 3, once the information collected was considered enough, more opinions on the model's completeness and correctness were asked in the form of closed-ended questions, as at this point it was not necessary to have elaborated answers by the participants, but rather to validate the models designed with the information.

For the responsibility assignment to identified activities, participants have been asked to fill in RASCI matrices; for a detail on how these look like and how these can be analysed, please refer to chapters 2 and 4. The execution and results of the study are addressed in chapter 3.

Finally, the opinions on the current collaboration level between the two departments was collected in the form of multiple choice questions and scaling questions: participants were asked to choose an option to express their opinion on a certain statement and to give a grade to certain aspects of collaboration. The reason for choosing this data gathering method relies in the aim for gathering this data. In fact, opinions on the current situation have been collected in order to compare them with opinions gathered on how collaboration would be, given a proposed solution (hence to make an As-Is/To-Be comparison). As closed-ended and grading questions lend themselves better for quantitative and comparison analysis (Cooper, R. D, Schindler, P.S., 2014) it has been chosen to use this method.

For the reasons mentioned above, the use of questionnaires with closed-ended and grading questions has been made, finally, for the evaluation of the proposed solution.

According to Schindler and Cooper (2014), two major types of data analyses can be distinguished: exploratory and confirmatory. The first type is focused on discovery of patterns, while the second type is used to test hypotheses or causations (Cooper, D. R., Schindler, P. S., 2014). In this research, data analysis has been exploratory, as discovery of optimization opportunities was aimed.

Data analysis: coding

Given the different data types collected, different data analysis methods have been used. For the analysis of the open-ended questions within the questionnaires, content analysis, which is performed using coding, has been used. Coding involves assigning numbers or other symbols to answers so that the responses can be grouped into a limited number of categories. Categories are partitions of a data set of a given variable (Cooper, D.R., Schindler, P.S., 2014). The reason for choosing this approach was that the use of labels is very handy when making modifications to a business process model. For example, when modifying a process, one could group all codes by the label "add activity" in order to get an overview of all activities that need to be added to the model. More detail can be found in chapter 3.

Content analysis has also been used for the data gathered from the semi-structured interviews, as this method provides an easy way to summarize the content of text in some major (code) categories, making it therefore clear for the researcher.

Data analysis: horizontal, vertical and concordance analyses on RASCI

For RASCI, quantitative analysis has been performed; more specifically, horizontal and vertical analysis has been performed to check respectively how many and which types of roles are involved in the execution of a task and how many responsibilities one role gets. Among with these, responses have been compared for similarity and a concordance score has been computed. More detail is given in chapter 4.

Data analysis: statistical analysis

Finally, for the analysis of the opinions collected during the design and evaluation phase, statistical analysis has been performed. A number has been assigned to each option for the multiple questions, and the mean answers have been calculated for each question. Together with the mean, also standard deviation and coefficient of variation have been calculated. The latter two have been computed in order to rule out answers that would differ too much for each other and therefore cannot be taken as representative for a certain variable; while the mean of the answers has been calculated to give a measure of the general opinion of participants on a certain variable. More detail is given in chapters 3 and 4.

In Table 2 below, an overview of the mentioned data types is given, along with the gathering and analysis methods.

Table 2: Data gathering and analysis overview

Research phase	Data type	Gathering method	Analysis method
Problem identification	Managerial dilemma, related problems, assignment context	Semi-structured interviews	Content analysis
Design and development	Business process information	Questionnaires, open-ended and closed ended questions	Content analysis
Design and development	Responsibility assignment	RASCI matrices	Vertical and horizontal analysis, quantitative analysis
Design and development	Opinions on As-Is collaboration between departments	Questionnaires, closed-ended questions	Quantitative analysis
Design and development	Clarifications, missing answers	Semi-structured interviews	Content analysis
Demonstration	Collaboration assessment As-Is scenario	Structured interviews (Yes/No questions)	Quantitative analysis
Demonstration	Target maturity level	Semi-structured interviews	Content analysis
Evaluation	Opinions on proposed solution	Questionnaires, closed-ended questions	Quantitative analysis
Evaluation	Evaluation of the designed models	Semi-structured interview	Content analysis

1.4.4: Evaluation techniques

Within the evaluation phase of the DSRM, observations should be made on how well the artifact supports a solution to the problem; this involves comparing the objectives of a solution to actual observed results from use of the artifact in the demonstration (Peffers, K., et al, 2007). Since the objective of the designed artifacts, namely the As-Is and To-Be models, is to identify points for improving collaboration within Ecare's processes and to indicate which actions can improve the current situation, it should be evaluated in this phase whether the models reach this purpose. While the CollabMM maturity model provides with a set of tools to assess the As-Is collaboration level and to design the To-Be model in order to reach a target maturity level (please refer to chapter 2 for more detail), the method doesn't provide with explicit guidelines to evaluate the To-Be model on collaboration. In a case study, the authors of the method designed user cases to evaluate the newly designed processes; this was done after the To-Be business processes had been implemented in real life (Magdaleno, M., et al, 2008). Given implementation is beyond the scope of this study, research on which methods can be applied to evaluate the collaboration proposed in the To-Be model has been performed.

Wieringa (2014) makes a distinction between validation and evaluation: to validate a treatment is to justify that it would contribute to stakeholder goals if implemented; this is contrasted with evaluation, which is the investigation of a treatment as applied on a field. Therefore, validation of an artifact takes place before its implementation, while evaluation is performed after implementation.

The author proposes a number of methods that can be used to perform the validation of an artifact. The implementation of a proposed solution to the identified problem is out of scope of this research: therefore, observation of results by implementing the To-Be model cannot be used to evaluate the value of the solution. Nevertheless, if the objective of the models is reached, namely proposing improvements to the two departments' processes in terms of collaboration, then an intuitive recommendation to the company would be to implement the To-Be model. It is thus important to assess during the evaluation phase of the research, whether the processes as depicted in the To-Be model effectively represent an improvement when hypothetically implemented in the real world.

From this observations, it has been decided to take the validation methods proposed by Wieringa (2014) into account for the evaluation phase of this research.

There are four methods proposed (Wieringa, R. J., 2014):

- *Expert opinion:* the design of an artifact is submitted to a panel of experts, who imagine how such an artifact will interact with problem contexts imagined by them and then predict what effects they think it would have.
- *Single-case mechanism experiments:* this is a test were the researcher applies stimuli to a validation model and explains the response in terms of mechanisms internal to the model.
- *Technical action research:* this implies using a prototype of the artifact in a real-world problem to help a client and to learn from this.
- *Statistical difference-making experiments:* these are experiments that compare the average outcome of treatments applied to samples.

As the design of this research includes the selection and involvement of experts within the elicitation of processes for the As-Is model (discussed in chapter 3) and the impracticality of the other three methods, an intuitive method to adopt would be the expert opinion. Since the purpose of the evaluation is to inquire whether the proposed solution does improve the collaboration level of the As-Is scenario, experts opinions will be collected at two moments: during the elicitation, in order to

understand how they assess the current collaboration scenario between the two departments, and during the evaluation, asking them to imagine how collaboration would be if the To-Be model were to be used. The comparison of the two results could then be used to assess the value of the solution.

Given that the commissioners of the research (i.e. the management team) also have their own expectations towards the results, an additional evaluation has been be carried out with them in order to get their opinion on the value of the proposed solution.

In this chapter, an introduction to the assignment, together with the selected approach to conduct the research has been presented. In the next chapter, the theoretical perspective used throughout the execution of the research is discussed in detail and an overview of the applied theoretical approach is given.

Chapter 2: Theoretical framework

In this chapter, the theoretical framework used throughout the research is discussed.

As preluded by section 1.3.4, the theoretical perspective used for this research is the business process management domain. Business process management (BPM) is a discipline that uses various methods to discover, model, analyze, structure, improve and optimize business processes. BPM is key to align business processes to the business strategy of an enterprise. The reason for choosing this perspective is related to the context in which the research is executed: the need for collaboration enhancement and the non-alignment of business processes at Puur and Plein is clearly to be attributed to the fact the two departments were originally designed to be two separate companies. As the strategy of the board has changed, there is an evident need of translating Ecare's new strategy to the way business is conducted; therefore, BPM provides with useful insights.

This chapter includes all theoretical knowledge that needed to be gathered to answer the research questions from section 1.3.4. Therefore, research questions related to the objectives of a solution phase ("Which business process modelling techniques can be used in order to improve inter-process collaboration?") and to the demonstration phase ("How can an As-Is business process model be designed?", "How can a To-Be business process model be designed?") are answered in this chapter. In the first part of the chapter, key constructs and variables used throughout the remainder of the research are explained; then, research question 1 (and thus the objectives of a solution) are addressed in 2.2; here, results obtained from the systematic literature review (details on the research itself are attached to Appendix A) are first discussed, then an overview of the applied theory is given. In 2.3, research questions 4 and 5 from the demonstration phase are addressed. Finally, in 2.4, a summary of the utilized theoretical model to approach the research is given.

2.1: Key constructs and variables

In this section, an overview of the key constructs and variables being applied throughout the research is given. This serves as a clarification of what is meant when using specific terminology.

Collaboration: this term is broad and therefore involves different aspects within business fields. To give a picture of what exactly is meant by collaboration, three definitions applicable to the business environment are given:
1. "Cooperative arrangement in which two or more parties (which may or may not have any previous relationship) work jointly towards a common goal. 2. "Effective method of transferring 'know how' among individuals, therefore critical to creating and sustaining a competitive advantage." 3. "Conflict resolution strategy that uses both assertiveness and cooperation to seek solutions advantageous to all parties. It succeeds usually where the participants' goals are compatible, and the interaction among them is important in attaining those goals." (Business dictionary, n.d.)
According to the definition provided within the CollabMM (Magdaleno, A.M., et al, 2011), collaboration in a process can be defined within the domains of communication, coordination, awareness and memory).
Business process model: consists of a set of activity models and execution constraints between them. Each business process model acts as a blueprint for a set of activity instances (Weske, M., 2012).
Process orchestration: process orchestrations provide a detailed view on the activities of processes and their execution constraints (Weske, M., 2012).
Process choreography: business-to-business interactions between process orchestrations (Weske 2012, M.).
B2B: abbreviation for business-to-business. Here, one business makes a commercial transaction with

another business. Given the yet separate nature of the departments at Puur and Plein, their interactions can be interpreted as B2B.
As-Is model: Redesign projects for business processes start with analyzing and mapping an actual situation within an organization. This step is called developing an As-Is business process model (Arkilic, G., et al, 2012). Hence, the As-Is model represents the current situation of business process execution at Ecare.
To-Be model: the To-Be model for this research is the model representing an improved business process to enhance collaboration between Puur and Plein.
Process elicitation: this is the phase within a descriptive process modelling project where all necessary information to fully represent the target process is collected (Münch, J., et al, 2012)
Process instance: a process instance is a specific occurrence or execution of a business process (Weske, M., 2012).
Business actors: the term actor is used in business process modelling to indicate a person or more generally object involved in the execution of an activity (Weske, M., 2012).
Process pathways: pathways represent a sequence of flow objects in a process. In this case, a pathway is a determined sequence of actions depicted in a business process model.
Control flow: control flow is the order in which individual statements, instructions or function calls of an imperative program are executed or evaluated (Weske, 2012).
RA(S)CI matrix: A RA(S)CI matrix or responsibility assignment matrix is a tool to assign several degrees of responsibility for each activity performed in a company to the members of an organization, such as who is in charge of undertaking the activity and who must be informed once the action is complete (Cabanillas, C., et al, 2012).
Maturity model: a maturity model is a framework that describes, for a specific area of interest, a set of levels of sophistication at which activities in that area can be carried out. Maturity models can be used: to evaluate and compare organizations' current situation, identifying opportunities for optimization, to establish goals and recommended actions for increasing the capability of a specific area within an organization, and as an instrument for controlling and measuring the success of an action (Magdaleno, A. M., et al, 2011).
Client teams: for the supply of the software product (Puur), two client teams (team Noord and team Zuid) are responsible for managing the relations with the clients. Together, they form the client management department for the software product side.
Ecare vs. eCare: to make a distinction between the company in question and the (now) part of the company responsible for the software area, the respective terms Ecare and eCare are used.
Echt: Echt is the name of the former subcompany of Ecare responsible for the hardware area. This department will henceforth be called Plein.
Puur, Plein and Shared Services: these are the names of Ecare's products when we are talking about respectively the software, hardware and Google licenses, and the administration service they provide. The departments are named after the products, therefore we refer to the departments by these names.

2.2: Business process modelling and collaboration improvement

This section provides an overview on relevant theory found on business process modelling techniques that can be applied for collaboration improvement into a interdepartmental context. First, an insight is provided into different existing business process modelling languages and their specific domains, then more detail is added to BPMN 2.0 models. Following, a section is dedicated to the practice of descriptive process modelling as practice to optimize business processes. Then, responsibility assignment as complementary tool to process modelling is discussed. Here RA(S)CI matrices are highlighted. Finally, the use of maturity models for collaboration assessment is

discussed with a detailed insight into the CollabMM maturity model by Magdaleno et al (2008, 2009, 2011). This second part of the chapter is concluded defining the business process modelling techniques used to tackle the research problem, and therefore answering research question 1 *("Which business process modelling techniques can be used in order to improve inter-process collaboration?")*.

2.2.1: Business process modelling languages

Business process models specify the activities, with their relationships, that are performed within a single organization, hence represent process orchestrations. Process orchestrations provide a detailed view on the activities of processes and their execution constraints. There are several models that can be used for visualizing process orchestrations (Weske, M., 2012).

Petri Nets

Petri nets are techniques used for specifying business processes in a formal and abstract way. Formal means that the semantics of process instances resulting from process models specified in Petri nets are not ambiguous. Petri nets are abstract as they disregard the execution environment of a process, so that all aspects other than the functional and process perspectives are not covered. Petri nets consist of places, transitions, and directed arcs connecting places and transitions. In graphical notations, places are represented by circles, transitions by rectangles, and connectors by directed arcs. Transitions have input and output places. The input places of a transition are the places at the sources of its incoming arcs. Accordingly, a transition's output places are located at the end of its outgoing arcs. The dynamics of the system represented by a Petri net is modelled by tokens that reside on places. While the structure of Petri nets is fixed, the tokens may change their position according to firing rules. The current distribution of the tokens among the places determines the state of the Petri net and, thus, of the system modelled by it (Weske, M., 2012). An example of a Petri nets model can be found in Figure 3.

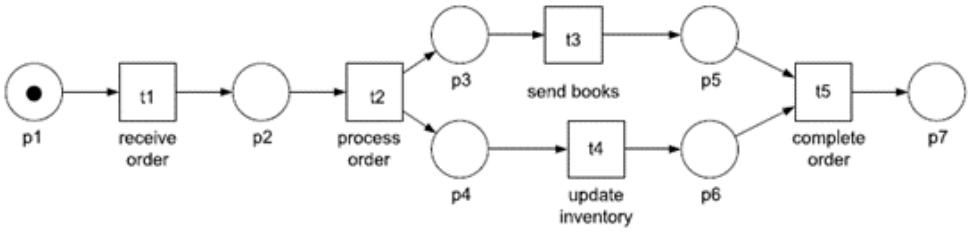


Figure 3: Petri nets model (Weske, M., 2012)

Event-driven process chains

Event-driven process chains are an important notation to model the domain aspects of business processes. The main focus of this rather informal notation is on representing domain concepts and processes rather than their formal aspects or their technical realization. The main building blocks of process chains are events, functions, connectors and control flow edges. Events are happenings in the business process, and do not provide decisions. Functions represent units of work: they take inputs and transform them into outputs. Functions are triggered by events, and on completion, events occur. An example on an event-driven process model is given in Figure 4 (Weske, M., 2012).

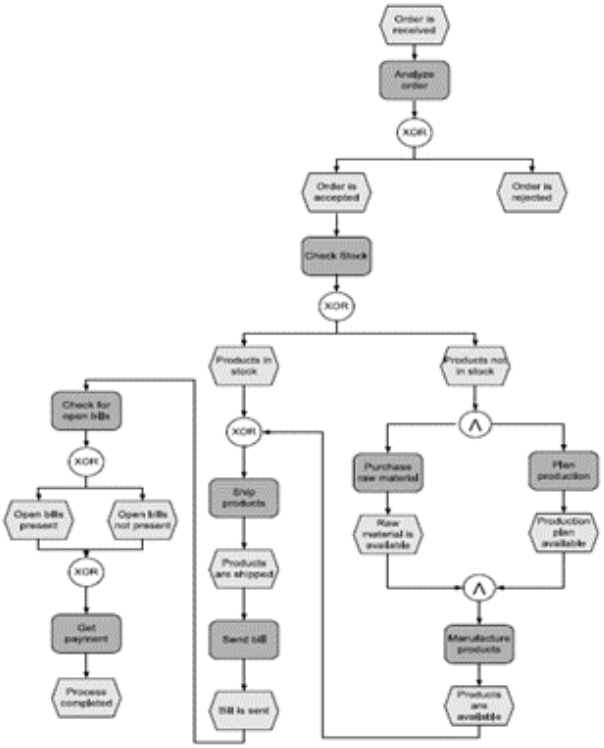


Figure 4: Example of even-driven process model (Weske, M., 2012)

Workflow nets

Workflow nets are an approach to enhance traditional Petri nets with concepts and notations that ease the representation of business processes. At the same time, workflow nets introduce structural restrictions that prove useful for business processes. The main concepts in workflow nets are illustrated below. Like Petri nets, workflow nets focus on the control flow behavior of a process. Places represent conditions and tokens represent process instances. Activities of a business process are represented by transitions in the workflow net (Weske, M., 2012).

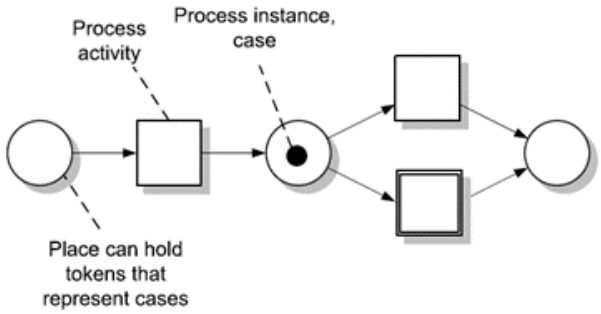


Figure 5: Example of workflow net (Weske, M., 2012)

YAWL

Yet Another Workflow Language (YAWL) is a process language very similar to workflow nets. It differs from in it in that it enhances traditional workflow nets with direct arcs between transitions, explicit split and join behavior that can be attached to transitions, nonlocal behavior and the handling of multiple instance tasks. An example of a YAWL model can be found below in Figure 6.

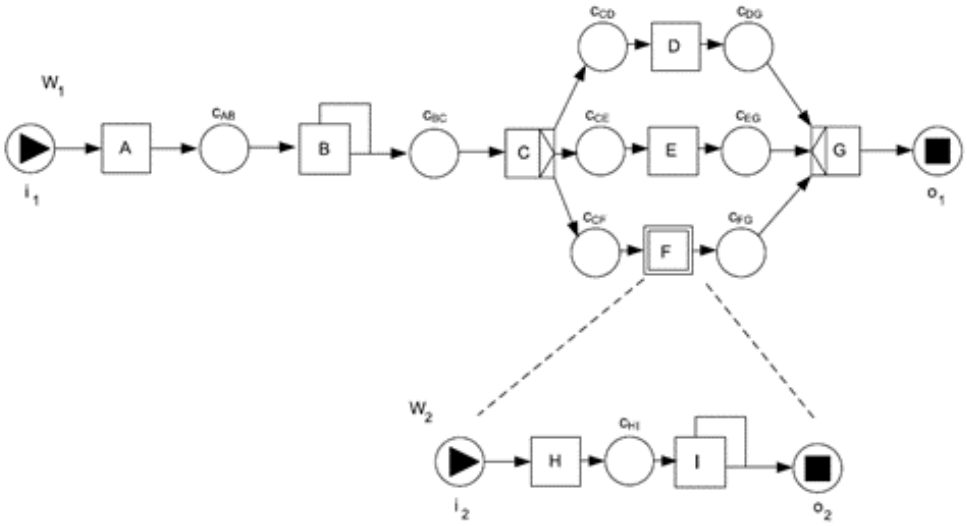


Figure 6: Example of YAWL model (Weske, M., 2012)

Graph-based workflow language

This language exhibits a series of concepts that are not addressed by the ones mentioned above, among which explicit representation of data dependencies between activities. The activities are shown as nodes of the graph, control flow is represented by solid arcs, and dotted arrows indicate data flow. The execution semantics of process graphs is based on the signaling of edges. There are two ways of signaling: true signaling and false signaling. When an activity terminates, the conditions of its outgoing edges are evaluated. For each edge that evaluates to true, the follow-up activity is signaled true. For each edge that evaluates to false, the edge is signaled false. When all incoming edges of an activity are signaled—that is, each edge is signaled true or false—the start condition of that activity is evaluated (Weske, M., 2012). An example of a graph-based workflow can be found in Figure 7.

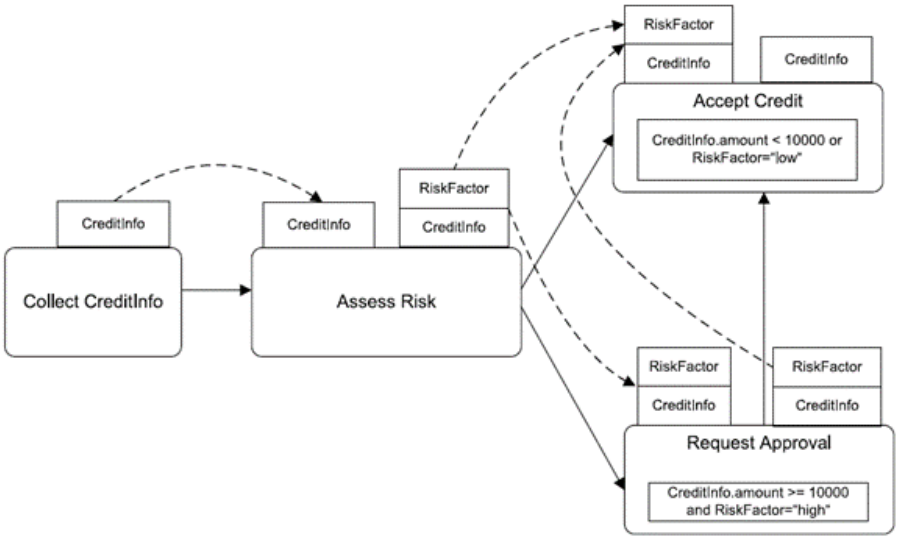


Figure 7: Example of a graph-based workflow (Weske, M., 2012)

BPMN 2.0

While all mentioned modelling languages focus on different levels of abstraction, the BPMN (Business Process Modelling and Notation) aims at supporting the complete range of abstraction levels, from a business level to a technical implementation level. The BPMN language supports the

modelling of both business process orchestrations and choreographies. A business process choreography is a depiction of the interactions between two or more business orchestrations, and is used to schematically represent B2B collaborations (Weske, M., 2012). More technical details about the BPMN language can be in the section below.

2.2.2: Business Process Modelling and Notation (BPMN 2.0)

Business Process Modelling and Notation (BPMN) is a modelling notation by the Object Management Group. Its latest version, BPMN 2.0, was released in 2011. The intent of the BPMN for business process modelling is very similar to the intent of the Unified Modelling Language for object-oriented design and analysis. To identify the best practices of existing approaches and to combine them into a new, widely accepted language. The primary goal of BPMN is to provide a notation that is understandable by all business users; thus, BPMN creates a standardized bridge to the gap between the business process design and the process implementation. (Weske, M., 2012).

The main elements of BPMN models consist of:

1. Flow objects: the main graphical elements to define the behavior of a business process. These include:
    a. Activities: these are tasks executed by the actors depicted in the process diagram. Activities can be of several types, like sending or receiving messages.
    b. Gateways: these represent nodes within the process, where either one or more tasks after the gateway are executed, depending on the type of gateway and the conditions to be met for executing a pathway in the process.
    c. Events: this are most generally happenings in the process that trigger execution or termination of a certain pathway. Events can be either throwing, meaning they trigger the start of execution of another pathway, or catching, meaning they catch triggers from other throwing events and thus are activated by the trigger. The most common events are start and termination events, signaling the start and termination of a process.
2. Artefacts, like data objects.
3. Connecting objects: these connect flow objects
4. Swimlanes: these group modelling elements.

The elements can be found in Figure 8. An example of a business process model in BPMN is also given.

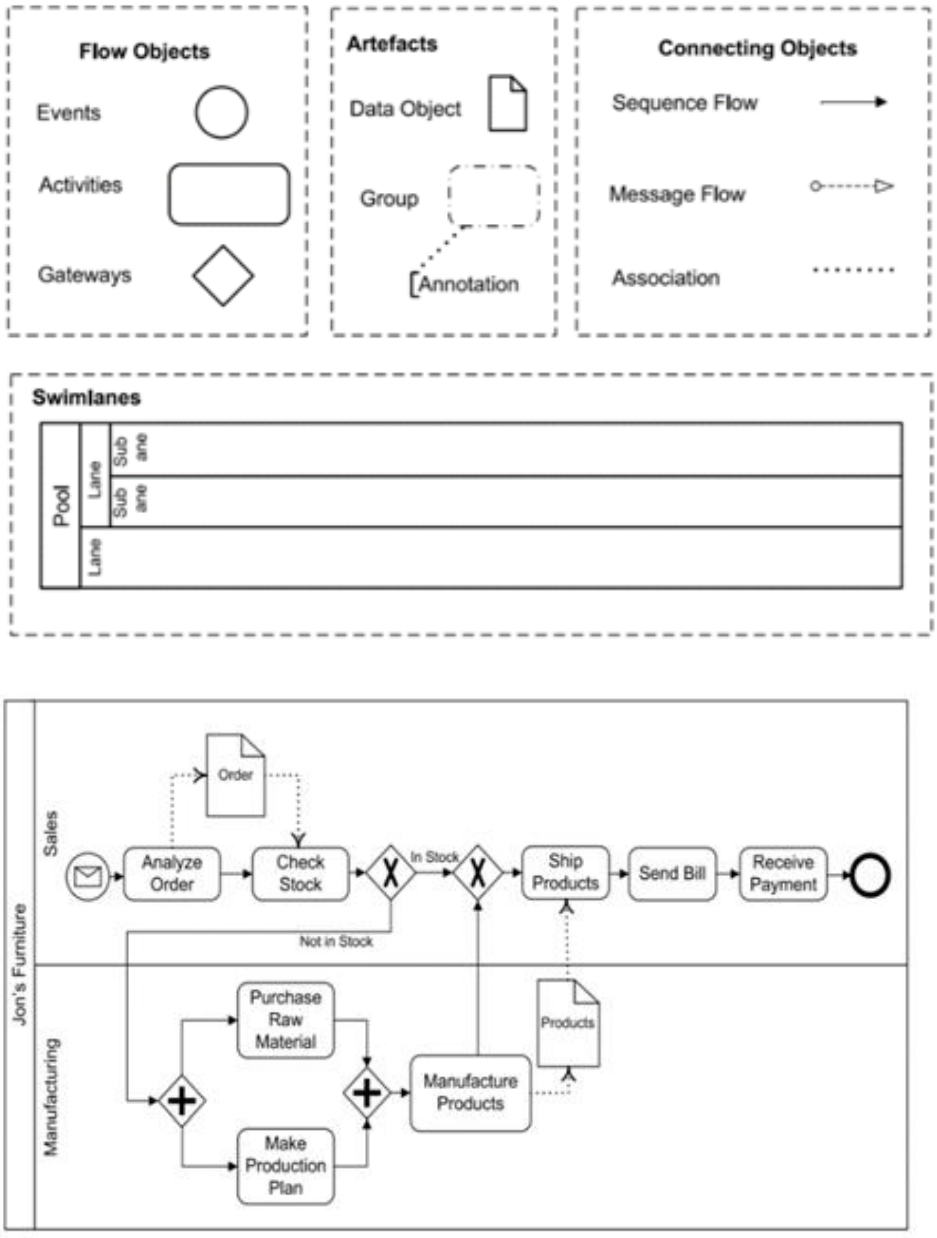


Figure 8: Elements of BPMN modelling (upper figure) and example of a BPMN model (lower figure). (Weske, M., 2012)

2.2.3: Descriptive process modelling

The actual processes present in an organization, those that are used in practice to produce and deliver the organization's products and services, can usually be counted as one of its main assets. For this reason, managing them properly is essential to an organization's long-time survival. This management can be done with descriptive process modelling: this encompasses producing an explicit and accurate representation of an organization's actual process, for purposes of documentation, dissemination, analysis and improvement (Münch, J. et al, 2012).

Münch et al distinguish various goals of descriptive process modelling:

- *Stable and accurate process execution*: here, process planners and executors can be helped by a process description at hand in ensuring they perform all important and expected activities.

- *Process understanding*: this is important to manage risks of introducing changes to the process based on intuition or without proper understanding of the process, that may harm its efficiency.
- *Process propagation*: a common problem in (large) organizations is that different groups perform different processes for the same task. By explicitly describing the processes followed by various organizational units, it is easier to achieve a unified process. Differences between groups can still exist, but they are the result of conscious decisions based on analyzing each group's particular needs. A unified process is important because it allows for practices that are widely accepted as being beneficial, to be propagated to all units in a large organization.
- *Process measurement:* measuring a process involves acquiring information about the actual activities, products, and resources involved. A proper process description facilitates this actions by making it easier to identify appropriate measurement objects.
- *Process administration:* companies may want to achieve predefined goals on a process, in the long term. One valid way for companies to check compliance of their processes to this set goals and to monitor progress is to model them explicitly.
- *Process automation:* it is common that once a process has been properly described and stabilized, that opportunities for task automation become evident. Therefore, analysis of a detailed process description can be done as means of process automation.

In general, the design of a descriptive process model gives a deep understanding of the process being modelled. With this insight, alternative business process models can be formulated to improve the described process. This translates to the design of an As-Is business process model to represent the current situation of a modelled process, and the design of a To-Be business process model to represent suggested improvements. This concept is further elaborated by Weske in his proposed Business Process Management Methodology (2012), which is represented schematically in Figure 9.

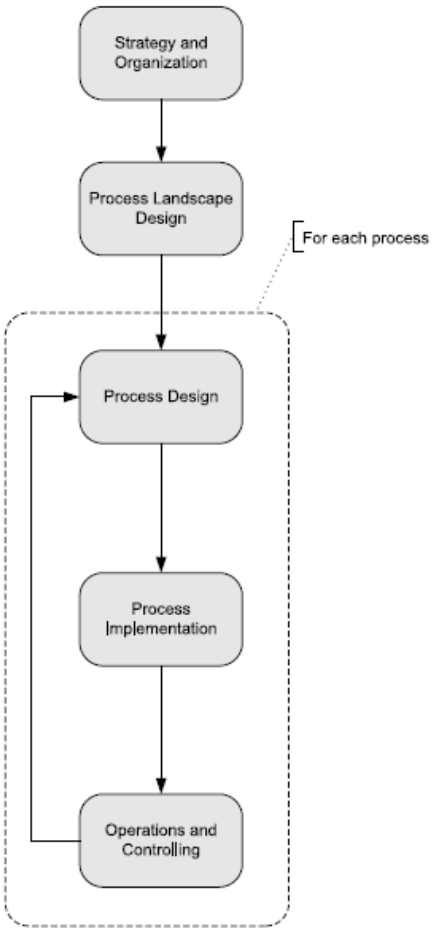


Figure 9: Business Process Management Methodology (Weske, M., 2012)

In the Strategy and Organization step, the prerequisites for the BPM project are set. Next, with the Design of the Process Landscapes, a closer look is taken at the customer-supplier relations between the main processes of interest. Then, in the Process Design phase, two parts are distinguished: the process modelling and process improvement and measurement definition. In the first one, for each process (modelled in the landscape model) an in-depth look is taken to the process products and resources required to produce the products, and to the relevance of the products to customer processes. The activities required for achieving the results are modelled in business process models. In the second one, the process (model) is refined: this entails eliminating activities that do not contribute to value creation, or adding activities that are needed within the process to achieve (enhanced) value creation. This changes are implemented into a model and evaluated. In this part, the measures to track the performance of the process are also defined. Once the design phase is completed, the designed model is implemented (Process implementation phase) and evaluated accordingly (Operations and controlling). If the performance of the newly designed process does not meet the objectives set in the first phase or does not match the estimations made during the design phase, the process is analysed and eventually redesigned, as described by the iteration in Figure 9 (Weske, M., 2012).

Business processes may be optimized also for means of collaboration enhancement. The use of BPM for collaboration enhancement is illustrated by a case study performed by Magdaleno, M. et al (2008) at Petrobas, one of the largest oil producers in Brazil. The approach adopted in the project was the combined use of a maturity model for collaboration (CollabMM) and business process

redesign: here an As-Is business process model of the situation was created, then collaboration level within the process was assessed and requirements for elevating collaboration to a higher maturity level, were defined. Finally, a To-Be model was designed to show how the pre-set requirements were to be implemented in the process. More information on the CollabMM and the latter approach can be found in sections 2.2.5 and 2.3.2.

2.2.4: Responsibility assignment

Within the scoping research performed prior to the systematic literature review for this chapter, the concept of responsibility management was encountered. Responsibility management is a part of resource management in business processes, which involves the assignment of resources to process activities at design time as potential participants (Cabanillas, C., et al, 2018). According to Surova et al (2011), to retain its efficiency and be adaptive to change, an organization needs an innovative approach for combining its primary components, namely: business processes, resources (human capital, technological environment, facilities, knowledge), collaboration and communication (Surova, E., et al, 2011).

Although business process models are a good tool for understanding and visualizing the sequence of activities, business actors and information artefacts involved into the execution of a business process, they present limitations in representing collaborative tasks. According to Surova et al (2011), business analysts have a hard time defining the process and all loopbacks typical to a collaborative activity (e.g. brainstorming cannot be defined as a linear predictable sequence of activities); overall, business process models are “too rigid” (Surova, E., et al, 2011). Moreover, most process modelling languages often are limited to indicating the actor in charge of performing a task, ignoring therefore all roles for a task execution (Cabanillas, C., et al, 2012).

To compensate for this deficits, different approaches can be undertaken. Surova et al (2011) propose to conceptualize collaborative tasks. Here collaboration activities can be wrapped into a single task and attach a task context, consisting of the following properties:

- Goal: the task goal, shared by all participants.
- List of participants: here necessary people for task execution or with knowledge/decision power are included.
- Allowed time period for the activity: for collaborative tasks, it is often to restrict time available instead of having open-ended collaboration sessions, as to prevent collaborative tasks to go off-topic and thereby losing efficiency.
- Resource availability: constraints on resources at hand might facilitate decision making.
- Necessary information: only relevant information and data for the task execution should be attached.
- Required knowledge: this includes the persistent knowledge base of the organization (like procedures and policies) and implicit knowledge from the employee experience. The second one requires that the experienced employee is invited as a participant in the task.
- Task execution tools: most of the time the task at hand will require a tool to be used in order to achieve the goal. Providing the right tool to people will eliminate the time and effort lost in seeking the tool and will minimize the risk of making a wrong choice.
- Collaboration tool/channel: standardization of tools and channels for each kind of collaboration activities within the organization brings the benefit of reduced number of tools and IT systems. This way organizations can reduce cost and clutter.
- Activity history: keep track of what and when happened prior to the current tasks so if there are any notable changes with regards to the landscape everyone is alert of them.

- Dependencies: collaboration activities rarely exist by themselves and affect no one and nothing. All participants should be aware of the dependencies between tasks in the process.

Based on the above mentioned, a task concept is introduced, schematically given in Figure 10. Collaboration activities can be wrapped into single tasks and attached to the task context that includes the fore-mentioned properties (Surova, E., et al, 2011).

Figure 10: Collaborative task context elements (Surova, E., et al, 2011)

The gap between business processes and collaborative environments can be bridged (Surova, E., et al, 2011):

- Individual tasks inherently receive context from the business process. They are treated in the same manner as they are. If someone needs to collaborative support in such task the context easily allows facilitation of such collaboration.
- Collaboration activities are modelled as a single task inside the business process without any collaboration implementation details. The task is given the necessary context.

As mentioned earlier, the majority of business processing languages (including BPMN) allow only the specification of who is in charge of performing the activities in the business process; to compensate for this, responsibility assignment matrices, such as RACI matrices, can be applied as a complementary tool for defining resource allocation for a task. Cabanillas et al (2012) propose an extension to RACI matrices, called RASCI. Here, the letters of the acronym describe different levels of responsibility:

- *Responsible*: the person/group responsible for performing the task.
- *Accountable*: the person/group that signs off work. This person is ultimately accountable for tasks executed and must approve work performed by the person responsible for an activity.
- *Support*: people who may assist in completing an activity. Unlike consulted, who may provide information to perform the activity, support actively contributes in the completion of the activity.
- *Consulted*: person/group whose opinion is sought while performing the work.
- *Informed*: person/group who is kept up-to-date on the status of an activity and is informed once work has been performed.

The mapping of these roles can give organizational insights. Vertical and horizontal analysis can be performed, meaning looking at the amount of assigned responsibilities to either a task or a person. For example, in vertical analysis one could question whether the workload for the involved stakeholder is doable; if not, whether the activity could be broken down to smaller tasks, etc. (Morgan, R., 2008). In Figure 11 below, an example of a RASCI matrix can be found; the rows represent each activity/task of interest, while the columns depict the different type of responsibility roles proposed by RASCI.

	Project's PhD Student	PhD Thesis Supervisor	Project Coordinator	Project's Administrative Assistant	Research Group's Clerk
Submit Paper	R/A				
Fill Travel Authorization	R		A/C		
Sign Travel Authorization	I		R/A		
Send Travel Authorization	I				R/A
Register at Conference	R/A	I	C/I	I	
Make Reservations	R/A	C	C	C/I	S

Figure 11: Example of RASCI matrix (Cabanillas, C., et al, 2012)

As Cabanillas et al (2012) put it, getting business process models with all the information required to be able to execute them implies generating very accurate resource assignments for the activities of the business process. In order to so, apart from resource assignment, also context in which the process ought to be executed and restrictions to be considered need to be provided; this is referred to as binding information (Cabanillas, C., et al, 2012). To this end, RASCI matrices can be integrated into business process models; the reference modelling language used by the authors is BPMN. Cabanillas et al (2012, 2018) provide a set of steps that can be undertaken to model so called RASCI subprocesses. A subprocess in a BPMN model is an activity flow element where the execution of the activity is done in a separate process, called the subprocess. Subprocesses can be modelled in an apart diagram to give insight into the actions performed when performing the reference activity (Weske, M., 2012). A RASCI subprocess is a subprocess of a modelled activity that shows actions performed by the different RASCI roles involved in order to execute that particular activity. So for example, the approval of a certain action by the accountable role is modelled in BPMN language into the subprocess. An example of this representation is depicted in Figure 12.

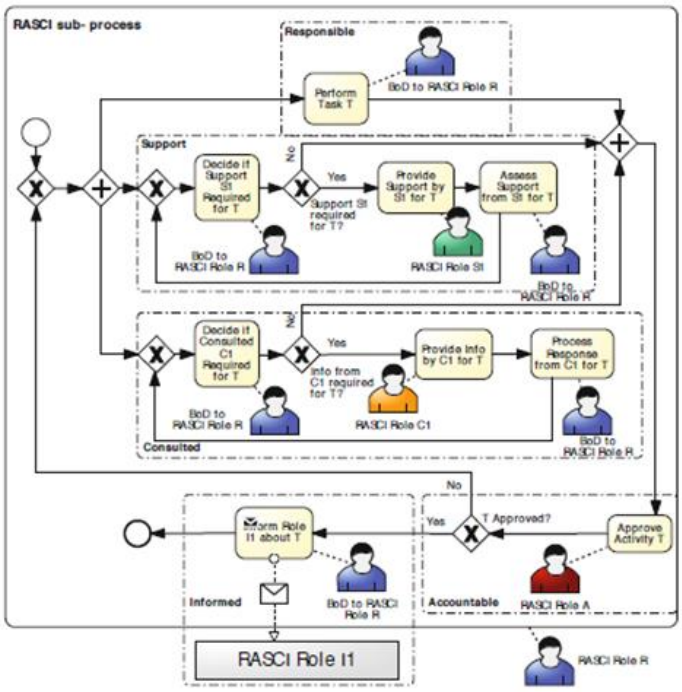


Figure 12: : Responsibility assignment in BPMN modelling (Cabanillas, C., et al, 2012)

The adding of RASCI subprocesses to BPMN models gives in this way a complete overview of all actions and all actors required for the execution of one task, and therefore offer opportunities for detailed analysis.

2.2.5: Maturity model for collaboration

As anticipated in section 2.2.3, maturity models can be used in combination with business process modelling for analysis of an As-Is process model and formulation of requirements to be translated to a To-Be process model. This has been done for improving collaboration within a case study at Petrobas by Magdaleno et al (2008). As explained in section 2.1, a maturity model is a framework that describes, for a specific area of interest, a set of levels of sophistication at which activities in that area can be carried out. Maturity models can be used: to evaluate and compare organizations' current situations, to identify opportunities for optimization, to establish goals and recommended actions for increasing the capability of a specific area within an organization, and as an instrument for controlling and measuring the success of an action (Magdaleno, A.M., et al, 2011).

"As an attempt to organise a set of practices which can enhance collaboration in business processes, the CollabMM for business processes – is proposed. CollabMM describes an evolutionary path in which processes can achieve a progressively higher maturity on collaboration, while changing from one level to a higher one" (Magdaleno, A.M., et al, 2011). CollabMM is a staged model that comprises four levels of maturity for a process: ad-hoc, planned, aware and reflexive as shown in Figure 13.

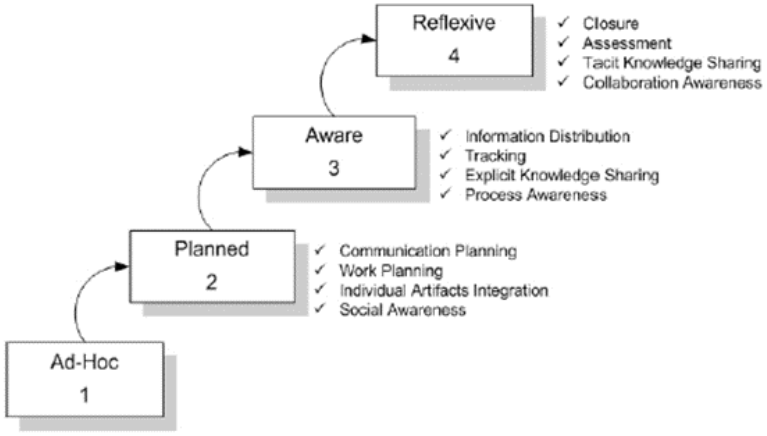


Figure 13: Maturity levels of CollabMM (Magdaleno, A.M., et al, 2008)

At the *ad-hoc level*, signs of collaboration are not explicitly represented in the business model and solely depend on individual initiative. *Planned* business processes include definition of groups, roles and responsibilities and appropriate channel communications among group members. *Aware* business processes include activities for monitoring and controlling how collaboration occurs. Finally, the *Reflexive* level provides ways for self-understanding, identifying the relevance of the results that have been produced and sharing this knowledge inside the organization.

In their case study at Petrobas, to apply the CollabMM, Magdaleno et al (2008) have derived a series of questions to assess the level of collaboration within the business processes. These questions do not only help in performing this assessment, but are also useful in pinning requirements for lifting the business process to a higher maturity level for collaboration. The latter can be ultimately used to identify missing elements to be included in the To-Be business process model. The list of questions can be found below (Magdaleno, A.M., et al, 2008).

Level 2 – Planned
Q1: Is there a communication plan among process actors?
Q2: Is each process aware of other actors involved in the process?
Q3: Do process actors collaborate during artefacts integration for generating the final product of a group work?
Q4: Is there a team work plan?

Level 3 - Aware
Q5: Is necessary information adequately available for all process actors?
Q6: Do process actors interact to discuss important issues in the process?
Q7: Do process actors understand the process definition in which they are involved?
Q8: Is there a repository accessible by all the actors involved in the process?
Q9: Are the artefacts generated during process execution stored in the repository and shared among process actors?
Q10: Are there mechanisms for keeping track of the work that is being done, according to what was planned?

Level 4 – Reflexive
Q11: Do actors interact to analyze success and challenges, as well as share and discuss lessons learned and ideas for future improvements collected during process execution?
Q12: Do process actors understand how people collaborate during the process execution?
Q13: Is there a channel where the group can share informal knowledge – ideas, facts, questions,

opinions, debates, discussions and decisions?
Q14: Are there mechanisms to evaluate the contribution of each actor to the group results?

2.2.6: Applied business process modelling techniques

In this section, applicability of the theory presented in the previous sections is discussed, and a selection of the theoretical base is made.

Descriptive process modelling is defined as the practice of designing models of existing business processes for the purposes of stable and accurate process execution, automation, propagation, measurement and/or optimisation. (Münch, J., 2012). From the model of the current situation, called As-Is model, analyses of various types may be performed, which would lead to spotting improvement opportunities. With this information, an improved process scenario can be depicted by designing a To-Be business process model (Weske, M., 2012), (Magadaleno, A.M., 2008). Given the research context, the latter seems as a proper approach to tackle the core problem; therefore, an As-Is process model representing the current situation at Puur and Plein shall be designed, culminating in a To-Be process model where an improved collaborative scenario is proposed.

There are different types of business modelling languages, as described in 2.2.1. For the choice of the appropriate language to use for the design of the business process models in phase 3, several aspects have been considered. First, the model should be intuitive and understandable for all business users at Ecare; the reason for this requirement is that, in order to propose a new organization of the business processes, people involved in these processes should be able to understand the difference between the current and the proposed scenario, and how the eventual implementation (which is besides out of this research's scope) of the To-Be model should take place. Moreover, as mentioned in section 1.4.3, during data gathering employees have been asked for feedback on business process models in order to verify whether they represent reality. Thus, the models should be understandable by people with limited BPM knowledge. To this end, Petri nets, workflow nets and YAWL seem not to comply with the requirement; these languages are abstract, as they ignore the context the business process is executed in, making them less intuitive and difficult to understand for people with limited knowledge in BPM. Event-driven process chains, graph-based workflow language and BPMN 2.0 appear to be more understandable than the other mentioned languages.
The business modelling effort in this research is undertaken to improve collaboration. Therefore, crucial aspects of collaboration should be clearly visible in the model. Business actors, information, databases, message exchanges are important aspects linked to collaboration. In graph-based workflow language, involved business actors cannot be shown, making it not eligible as modelling language for this research. Both BPMN and event-driven process chains (EPCs) enable to visualize both the involved business actors within the process and data that is used during process execution. However, EPC is generally a rather informal and high-level modelling language, whereas BPMN lends itself to provide more detail and completeness in business representation. Also, BPMN is very suited for representing process collaborations (Weske, M., 2012). Being able to display B2B collaborations is an important aspect within this research context, given the yet separate way the Puur and Plein departments operate (and their not so distant past as two separate businesses). Therefore, for its detail, ease of understanding and suitability for displaying collaboration, BPMN 2.0 has been chosen as the modelling language used for the development of the business process models.

Given the deficits of BPMN in showing detail about responsibility management and the importance of this aspect to get a complete picture of collaboration within a business process, (refer to 2.2.4), it has been chosen to incorporate it into the research. As described in section 2.2.4, this addition can

be done by extending tasks modelled within the business process model; Surova et al (2011) propose a broad task context, with information on participants, but also time and resource constraints, task execution tools etc. Cabanillas et al (2012) propose the incorporation of responsibility assignment with the specification of certain responsibility roles (RASCI). For this research, the latter approach has been chosen. This is motivated by one of the problems that have been identified in section 1.2.2, namely that responsibilities between Puur and Plein being not clearly defined. Whereas the approach offered by Surova et (2011) al proposes to mention the participants to a task, no guidelines are given concerning specific roles for the task execution, whereas RASCI matrices give clear role distinctions. Besides that, the task context proposed by Survova et al (2011) is quite broad and not per se necessary in providing the kind of insights sought by this research.

Finally, for the analysis phase of the research, it has been chosen to use the CollabMM (section 2.2.5) to assess the degree of collaboration depicted by the As-Is model and to gain insights for the design of a To-Be model. As the authors of the model affirm, CollabMM is intended for collaboration enhancement in business processes, and its applicability to business process modelling has been demonstrated by Magdaleno et al (2008). The possibility of using other maturity models has been considered as well; however, as the CollabMM has been elaborated further on existing maturity models alike the CMMI (Capability Maturity Model Integration), the KMMM (Knowledge Management Maturity Model) and the BPMMM (Business Process Management Maturity Model) to focus on collaboration (Magdaleno, A.M., et al, 2011), and given the compatibility of the CollabMM with business process modelling, the CollabMM was found being most appropriate for the aim of this research.

Summarizing, for the design and development of the artifact (phase 3 of the DSRM) it has been chosen to design two business process models: an As-Is model, depicting the current situation at the company, and a To-Be model, proposing an improved business process scenario. To assess collaboration levels depicted in the As-Is model and help designing the To-Be scenario, the CollabMM has been used. The models are designed in BPMN modelling language, and enriched by RASCI matrices, to gain detailed insight into the responsibility assignment for tasks within the modelled business processes.

This answers research question 1, as an approach has been defined for designing a solution. In the next section, the research questions related to the demonstration phase, i.e. on how an As-Is and To-Be business process model can be designed, are addressed.

2.3: Design of the As-Is and To-Be process models

Within this section, research questions 4 and 5 presented in 1.3.4 are addressed. Research question 4, concerning how an As-Is business process model can be designed, is answered in section 2.3.1. Research question 5, concerning how a To-Be business process model can be designed, is tackled in 2.3.2.

2.3.1: Elicitation in descriptive process modelling

In section 2.2, an introduction to which business process modelling techniques could be used to address the research problem has been given. As described, a frequently used approach in the domain of business process modelling is the modelling of the current situation into a so called As-Is model, which is taken as starting point for identifying opportunities for process improvement, and translated into a proposed better scenario, represented into a To-be business process model. In order to design an As-Is business process model, a combination of two methods found in literature has been used. Weske (2012) proposes a Business Process Management Methodology intended to

be generally applicable to business process modelling efforts (please refer to 2.2.3). Within this methodology, an important step is the identification of the most relevant business processes in a company and the supplier-customer dependencies between the processes. Once this is done, more detail can be acquainted about processes identified. The identification of the processes and their dependencies is done with the aid of business process landscape models (examples are further given in chapter 3). For the design of the As-Is business process model, it has been chosen to start using this approach, hence by defining the processes of interest and to increase the level of detail once the supplier-customer relationships between them have become clear. The reason for performing this first step is that it provides understanding of the dependencies between the company's processes, and therefore gives a better overview of Ecare's current operations. Moreover, highlighting the relationships between processes involved may lead to discovery of potentially relevant processes to be investigated throughout the research (Weske, M., 2012).
For the design of a landscape model, the first step to perform is the identification of the process(es) of interest, together with its/their inputs (needed to actually start the process) and outputs (generated from process completion). Once the processes are defined, their inputs and outputs should be matched in order to highlight their dependencies. It is important for this phase to communicate with the parties involved in the designing effort: in general, dependencies between processes are not so obvious; as different terms may be used by process actors, it is important to consolidate the terminology in use and to create a model that is understandable and familiar for all business users (Weske, M., 2012).

More detail about the design of the business process landscapes in described in section 3.3.

Once the business processes and their dependencies have been identified, a closer look to processes of interest can be taken. As the effort is taken in order to describe how processes are currently being executed at Ecare, this can be described as a descriptive process modelling effort. Descriptive process modelling is concerned with producing an explicit and accurate representation of an organization's actual process for purposes of documentation, dissemination, analysis and improvement (Münch, J., et al, 2012). Münch et al (2012) propose and compare a couple of approaches that can be used for the practice of descriptive process modelling. The first proposed approach is a 8-step method to gather, process and analyse information to be modelled. The approach is divided into two parts: the set-up phase and the execution phase. The set-up phase consists of four steps:

1. *State objectives and scope:* before starting, the analyst needs to clearly state the modelling goal and define the scope of the effort. The latter includes specifying: who will use the process model, what these people expect of the model, which processes should be covered and which processes are explicitly excluded from the model (Münch, J., et a, 2012).
2. *Select and develop a process modelling scheme:* the second step consists of identifying the set of concepts that will be used to describe processes. A number of basic concepts that are important for describing processes in the organization are activities, work products, roles, products flow between processes, assignment of roles to activities. The set of concepts alike the ones mentioned is called a process schema (Münch, J., et al, 2012).
3. *Select a set of process modelling formalisms:* process modelling not only requires an appropriate set of concepts but a concrete notation in which these concepts can be expressed. Aspects to be taken into account when executing this phase are whether the notation should be either graphical or textual, formal or informal, fine-grained or coarse-grained, predetermined or extensible (Münch, J., et al, 2012).

4. *Select or tailor tools:* here, tools to support the selected modelling notation from step 3 should be identified and selected (Münch, J., et al, 2012).

Once these steps are executed, the execution phase can be entered:

5. *Elicitation:* the elicitation step is intended to collect all necessary information for describing the target process. The necessary information comprises: the process entities, including activities, roles, work products, tools; relationships between entities, for example, information about which activities produce or consume which products, which tools are necessary for performing a task; behavioural properties of process entities, e.g. which conditions must hold in order for an activity to be started or which criteria a work product needs to fulfil in order to be accepted (Münch, J., et al, 2012).
6. *Create the process model:* the information collected during the elicitation process can be used to create a model in the chosen modelling notation (Münch, J., et al, 2012).
7. *Analyse the process model:* as process models become complex, there is an increasing risk of defects being inadvertently introduced into the model. The purpose of this step is to detect and correct the defects (Münch, J., et al, 2012).
8. *Analyse the process:* the final step of the method comprises the analysis of the process depicted in the model, depending on the objectives stated in the first step. Qualitative analyses aim at identifying weaknesses of the process, e.g. when too many responsibilities are pinned to a single role, or when too many roles are assigned to a single person, or when feedback loops consume more time than productive project work. Quantitative analyses aim at identifying correlations between process attributes (Münch, J., et al, 2012).

Besides the mentioned approach, the authors propose alternative methods like multi-view process modelling and Elicit.

The multi-view (M-V) process modelling approach is a specific way to conduct the elicitation step and to build a model based on it. The main assumption behind multi-view process modelling is that no single participant has a complete, unified, and sufficient detailed view of the process. Quite on the contrary, participants are normally experts in their own domains. Therefore, M-V modelling starts by modelling the process as understood by individual participants. Once the views have been modelled with sufficient level of detail, these are integrated in a single, complete process model (Münch, J., et al, 2012). This concept is represented schematically below in Figure 14.

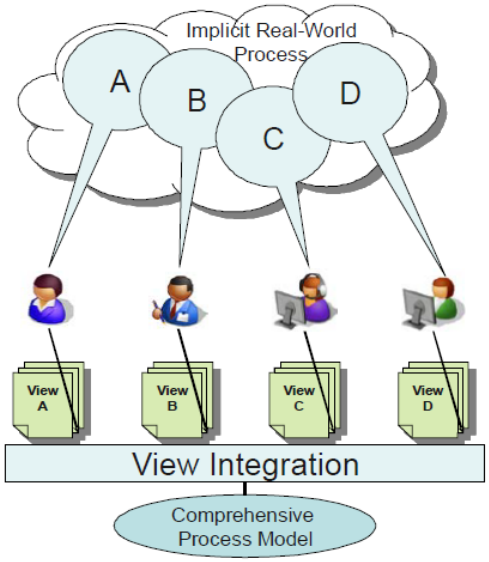


Figure 14: Multi-view process modelling overview (Münch, J., et al, 2012)

Elicit is a general framework for process elicitation. Its main difference with the 8-step approach proposed by the authors is the number of perspectives which this method takes into account. The Elicit schema is structured as a set of perspectives, together with three types of properties that must be described for each perspective. The Elicit perspective are artifacts, process steps, roles, resources and constraints, and the property types are descriptive, static and dynamic. The combination of a perspective and a property is called a view. Therefore, there are 15 possible views to describe a process. Each view on its turn has a set of attributes that describe the view. The integration of these views produces a business process model that can be analysed. The Elicit method consists of these major steps (Münch, J., et al, 2012):

- *Understand the organizational environment:* this encompasses understanding the general structure and context an organization operates in.
- *Define objectives:* similarly to the first step of the 8-step method, the scope and aim of the modelling effort should be defined.
- *Plan the elicitation strategy:* given the predefined objectives, a plan must be made for the elicitation effort. Key for the plan is determining resource allocation, e.g. determine the interview population.
- *Develop the process model:* this includes the collection of information according to the Elicit schema. The collected information is then used to create models, which are then submitted for revision. If the reviews find deficiencies in the model, further information is collected and remodelled.
- *Validate process model:* the objective of this step is to have the model validated by intended recipients. This includes checking that the models represent the actual process in an appropriate way, and, generally, validating the models against the modelling objectives.

An overview of Elicit is given below in Figure 15.

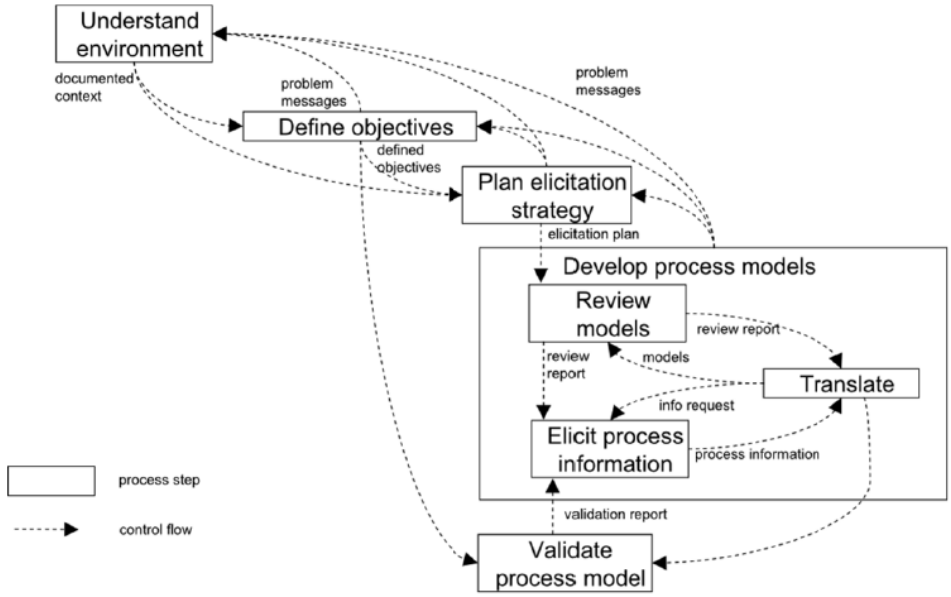


Figure 15: overview of Elicit (Münch, J., et al, 2012)

A final remark that has to be made is that all proposed methods can be (and are often) used iteratively. It is in fact very unlikely that a business analyst can capture the completeness of a business process with a single elicitation effort. Therefore, the phases of elicitation and model validation can be performed several times until the desired level of detail is reached (Münch, J., et al, 2012). The latter has been taken into account in the design of the Delphi study, as further explained in the next chapter.

Regarding the 8-step method proposed by Münch at al. (2012), it can be noted that steps one and three of the method have already been (partly) executed. The modelling aim had already been predefined, i.e. designing an As-Is model in order to assess the current collaboration level between the departments under investigation, and the proposal of an improved collaboration scenario with a To-Be model; while the scope is defined with the identification of relevant processes using business process landscapes as proposed by Weske (2012). The modelling language has been selected, namely BPMN 2.0. For what concerns the modelling schema, business actors, flow objects, events, gateways and artefacts will be used within both the As-Is and the To-Be model. These represent the full schema proposed by BPMN 2.0 (as reported in 2.2.2), and are therefore considered important to fully describe a business process. For the selection of the modelling tool (step 4), several modelling tools could be selected, among which Bizzdesign, ArchiMate, Lucidchart, draw.io and Bizagi. It has been chosen to use Bizagi, as this is the BPMN modelling programme that is proposed by the University of Twente within the IEM programme, meaning no further licenses need to be purchased and the programme's quality meets the UT's standards.

Given the above, for the elicitation part of the As-Is modelling effort the multi-view process modelling approach has been adopted. This choice is motivated by the variety of business processes to be modelled and consequent number of business users involved (hence, there are many views on the modelling scope); and the fact that there is very little over coupling management between Puur and Plein, implying that few business actors involved in the processes under investigation have a complete and reliable overview of all processes. Therefore, it has been chosen to first elicit process information separately, asking involved parties to give information only on processes of their

expertise; and then to finally aggregate the different views into one model.
As explained in more detail in chapter 3, it also has been decided to perform the elicitation in an iterative way: through several Delphi iterations, information collected on the business processes has been translated to business process models, which in turn are used for the next iteration to gather feedback and improve the models.

The analysis for correctness of the process model (step 6) has been performed within section 3.4; more detail is given there.

Finally the analysis of the process (step 8) is performed with the aid of the CollabMM, as anticipated in 2.2.6.

The research question on how to model an As-Is business process model is therefore answered: first, an overview of the main business processes together with their customer-supplier relations is made, in order to get a general overview of the current process scenario at the two departments. This is done using business process landscapes, as proposed by Weske (2012). Then, the elicitation is performed, where different views on the processes under investigation are collected, according to the specific expertise of the involved participants. The views are finally integrated in an aggregated model and validated, in order to make sure the obtained model actually represents the current situation. Once the model is complete, this is checked for correctness and can be finally used for the process analysis.

In the next section, research question 5 on how to design a To-Be business process model is answered.

2.3.2: CollabMM for the design of the To-Be business process model

In section 2.2.5 and 2.2.6 it has been explained that the CollabMM maturity model can be combined with a business process modelling effort in order to improve collaboration. As Magdaleno et al. (2008) explain within a case study using the method, an As-Is business process model can be analysed using the maturity model: first, the current maturity level is assessed. Once this is done, the relevant stakeholders should be inquired about a desired maturity level to be set as target. Once this is done, a To-Be business process model can be designed following the guidelines from the CollabMM.

The collaboration assessment is performed using a set of yes/no questions that help the modeller to assess whether the processes represented in the As-Is model satisfy the requirements to comply with a certain maturity level. These questions have been discussed in section 2.2.5. Each set of questions belongs to a certain maturity level: whenever all questions belonging to a level have been answered with “yes”, the maturity level is reached by the process in question. In order to satisfy a certain level, all related questions should be answered with “yes” and in addition, all lower levels should be met as well (Magdaleno, A.M., et al, 2009). So for example, even if all questions belonging to the reflexive level are answered positively, the level cannot be reached if not all questions belonging to the aware and planned level are answered positively as well.

Once the As-Is collaboration maturity level and a (higher) target level has been selected, the To-Be model can be designed. In order to comply with a certain level, a number of aspects need to be present within the process model. For example, aspects that characterize the planned level are activities for making a shared planning, establishment of communication channels between the process actors and coordination of the collaborative activities (Magdaleno, M., et al, 2008).

Consequently, if the process aims at satisfying the planned level, activities where a common planning is made need to be included in the To-Be model, as well as usage of common communication channels and coordinating activities within the process.

The described aspects have been taken as theoretical basis to design the To-Be process model, as the method provides simple yet precise guidelines to determine what parts/activities are missing in a process in order to elevate its collaboration degree between process actors.

Hereby, research question 5 is answered: to design a To-Be model, the As-Is model can be analysed using the guidelines of the CollabMM. Once this is done, a maturity level is set as target: all aspects that need to be complied with in order to reach the target level are included in the design of the To-Be business process model. As explained later on in section 5.1.1, the use of another (complementary) approach to design the To-Be model has been explored as well.

A summary of the theoretical knowledge that will be applied to perform the research is schematically given in the next section.

2.4: Model of research approach

As a result of the gathered information, a theoretical framework for the research could be defined. This theoretical framework, existing of the gathered theories described in this chapter (and in section 1.4.4 for the evaluation part), has been summed up in a set of steps, schematically represented below in Figure 16. The sections of this dissertation where the steps are executed are included in the overview. The approach consists of the following steps:

- *Define the scope:* prior to starting the design effort, the scope needs to be defined. This includes identifying the processes of interest, relevant business actors within the scope, the modelling language and tool to utilize, the modelling schema and the level of detail at which the processes are sought to be represented (Münch, J., et al, 2012), (Weske, M., 2012). These actions have been performed partly in chapter one, as the departments of interest and thereby the business actors and processes of interest (namely the ones involving contact with the customer) have been identified. The remainder of the actions of this step has been performed in section 2.2, where, after having found and compared several modelling languages with consequent modelling schemes and tools, it has been decided to go for modelling at the orchestration level using BPMN, and Bizagi as modelling tool.
- *Identify process landscapes:* Prior to collecting information in detail on the processes identified within the scope, the process landscape should be visualized, i.e. the processes under investigation should be represented with other processes connected to them, together with the supplier/customer relations in place between the processes. This is not only useful for visualizing the inputs and outputs of the processes of interest, but also to eventually enlarge the modelling scope with additional identified processes (Weske, M., 2012). This step has been undertaken within the first two iterations of the Delphi study, described in sections 3.3.1-3.3.4.
- *Visualize the current situation:* once the landscape is complete, the elicitation of processes of interest can be started. One way to conduct the elicitation (which is the approach undertaken in this research) is by following the multi-view process modelling method (Münch, J., et al, 2012) by which first the views of different individuals are collected on the process. These views are then integrated into the final As-Is model. During the design of the As-Is model, activities are identified. These activities can be used to perform RASCI charting: here participants should fill in RASCI matrices for the identified activities. Analysis of the responsibility assignment to different process tasks later on in the analysis step can provide

with useful context into the current collaboration situation. The modelling effort should be performed until the desired level of detail is achieved and participants to the modelling effort have validated (hence, have reached consensus on the completeness and correctness of) the model (Münch, J., et al, 2012). Once the model is complete, it should be checked for correctness (e.g. using soundness analysis) before proceeding to the next step (Münch, J., et al, 2012), (Weske, M., 2012). These actions have been undertaken during the design and development phase of the research, described in chapter 3.

- *Analyse the current situation:* as the information is gathered and integrated into the models and RASCI matrices, the analysis may start. For the analysis of the RASCI matrices, two analysis types can be performed: horizontal and vertical analysis, which can be used to assess whether a proper task division is in place (e.g. there are at least one responsible and one accountable actor for a task; the workload for a certain business actor is not "too heavy", etc.) and concordance analysis (Morgan, R., 2008). The latter can be used whenever two or more actors with the same company role fill in the matrices: in that case, responses could be compared to check whether there is concordance on responsibilities and so a clear task division. This is further explained in section 4.3.
  For the collaboration analysis, two types of measurements should be made. The first one is determining the current maturity level of collaboration as depicted in the As-Is mode; this can be done using the guidelines of the CollabMM, a maturity model for collaboration within business processes (Magdaleno, A.M., et al, 2009). The processes as depicted in the As-Is model should be inspected for the requirements attached to each CollabMM level, and so identify the As-Is collaboration level of the processes (Magdaleno, A.M., et al, 2009). The second one would be to inquire the perceived collaboration of the As-Is situation by the research population (the identified process experts). This can be done by assessing the level of the collaboration domains (communication, coordination, awareness, memory) proposed by the CollabMM, as this permits to make a broad and even vague term as collaboration measurable through the domains. This perceived As-Is collaboration measurement is done in order to compare the current situation with the one later on proposed with the To-Be model; this is done in order to evaluate whether the proposed interventions in the To-Be model represent an improvement in terms of collaboration for involved experts. This is an addition to the found theories, as the CollabMM itself lacks a formal method to perform the evaluation prior to the implementation of the solution. These steps are discussed in section 4.1 and 4.2.
- *Set target level:* in order to elevate the business processes to a higher collaboration level, a target level (as proposed in CollabMM) should be set. Given the current level (measured in the previous step) and the target level, the guidelines of the CollabMM can be used to design the To-Be model, where the processes are improved in order to reach the target level. The target level should be set in concordance with relevant stakeholders within the company, as they can assess best what is feasible and/or desirable (Magdaleno, A.M., et al, 2008). This has been done in section 4.6
- *Design the solution:* with the collaboration target set, the design of a To-Be model, where an improved business process scenario is proposed, may be started. This can be done following the guidelines of the CollabMM: for the set target level, requirements from the level and all other lower levels must be met within the processes designed in the To-Be model (Magdaleno, A.M., et al, 2009). The To-Be model is discussed in section 5.1.
  For what concerns responsibility assignment, two actions can be undertaken: either an ideal task division is proposed, ensuring it complies with general RASCI rules of thumb found in literature; or, in case of high discordance as result of the responses, it could be more simply

advised to the relevant stakeholders to make a RASCI matrix to assign responsibilities to tasks that are depicted in the To-Be model. Within this research, a high discordance from the respondents was found, therefore the latter has been done. This is discussed in 5.2.

- *Evaluate solution:* once the solution is designed, it can be submitted to the experts panel for evaluation. As for during the design phase, where opinions on collaboration domains have been collected for the As-Is situation, experts should be asked to give an indication of the collaboration level as depicted in the To-Be model. If, for example, experts were asked to grade domains for the current situation, then the same grading questions should be asked on the proposed solution. Comparison of the two measurements should give an indication of the degree to which the prosed solution enhances collaboration. Note that it is important to leave room for open feedback to the experts, as the evaluation phase is also intended to weed out unrealistic ideas or consider suggestions for the proposed solution (Wieringa, R. J., 2014). In the latter case, it could be decided to iterate back step 5 and adjust the solution, as depicted in figure 16. The evaluation of the research is described in chapter 6.

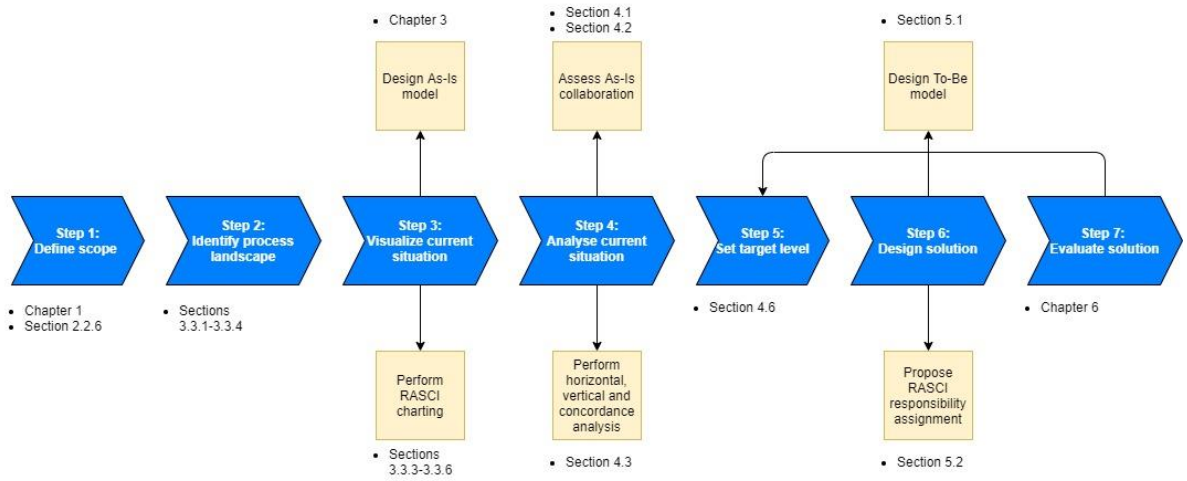


Figure 16: Model of research approach

Within this chapter, the theoretical framework taken as basis for the research approach has been discussed. In the next chapter, information on the current situation at Ecare is gathered and presented.

Chapter 3: Current situation

In this chapter, an overview of the current situation at Ecare is given. First, an overview of the organization is given in section 3.1; then, the design of the Delphi study performed to gather data is discussed in section 3.2. Next, section 3.3 discusses the execution of the Delphi study: for each iteration, the design of the questionnaire and the results are presented. The obtained As-Is business process model is presented in section 3.4. Finally, in section 3.5, a summary of the chapter is given.

In this chapter, research questions 2 ("What is the current operations flow?") and 3 ("Who responsible for the identified business tasks?") are addressed.

3.1: Company overview

Ecare is organized into three major departments, each responsible for their homonymous products: Puur, Plein and Shared Services. Besides the departments, over-coupling organs are present in the company. A general overview of Ecare's organizational structure is depicted below in Figure 17:

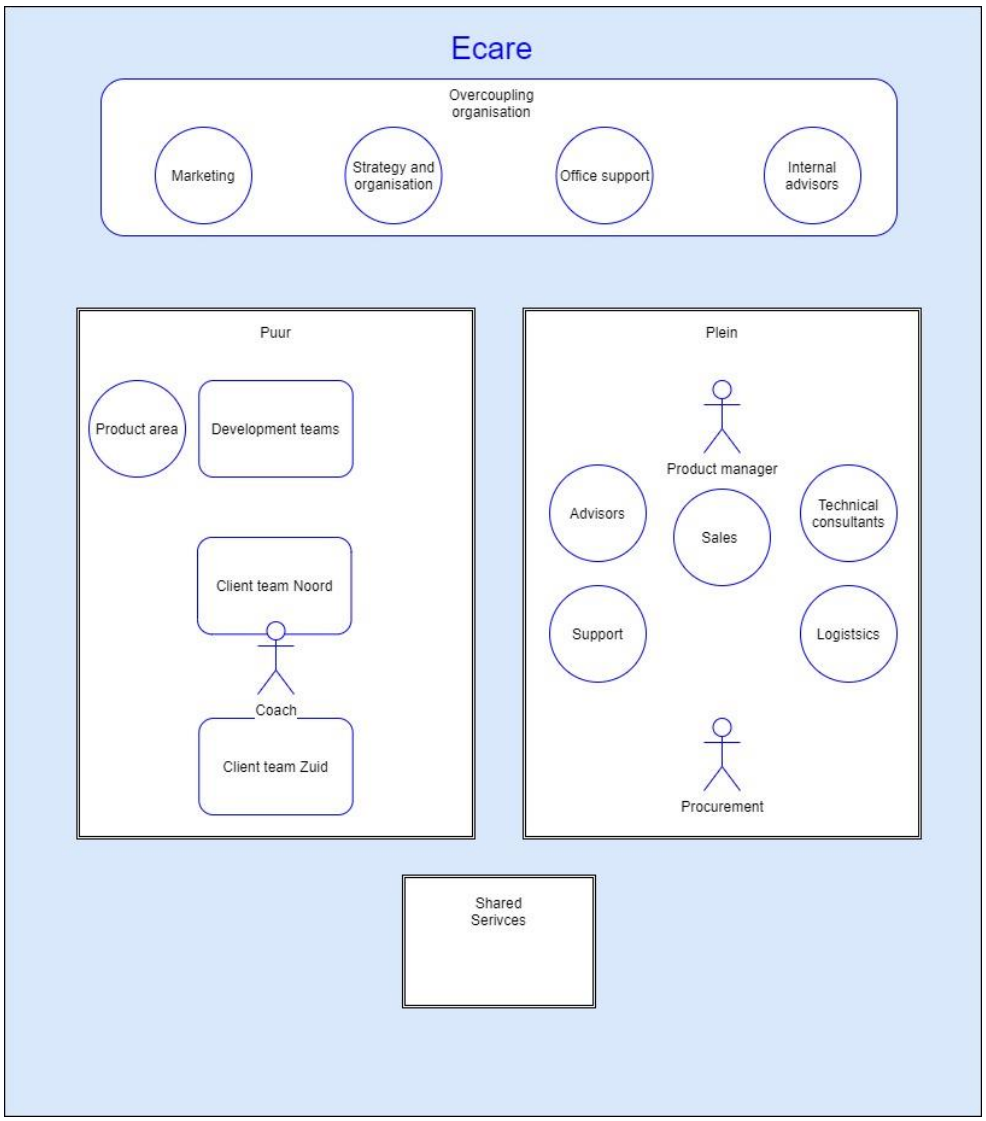


Figure 17: Organizational structure at Ecare

There are four over-coupling organs within the organisation: marketing, which is concerned with promoting Ecare and the recruitment of new customers; strategy and organisation, which is the management team composed of the two directors; office support, concerned with matters like

administration, scheduling, etc.; and internal advisors, among which an internal security advisor and a product implementation advisor.

At Puur, two major business units can be distinguished: the product part and the customer part. The product part is subdivided in the product area, where a product strategist and product owners determine how the product should be developed, which features it should contain, and the development team, who actually develop the product. On their turn, the development teams are internally divided into teams with each their own specialization domain. No further detail is given as the product area is out of the scope of this research.

On the customer side, there are two client teams: each manage contact with customers depending on the allocation in the Netherlands. Within each client team, the following functions can be distinguished:

- Sales advisors, who are responsible for selling the product Puur to either new or existing customers
- Advisors, who are responsible for the implementation of new customers and keep contact with existing customers as their account managers.
- Product specialists, who have specific technical knowledge about the (software) product, and help customers with solving software-related issues.

The teams are coordinated by a coach. The coach acts as a monitoring and coordinating actor; he/she guides the client teams by defining the set of tasks a role should be responsible for and by keeping track of developments within the client teams. A remark that is ought to be made is that this is still a new position within the company, as the role has been introduced less than a half year ago, and therefore doesn't yet have specifically defined responsibilities.

At Plein, the department is organised in a fairly different way than at Puur. There aren't teams, but rather groups of functions performing the same business operations. The product manager is responsible for the product Plein. He/she specifies the functionalities and applications to be included within the platform for a specific customer and makes sure these are developed. Besides this responsibility, the product manager has also a similar role to the one of the coach at Puur. He/she monitors and coordinates the operations performed by the other roles within the department.

Then, sales persons are present within Plein. As done at Puur, sales makes sure Plein's products are sold to new and/or existing Ecare customers. Advisors lead the product implementation. Herein, they assess customer needs and give customers IT optimization advice; then, based on the customer needs, they make sure the products acquired by the customer are prepared (which may be new hardware, Plein, transition to Google systems), and once the products are ready for use, train the customers to use the products. Once the customer has been implemented, the advisors remain in contact with customers to discuss issues and keep track of customer satisfaction.

Technical consultants get involved whenever a customer desires to transit from its current IT systems to Google: they make sure the relevant data and email are transferred to Google and that rights for different users at the customer's company are set.

Support is responsible for helping customers with technical issues, e.g. an employee of the customer company forgets his/her login credentials or can't get access to a certain file. The latter is called 1st line support at Ecare. 1st line support handled by the support team at Plein is done for both customers of Puur and Plein. 2nd line support is more complex and product-specific, and is therefore performed by product specialists and/or advisors at Puur and by support employees at Plein.

The logistics group at Plein makes sure devices are prepared for use and delivered at the customer.

Finally, the procurement employee is responsible for purchasing devices/Google licenses when a customer buys one of the two or both.

The Shared Services department is left out of the scheme, as it is not relevant for the research topic.

In the next section, the design of the Delphi study performed is discussed.

3.2: Design of the Delphi study

As already described in chapter 1, it has been chosen to perform a Delphi study to gather data for the design of the As-Is model. The reason for choosing the Delphi study above other data gathering methods is that it offers a better chance to gather data and validate the models in an iterative way. For this Delphi study, participants have been provided with a model in each round and have been asked to elaborate on the input model. Participants' feedback has then been recorded, analyzed and used to adjust and/or design models; the models obtained by elaborating participants' feedback have then been attached to the subsequent iteration. This way information was gathered systematically and models were simultaneously validated. For the design of the Delphi study, first experts needed to be selected. For this aim, the steps depicted schematically in Figure 18 have been performed; these steps have been derived from the work of Okoli and Pawlowski (2004). Next, four iterations have been performed, each with a specific purpose, input to the participants and result. The design and results of the Delphi iterations are addressed in more detail in section 3.3.

Figure 18: Selection of experts overview

The first step once the Delphi study has been selected as data gathering method, is to identify and invite experts to participate to the study (Okoli, C., Pawlowski, S. D., 2004). The first step in this procedure is the preparation of a knowledge resource nomination worksheet (KRNW), which is an overview of the most relevant roles/functions/business units identified within the study's scope. The purpose of the KRNW is to help categorize the experts before identifying them, in order to prevent overlooking any important class of experts (Okoli, C., Pawlowski, S. D., 2004).

For this part, a selection of processes that fit the scope of the study has been made. This encompasses all those processes performed by the two departments involving frequent contact with a customer, and that ultimately provide the most value to the company. For Puur and Plein, the processes of interest are:

- **Puur:**
    - *Sales*: this process can be distinguished into two scenarios: (i) a company that can potentially become one of Ecare's customers (a prospect) is approached to find out if there are sales possibilities. If affirmative, within the sales process a general screening of the company is made, demonstrations of Ecare's products are given and ideally the customer buys one of Ecare's products. The second case (ii) is where an existing customer has interest in buying additional products (which may be extra

software features, trainings, or another of Ecare's product namely either Plein or Shared Services). In this case, the detailed screenings are mostly skipped and the process ends ideally with the customer purchasing an additional product of the company. This process is performed by the sales advisors present in the client teams at the Puur department.

- *Implementation*: once a customer has signed a contract, the implementation of the product starts. This often includes acquiring more detail about the customer, making and discussing a planning with the customer for the implementation project, planning and giving trainings on software usage and organization of healthcare supply, preparing the software with necessary connections, delivering the software and evaluating the transition after going live. Within this process, generally the client team assigned to the customer is responsible, however, the role that takes the lead and has most contact with the customer is an advisor within the client team.
- *Support*: once the customer has been implemented (hence, the software has been delivered and the trainings are complete), the customer is assigned to support. The support process continues as long as the customer keeps using the product; therefore, it ideally has no end. Within the support process the customer is assisted with issues, complaints or questions. Again, the client team is involved. Ideally, depending on the nature of the customer's need for support (that can be classified in either a software-based or more organizational-based type of support) the main roles involved in the process are the advisor and product specialist within the client team that manage the customer.
- *Account management:* After implementation, together with support, the account management process starts. Here, the advisors and products specialist responsible for customer management periodically have contact with the client to keep track of the customer's situation, satisfaction, discuss issues or uncertainties, and eventually identify possibilities for up-sales (i.e. selling additional products to the customer). The information discussed and gathered during contact moments with the customer is discussed within the client team. As mentioned, the main roles involved within this process are the client team's advisor and product specialist.

- **Plein:**
  - *Sales:* similarly to the sales process executed within Puur, this process is distinguishable within two cases: new prospect (lead) or existing customer. Also here the process starts with collecting information about the customer, more particularly on the customer's current IT systems in use (hardware, operating systems, eventually cloud applications, etc.), then optimization advice for a more efficient IT scenario is given. If the customer is interested, then an agreement is reached and a contract is signed. The main role involved within this process is a sales advisor within the Plein department.
  - *Assessment:* in this process, a closer look is taken at the IT systems in use at the customer's company. Information on what the customer needs from its IT is gathered and the current IT scenario is evaluated. From this evaluation, a transition plan is proposed to the customer; this may for example contain the transition to new hardware, to Google applications or to the product Plein. Once the parts agree on the proposal, the next processes can start. The main roles involved are advisors at Plein.
  - *Migration to Google:* if the customer desires to transit from its current operational systems to Google, then the migration of the customer data to Google is performed.

Together with the data to migrate, other matters like licenses and levels of permission for different employees of the customer's organization are discussed within the process. The main roles involved are the advisor and a technical consultant at Plein.

- *Preparation of Plein:* if the customer decides to purchase Plein (the PAAS), then this process is started after the assessment. Here, the applications should be displayed on Plein are determined and Plein is designed and developed for the customer. Main actors involved in this process are the advisor and product manager at Plein.
- *Training:* once all systems (and eventually hardware) required by the customer are ready for usage, trainings are planned to teach the customer's employees to use the new systems and/or hardware. This process ends when all people that need to be trained have been trained.
- *Implementation:* within these processes, the definitive supply of all requested products by the customer is performed. The main role involved in this process is the responsible advisor at Plein.
- *Support:* similarly to Puur, once the IT transition has been implemented the customer can be assisted by Plein by support. The support at Ecare generally is distinguished into two categories: 1st line support and 2nd line support. 1st line support is concerned with technical problems of overall low complexity (e.g. an employee of the customer company has forgotten his/her credentials, can't find certain data etc.), while 2nd line support is concerned with more product-specific questions/problems (why a certain functionality is not included in the system or the presence of a bug, for example). The support process described here refers to 1st line support. The 1st line support is performed jointly for both products Puur and Plein, meaning that general questions on the software or systems provided by either Puur and/or Plein are handled within the support process at Plein, while the 2nd line support is handled by the respective departments separately. This process mainly involves support employees and advisors at Plein.
- *Account management:* part of the 2nd line support (for products offered by the Plein department) is performed within the account management process, where contact is kept with the customer to discuss issues/(dis)satisfactions and other product specific matters. Key role in this process is played by a Plein advisor.

Once the mentioned processes had been identified, roles to be included within the KRNW could be selected. Please note that some roles have been anonymised, as some functions are unique for an individual within the company and therefore may compromise the participant's anonymity. The anonymised roles are addressed as role X and role Y:

- Sales advisors (Puur)
- Advisors (Puur)
- Product specialists (Puur)
- Role X, role Y (anonymised roles)
- Advisors (Plein)
- Support employee (Plein)

An overview of the roles with their description is depicted in Table 3 below. Here, role Y has been added in a following phase with the identification of additional experts, further explained in this section.

Table 3: KNRW

Function	Department	Team	Description
Sales advisor	Puur	Client team Noord	Sells the product to the client and gathers client requirements
Advisors	Puur	Client team Noord	Helps the client for the strategical transition for the usage of Puur
Product specialists	Puur	Client team Noord	Assists the client with using the product
Sales advisor	Puur	Client team Zuid	Sells the product to the client and gathers client requirements
Advisors	Puur	Client team Zuid	Helps the client for the strategical transition for the usage of Puur
Product specialists	Puur	Client team Zuid	Assists the client with using the product
Role Y	-		na
Role X	-		na
Advisor	Plein	Advisors	Analyse IT landscape of the client, propose optimization and gather information on data and applications that need to be included into the system
Support employee	Plein	Support	Provides 1st support to existing customers, concerning either Puur or Plein products

The next step consists of populating the sheet with names (Okoli, C., Pawlowski, S. D., 2004). This has been done for each role listed above. Together with the name, information about the candidate's team and experience at the company has been included. The two types of information were added for the following reasons respectively: to make a distinction between the different teams within Ecare, as participants from different teams might have different views on a process despite having the same function; and to gain information for the following step, namely ranking experts.

Once the first version of the list had been populated, the next step undertaken was the first round of contacts and the nomination of additional experts. This first contact is not intended to invite the participants to the study (yet), but rather to extend the KNRW to ensure it includes as many experts as can possibly be addressed (Okoli, C., Pawlowski, S. D., 2004). Explanations of the structure and aim of the Delphi study should be discussed with the identified experts in order to gain insight into who should be involved.
As a result of this phase, an additional expert with role Y had been identified. His/her insights into the dynamics between Puur and Plein led to consider him/her as a potentially relevant stakeholder to be included in the research population.
Contact with employee X also led to the identification of two additional experts.

This phase resulted in a panel of informed individuals with a total of 24 experts, depicted below in Figure 19. The names of the experts have been left out to respect their anonymity. Please note that the expert's experience is expressed in years (y) and months (m).

Function	Department	Team	Experience
Advisor	Puur	Client team Noord	10 m
Advisor	Puur	Client team Noord	1 y 2 m
Advisor	Puur	Client team Noord	5 y 9 m
Advisor	Puur	Client team Zuid	2 m
Advisor	Puur	Client team Zuid	4 y 4 m
Sales advisor	Puur	Client team Noord	2 y 1 m
Sales advisor	Puur	Client team Noord	3 m
Sales advisor	Puur	Client team Zuid	4 y 4 m
Sales advisor	Puur	Client team Zuid	4 m
Product specialist	Puur	Client team Noord	1 y 1 m
Product specialist	Puur	Client team Noord	unknown
Product specialist	Puur	Client team Noord	2 m
Product specialist	Puur	Client team Zuid	2 y 7 m
Product specialist	Puur	Client team Zuid	1 y 4 m
Product specialist	Puur	Client team Zuid	7 m
Advisor	Puur	Client team Zuid	8 y 9 m
Advisor	Puur	Client team Zuid	3 y 7 m
Y	-	na	6 y 4 m
X	-	na	6 y 4 m
Advisor	Plein	Advisors	11 m
Advisor	Plein	Advisors	8 m
Support employee	Plein	Support	1 y 8m
Support employee	Plein	Support	5 y
Support employee	Plein	Support	10 m

Figure 19: Panel of informed individuals

The next step proposed by Okoli et al (2004) is to rank the experts. As already mentioned, for the ranking of the experts for this study it has been chosen to use their experience as a measure for comparison. The reason behind this choice is that it has been assumed that people with longer experience at the company may have generally a more detailed knowledge about the company's processes, including more tacit knowledge (things that are not officially communicated or pre-established, but opinions and ideas about the current operations at the company). Therefore, employees with more experience were ranked higher than colleagues with less experience. Please note that the ranking has been done making a distinction between functions: per function, experts found to have that function were ranked and then a new ranking was made for the next function. The reason for doing so comes from the multi-view process modelling theoretical approach used within the elicitation phase of this research: experts have mostly knowledge of the processes they are directly involved with (Münch, J., et al, 2012). Therefore, to get a complete overview of the processes under investigation, for each process the main function involved in the process must be included in the research population for the elicitation phase.

Another distinction made for the ranking of the experts was with regards of the two client teams (Noord and Zuid). As understood while having contact with the experts during the previous phase, the two teams seem to operate in slight different ways: therefore, it was important to include stakeholders from both teams, in order to analyse the differences and integrate the two views on the processes they are involved in.

Once the ranking had been performed, the last step of the experts selection was enacted. The experts have been contacted and invited to participate to the study, following the ranking obtained from the previous phase. Before doing so, the desired size of the research population was determined. Literature on Delphi studies doesn't provide with strict guidelines for optimal sizes. A Delphi study population size may vary from a recorded minimum of 3 to up to 30 participants (Dijk, F. W. van, 2017). Given that 6 different roles had been identified for the study, the minimum viable

panel size was set to six (hence one expert per role). Also, considering the limited time frame for the study, the maximum size was set to 10. Next, the amount of Delphi iterations was set. According to Dijk (2017), Delphi iterations may vary from 2 to 5, depending on the complexity of the topic.

As discussed in chapter 2, the elicitation starts at a very high-level identification of processes within the organization and their dependencies, then the processes are analysed with more detail until it is clear which resources are involved within the execution of each examined process. Researching which resources are allocated to particular tasks is done with RASCI matrices. Given these aspects and that each artifact in the study needs to be verified, improved, and then verified again, it had been decided to perform four Delphi study iterations.

Within the invitation, participants got an explanation of the aim of the research in general and particularly of the Delphi study. Moreover, general characteristics of the Delphi study were also explained; these are namely:

- Anonymity of the participants: the participants of the study are anonymous to each other, allowing them to express their opinions without social pressure towards group conformity (Dijk, F. W. van, 2017). Participants are only known by the researcher; their identity is kept anonymous throughout the remainder of this dissertation.
- Iteration: participants are ought to give feedback on answers gathered by the previous round. This allows them to refine their views during the study. Moreover, the iteration of data allows the gradual formation of group opinion (Dijk, F. W. van, 2017).
- Controlled feedback: the structure of the study allows follow-up questionnaires to be based on answers received in the previous round. The input data received by the study coordinator is processed, and irrelevant data eliminated; then new questions are formulated based on the received answers (Dijk, F. W. van, 2017).

After having sent the invitation, three experts with the functions advisor (Puur), sales advisor (Puur) and product specialist (Puur) were unavailable to participate. To compensate for this, the next expert in ranking was selected and invited to the study. Moreover, after a short discussion with expert with role X, it has been observed that the advisors within Plein do have sufficient knowledge on both 1st and 2nd line support for the Plein department, making the involvement of support employees within the study not strictly necessary. For this reason and to keep the panel of participants' size within the pre-set maximum of 10 people, the support employees have been left out of the study.

The final study panel is composed of 10 participants, among which:

- 2 advisors of the Puur department (each from a different client team)
- 2 sales advisors of the Puur department (each from a different client team)
- 2 product specialists of the Puur department (each from a different client team)
- 2 advisors from the Plein department
- 1 employee with role X
- 1 employee with role Y

After the first iteration of the Delphi study, it was discovered a participant had an additional role not mentioned in this list (addressed further as role Z). After this discovery, it was asked the participant to further answer the questionnaires from the perspective of the role for which he/she had been selected for the study. Information concerning his/her role Z has been gathered with additional interviews; more detail is given further on in this dissertation. Moreover, results from the first iteration revealed that the insights provided by function Y were not of added value as they were

mainly concerned with processes that are out of scope for the research. Therefore, after analysis of the results and consultation with Y, it had been decided to exclude this expert from the research population for the remainder of the iterations.

Another design decision that is worth mentioning, was the language in which the study had been conducted. In order to prevent the use of terms that differ from the ones used at Ecare or miscommunication in general during the elicitation, participants were provided with Dutch questionnaires and Dutch models, as this is the language in use at the company. The models used throughout the Delphi study and attached to this dissertation have been translated for the non-Dutch-speaking audience; questionnaires and responses of the experts have been attached in their original Dutch version, as complete translation would imply too much work given the limited amount of time for this research. Relevant passages and/or responses to which in-text references are made are explained in English.
In the coming sections, the design of each iteration of the Delphi study are discussed and the results presented.

3.3: Delphi study

The following sections describe how the Delphi study for data gathering on business processes, responsibility assignment and current interdepartmental collaboration has been performed. Within the sections, the design of each round and the results are discussed; detailed data analysis is performed in chapter 4. Throughout the study, both in the questionnaires and models/matrices some abbreviations have been used to indicate company roles. Below a brief overview of the abbreviations can be found:

- SA: Sales advisor
- A: advisor
- PS: product specialist
- PO: product owner
- KT: client team
- CK: coach client team
- TC: technical consultant
- PM: product manager
- SM: support employee

In Figure 20, an overview of the performed Delphi iterations, each with a specific aim and result, is given. For each iteration, the aims for the iteration are listed in the upper part of the figure, while the obtained results are listed in the lower part.

In the next sections, the design and results of the iterations are discussed in detail.

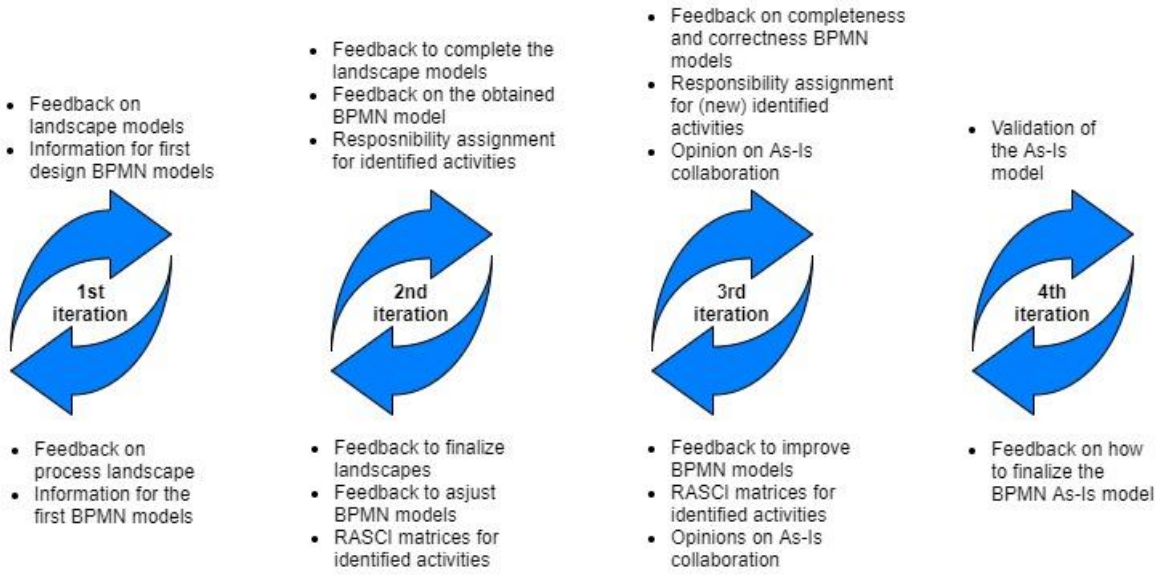


Figure 20: Overview of the Delphi iterations

3.3.1: First Delphi iteration design

Prior to the start of the Delphi study, two interviews have been conducted with members of client team Noord and role X. The purpose of the interviews was to gather information in order to get a picture of the main processes being executed at the departments of Puur and Plein. This information has then been used to design the first versions of process landscape models of Puur and Plein (please refer to chapter 2 for theoretical background). The landscape models obtained can be found in appendix B.

Within the process landscapes, the yellow rounded squares with an arrow in the upper-right corner represent business processes, whereas the arrows from and to a business process respectively represent their outputs and input. The customer is represented with an actor and not a business process, as processes performed by Ecare's customers are not under investigation. The grey blocks where the business processes are located represent the business groups where the process is executed, giving therefore more context to the landscape.

Within the process landscape of Puur, five major processes have been identified: sales, training, customer management, definition of product requirements, software development.

The main processes found for Plein are: sales, implementation, hardware procurement, hardware preparation, Google licenses configuration, specification of Plein requirements, Plein development and support.

For the first Delphi iteration, a questionnaire has been sent to all invited experts. The questionnaire can be found in appendix C.
Below, the parts of the questionnaire are described and discussed.
An introduction was given: here the aim of the study was explained, together with an indication of time needed to fill the survey and a request to all participants to submit the questionnaire within three working days upon receiving it. Stating the aim of the questionnaire and telling participants clearly what is expected in terms of answers and commitment fosters the punctuality and the quality of the responses, according to Cooper and Schindler (2014), and Okoli and Pawlowski (2004).
For the first three questions, participants were asked to fill general information regarding the department they are active in, the team they belong to and their function. This has been asked in

order to make a distinction of the answers collected in order to understand from which views answers were given; consequently, this knowledge provided then information on which processes the answers are related to.

Within the first part of the questionnaire, the designed landscape models of appendix B have been attached and feedback on them was asked. First, instructions were given: the modelling elements of the landscape models were explained with their meanings; next, participants were told that the idea of the landscape model was to visualize the most important processes at Ecare, and that the following questions were posed to gain more detail of the processes. Subsequently, it was explained what level of detail was expected to gain from the answers, and an example of a BPMN process model was attached in order to visualize the level of detail (refer to appendix D).

As a final instruction, it was told participants to answer the questions only for the models representing their own department.

Questions 4, 5 and 6 were about the landscape models: first, participants were asked whether relevant processes (together with their inputs and outputs) were missing and if yes, to describe them. Then, it was asked whether the depicted aspects were modelled correctly and if not, what was modelled wrong. Lastly, participants were asked whether they had general feedback on the landscape models. These questions have been posed in the form of open-ended questions, as it was regarded important to give the respondent as much freedom as possible to answer the questions and motivate the answers, thereby gathering as much information as possible on the business processes.

Questions 7-16 were concerned with elicitation for the design of business process models. The questions have been designed following the method proposed by Münch et al (2012): the elicitation was started by asking information about the process ‘ products, as these are generally the easiest process elements to identify (Münch, J., et al, 2012). Together with the process products, requirements for the products were asked, and thus when the process ended. Next, it was asked participants to describe chronologically the set of activities executed for producing the named products, together with the process actors involved in the execution of these activities. The following questions (13 and 14) concerned decision points within the process, and information needed to perform the different tasks. Question 16 asked which information would be produced during the execution of the tasks, whether this information is stored and where and by which other business actors this information is used. Finally, question 16 asked the respondent to describe the start (conditions) of the process.

In the last question, participants were given the chance to add general feedback on the questionnaire.

As can be observed in the appendix, these questions were all open-ended. Despite knowing this would increase the time needed by the respondents to fill in the questionnaire, and therefore potentially become reluctant to participate to the next round, the risk was considered to be worth the result. In fact, the aim of this first iteration was to elicit as much information as possible, in order to get a complete overview of the process execution, as insufficient information was known beforehand to get complete BPMN process models.

In the next section, the results of the first Delphi round are discussed.

3.3.2: First Delphi iteration results

As the collected data within the first round was text from the open-ended questions, qualitative data analysis, in the form of coding, has been performed. Coding involves assigning numbers or other symbols to answers so that the responses can be grouped into a limited number of categories. Categories are partitions of a data set of a given variable (Cooper, D.R., Schindler, P.S., 2014). Approaches to coding can be categorized into three main theories: grounded theory, also called emergent coding, where the analyst has no preconception of what the data will look like. Codes are hence formulated and attached to text data, as the analysis is carried out. In framework analysis or structured coding, codes are formulated beforehand, as the analyst has an idea of what to expect from the data, and here texts are linked to the predefined codes. The most popular approach is a way in between: here some codes are defined prior to the data analysis, however codes may be added as new patterns of data may be discovered (Quirkos, 2019).

For this analysis, the latter approach has been chosen. For the precoding phase, four major code groups were identified: feedback (general feedback), organizational position, process landscapes and BPMN elements. These groups were designed in order to group the different codes that were expected to be collected from the respondent's answers. Some codes may fall within two or more coding groups, while some text data can be coded with more than one code.
In total, 26 codes have been identified, and 333 quotations have been grouped within these codes**.** For a detailed overview of the codes please refer to appendix E. For coding and data analysis, Atlas was used; Atlas offers tools to make reports and to analyse data grouped by codes or document groups. This way, specific analysis could be made for certain code groups or for a particular function. The first step consisted in processing feedback received on the process landscapes. A report was made in Atlas for all quotations that were linked to codes contained in the Process Landscapes code group. This report can be found in appendix F.

Based on the results reported in appendix F, modifications have been applied to the process landscape of the Plein department (for the modified model, please refer to appendix G). These are summarized in the table below:

Table 4: Modifications process landscapes first Delphi iteration

Landscape	Modifications	Description
Puur	The training process was changed into implementation/training	The implementation process was missing within the model.
Puur	The support process has been added; missing input/outputs have been added	In the previous model, support and account management had been generalised into customer management. However, several responses stressed that there is a clear distinction between the two processes. Support reacts to questions incoming from the customer and is mostly focused on assistance on the software domain. Account management tackles more general matters and is performed in a proactive fashion
Puur	Missing inputs/outputs added	For example, the sales, implementation/training and support processes are linked with each other, having a lot of information being used and produced by the processes.
Plein	The process account management has been added, together with the input feedback from the customer and the outputs feedback to the process specification of Plein requirements and 2nd line support to the customer.	This addition was suggested by quotation 6:8 ("I think another important element is that we assist the customer with many ICT specific issues, meaning there is less capacity needed at the customer for this"). This refers to the 2nd line support process performed by an advisor at Plein after the client has been implemented. From this process, feedback is also gathered for improvement of the product Plein.
Plein	The assessment process has been added	Within the assessment process, the advisor makes an assessment of the IT systems currently in use at the customer company, which is followed by an advice towards the customer for optimisation of the IT landscape (quote 6:5). After the assessment is performed, the hardware procurement and the configuration of the G-suite processes are performed; followed by the preparation of Plein, the training process and finally the implementation. This changes reflect information reported in quote 1:3 and 1:32.
Plein	The process procurement additional services has been added	Plein offers other (minor) products than Plein and Google, like Mobile Iron, Lookout, mobile licenses etc. These are also eventually bought by customers and installed into hardware.
Plein	The training process has been added	The training process receives information about the customer needs from the assessment process and has as output preparation for the IT transition to the customer.
Plein	The process Google licenses configuration was changed to design G-suite	A participant suggested it as a more appropriate name.

Plein	The product stream from the process Plein development to the process Hardware preparation has been removed	The installation of the devices is independent of how Plein is developed, therefore there is no supplier/consumer relation between the two processes.
Plein	An input line from implementation to support has been added	After the implementation the client becomes responsibility of support; here, customer information is transferred from the one process to the other.

Once the landscapes had been modified accordingly, quotations reports with information on the individual business processes have been queried. These reports have been queried for each function involved in the same specific business process. So for example, a report has been queried for the two sales advisors at Puur for the sales process. This way, the corresponding business process could be adjusted to the feedback of the specific function involved in the process. The quotation reports can be found in appendix H. The gathered information has been analysed and translated into BPMN models for each identified process. The resulting models are reported in appendix I.

In the next section, the design of the second Delphi round is discussed.

3.3.3: Second Delphi iteration design

As discussed in the previous section, from the first iteration of the Delphi study, the following major types of data have been collected: feedback on the business process landscapes and the function-specific views on the business processes represented in the landscape models. These information categories have respectively been translated into the improved landscape models in appendix G and the BPMN models in appendix I. These models have been attached to the second questionnaire for feedback, as described below.

As preluded in section 3.2.2, after having analysed the responses provided by role Y and having consulted the expert, it was decided to exclude him/her from the remainder of the Delphi study, as he/she is mainly involved within processes that are not relevant for the research aim, and therefore could not contribute any further to the elicitation of the business processes that are relevant to this study, as the multi-view process modelling perspective was adopted as theoretical base for this phase of the research (section 3.2.1).

For the second iteration of the Delphi study, three major iteration objectives have been selected:

1. Getting confirmation of the business processes depicted in the new process landscapes: the first objective was to understand whether the business processes under investigation are correctly modelled in the adjusted landscape models, together with their product/supplier relations with other business processes.
2. Getting feedback on the designed BPMN models: secondly, feedback was sought on whether the data gathered from the first iteration had been translated correctly in the BPMN models and whether the models represented a complete overview of the elicited business processes.
3. Understanding the current resource allocation to process tasks: the third objective was to get a first impression of which business actors are currently involved in some of the process tasks and which degree of responsibility they have in task execution.

To achieve the latter objectives, the second questionnaire (attached to appendix J) has been designed as follows.

First, a brief introduction was given, explaining the objectives of the questionnaire (i.e. the objectives described above), and again giving an indication of the time needed to fill in the questionnaire and requesting participants to submit their answers within three working days upon receival.

Then, instructions were given. The main elements and the aim of the landscape models were explained (as had already been done within the first questionnaire), together with the difference between the latter and BPMN models. Then, participants were provided with a document with an explanation of BPMN's main modelling elements and their meaning, in order to ensure participants

would understand how to read the models. This document had been previously published in the company's intranet, in order to make it accessible to all participants. As a final point, participants were given instructions on which model they would be asked to answer the questions for; therefore, they were required only to answer the questions for the models representing processes of their expertise (following the multi-view process modelling approach).

Again, participants were asked to fill in their department (either Puur, Plein or both), team and function, as to make a distinction of the collected views. Next, questions were asked for the landscape models. The models had been published on the company's intranet (in order to facilitate their access) and participants were again asked to answer the questions only for the model representing their own department. Questions 4-6 asked the respondent, in this order, whether the models were correct (i), whether there were important business processes missing in the model and if so, to describe them and their relation to the other depicted processes (ii), and finally, whether they had feedback in general on the landscape models. As for the first iteration, it had been chosen to pose these as open-ended questions, in order to solicit the respondent to express opinions or generally to give as much feedback as possible to finalize the process landscapes.

The next part comprised gathering feedback on the BPMN models in appendix J. First, participants received instructions on which models they had to consider, based on their function. In particular, participants were assigned to models as follows:

- Sales advisors of Puur were asked to fill in the questionnaire for the BPMN model Sales Puur
- Advisors of Puur for the BPMN models Implementation Puur and After-implementation Puur.
- Product specialists of Puur for the BPMN models Support Puur
- Function X for the BPMN model Sales Plein, After-implementation + support Plein
- Advisors of Plein and function X for the BPMN model After-implementation + support Plein

Then, questions 7-13 asked respondents to provide feedback regarding the *correctness* of specified model elements (e.g. events, activities, decision points, etc.). Questions 14-20 inquired whether modelling elements were *missing* within the BPMN models. The choice to ask feedback on each modelling element starting with the process products and moving backwards until the start event of a process is again related to the approach proposed by Münch et al (2012) (already mentioned in section 3.3.1), which suggests to use this order and level of detail as it facilitates the logical order of the elicitation process. Again, it had been chosen to pose the questions in the form of open-ended questions, as it was expected for this phase that more data had to be gathered in order to get a complete picture of the modelled business processes.

Finally, the third part of the questionnaire had the respondents providing information on the roles involved in tasks that are executed within the process. For this purpose, respondents were asked to fill RASCI matrices (please refer to chapter 2 for more detail) for a set of given tasks. These are the same tasks that had been defined within the BPMN models in appendix I. For this part, first participants were provided an explanation of the RASCI roles and how to fill in the matrix. Then, a legenda was provided with a set of roles that had been identified so far by the Delphi study. Participants were asked to fill for each task represented in the matrix rows, which company role matched a certain RASCI role depicted in the matrix columns. Participants were also provided with the opportunity to add a role themselves (in case this was not included within the provided list) and to fill in a question mark in case of not knowing which role had a certain RASCI role. Finally, participants were asked, similarly to the BPMN part, to fill the RASCI matrices only for the processes linked to their function.

The last four questions (27-30) asked the respondent to provide general feedback on the questions and the models and invited them to provide suggestions for improvement.

In the next section, an overview of the results collected from the second iteration is given.

3.3.4: Second Delphi iteration results

As for the questionnaire of the first iteration, the second questionnaire consisted of a majority of open-ended questions. Therefore, for the open-ended responses, coding has been used as qualitative data analysis method. Again, four major code categories had been pre-set to group codes: organizational position, feedback on the landscape models, feedback on the BPMN models, general feedback. The analysis of the RASCI matrices part has been performed separately in Excel; this is discussed in detail in chapter 4.

In total, 46 code types were distinguished for 9 responses, for a total of 362 quotations coded. Two participants have been interviewed after a first analysis of the responses, as they had filled the questionnaire only partially. The transcripts of these interviews have been included in the documents analysed in Atlas. In appendix K an overview of the codes with their description can be found.

Similarly to what described in section 3.3.2, for the data analysis concerning the landscape models, a report for the codes grouped by the category feedback on landscape models has been queried. This can be found in appendix L.

Based on the queried quotations, the following modifications to the landscape models have been applied:

Table 5: Modifications process landscapes second Delphi iteration

Landscape	Modifications	Description
Puur	Missing output/input streams have been added	Information concerning a customer is continuously being exchanged between the account management process and the support process; Puur's vision is a product that is transferred from account management to the customer, as the advisor responsible for one customer has the task to keep the customer "on track" with the proposed vision by Ecare; streams were added from the support and account management process to the definition of product requirements process, as both processes gather information from the customer side that is used within software development; feedback streams from the product definition process to the support process were added,

		as this feedback is often used from support to answer customer's questions or solve problems
Plein	Process name has been changed	Technical preparation of the G-suite seemed to be a more appropriate terminology than design G-suite
	Missing output/input streams have been added	Optimization advice regarding IT organization is given to the customer not only during the assessment process, but also during the sales process; information gathered during the assessment process is used within the Plein development process, to develop Plein for a specific customer.

The adjusted business process landscapes are represented below in Figure 21 and Figure 22**.** As the business processes depicted in the landscapes have been confirmed by the participants, and therefore the purpose of identifying business processes at the two departments, together with their interdependencies, has been fulfilled, these have been taken as the final business process landscape models.

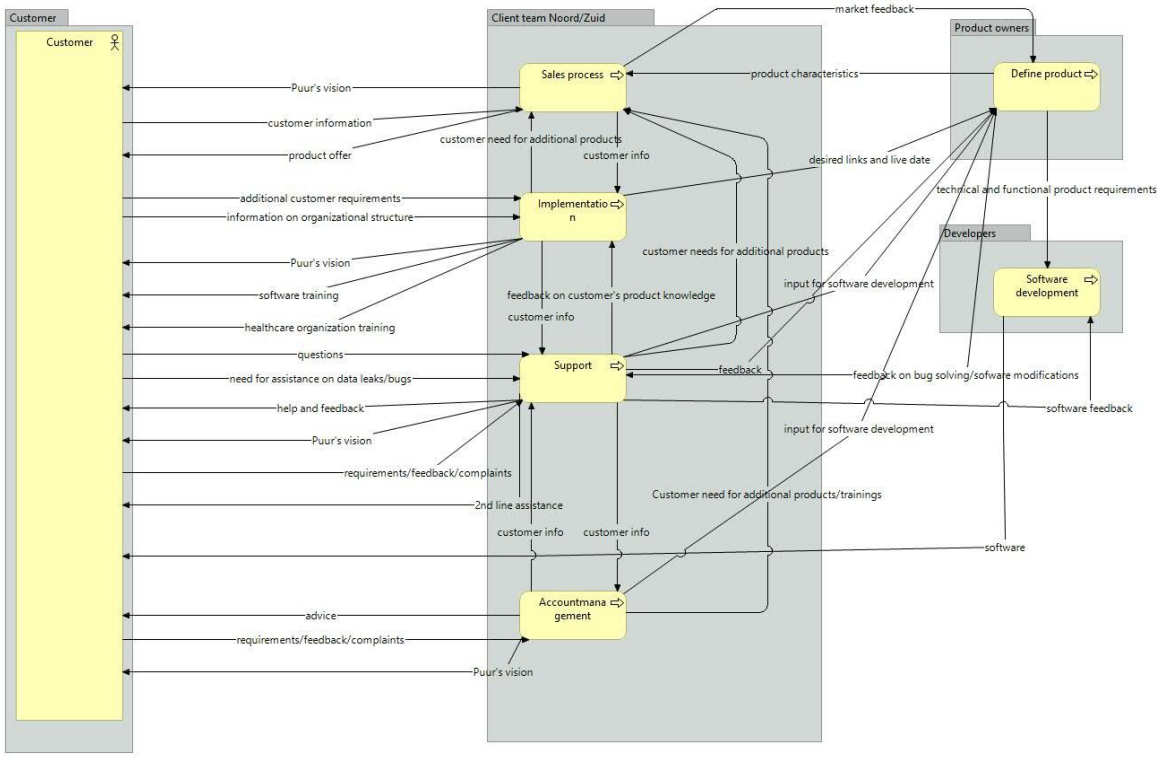


Figure 21: Final business process landscape Puur

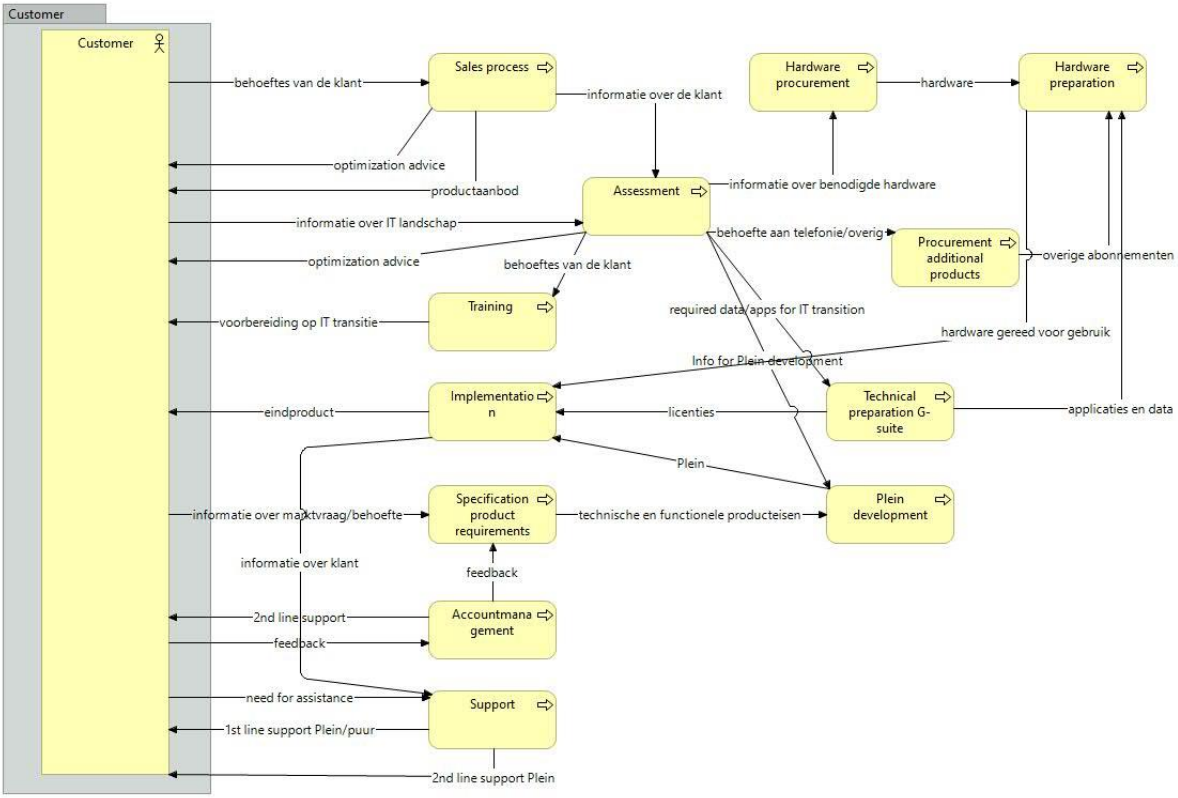


Figure 22: Final business process landscape Plein

The second major data category that has been analysed is feedback received on the BPMN models attached to appendix I**.** Similarly to what described in section 3.3.2, quotation reports grouped by the code category "feedback BPMN models" have been queried for each identified function. The quotation reports can be found in appendix M**.**

From the analysis of the data, the process models described in Table 6 have been modified:

Table 6: Modifications BPMN models second Delphi iteration

Department	Process	Modification	Description
Puur	Implementation	Task changed	Instead of requesting the patients dossiers at the customer as originally thought, the advisor gathers information about the technical details for the software links that need to be developed within the software instead.
Puur	Sales	Start event changed	The start event has been changed from message start to multiple start event, as the prospect can be detected from the sales advisor without receiving tips from other business actors.
Puur	Sales	Split node added	Contact with the prospect to assess interest for possible sales is mostly skipped when the prospect is someone who Ecare already has contact with.
Puur	Sales	Task added	The sales advisor doesn't only gather information on the prospect's interests, but also tries to get an early picture of the prospect's organization
Puur	Sales	Split node added	Before continuing within the process, the sales advisor must first assess whether the prospect's organisation fits within Ecare's specific vision.
Puur	Sales	Order of task execution inverted	The sales advisor first tries to get a complete picture of the prospect's organisation by talking to different people at the company, and subsequently gives demos of Puur's products once the picture is clear
Puur	Sales	Task added	The task "check budget" has been added, as it is important to check whether a prospect effectively has sufficient budget to start an implementation project.
Puur	Sales	Control flow added	A new control flow path has been added for the case in which the prospect is interested in the product, but immediate sales are not possible; in this case, the sales process in kept on hold, where the sales advisor keeps contact with the prospect in order to keep the lead warm.
Puur	Support	Task added	A task for informing the client team whenever a software update is received by the product owner has been added.
Puur	Support	Control flow adjusted	First, the product specialist evaluates whether he/she can answer the question without consultation. If consultation is needed, the question is noted and the customer is contacted later by the product specialist. Then, based on who need to be consulted, the subprocesses for consulting the client team and/or the product owner are initialised.
Puur	Support	Task added	After meeting with the customer, the product specialist writes a report that is then used when informing other parties.
Puur	Attend release meeting	Control flow added	The product specialist may decide to postpone the software release.

Puur	Discuss question with client team	Control flow changed/added	Here, major changes have been made, as depending on the customer's question (which may be also a wish), different actions are taken (please refer to the model for a complete overview). The product specialist ultimately always answers the question (differently from what modelled in the old model).
Puur	Process customer wish	Process name changed	The subprocess' name has been changed into discuss question with PO, as the subprocess is more general and not specifically about processing a wish.
Puur	Process customer wish	Split node added	A split has been added to distinguish the question into either a wish, a complaint or both. In case of complaints, the subprocesses for either reporting a bug in the system or a data leak are initiated; in case of a wish, the product specialist discusses with the product owner on whether the wish should be translated into new software features or not.
Puur	Inform other parties	Control flow changed	The subprocess has also been majorly modified, as it was specified by respondents that a distinction is made between when other parties need to be informed immediately and when the product specialist awaits the next meeting to share information. Three cases for the subprocess can be distinguished: a problem with the software has been signalled; here, the report bug subprocess is started (data leaks are usually reported directly by a customer, and therefore belong to another path). Customer questions or doubts are signalled; again, depending on the question/doubt, the product specialist can either consult the client team, the product owner or both. Other info (with no urgency) has been gathered from the meeting; in this case, the product owner awaits the upcoming meeting to discuss the current situation of the customer.
Puur	Report bug	Task added	In case the product specialist needs more detail on the problem, additional information is requested at the customer.
Puur	Report data leak/incident	Subprocess added	In this case, the customer reports a data leak to the product specialist; he/she forwards the problem to the product owner who on its turn forwards the problem to the developers in order to solve the problem. Once the leak/incident has been solved, the product specialist is informed and he/she contacts the customer.
Plein	Sales	Control flow added	An extra flow to the split "possibility for sales?" has been added, as in case sales are not possible yet, the sales process is placed on hold and continued with a new meeting with the prospect.
Plein	Sales	Task added	Definition of the boundaries of the IT transition

Plein	Assessment	Control flow added	A distinction is made between the case where a customer needs an IT migration to Google, or not. If the latter case is true, then consultation between the advisor and technical consultant is not needed and therefore skipped.
Plein	Assessment	Control flow added	Depending on the product purchased by the customer (transition to Goolge, Plein, or new hardware) three different tasks need to be undertaken to define the implementation proposal that is discussed with the customer in the following task.
Plein	Assessment	Terminating event changed	The termination of the process has also been made more specific, as the processes that need to be triggered once the assessment is complete depend on what exactly has been discussed/agreed upon with the customer.
Plein	Design Google	Process name changed	Changed to prepare Google
Plein	Design Google	Business actor added	Major change to this model was the addition of a technical consultant, who performs the migration of data and designs the mobile management for the client.
Plein	Training Plein	Process name changed	To “training Plein and Google”, as the training for both products is unique.
Plein	Training Plein	Start event changed	The process starts when the assessment is complete and all products ready to be delivered.
Plein	Support	Business actor added	A distinction has been made between 1st and 2nd line support, each performing comparable sequences of actions.

The modified models that have been obtained by processing feedback of the second iteration can be found in appendix N.

The last data category discussed in this section regards responsibility assignment for the execution of tasks. As explained in section 3.3.3, for each key activity identified within the BPMN models in appendix I**,** participants were asked to assign company roles to a certain degree of responsibility. For almost all processes, the RASCI matrices found in the questionnaire in J have been doubly filled, as for each process (except the sales process at Plein) the views of two participants with the same role have been integrated.

As a result of this data gathering design decision, two analysis types have been performed on the obtained results:

- *Horizontal and vertical analysis for each matrix:* for each filled matrix, an analysis was made based on the type of roles involved within each action (horizontal) and the amount of responsibilities allocated to a certain role within a process (vertical).
- *Gap analysis between similar role responses:* an additional analysis has been performed to understand to which degree the views of participants involved in the same process differ from each other.

As a result of the feedback collected on the BPMN models, new tasks had been identified. As explained in the next section, participants were asked to fill RASCI matrices for these additional tasks during the third iteration. Consequently, data collected on responsibility assignment from round two and three have been integrated in one Excel file. The matrices can be found in section 4.3, where the results are analysed. Here, for each process, first the individual responses on which horizontal and vertical analysis have been applied are given, followed by an integration of the results for which the gap analysis has been performed.

In the next section, the design of the third Delphi iteration is described.

3.3.5: Third Delphi iteration design

Once the results described within the previous section had been processed and analysed, the third Delphi iteration was prepared. For the third iteration, the aim was categorised into three objectives:

1. Getting feedback on the BPMN models (please refer to appendix N) that had been adjusted with the responses of the second questionnaire. In contrast with what had been presumed during the design of the second iteration, it was expected that the BPMN models obtained so far were complete and correct in general; therefore it was expected that less modifications to the models would have to be made after the third round.
2. Gathering information on responsibility assignment for the tasks that had been added to the models; this has been done again using RASCI.
3. Gathering information on how inter-departmental collaboration is currently perceived by the participants. The reason for seeking this kind of information has two facets: first, it may help identifying the processes where inter-departmental collaboration is perceived to be the lowest (as each individual's assessment is given from a certain process perspective), therefore helping in finding processes to focus on for the transition to a To-Be business process model. Second, having a measure of the perceived collaboration at present helps assessing the value of the proposed To-Be model, as participants would be asked the same questions for collaboration assessment with regards to the proposed scenario, and answers from the As-Is and To-Be assessment compared.

The questionnaire used for the third Delphi iteration can be found in appendix O**.** In the remainder of this section, the parts of the questionnaire are described and discussed.

First, an introduction was given to the participants, starting with an explanation of the aim of this round and giving a time indication for filling in the questionnaire. Again, the models attached to the questionnaire have been published on Ecare's intranet, in order to ease access for participants. After the introduction, three questions were given for the participant's department, function and team, for the same reason as in the previous iterations. Next, the part for the feedback on the BPMN models followed. Again, instructions were given on which models the participants were asked to answer the questions for, based on their function.

As participants had complained about the length of the previous questionnaire, and it was assumed that extensive and detailed data gathering on the business processes was not needed anymore at this phase, it had been opted to reduce the number of questions and start with a multiple choice question. Here, participants were proposed four kinds of feedback for the BPMN models. Models could be either labelled as:

- Correct and complete
- Correct but incomplete
- Incorrect but complete
- Incorrect and incomplete

Based on the answer given to this first question, participants were asked to answer Q5 if they had selected an option with incorrect modelling and Q6 if they had chosen an answer with incomplete modelling. In both questions, participants were asked to fill in this order: the name of the process that was incorrect/incomplete, what was incorrect/missing, and (in case of incorrect modelling) how the process should be modelled instead. Q7 gave participants the option to eventually give additional feedback on the models. These have been formulated as open-ended questions, as in case of the model being incomplete or incorrect, it was important to give the respondent freedom to describe what was either missing and/or incomplete.

The next questions block regards the responsibility assignments for activity elements that had been added to the BPMN models. The block starts with an explanation of RASCI matrices and RASCI roles, and how participants are supposed to fill in the matrix. Participants are advised to keep an eye on the BPMN models for which they fill in the matrix, as it gives context to the task description. Then, based on the participant's role, he/she is asked to fill in a determinate matrix. Again, each task (row) a company role should be assigned to RASCI responsibility roles (columns). Participants may insert suggested company roles or add missing one; they also may insert a question mark in case they don't know who is involved in a task.

Then, the last part of the questionnaire consists of a set of closed questions to assess inter-departmental collaboration.

This assessment has three main purposes: the first one is to identify possibilities for collaboration improvements in the different modelled processes. The second one, to measure collaboration between Puur and Plein as is currently perceived by the experts, in order to compare it with the perceived collaboration proposed by the To-Be model, and so to compare them and evaluate the proposed solution (as has already been discussed in section 1.4.4). Finally, the third aim is to inquire whether improving interdepartmental collaboration is perceived as necessary by experts, as this may have implications for the eventual implementation of a solution.

For the design of the questions, the CollabMM model has been used as framework. The model allows to classify a broad concept such as collaboration in clearly distinguishable domains with clear characteristics, and therefore is considered a valuable reference point to make collaboration assessments. In CollabMM, collaboration is composed of four domains: communication, coordination, awareness and memory (Magadaleno, A.M., et al, 2008). For each aspect, participants were asked an opinion on two statements and to give a grade for the current level of that aspect. So for example, questions 13-15 were about communication. The first statement was: "For the processes I am currently involved in, there is frequent communication with colleagues of the Puur/Plein department"; participants could select from seven options to express their opinion, namely: strongly disagree, disagree, partly disagree, neutral, partly agree, agree, totally agree. The second statement: "For the processes where I am involved in, communication with colleagues at Puur/Plein is important". The same scale of opinions was proposed. Finally, the third question was: "I would grade the current communication between Puur and Plein with:"; the respondent could choose from 0 (worst) to 10 (best).

Questions on the other domains were asked in similar fashion. Finally, question 25 asked an opinion on the following statement: "In general, I believe better collaboration between Puur and Plein is possible" (the same 7-opinion-scale was given to the participants). Question 26 asked participants to grade the overall collaboration between the two departments.

The reason for asking opinions on the level of a particular collaboration aspect and its importance was to highlight the gap between the current and desired level of that aspect. That is also the reason for asking the opinions in the form of closed-ended questions: as closed-ended questions can be easily labelled with numbers and therefore used for quantitative types of analysis (Cooper, D.R., Schindler, P.S., 2014), the (mean) of the responses could be compared with each other easily, and so the aforementioned gaps could be highlighted. When taken cumulatively, the results would show, in general, which collaboration domain between Puur and Plein needs the most improvement; the same idea applies to when grouping the responses by function: in that case, insights could be gathered, per process, on which collaboration domain needed the most attention there. This is information that was assumed to be of use for the future design of improved processes in the To-Be model.

On the other hand, the reason for choosing to ask an experts to grade each aspect from 0 to 10 was to have a numerical and therefore easy metric to compare the before (As-Is) and after (To-Be) collaborations later on in the evaluation phase.

Please note that for the assessment of group memory, defined as the record of information exchanged related to the development of a group activity (Magdaleno, A.M., et al, 2008), the general concept of information sharing has been used, which differs from communication as information may be shared by using a common database in which information artefacts without necessarily communicate.

Finally, two questions gave participants the chance to give additional feedback on the questionnaire and the research in general. The responses collected from this questionnaire are discussed in the next section.

3.3.6: Third Delphi iteration results

The results obtained from the third questionnaire round have been categorized into: feedback on the BPMN models, RASCI matrices and current collaboration assessment.

The first category has been analysed with the use of coding in Atlas, in a similar fashion as the previous iterations. The latter two data types have been analysed separately in Excel.

Within Atlas, four code categories have been pre-set: feedback (general), incorrect modelling, missing elements and organisational position. For the analysis of data concerning the BPMN models, the first and last code groups are not of interest. For a complete overview of the codes used, please refer to appendix P.

Similarly to the other iterations, data have been processed querying quotations for respondents grouped by roles. An overview of all quotations is attached in appendix Q.

Based on the feedback received, (minor) changes to the BPMN models have been applied. These are summarized in Table 7 below:

Table 7: Modifications BPMN models third Delphi iteration

Department	Process	Modification	Description
Puur	Sales process	Task added	During the first strategic meeting with a prospect, the sales advisor also gives a first demo and evaluates with the prospect
Puur	Implementation	Control flows added	During inspection of the process model it was noted that the continuation of the process missed at the lanes of the product owner and developers in case the software requires additional functionalities after the advisor evaluates the first production with the customer. Corresponding control flows have been added for the product owner and developers
Puur	Organisation developments (after-implementation)	Business actor with control flow added	A minor detail was added to the process, as the client team is involved every once a meeting happens. The lane for the client team has been added with the corresponding control flow
Puur	Software update (after-implementation)	Task changed	A minor modification was made to the task “Inform customer about modifications” as it formally is a send task
Puur	Release meeting (support)	Control flows added	A specification was made about why a release can be postponed: either the developers are not ready for the release or the customer has not been warned with sufficient anticipation. Corresponding paths have been added to the process model.
Puur	Discuss question with client team (support)	Control flow added	There is an additional path the process can take when a software question from a customer could not have been prevented: the decision must be made on whether then there must come a new functionality in the software or not. In the latter case, the PS explains why not the customer, while in the other case, the PS starts the subprocess of discussing the question with the product owner
Puur	Report data leak/incident	Business actor and control flow added	Within this subprocess, another involved actor is the security advisor. He/she can give advice on how to tackle the problem, and needs to be informed on the situation. These two aspects have been added to the subprocess model
Puur	Support	Spilt element and missing control flows added	It has been noted that when consultation is needed for answering a customer’s question, a distinction must be made on whether it is about a question or a problem. In the latter case, there might be a bug or a data leak, for which the corresponding subprocesses need to be initialized.
Puur	Support	Control flow added	Once the implementation process is terminated, the customer is assigned to a product specialist for support and a first meeting with the customer is set.

Plein	Sales process	Busines actors and control flows added	Similarly to the sales process at Puur, a potential lead may be tipped to the sales advisor, therefore initialising the process.
Plein	Sales process	Split and join nodes added	A distinction need to be made between prospects that are existing Ecare customers and new business. In the first case, the “Create awareness” task is skipped.
Plein	Sales process	Split and join nodes added	Similarly to the sales process at Puur, a decision is taken on whether Puur can also be involved in the sales. If affirmative, a send event takes place to inform a Puur sales advisor.
Plein	Plein development (implementation & support)	Tasks added	To complete the process model, tasks have been added for when Plein is developed; the developer notifies the product manager who on its turn notifies the advisor so he/she can continue the implementation.
Plein	Prepare Google (implementation & support)	Task added	The technical consultant prepares the Google spaces ready before migrating data and email
Plein	Support	Task changed	Support employees don’t forward customers to other people; they eventually discuss the question internally and then answer the question themselves.
Plein	Support	Business actor removed	The support employees include people specialized in 2nd line support, so a distinction in business actors is not necessary.

Once the data for the BPMN models had been processed, the RASCI matrices from the added tasks have been analysed in Excel. The results have been combined with the previous results from round three. For more detail on this part, please refer to 4.3.

Finally, the data gathered on collaboration assessment has been analysed. The presentation and analysis of the results can be found further on in section 4.2.

Next, the design of the last Delphi iteration is discussed.

3.3.7: Fourth Delphi iteration design

At this point, data had been gathered on three major domains: the departments' business processes, described in the landscapes and BPMN models discussed in the previous sections; responsibility assignment for the execution of the identified business tasks, captured by the RASCI matrices of round two and three; and an assessment by the participants on the current collaboration status between Puur and Plein. In order to proceed to the data analysis phase, in which the As-Is model (and the RASCI matrices) would be examined, the BPMN models needed to be validated.

So far, each process identified had been modelled separately and following solely the insights of the experts involved directly in the process, following the multi-view process modelling approach from section 2.3.1. For the last questionnaire round, the BPMN models have been adjusted with the feedback summarized in Table 7, and merged together in two BPMN models representing the business processes at Puur and Plein. These can be found in appendix R. Please note that within processes for the Puur department several subprocesses are modelled; the detailed subprocesses have been stored in a separate diagram which also has been showed to the participants.

Within this phase, the participants' perspectives have been integrated. Within the questionnaire, three question types were asked. The first concerned the correctness and completeness of the individual processes in the model. Participants could choose (for the process within which they are involved) either the option: "The process/es is/are complete and correct" or "Something is still wrong". Within the last option, a text box solicited participants to explain what was still missing and/or incorrect. The second question concerned the collaborations (represented with message flows) between the processes. Similarly to question one, participants could either confirm what was represented in the model or explain what eventually was wrong or missing. The third question asked the participants general feedback (i.e. not for their own process specifically) about the model for their own department. They could choose between confirming the model, or writing down what needed to be modified. The reason for choosing this kind of question structure (i.e. a mixed closed- and open-ended structure) for these three questions was that, at that point, it was assumed that the majority of processes had been modelled with sufficient detail and in a correct way. Given the latter, it was taken that to confirm the models, respondents wouldn't need to provide extensive information on the processes but just to validate the model by choosing an option. In case something was still wrong, then it would have been useful how to adjust the model in order to have a complete and valid process overview; therefore, the opportunity to provide more information in the text boxes was provided. The last question offered respondents to give some last feedback in general.

The questionnaire sent for the fourth round is attached to appendix S.

In the following section, the results of the last iteration are presented.

3.3.8: Fourth Delphi iteration results

The results obtained from the last Delphi iteration have been analysed with both qualitative and quantitative analysis. The latter has been done as the main questions within the questionnaire were of closed type, permitting thus to label the registered answers. As explained in the previous section, questions 4-9 inquired: correctness and completeness of the individual process models, correctness of the modelled relations between the business processes and general validity of the BPMN models. Question 10 inquired whether the expert had additional feedback.

For each question variable, answers were assigned a number: 0 if the participant had no remarks regarding the variable, 1 if the participant had remarks (entered in the text box). The results are given below in Figure 23:

Q1: individual processes' correctness and completeness						0: Correct and complete 1: Something is wrong/missing					
Q2: relationship with other processes						0: Correct 1: Something is wrong					
Q3: general model validation						0: Correct 1: Something is wrong					
Q4: general feedback						0: No feedback 1: Feedback					
	R1	R2	R3	R4	R5	R6	R7	R8	R9		% correct
Q1	1	0	0	0	0	0	0	0	0		88,89%
Q2	0	0	0	0	0	0	0	0	0		100,00%
Q3	0	0	0	0	0	0	0	0	0		100,00%
Q4	0	0	1	0	1	0	0	1	0		66,67%

Figure 23: Quantitative analysis fourth Delphi iteration

As shown in picture, 88,89% of the respondents answered the business processes of their expertise were modelled completely and correctly. All respondents agreed on how the business processes were related to each other in the models; 100% confirmed the model for their own department. Finally, 66,67% of the participants had no additional feedback.

For the responses labelled with 1, qualitative analysis has been performed (as the 1 implies a text response was given). This analysis has been performed with coding within the Atlas software. Codes were classified into two major categories: BPMN feedback and feedback general. Each code group included one code, respectively “Add control flow” and “Positive feedback”. Within the latter code, responses given by participants included positive reactions to the study in general. The “Add control flow” code included one quotation that pointed out one option was missing in a subprocess of the support process at Puur. The subprocess had been modified accordingly:

Table 8: Modifications BPMN models fourth Delphi iteration

Department	Process	Modification	Description
Puur	Discuss question with PO (support)	Control flow added	When a question is discussed with the PO the question can also be a general question. In this case, the PO and PS discuss this

			and then the information is reported back to the customer by the PS.

The quotation reports for the above-discussed codes are attached in appendix T.

With the conclusion of the last Delphi round, the BPMN model has been finalized. In the next section, the obtained As-Is business process model is presented.

3.4: As-Is business process model

In this concluding part of the chapter, the As-Is business process model obtained from the Delphi study is discussed. First, the model has been checked for structural correctness following guidelines found in literature. This is described within section 3.4.1. Then, the processes depicted in the model are described in section 3.4.2.

3.4.1: Model checking for structural errors

As a result of the Delphi study described throughout section 3.3, information has been elicited in order to model a BPMN As-Is model, describing the current situation at Ecare. After the last feedback from Table 8 had been processed into the models, these were examined to detect modelling defects. As process models become complex, there is an increasing risk of defects being inadvertently introduced into the model by the process engineer. Model checking after the elicitation phase can be distinguished into three categories: completeness analysis, which is concerned with making sure all relevant information within the model is available at a sufficient level of detail; consistency analysis, which makes sure elements of the model do not contradict each other; and dynamic analysis, which is concerned with problems that may arise when process instances are executed (Münch, J., et al, 2012). From these types of analyses, the first one has already been performed throughout the execution of the Delphi study. In this part, consistency analysis is executed.

Münch et al (2012) propose a list of most common process model defects; these include:

- *Dangling references:* here, a modelled entity references to another, unidentified, entity (e.g. an activity description mentions an input work product that has no definition in its own model).
- *Inconsistent preconditions:* the start conditions stated for an activity are contradictory and cannot be fulfilled in practice.
- *Inconsistent reference:* the same entity is mentioned in the model using different names.
- *Orphan entity:* an entity is defined in the model, but referred by any other entity in a meaningful way.
- *Dependency cycle:* an activity depends on a particular input product in order to start, but, according to the model, this input product cannot be produced unless the activity is terminated.
- *Incomplete descriptions:* important entity attributes, such as activity or product descriptions, are missing in the process entities.

For checking the correctness of a business process model, Weske (2012) also highlights the importance of checking data dependencies within a process, intended as the information exchange that happens between process activities and needed for task execution. As the author states, if output parameters are only available when the respective activity terminates, there is a direct implication of data flow on control flow. This property is known as control flow follows data flow

(Weske, M., 2012). This means in general, data shouldn't flow in the opposite position of the control flow when the data is required for execution of tasks.

The above-described aspects have been used to check and correct the BPMN models. Along with the above-mentioned, Weske proposes a more formal approach to check semantics correctness and the soundness properties of a business process model (Weske, M., 2012).

There are four properties that can be checked with the soundness criteria, namely (Weske, M., 2012):

- *Termination:* this property makes sure that any process instance that starts in the initial state will eventually reach the final state.
- *Proper termination:* the final state is the only state reachable from the initial state in which there is a token in the final place.
- *No dead transitions:* each transition can contribute to at least one process instance.
- *Transition participation:* each transition participates in at least on process instance that starts in the initial state and reaches the final state.

As can be observed, the terminology in use corresponds to the one used within workflow languages: this is because soundness of a process should be checked by translating the model to a workflow-based model and then verifying it for the soundness criteria (Weske, M., 2012).

The *soundness criterion* implies properties one, two and three of the above-mentioned. If a process is sound, then each process instance that starts in the initial state will eventually reach the final state (by property one); when the final state is reached, no tokens are left in the net (i.e. no other activities can be executed once an end-event is reached). Finally, each activity can contribute to a process instance by property 3 (Weske, M., 2012).

Weak soundness allows activities that cannot participate in any process instance; however, properties one and two are still satisfied (Weske, M., 2012).

Relaxed soundness is defined by the fourth property, as it allows deadlocks to occur in the process (violating property one) and permits activities to be still in execution once the final node is reached (violating property two). Since property four implies three, this also holds for relaxed soundness (Weske, M., 2012).

While performing the complete soundness analysis as proposed by Weske (2012) provides a very structured and systematic way to check a business process for modelling errors that would undermine the implementation of the process in real life, like deadlocks, this is an approach that is time consuming. In order to do so, knowledge about translating BPMN elements to a workflow language would be needed, and then analysis could be performed. Given the time constraint of the research, it has been decided not to do that. Nevertheless, it is important to check the structural correctness of the model: therefore, the soundness criteria cited above have been considered while inspecting the model, together with the common errors mentioned by Münch et al (2012).

With this knowledge, some errors found in the models could be corrected. An example of a spotted error was within the "Organisation developments" process within Puur: here, the task "Inform client team at meeting" was modelled after the execution of other activities that could be executed after having discussed ongoing matters with the client. This is an error as the client team meeting (event) might immediately occur after a customer has been visited or at the same time an additional training is planned, for example. This error has been corrected by modelling the task of informing the client team parallelly to the other tasks. This way, the obtained "Organisational developments" process is

sound, as any process instance starting eventually reaches the end event, and each modelled activity can participate into a process instance.

Another error, that violated the proper termination property, was within the assessment process at Plein, where based on the wishes of the customer, three different end events could be triggered together. In order to solve this, the end events had been changed into intermediate events and the flows joined into a join node. From the join node, a flow to one end event has been modelled, making the process sound.

Minor errors like different terms indicating the same element and wrong start events were spotted as well. These have been adjusted in order to make the model sound: hence, every instance eventually reaches the termination state, once the process is terminated no other activities in the process are running and every modelled transition can contribute to a process instance.

Finally, the As-Is business process model for the current situation at the Puur and Plein departments has been finalized.

3.4.2: Description of the As-Is model

The model can be found below in Figure 24, Figure 25 and Figure 26. For spatial convenience, the model has been split into two models for the respective departments; a third model has been included for representation of the subprocesses that are present in the BPMN model for Puur.

For both departments, the pool representing the customer is placed in the centre of the diagram: the pools around represent the most relevant processes being performed at the two departments. The message flows between the customer and the processes and between the processes indicate collaborations, i.e. communications that take place between two processes or a process and a customer. Both departments execute a set of (similar) processes that can be grouped into four collective names: sales, implementation, account management and support.

Sales: the name sales is used in the case of Puur to describe two types of sales: the ones for a new customer (called sales in the As-Is model) and the ones for an existing customer (called up-sales in the As-Is model). The difference is that in the first case a lot of meetings are planned and information on the customer is gathered; while this is obviously skipped in the latter case. At both Puur and Plein the process is performed for most of the tasks by a sales advisor; the process starts with gathering information on the customer's organisation, like the number of employees, departments, locations etc. Puur focuses then on understanding the way the company is structured, in order to assess whether it fits their vision, while Plein is more focused on the IT landscape in general. In both processes, offers based on the gathered information are made and the process either terminates with sales made or the customer walking away.

Implementation: this term includes all processes that culminate in the delivery of a proper product to the customer. Depending on the department and the sales made, implementations can look different. At Plein, processes included in this term are the assessment, Plein preparation, Google preparation and training of Plein and Google. In both cases, the processes start again by gathering information at the customer, once the sales process has terminated: at Puur this is done to assess the needed organisational change at the customer in order to make it possible for them to use the software; moreover, this information is gathered to assess which software links are needed by the customer. At Plein information is gathered to define the boundaries of the IT transition, i.e. to assess whether new devices need to be delivered and how many, whether data needs to be migrated to a G-suite etc. Once the information is gathered, the departments' products are developed. As the products are ready for delivery, the customer needs to be trained. At Puur, training encompasses

organisational training, where the customer learns the vision proposed by Ecare and how to apply it to their case, and trainings to use the software. At the latter the software is delivered at the customer. In case of Plein, the customer is trained to use the delivered products. Once the customer is sufficiently trained and satisfied with the products, the implementation stops.

Account management: Once the customer has been implemented, advisors from the two departments have regularly contact with the customer, in order to check ongoing situations. For example, if a problem is detected, then the customer is helped with it; if additional needs of the customer are detected, then eventual up-sales can be made. At Plein, account management is carried out by the advisor that has led the implementation. At Puur, two types are distinguishable: account management performed by the product specialist, which is focused on the software side, and account management by the advisor, which is intended for all other matters (i.e. general customer satisfaction, organisational matters, etc.). Information gathered in this process is then shared at the departments internally.

Support: differently from account management, support assists the customer with ongoing issues in response to a notification of the customer. Two types of support are distinguishable: 1st line support, which is more basic support (e.g. an employee has forgotten his/her password) and 2nd line support, which is product-specific. The first type is performed by support employees at Plein for both departments, while the second type is performed by advisors at Plein and product specialists at Puur.

The processes depicted in the As-Is model are further analysed in the next chapter, where the data gathered on Ecare's current situation is analysed and focus points for a solution proposal are identified.

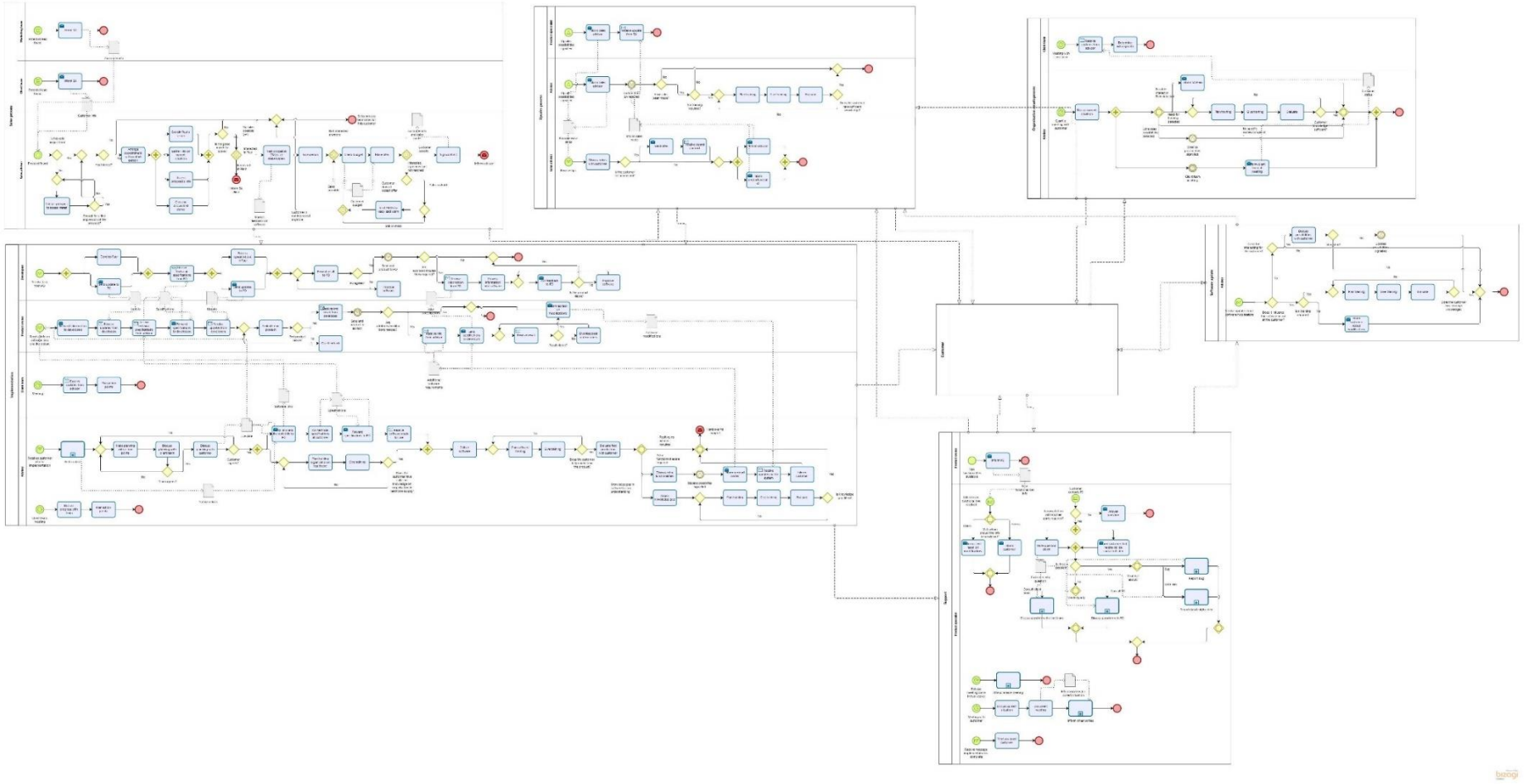


Figure 24: As-Is business process model (Puur)

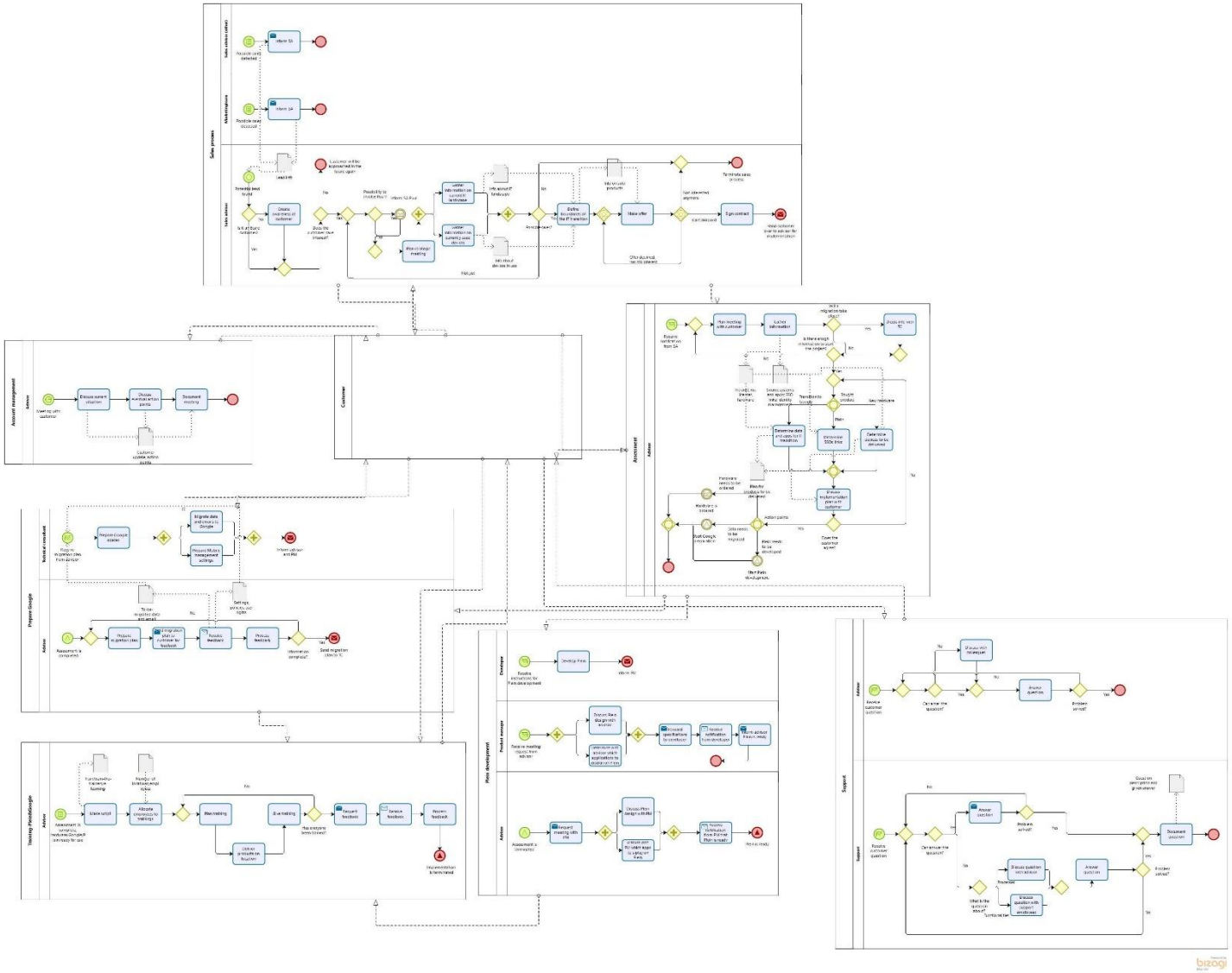


Figure 25: As-Is business process model (Plein)

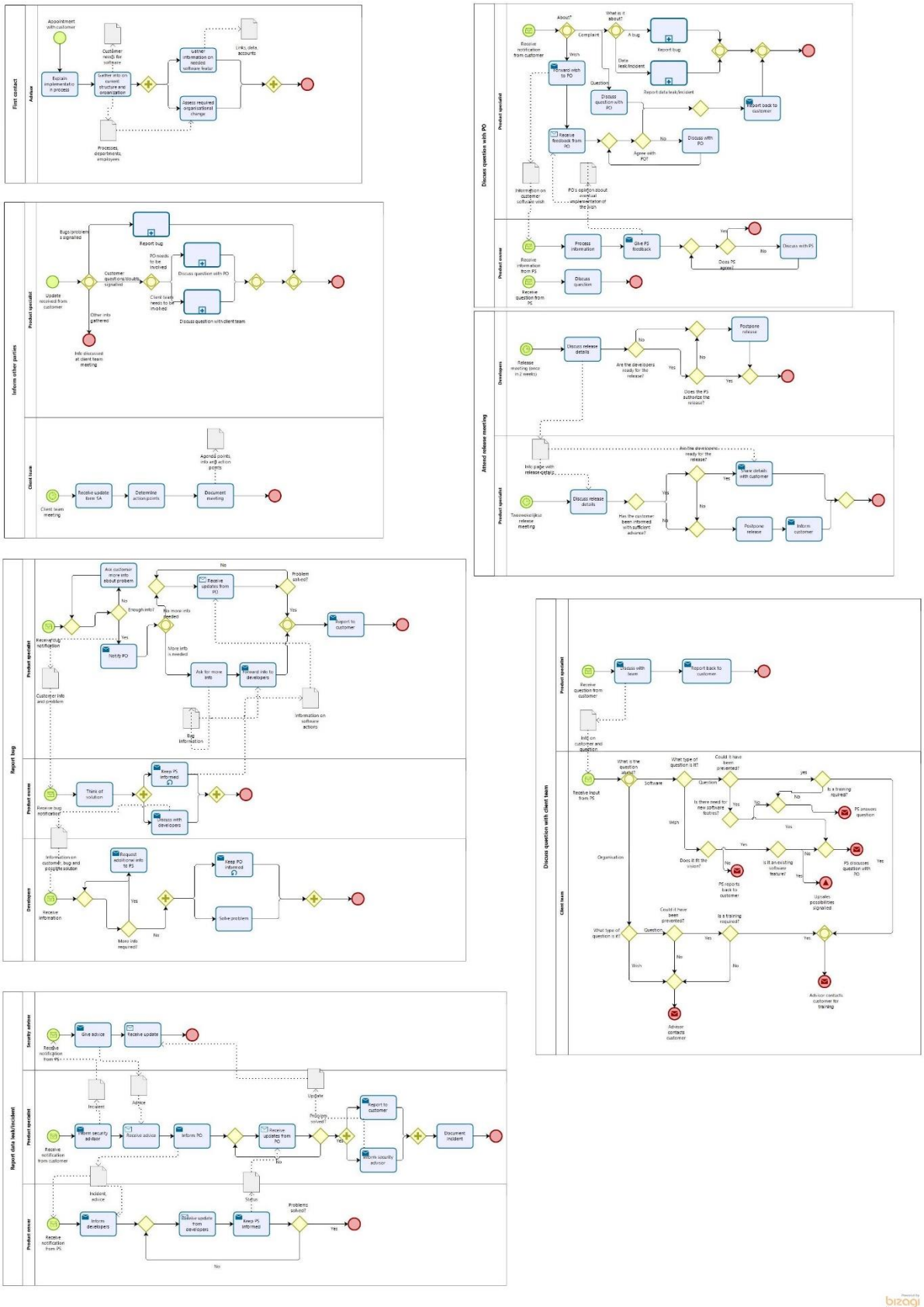


Figure 26: As-Is business process model (subprocesses)

3.5: Chapter summary

In this chapter, a Delphi study has been performed in order to answer research questions 2 ("what is the current operations flow?") and 3 ("who is responsible for the identified business tasks?"). The first research question has been answered with the design and validation of the As-Is business process model presented in the previous section, while the latter one has been answered by having participants to the study filling RASCI matrices for the process activities modelled within the As-Is model (these are discussed further in the analysis in chapter 4).

First, the Delphi study has been designed: here, the research population (i.e. the experts) have been selected, resulting in a panel of 9 experts active in either Puur, Plein or both departments. The number of iterations and the purpose of each one has been identified. For the first iteration, feedback on the first version of the business landscape models has been asked; additionally, the landscape models have been taken as starting point for the elicitation of the As-Is model. As a result, the landscape models have been adjusted and a first version of the As-Is model has been designed. The latter artifacts have been used within the second iteration to: (i) check whether the process landscapes correspond to the departments' reality, (ii) gather feedback on the first version of the As-Is business process model and (iii) gather information on the resource allocation to process activities that have been modelled in the latter BPMN models . With the feedback on the business process landscapes, the models representing the (high-level view of the) processes in place at Puur and Plein have been finalized. The BPMN models for the As-Is situation have been adjusted and RASCI matrices containing the most important process activities as depicted in the latter models have been filled. For the third iteration, feedback from the experts was sought to check the correctness and completeness of the As-Is model and how to finalise it. Moreover, resource allocation for new process tasks found with the feedback of the previous round has been inquired. Finally, the fourth round has been used to validate the model.

As a final step, the model has been checked for any (technical) modelling mistake; errors found have been corrected, resulting in the final version of the As-Is model. As shown in the model, the departments operate in a very similar way: at both, sales, implementation, account management and support processes are performed, in this order. First, a potential customer (prospect) is contacted; information about the prospect is gathered (both departments ask for the prospects' type of healthcare organization, how the organization is structured, the type of IT in use at the company) and based on this information, an offer for either one of the products (Puur/Plein) is made. Ideally, the prospect accepts the offer, becoming a customer. After that, the sold product is implemented; at both Puur and Plein, the implementation is led by and advisor: he/she gathers all necessary customer information in order to prepare the product, then delivers the product and trains the customer to use it. Once the trainings are complete, the advisor becomes a "trusted contact person" for the customer and checks the status at the customer by means of periodical meetings. Next to this account management process, support is provided to the customer whenever issues or questions arise. What stands out of this model is the almost absent interaction between the two departments: communication may happen to signal potential (sales) leads to each other, however no other forms of collaboration can be spotted. This is further elaborated in the next chapter.

The information gathered on the processes at Puur and Plein answers research question 2. As will be illustrated in chapter 4, research question 3 cannot be entirely answered, as the RASCI matrices filled by participants with the same function for the same business tasks differ significantly from each other, showing that there aren't clear agreements on who exactly should be responsible and/or involved for process tasks.

Chapter 4: Analysis of the current situation

In this chapter, the results obtained from the Delphi study described in chapter 3 are analysed. The As-Is business process model is examined in section 4.1: first, some general considerations on the processes depicted in the model are made; next, the collaboration maturity level between Puur and Plein is assessed using the CollabMM maturity model. In the second part (section 4.2), participants' opinions on the current inter-departmental collaboration status is analysed from each process perspective and collectively. Once this is done, the results from the RASCI matrices obtained in the second and third Delphi iteration are discussed in section 4.3. Finally, from the above-mentioned, a summary of the current situation at Ecare is given, a desired scenario is formulated and a gap analysis between the two is made in section 4.4. The chapter is summarised in section 4.5.

4.1: Analysis of the As-Is business process model

In this section, the As-Is business process model of the departments of Puur and Plein is analysed. In section 4.4.1 general observations on the observed processes are made; next, in section 4.1.2 the processes are analysed for collaboration following the CollabMM maturity model.

4.1.1: Observations on the As-Is business process model

The business process model depicted in Figure 24 and Figure 25 gives an overview of the most important processes performed at Puur and Plein. Almost each modelled processes at both departments involves contact with the customer: message flows between the process pools and the customer pool indicate that there is a collaboration (an interaction) between the customer and that specific process. Please note that the flows do not give a complete overview of the frequency nor of the amount of collaborations that take place between the customer and the business actors involved in the process, as modelling all message flows between the customer and individual process activities would make the model too complex. To give an impression of the number of collaborations between the tasks modelled per process and the customer and the number of business actors (directly) involved, an overview has been made schematically in the table below:

Table 9: Interactions per process activity overview

Department	Process	No. of tasks with customer message flows	No. of business actors directly involved in contact
Puur	Sales	12	1
Puur	Sales	6	2
Puur	Implementation	17	1
Puur	Organisation developments	4	1
Puur	Software update	5	1
Puur	Support	12	2
Plein	Sales	6	1
Plein	Assessment	3	1
Plein	Plein development	0	0
Plein	Prepare Google	4	2
Plein	Training Plein & Google	5	1
Plein	Account management	2	1
Plein	Support	3	2

Again, this overview tells us little on the contact frequency, as tasks might be executed multiple times for different process instances.

In general, it can be observed that the two departments execute similar processes: at both, the sales process is executed by a sales advisor, starting whenever a prospect (potential customer) has been identified; then, general information on the customer's organisation, IT systems in use and needs is collected in order to formulate an offer, and having the sale of products to the customer as process product. The processes are depicted in the snippets below in Figure 27 and Figure 28.

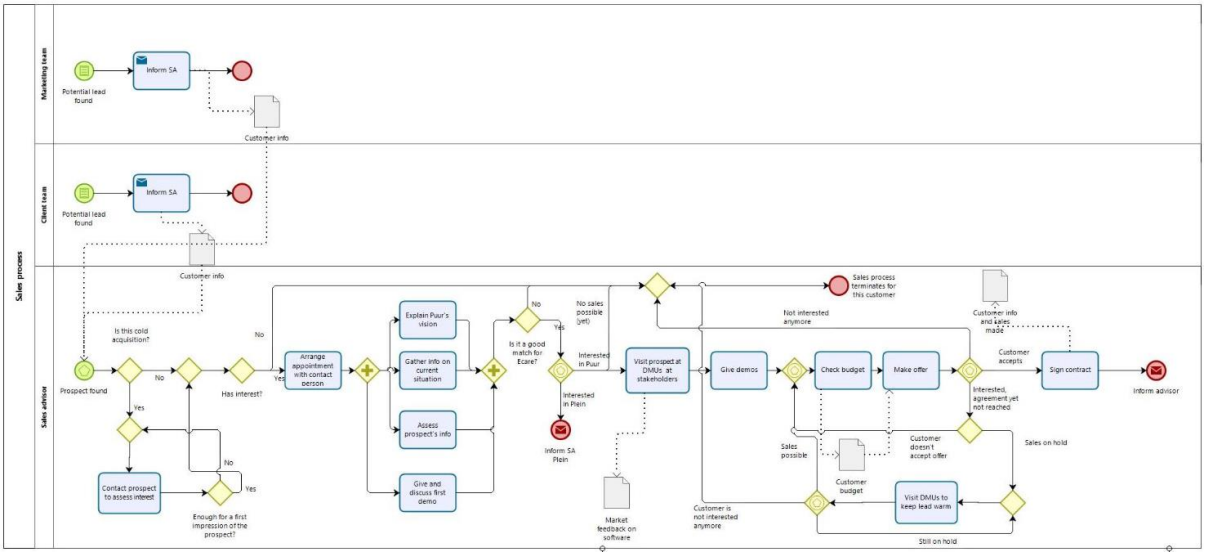


Figure 27: As-Is sales Puur

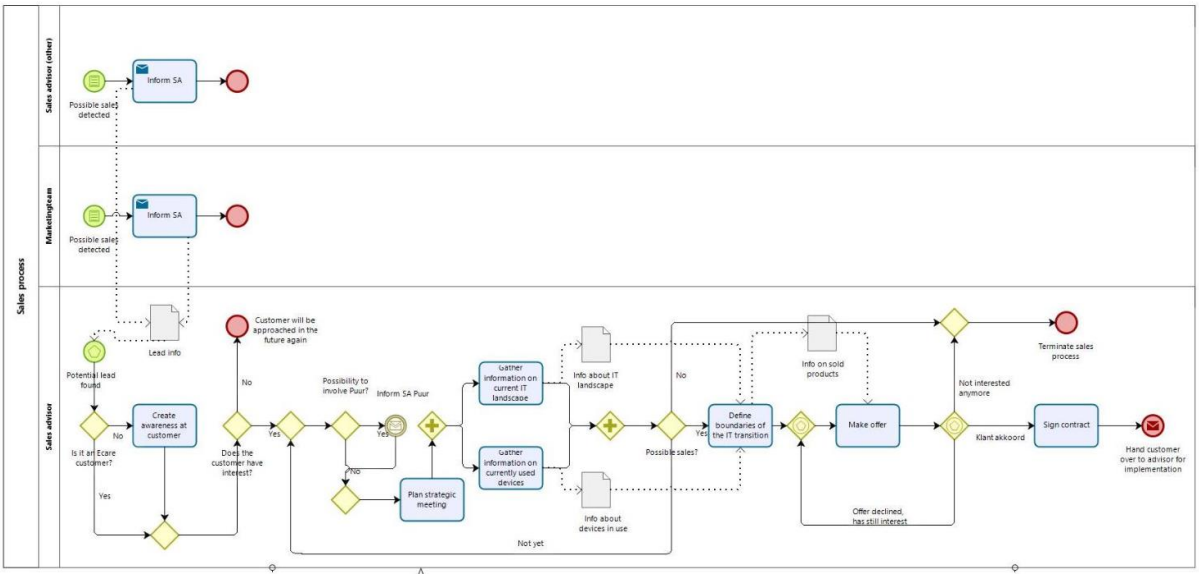


Figure 28: As-Is sales Plein

At both, implementation processes (whereas implementation can be seen as cumulative name for the assessment, Plein development, Google preparation and training processes at Plein) involve gathering information on the customer's company. Common information gathered within the implementation at the two departments regards the customer's structure, employees, processes and general IT organisation. This information is then used to develop the products of the two departments. At both, the process ends once the customer has been trained to use the delivered

products. At both departments the process is executed by an advisor, who is on his/her turn the contact person for that certain customer within the account management process after the implementation has been terminated. The snippets of the implementation processes at Plein and Puur are given below in Figure 29, Figure 30, Figure 31, Figure 32 and Figure 33.

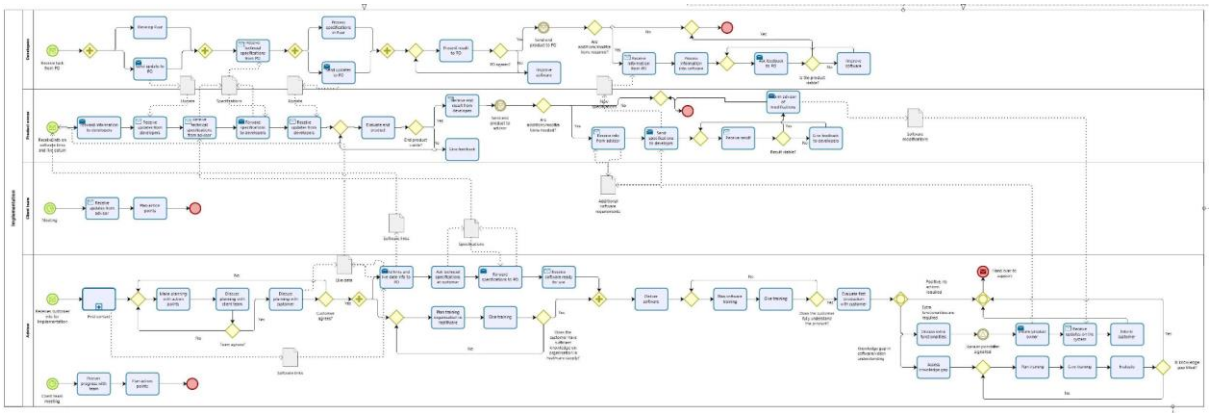


Figure 29: As-Is implementation Puur

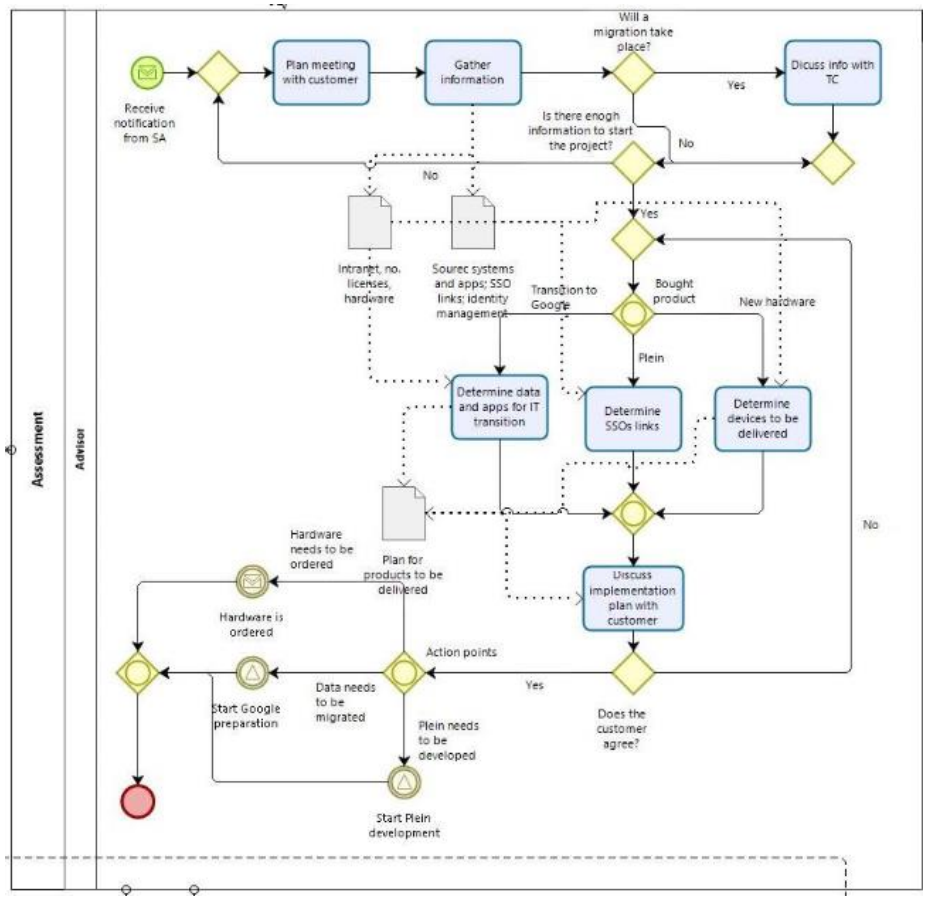


Figure 30: As-Is implementation Plein(1)

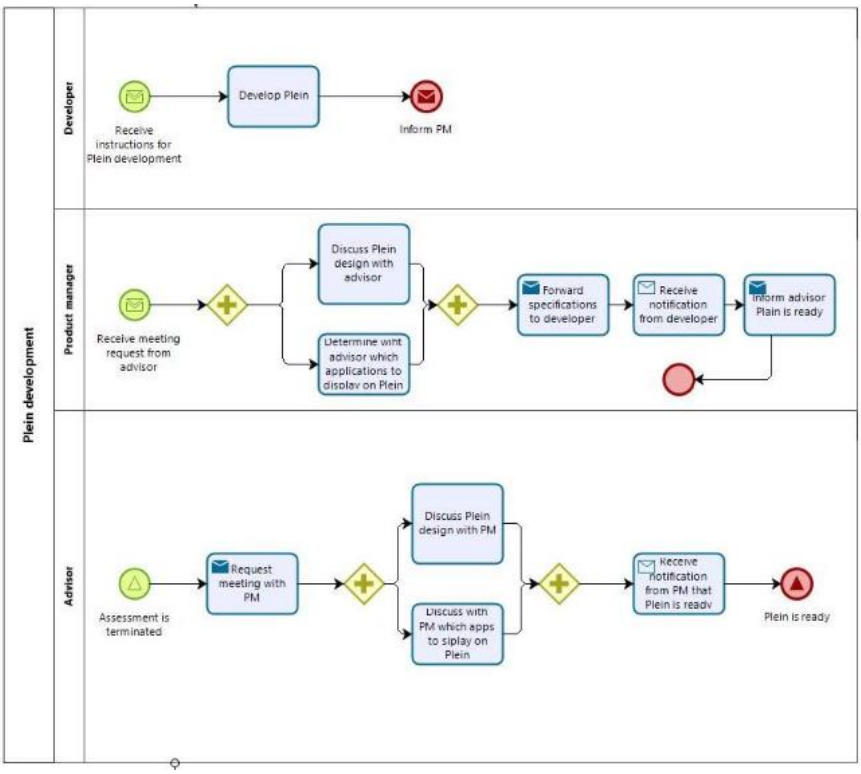


Figure 31: As-Is implementation Plein(2)

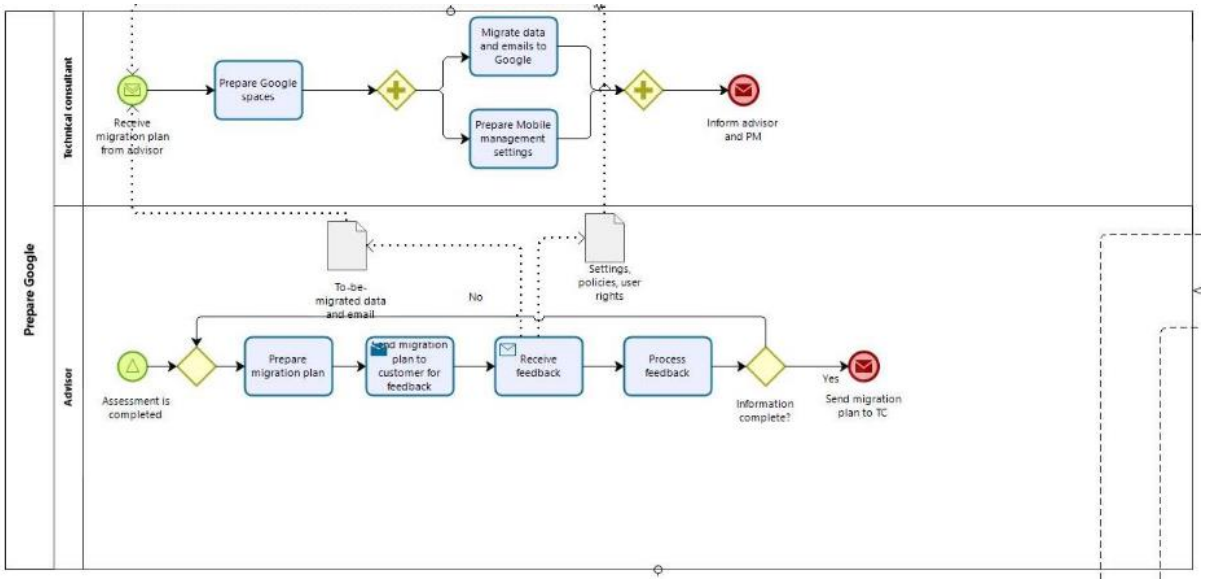


Figure 32: As-Is implementation Plein(3)

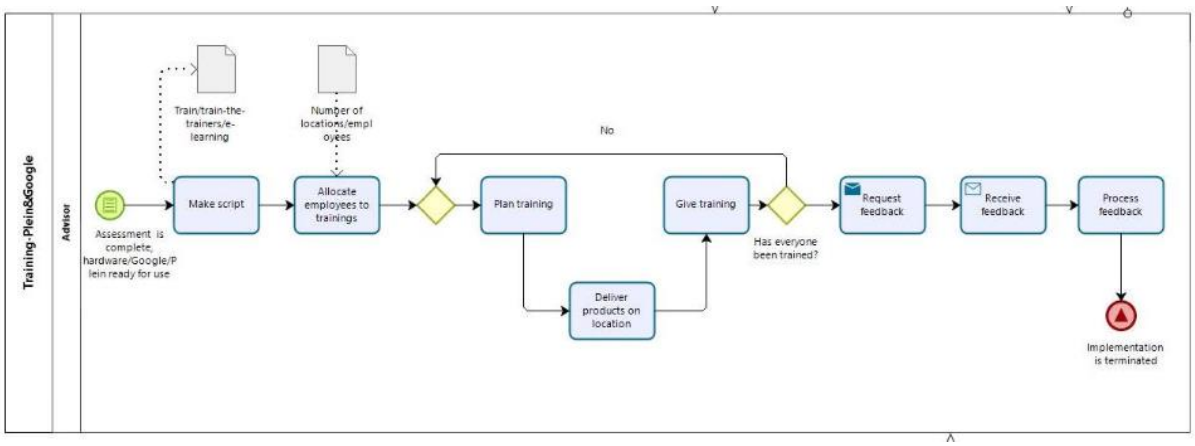


Figure 33: As-Is implementation Plein(4)

Finally, support is also performed at both, with an advisor and product specialist as business actors for Puur and a support employee and an advisor for Plein. These processes have however less overlap than the aforementioned ones, therefore the model snippets are not shown below.

This research is focused on investigating the current collaboration status between Puur and Plein and how to improve it; collaboration is important when both are involved in projects with common customers. As it currently goes, the latter happens in two ways: either a new customer wants to buy both Puur and Plein at the start of the sales process or an existing customer of one of the two is possibly interested in buying products of the other department. In the first case, the sales advisors at the two sides share information with each other on what the customer requires to buy. However, processes from the sales on are executed separately for the departments, as can be seen in the previous figures. In the second case, the sales advisor of the department of interest is informed that there are sales possibilities; the sales process starts and the implementation is done again for the new products.

This finds confirmation in the model, as departments mainly interact with each other whenever either a prospect or an existing customer of one of the two has interest in products of the other department (this is shown in the detailed views in Figure 27 and Figure 28, where the message events represent the latter case). Sales and implementation processes are then further executed separately, without actively involving stakeholders from the other department (see Figure 29, Figure 30, Figure 31, Figure 32 and Figure 33). This has as consequence that certain similar tasks (like collecting information) are executed overlappingly, making the process inefficient. Within all processes, activities involving information exchange between Puur and Plein other than signalling leads for sales are absent (or executed as result of individual's initiative, which is therefore not included in the model as a regular process activity). As can be intuitively derived from the scarce interaction between the two departments, coordination is also absent: departments currently don't make a common planning, neither do they monitor the progress of processes for a common customer. Evaluation of process instances performed for common customers isn't included in the business processes as well.

Given these observations, which have been made considering the collaboration domains (communication, coordination, awareness, memory) proposed by the CollabMM maturity model, it can be asserted that the As-Is interdepartmental collaboration level is ad-hoc. This is confirmed by findings presented in the next section, where, additionally to this analysis of the As-Is situation, two employees involved in both departments have been asked to answer a set of yes-no questions proposed by Magdaleno et al (2008) to assess collaboration maturity levels.

4.1.2: Collaboration maturity level

As mentioned in section 2.2.5, the CollabMM is a maturity model that can be used to assess and define levels of collaboration within business processes; its use combined with business process modelling can help elevate business processes to higher levels of collaboration maturity. The model distinguishes four levels of maturity: ad hoc, were collaboration is not explicitly represented in the business process and is purely dependent on individuals' initiative; planned, were planning for collaboration (i.e. formalizing groups, roles and responsibilities) and coordination are present aspects within the process; aware, where activities for monitoring and controlling collaboration are included; and reflexive, were activities for reflection and improvement of collaboration are included (Magadaleno, A.M., et al, 2008).

In order to explicitly design collaboration, the present maturity level should be assessed first. To perform this assessment, the authors of the maturity model propose a set of yes/no questions that correspond to different maturity levels. When questions that belong to a certain maturity level are all answered with 'yes', then the corresponding collaboration level is present within the business process under examination. For a detailed overview of the questions, please refer to section 2.2.5.

In order to perform the assessment, two employees (whose company role is omitted for anonymity) have been asked to answer the questions. These are employees that have been actively involved throughout the merger of the old eCare and Echt (i.e. currently Puur and Plein), and therefore have a good overview of the current situation at both of the two departments. Employees were asked the questions specifically concerning the relationship between Puur and Plein as depicted in the As-Is model. Employee 1 is mainly involved within the Puur department, therefore his/her assessment is made from the perspective of Puur. Employee 2 speaks from the perspective of Plein.

The recorded responses can be found below in Table 10 and Table 11.

Table 10: Collaboration maturity evaluation employee 1

Planned level		**Aware level**		**Reflexive level**	
Question	Answer	Question	Answer	Question	Answer
Q1	No	Q5	Yes	Q11	No
Q2	No	Q6	Yes	Q12	No
Q3	No	Q7	No	Q13	Yes
Q4	No	Q8	Yes	Q14	No
		Q9	Yes		
		Q10	No		

Table 11: Collaboration maturity evaluation employee 2

Planned level		**Aware level**		**Reflexive level**	
Question	Answer	Question	Answer	Question	Answer
Q1	No	Q5	No	Q11	No
Q2	No	Q6	Yes	Q12	No
Q3	No	Q7	Yes	Q13	Yes
Q4	No	Q8	Yes	Q14	No
		Q9	Yes		
		Q10	Yes		

As can be seen, both agree on that the departments don't comply with the planned level. There is no communication plan, actors are not aware of all other actors in the processes, there is no team work plan, and coordination of activities also seems to be absent. Answers given by the two employees coincide also for the reflexive level, where the only aspect that is satisfied is the presence of a channel where Ecare employees can share informal knowledge (namely, Slack). There are more differences in the answers given for the aware level.

Despite the big difference in answers collected, conclusions can be drawn also on this maturity level. For both responses one 'no' answer has been given, meaning the maturity level is not completely reached; moreover, according to the model, in order to be at a certain maturity level, conditions for lower levels need to be satisfied as well (Magdaleno, A.M., 2008). Therefore, as the planned level is clearly not reached, it can be concluded that the aware level is not reached as well.

From the above it can be concluded that the collaboration between Puur and Plein can be placed at the lowest maturity level of the CollabMM, namely the ad-hoc level. This confirms the observations on the As-Is business process model in 4.1.1, as collaboration is not explicitly modelled within the process. Collaborations between the departments takes place, but solely depending on individual initiative. This doesn't come as a surprise, as the two departments had been operating as two separate companies until not so long ago.

In the next section, opinions collected from the participants of the Delphi on the current collaboration status of the two departments are analysed.

4.2: Collaboration analysis current situation

In this section, the results obtained from the third Delphi iteration on the current inter-departmental collaboration are analysed and discussed. First, the results are analysed for each function (and thus related business process/es); finally, the cumulative results are discussed.

As has been explained in section 3.3.5, two different types of answers have been collected by participants: either opinions to a statement (expressed as closed-ended answers; seven options were given from "totally disagree" to "totally agree") and grades to collaboration domains. The opinions to statements are of two types: the first should assess the level of a collaboration domain (please refer to 3.3.5 for more detail) and the second one should indicate the importance of that collaboration level. Together, these give an indication of the gap between the level of that domain and its relevance. Opinions to these statements have been analysed both per function as cumulatively; the first analysis has been done in order to understand which domain may need the most improvement for the process(es) related to the responding function. The second analysis should give an indication in general of the gaps between current and desired collaboration domains for Plein and Puur. On the other hand, grades from 0 to 10 given by the experts to the collaboration domains have been analysed cumulatively, as these serve as comparison metric to be used within the evaluation phase.

The collected opinions have been translated to a numerical scale from 1 (corresponding to totally disagree) to 7 (corresponding to totally agree). This has been done in order to facilitate the analysis of the experts' general opinion, using statistical measures like mean value and standard deviation.

For both data types (i.e. statements and grades), the mean score per statement/question has been calculated, together with the standard deviation and the coefficient of variation. The variation gives an indication of how answers differ from each other, while the coefficient of variation (CV) indicates the variation of answers relatively to the mean. Generally, a CV value >1 indicates a relative high standard deviation, meaning observations tend to differ a lot from each other for a given variable,

whilst a CV near to 0 indicates a relatively low variation in the answers (Meijer, D.T.M.J., 2019). This has as implications that for questions where answers differ significantly from each other (i.e. there are peaks in standard deviation and CV), these cannot be taken into account to draw conclusions for that question. Within the graphs, the columns represent the mean of the collected answers, the orange line the standard deviation and the grey line the coefficient of variation.

Within the collaboration opinions graphs (i.e. the graphs representing the opinions given to statement questions), the four pairs of columns indicate the perceived level of a collaboration level (first column) and the perceived relevance of that collaboration domain (second column). The difference in height gives this way a visual representation of the gap between the level and relevance of that particular domain. In these graphs, the score of 1 represents the lowest agreement level (totally disagree) and 7 the highest (totally agree). Please note that the 0 has been included in the vertical axis as to measure the levels of the standard deviation and coefficient of variation.

In Figure 34, the results obtained from the sales advisors active for the Puur department are given.

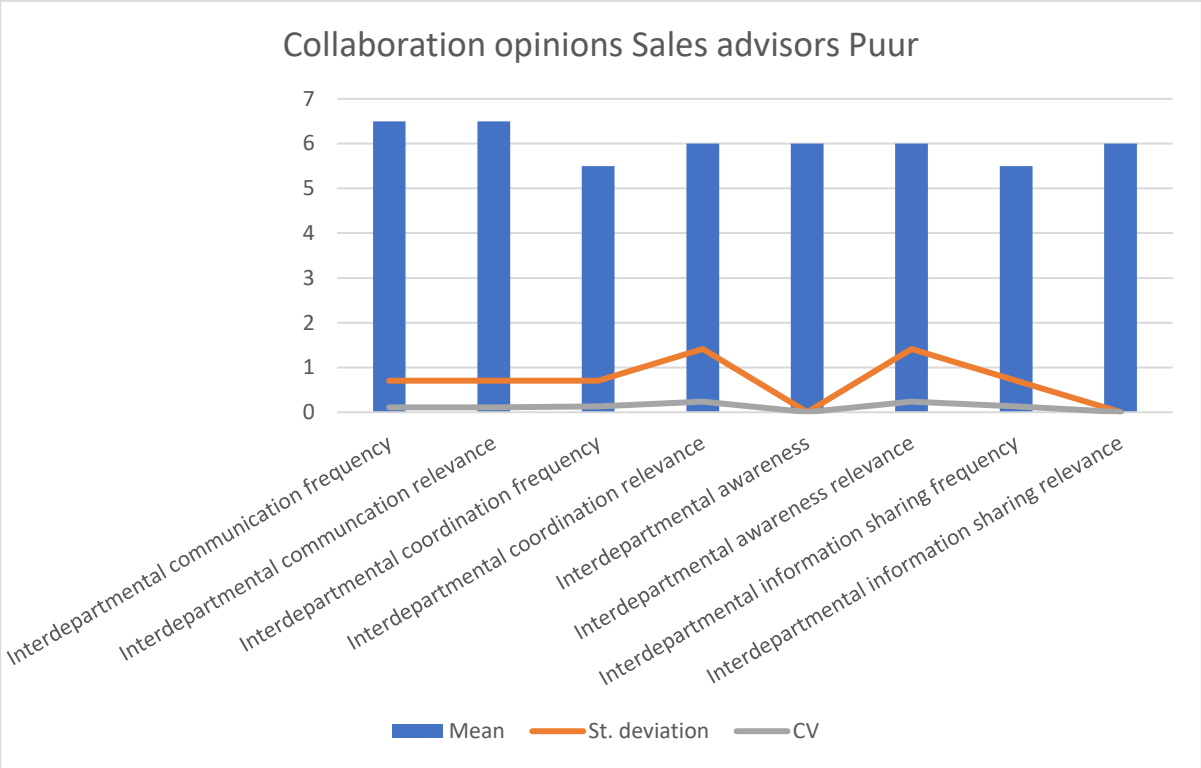


Figure 34: Collaboration assessment SA Puur

Looking at Figure 34, it can be noted that both respondents agree there is frequent communication with colleagues at Plein and that communication with their colleagues is important for their process. This is confirmed by the communication flows in the As-Is model, where in both department's sales processes information is exchanged on customers that can be involved in both departments sales. Minor gaps are observable with regards to coordination frequency and relevance, and information sharing frequency and relevance.

The results collected from the advisors at Puur are discussed next. These are depicted below in Figure 35.

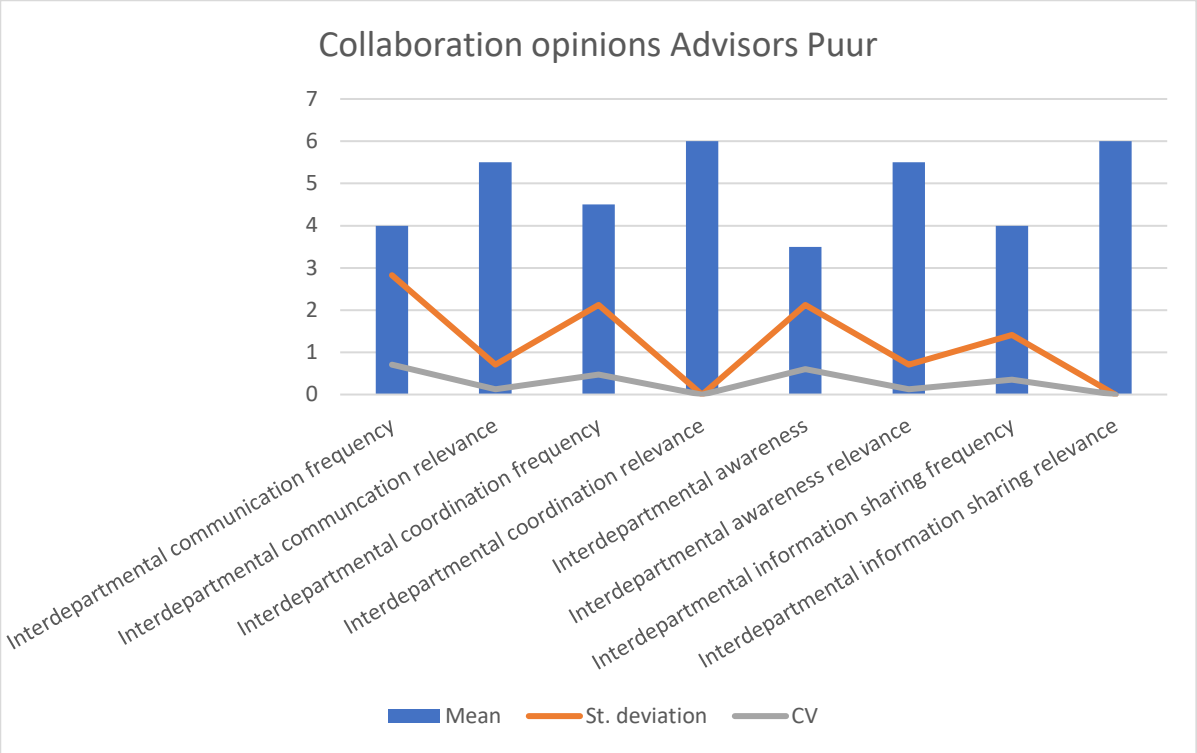


Figure 35: Collaboration assessment A Puur

From the results displayed in Figure 35, it can be noticed that it is not possible to draw conclusions on the communication domain, as the responses for the current communication frequency differ a lot from each other (as highlighted by the standard deviation peak). For the other domains, significant gaps can be observed.

Below in Figure 36, the results for the product specialists are given.

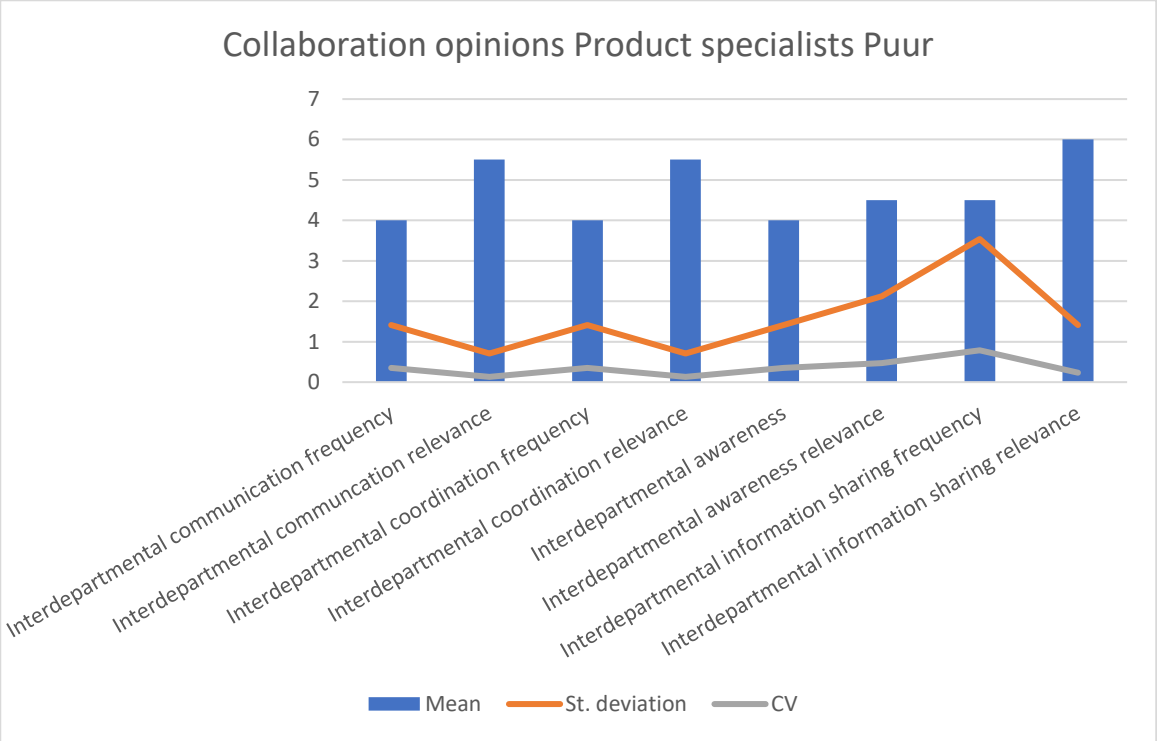


Figure 36: Collaboration assessment PS Puur

From the results of Figure 36, conclusions cannot be drawn on the domain of information sharing, as a peak in standard deviation (and high coefficient of variation) has been registered, meaning answers of the respondents differ significantly from each other. Generally, gaps can be noticed for the domains of communication and coordination, while the level of interdepartmental awareness and the its relevance seem to be roughly equal.

The results obtained from the advisors at Plein are shown in Figure 37.

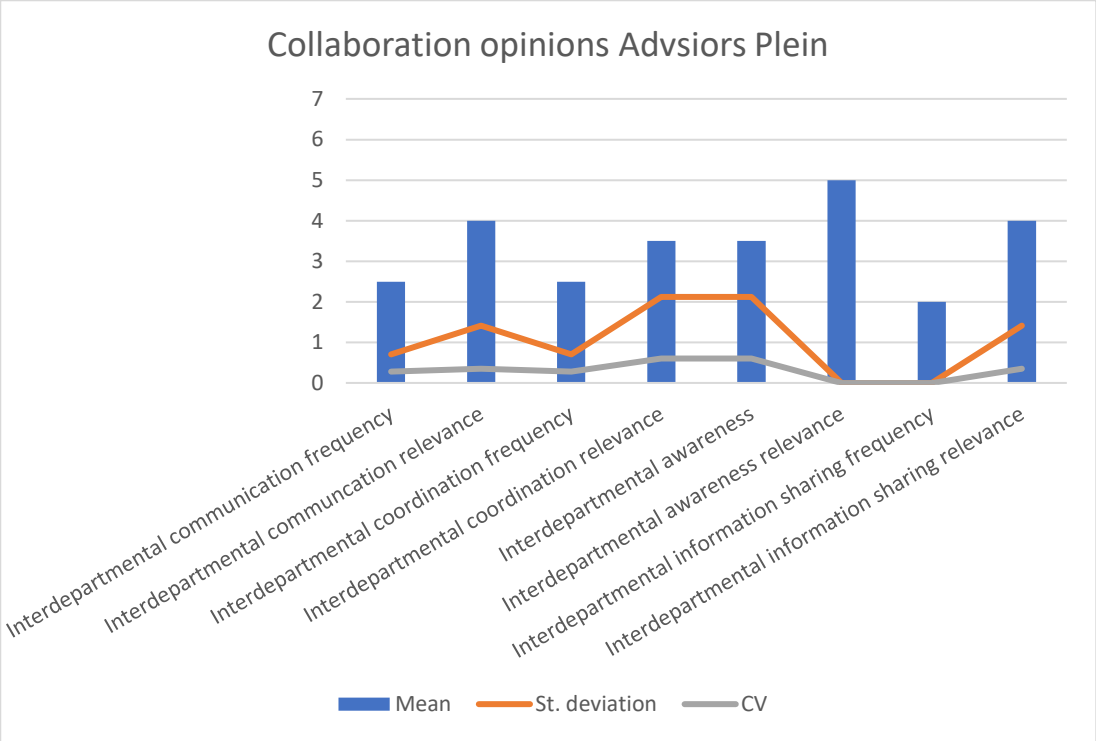


Figure 37: Collaboration assessment A Plein

From Figure 37 it can be observed the levels of communication and coordination between departments are low; however, their relevance is also limited. A major gap can be found within the awareness level and its assessed relevance: this indicates on average advisors at the Plein department are not fully aware of who is involved in which processes at Puur. The frequency and relevance of information sharing also presents a gap, but again, this aspect is considered to be of middle relevance, given its average score of 4 (“neutral”).

The results collected from the respondent with function X are given in Figure 38. Please note that in this case, standard deviation and CV haven’t been computed, since only one respondent belongs to this particular function.

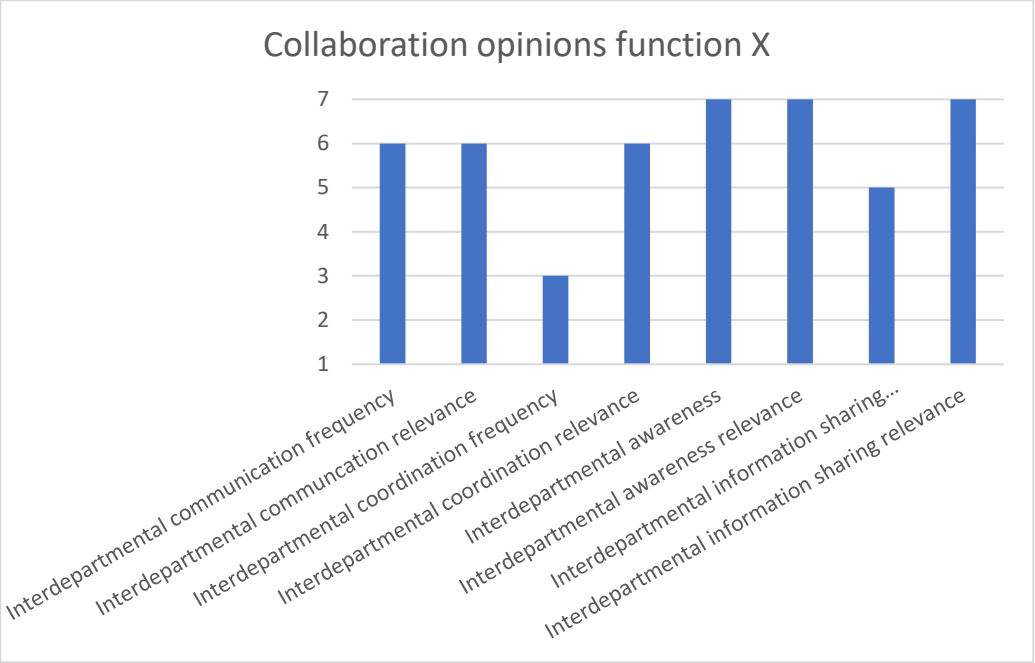


Figure 38: Collaboration opinions X

For his/her processes, it can be noted that there is a significant gap between the current coordination level and relevance together with the information sharing frequency and relevance.

The results obtained from the above analyses have helped identifying focus points for each process that will be taken into account when designing the To-Be model.

Below, the cumulative results are given.

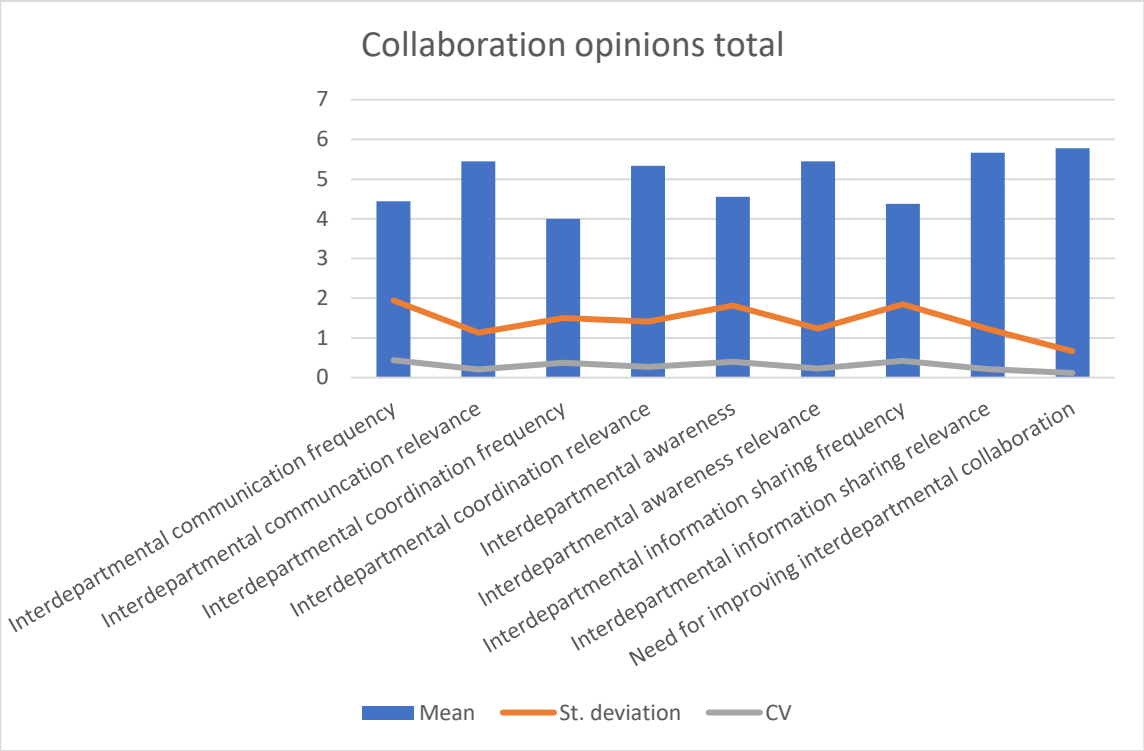


Figure 39: Collaboration opinions total

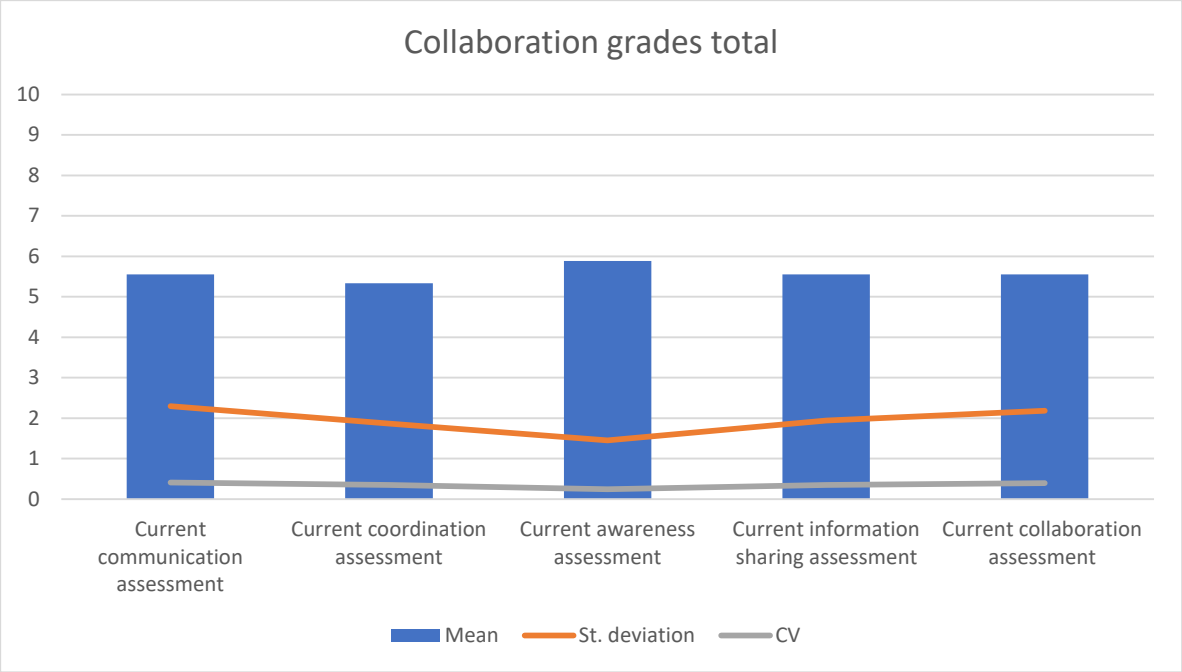


Figure 40: Collaboration grades total

In the graph in Figure 39, a measurement has been added, namely the experts' opinion on the need for collaboration improvement between Puur and Plein; this is represented by the last column.

When taken cumulatively, the results collected from the participants indicate all tend to agree on importance of interdepartmental communication, collaboration, awareness and information sharing. Within all domains, gaps between the current and desired levels are observable, with the biggest one being the level of interdepartmental coordination. On average, participants agree on the need for improvement in collaboration between Puur and Plein. When looking at how the domains have been graded in Figure 40, the average grades tend to be low, with a maximum mean of 5.89 for the current awareness of the business processes at the two departments. Please note that the scale used in this graph is from 0 to 10, as it corresponds with the scale used for the grading questions.

With the analyses performed within this section, insights have been gained on: (i) potential improvement points from the process-specific perspectives and (ii) a general measure of the current collaboration between Puur and Plein as perceived by employees.

Within the next section, allocation of tasks identified with the process models and the definition of responsibilities within a process are being analysed using the RASCI matrices collected during the second and third round of the Delphi study.

4.3: Analysis of the RASCI matrices

As preluded in section 3.3.4, two types of analyses have been performed on the RASCI matrices: first, matrices obtained from each individual response have been analysed separately. Vertical analysis was performed in order to assess the workload for a particular function within a given process, while horizontal analysis has been performed to inquire how many and which type of responsibilities a task involves. Normally, for a task to be executed, it is desirable to have at least one person accountable for it but also not too many people, as this may create confusion on who for example should be held accountable when things go wrong. In a similar way, there must be at least one responsible for the task execution, but too many R's may be a sign of "over the wall" activities (Morgan, R., 2008). In case of the I's, C's and S's, assessment depends on the process

context and complexity of the task. A lot of these responsibilities for one task may be a sign of too many people involved, which may slow down task execution (Morgan, R., 2008).

From the ones mentioned, it can be argued that the most relevant responsibility types for a task are the R (responsible) and A (accountable). In fact, without a responsible (R) person a task wouldn't be executed at all, by definition; while the absence of an accountable (A) role has as consequence that control on the execution of a task cannot be performed. If no one is accountable, no one can assess whether a task has been performed correctly (as this is one of the responsibilities of the accountable role, according to Cabanillas et al.) and no one can be inquired when things go wrong, as the responsible is formally just in charge of execution of a task, and not to assess whether the task has been performed correctly. Therefore, within horizontal analysis of the matrices, tasks with no A's or with more than one A have been coloured in red. In a similar fashion, tasks with no R's or more than three R's have been coloured in red. For the number of other roles per tasks, cells haven't been formatted, but checked manually.

The second analysis type that has been performed (and that provided with the most interesting insights) was integrating the results of the matrices for each particular company role. This has been performed to inquire whether the two respondents with the same functions and involved in the same tasks agreed on the responsibility allocation within the process, and so to understand to which degree tasks are defined and clear to participants.

Below in Figure 41 and Figure 42, the individual responses from the sales advisors at Puur are given, while the integration of the results is depicted in Figure 43.

	Tasks					**Horizontal analysis**				
Roles		*SA Puur*	*KT*	*Coach*	*Management*	#R	#A	#S	#C	#I
	Contact company prospect	R		I		1	0	0	0	1
	Adjust meeting with prospect	R		I		1	0	0	0	1
	Explain vision	R		I		1	0	0	0	1
	Plan demo	R		I		1	0	0	0	1
	Give demo	R		I		1	0	0	0	1
	Meet prospect for different DMUs	R		A; I		1	1	0	0	1
	Check budget	R		AI	A	1	2	0	0	1
	Make offer	R	C	A; I	A	1	2	0	1	1
	Sign contract	C			R; A	1	1	0	1	0
	Vertical analysis									
	#R	8	0	0	1					
	#A	0	0	3	3					
	#S	0	0	0	0					
	#C	1	1	0	0					
	#I	0	0	8	0					

Figure 41: RASCI matrix SA Puur (1)

	Tasks							**Horizontal analysis**				
Roles		*SA Puur*	*KT*	*Coach*	*Manager*	*PS*	*A (Puur)*	#R	#A	#S	#C	#I
	Contact company prospect	RA						1	1	0	0	0
	Adjust meeting with prospect	RA						1	1	0	0	0
	Explain vision	RA						1	1	0	0	0
	Plan demo	RA					C	1	1	0	1	0
	Give demo	R					RSC	2	0	1	1	0
	Meet prospect for different DMUs	RA						1	1	0	0	0
	Check budget	R			I			1	0	0	0	1
	Make offer	RA			I		C	1	1	0	1	1
	Sign contract	R			IA	S, I	S, I	1	1	2	0	3
	Vertical analysis											
	#R	9	0	0	0	0	1					
	#A	6	0	0	1	0	0					
	#S	0	0	0	0	1	2					
	#C	0	0	0	0	0	3					
	#I	0	0	0	3	1	1					

Figure 42: RASCI matrix SA Puur (2)

What can be noted from the two figures is that the respondents included different business actors for the execution of the tasks. In fact, SA 2 included also the advisor and product specialist of the client team as additional actors. What also can be noted is the amount of red cells in both responses. There are two possible explanations for this fact: either participants didn't understand the instructions given or either meant to indicate that no clear accountability has been assigned for a given task. To avoid the first case from happening, instructions with explanations on RASCI charting were provided to participants (including the rules of thumb by which a task should have at least one responsible role and preferably just one accountable), along with the possibility of contact for whenever a participant would have doubts on the questions answered; these actions reduce the chance of bias from the respondents, however, they don't completely prevent bias from taking place. Another thing that can be noted, is that very few consulted, informed and supporting actors are involved within tasks. This isn't necessarily a bad thing, however given that this study is focused on improving collaboration between departments, it can be argued that having more people informed could be also a potential improvement within the sales process.

The two matrices have been compared and integrated in Figure 43 below.

Integration of results										
	Tasks									
Roles		*SA Puur*	*KT*	*Coach*	*Manager*	*PS*	*A (Puur)*			
	Contact company prospect	RA		I						Common
	Adjust meeting with prospect	RA		I						1
	Explain vision	RA		I						2
	Plan demo	RA		I			C			
	Give demo	R		I			RSC			
	Meet prospect for different DMUs	R		AI						
	Check budget	R		AI	AI					
	Make offer	R	C	AI	AI		C			
	Sign contract	CR			RAI	SI	SI			
	Concordance on role reponsibility:									
	R	73%								
	A	0%								
	S	0%								
	C	0%								
	I	0%								
	Total	19%								

Figure 43: RASCI integration SA Puur

Within the figure, letters that have been assigned by both to the same person for the same task are marked in green. Other responses are marked in red for the first sales advisor and in blue for the second sales advisor.

Once all results had been integrated, the concordance of the respondents has been computed for each RASCI role; for example, the concordance ratio on the responsible role was calculated by dividing the number of green R's by the total number of R's. For the total concordance ratio, the number of green-marked letters has been divided by the total number of letters filled. From these computations, it can be concluded that the consulted sales advisors do roughly agree on who should execute the task (being the sales advisor in the majority of cases), but do not agree on who should be considered accountable, supporting, informed nor consulted, scoring a total of 19% concordance. Especially for the accountability this can be a problem, since it is a very important role is resource allocation.

Puur's advisors are involved in both implementation and after-implementation. Therefore, they have both been asked to fill two RASCI matrices. The results for the implementation results are given below in Figure 44 and Figure 45.

	Tasks						Horizontal analysis				
Roles		*A (Puur)*	*PS*	*KT*	*PO*		#R	#A	#S	#C	#I
	Inventarisation of current customer structure and processes (introduction)	RA	C	C	C		1	1	0	3	0
	Inventarisation of needed software functionalities (introduction)	RA	C				1	1	0	1	0
	Inventarisation of needed organizational change (introduction)	RA	S	CI			1	1	1	1	1
	Discuss planning with customer (implementation)	RA	S	CI			1	1	1	1	1
	Request customer dossiers (implementation)	RA	S	CI			1	1	1	1	1
	Forward dossiers to PO (implementation)	RA	S	CI	C		1	1	1	2	1
	Plan training organisation/healthcare supply (implementation)	RA		SCI			1	1	1	1	1
	Give training (implementation)	RA		SCI			1	1	1	1	1
	Deliver software (implementation)	A		SCI	R		1	1	1	1	1
	Evaluate first production with customer (implementation)	RA	SI	C			1	1	1	1	1
	Plan training software use (implementation)	RA		SCI			1	1	1	1	1
	Give training (implementation)	RA		SCI			1	1	1	1	1
	Discuss need for additional functionalities	RA	SI	C			1	1	1	1	1
	Inventarisation of customer knwoledge gaps (implementation)	RA	RA	SCI			2	2	1	1	1
	Inform PO about additional software features required (implementation)	R	ASI	C			1	1	1	1	1
	Receive system update (implementation)	RA	RA				2	2	0	0	0
	Inform customer (implementation)	RA	RA				2	2	0	0	0
	Vertical analysis										
	#R	16	3	0	1						
	#A	16	4	0	0						
	#S	0	7	6	0						
	#C	0	2	14	2						
	#I	0	3	10	0						

Figure 44:RASCI matrix A Puur (1)

	Tasks			Horizontal analysis				
Roles		A (Puur)		#R	#A	#S	#C	#I
	Inventarisation of current customer structure and processes (introduction)	R		1	0	0	0	0
	Inventarisation of needed software functionalities (introduction)	R		1	0	0	0	0
	Inventarisation of needed organizational change (introduction)	R		1	0	0	0	0
	Discuss planning with customer (implementation)	R		1	0	0	0	0
	Request customer dossiers (implementation)	R		1	0	0	0	0
	Forward dossiers to PO (implementation)	R		1	0	0	0	0
	Plan training organisation/healthcare supply (implementation)	A		0	1	0	0	0
	Give training (implementation)	RC		1	0	0	1	0
	Deliver software (implementation)	R		1	0	0	0	0
	Evaluate first production with customer (implementation)	R		1	0	0	0	0
	Plan training software use (implementation)	A		0	1	0	0	0
	Give training (implementation)	RC		1	0	0	1	0
	Discuss need for additional functionalities	R		1	0	0	0	0
	Inventarisation of customer knwoledge gaps (implementation)	R		1	0	0	0	0
	Inform PO about additional software features required (implementation)	R		1	0	0	0	0
	Receive system update (implementation)	I		0	0	0	0	1
	Inform customer (implementation)	R		1	0	0	0	0
	Vertical analysis							
	#R	14						
	#A	3						
	#S	0						
	#C	2						
	#I	1						

Figure 45: RASCI matrix A Puur (2)

An observation that immediately pops out is the almost complete absence of accountable people in the matrix of the second advisor. Moreover, for a couple of tasks the responsible role is absent. Another very evident result is again the big difference of actors involved within the process as seen by the two advisors. As one can already imagine, the mentioned aspects had a big impact on the results integration depicted in Figure 46.

Integration of results							
	Tasks						
Roles		*A (Puur)*	*PS*	*KT*	*PO*		
	Inventarisation of current customer structure and processes (introduction)	RA	C	C	C		Common
	Inventarisation of needed software functionalities (introduction)	RA	C				1
	Inventarisation of needed organizational change (introduction)	RA	S	CI			2
	Discuss planning with customer (implementation)	RA	S	CI			
	Request customer dossiers (implementation)	RA	S	CI			
	Forward dossiers to PO (implementation)	RA	S	CI	C		
	Plan training organisation/healthcare supply (implementation)	RA		SCI			
	Give training (implementation)	RAC					
	Deliver software (implementation)	RA		SCI	R		
	Evaluate first production with customer (implementation)	RA	SI	C			
	Plan training software use (implementation)	RA		SCI			
	Give training (implementation)	RAC		SCI			
	Discuss need for additional functionalities	RA	SI	C			
	Inventarisation of customer knwoledge gaps (implementation)	RA	RA	SCI			
	Inform PO about additional software features required (implementation)	R	ASI	C			
	Receive system update (implementation)	RAI	RA				
	Inform customer (implementation)	RA	RA				
	Concordance on role responsibility:						
	R	67%					
	A	5%					
	S	0%					
	C	0%					
	I	0%					
	Total	18%					

Figure 46: RASCI integration A Puur

As can be expected, the advisor executes the majority of tasks within the implementation. The respondents agree on 67% of the people responsible for task execution. A much lower concordance ratio is found when looking at the accountability; this mainly to be related to the fact that the second respondent has filled almost no A's. Regarding the other auxiliary roles, there is no such as concordance. This is motivated, as in the case of the A's, that other letters have not been filled by the second respondent. Again, it seems that the two advisors have a very different vision on the implementation process when it comes to resource assignment.

The individual results for the after-implementation process can be found in Figure 47 and Figure 48.

	Tasks					**Horizontal analysis**				
Roles		*A (Puur)*	*PS*	*KT*		#R	#A	#S	#C	#I
	Dicuss new possibilities with the customer (software update)	RAS	RAS	CI		2	2	2	1	1
	Inform customer about the new features/changes (software update)	RAS	RAS	CI		2	2	2	1	1
	Plan training with customer (software update)	RAS	RAS	CI		2	2	2	1	1
	Give training (software update)	A		RCIS		1	1	1	1	1
	Evaluate (software update)	RA		SCI		1	1	1	1	1
	Discuss current situation (organizational developments customer)	RA		SCI		1	1	1	1	1
	Inform SA (Plein) (organizational developments)			RASCI		1	1	1	1	1
	Inform SA (Puur) (upsales possibilities)			RASCI		1	1	1	1	1
	Give feedback to PO (stakeholdermeeting voor product development)	RASCI	RASCI			2	2	2	2	2
	Vertical analysis									
	#R	6	4	3						
	#A	7	4	2						
	#S	4	4	5						
	#C	1	1	8						
	#I	1	1	8						

Figure 47: RASCI matrix A Puur (3)

	Tasks			Horizontal analysis				
Roles		A (Puur)		#R	#A	#S	#C	#I
	Dicuss new possibilities with the customer (software update)	R		1	0	0	0	0
	Inform customer about the new features/changes (software update)	I		0	0	0	0	1
	Plan training with customer (software update)	A		0	1	0	0	0
	Give training (software update)	C		0	0	0	1	0
	Evaluate (software update)	R		1	0	0	0	0
	Discuss current situation (organizational developments customer)	R		1	0	0	0	0
	Inform SA (Plein) (organizational developments)	R		1	0	0	0	0
	Inform SA (Puur) (upsales possibilities)	R		1	0	0	0	0
	Give feedback to PO (stakeholdermeeting voor product development)	R		1	0	0	0	0
	Vertical analysis							
	#R	6						
	#A	1						
	#S	0						
	#C	1						
	#I	1						

Figure 48: RASCI matrix A Puur (4)

Similar observations as the ones made for the implementation can be made here. The actors involved are different, and the second response has a lot of red cells due to the absence of A's. Again, the second respondent filled very few C's, I's and S's. The integrated results are given in Figure 49.

Integration of results					
	Tasks				
Roles		*A (Puur)*	*PS*	*KT*	
	Dicuss new possibilities with the customer (software update)	RAS	RAS	CI	Common
	Inform customer about the new features/changes (software update)	RASI	RAS	CI	1
	Plan training with customer (software update)	RAS	RAS	CI	2
	Give training (software update)	AC		RCIS	
	Evaluate (software update)	RA		SCI	
	Discuss current situation (organizational developments customer)	RA		SCI	
	Inform SA (Plein) (organizational developments)	R		RASCI	
	Inform SA (Puur) (upsales possibilities)	R		RASCI	
	Give feedback to PO (stakeholdermeeting voor product development)	RASCI	RASCI		
	Concordance on role responsibility:				
	R	27%			
	A	8%			
	S	0%			
	C	0%			
	I	0%			
	Total	8%			

Figure 49: RASCI integration A Puur (2)

As can be observed, the advisors have generally a very different idea of the process, with lower concordance scores than for the implementation process.

In Figure 50 and Figure 51, the product specialists' results are given.

	Tasks							Horizontal analysis				
Roles		PS	PO	KT	A	Developers	security advisor	#R	#A	#S	#C	#I
	Inform customer (Support)	R;A						1	1	0	0	0
	Answer question (Discuss question with KT)	R;A		C;I				1	1	0	1	1
	Report to customer (Discuss question with KT)	RA			C			1	1	0	1	0
	Inform PO about problem (bug notification)	R;A	I					1	1	0	0	1
	Gather more information (bug notification)	R;A	I					1	1	0	0	1
	Send information to developers (bug notification)	R;A	I					1	1	0	0	1
	Keep customer posted (bug notification)	R;A						1	1	0	0	0
	Ask more information to PS (bug notification)	A;C	R					1	1	0	1	0
	Forward wishes to PO (discuss question with PO)	R;A	I					1	1	0	0	1
	Feedback to customer (dicuss question with PO)	R;A						1	1	0	0	0
	Give feedback to customer (discuss question with PO)	R;A	C					1	1	0	1	0
	Discuss releasedetails (participate to release meeting)	R;A						1	1	0	0	0
	Share information with customer (Participate to releasemeeting)	R;A		I				1	1	0	0	1
	Inform PO (report data leak/incident)	RA	CI					1	1	0	1	1
	Receive updates from PO (report data leak/incident)	A	R					1	1	0	0	0
	Report back to customer (report data leak/incident)	RA	C					1	1	0	1	0
	Inform developers (report data leak/incident)	A	R			I		1	1	0	0	1
	Receive updates from developers (reprt data leak/incident)	A	C			R		1	1	0	1	0
	Keep PS informed (report data leak/incident)	A	R					1	1	0	0	0
	Document incident (report data leak/incident)	RA	R				C	2	1	0	1	0
	Answer question (Support)	RA						1	1	0	0	0
	Write question down (support)	RA						1	1	0	0	0
	Inform customer question will be answered later (support)	RA			SC			1	1	1	1	0
	Vertical analysis:											
	#R	18	5	0	0	1	0					
	#A	23	0	0	0	0	0					
	#S	0	0	0	1	0	0					
	#C	1	4	1	2	0	1					
	#I	0	5	2	0	1	0					

Figure 50: RASCI matrix PS (1)

	Tasks							Horizontal analysis				
Roles		PS	PO	KT	Developer	A	Security advisor	#R	#A	#S	#C	#I
	Inform customer (Support)	R;A;C;I;S	C		C			1	1	1	3	1
	Answer question (Discuss question with KT)	R;A;I;S		C;I				1	1	1	1	2
	Report to customer (Discuss question with KT)	RS		ACI		RS		2	1	2	1	1
	Inform PO about problem (bug notification)	R;A;I;S	A;C;I;S					1	2	2	1	2
	Gather more information (bug notification)	R;A;C;I;S	C;I;S		C			1	1	2	3	2
	Send information to developers (bug notification)	R;A;C;I;S	A;C;I		C;I			1	2	1	3	3
	Keep customer posted (bug notification)	R;A;C;I;S	C;I		C;I			1	1	1	3	3
	Ask more information to PS (bug notification)	C;I	R;A;I;S		R;A;I;S			2	2	2	1	3
	Forward wishes to PO (discuss question with PO)	R;A;I;S	A;C;I					1	2	1	1	2
	Feedback to customer (dicuss question with PO)	R;A;I;S	A;C;I					1	2	1	1	2
	Give feedback to customer (discuss question with PO)	RAS	AC					1	2	1	1	0
	Discuss releasedetails (participate to release meeting)	I			R;A;C;I;S			1	1	1	1	2
	Share information with customer (Participate to releasemeeting)	R;A;C;I;S	A;C;S	I	C			1	2	2	3	2
	Inform PO (report data leak/incident)	RASCI	RASCI			RASCI	ASCI	3	4	4	4	4
	Receive updates from PO (report data leak/incident)	ASCI	RASCI			ASCI	ASCI	1	4	4	4	4
	Report back to customer (report data leak/incident)	RASCI	RASCI			RASCI	RASCI	4	4	4	4	4
	Inform developers (report data leak/incident)	RASCI	RASCI		CI	RASCI	RASCI	4	4	4	5	5
	Receive updates from developers (reprt data leak/incident)	ASCI	ASCI		R	ASCI	ASCI	1	4	4	4	4
	Keep PS informed (report data leak/incident)	RASCI	RASCI			RASCI	RASCI	4	4	4	4	4
	Document incident (report data leak/incident)	RASCI	RASCI			RASCI	RASCI	4	4	4	4	4
	Answer question (Support)	RASC	A			RA		2	3	1	1	0
	Write question down (support)	RASCI				RASCI		2	2	2	2	2
	Inform customer question will be answered later (support)	RASCI				RASCI		2	2	2	2	2
	Vertical analysis:											
	#R	19	7	0	3	9	4					
	#A	20	15	1	2	10	7					
	#S	21	11	0	2	10	7					
	#C	16	16	2	7	9	7					
	#I	20	14	3	5	9	7					

Figure 51: RASCI matrix PS (2)

In contrast to what observed so far, the two product specialists do include the same actors within their process. The second response shows a number of red-marked cells; in contrast to responses from other functions, this has to do with the fact that too many people are assigned to the role accountable and sometimes responsible. A significant difference in secondary roles such as C's and I's can be observed: for example, the first result shows the product owner being consulted in four tasks, while the second affirms the product owner is consulted within 16 tasks. The matrices have been integrated in Figure 52.

Integration of results									
	Tasks								
Roles		*PS*	*PO*	*KT*	*Developer*	*A*	*security advisor*		
	Inform customer (Support)	RACIS	C		C				Common
	Answer question (Discuss question with KT)	RAIS		CI					1
	Report to customer (Discuss question with KT)	RAS		ACI		CRS			2
	Inform PO about problem (bug notification)	RAIS	ACIS						
	Gather more information (bug notification)	RACIS	CIS		C				
	Send information to developers (bug notification)	RACIS	ACI		C				
	Keep customer posted (bug notification)	RACIS	CI		CI				
	Ask more information to PS (bug notification)	ACI	RAIS		RAIS				
	Forward wishes to PO (discuss question with PO)	RAIS	ACI						
	Feedback to customer (dicuss question with PO)	RAIS	ACI						
	Give feedback to customer (discuss question with PO)	RAS	AC		C				
	Discuss releasedetails (participate to release meeting)	RAI			RACIS				
	Share information with customer (Participate to releasemeeting)	RACIS	ACS	I	C				
	Inform PO (report data leak/incident)	RASCI	CIRA			RASCI	ASCI		
	Receive updates from PO (report data leak/incident)	ASCI	RASCI			ASCI	ASCI		
	Report back to customer (report data leak/incident)	RASCI	CRAS			RASCI	RASCI		
	Inform developers (report data leak/incident)	ARSCI	RASCI		IC	RASCI	RASCI		
	Receive updates from developers (reprt data leak/incident)	ASCI	CASI		R	ASCI	ASCI		
	Keep PS informed (report data leak/incident)	ARSCI	RASCI			RASCI	RASCI		
	Document incident (report data leak/incident)	RASCI	RASCI			RASCI	RASCI		
	Answer question (Support)	RASC	A			RA			
	Write question down (support)	RASCI				RASCI			
	Inform customer question will be answered later (support)	RASCI				SCRAI			
	Concordance on role responsibility:								
	R	51%							
	A	34%							
	S	2%							
	C	10%							
	I	13%							
	Total	21%							

Figure 52: RASCI integration PS Puur

What can be observed, is that the respondents agree for 51% on who should be executing the task. The concordance rate for the accountability is 34%, which is the best score so far, but either way still very low for such an important role. The concordance on secondary role is higher than for other functions, mainly due to the fact that the product specialists have filled more C's, I's and S's than other functions.

The results for the advisors at Plein are given below in Figure 53 and Figure 54.

	Tasks						**Horizontal analysis**				
Roles		*A (Plein)*	*PM*	*TC*	*SA (Plein)*	*SM*	#R	#A	#S	#C	#I
	Make appointment with customer (inventarisation)	R	A;C;I		C;S		1	1	1	2	1
	Collect information (inventarisation)	R;A		C;S			1	1	1	1	0
	Discuss information with TC (inventarisation)	R;A	C				1	1	0	1	0
	Determine data and applications for migration (inventarisation)	R	A;I				1	1	0	0	1
	Determine devices to be delivered (inventarisation)	R;A			C		1	1	0	1	0
	Discuss transition with customer (inventarisation)	R	A	S			1	1	1	0	0
	Plan training (training Plein)	R;A					1	1	0	0	0
	Give training (training Plein)	R;A					1	1	0	0	0
	Ask feedback (training Plein)	R;A					1	1	0	0	0
	Receive feedback (training Plein)	R;A					1	1	0	0	0
	Process feedback (training Plein)	R;A					1	1	0	0	0
	Determine Pleins to be designed (Plein design)	R	A	S			1	1	1	0	0
	Determine applications to be displayed in Plein (Plein design)	R	A	C			1	1	0	1	0
	Send forms for data migration (Prepare Google)	R		A;S			1	1	1	0	0
	Check forms for completeness (Prepare Google)	A		R			1	1	0	0	0
	Migrate data to Google (Prepare Google)	SI		R			1	0	1	0	1
	Design mobile management (Prepare Google)	SI		R			1	0	1	0	1
	Discuss with colleagues (support)	R	A	S;C		S	1	1	2	1	0
	Answer question (support)	R;A	C	C		R	2	1	0	2	0
	Vertical analysis										
	#R	16	0	3	0	1					
	#A	10	6	1	0	0					
	#S	2	0	5	1	1					
	#C	0	2	4	1	0					
	#I	2	2	0	0	0					

Figure 53: RASCI matrix A Plein (1)

	Tasks							Horizontal analysis				
Roles		A (Plein)	PM	TC	SA (Plein)	SM		#R	#A	#S	#C	#I
	Make appointment with customer (inventarisation)	R;C;S	A;I	C;I				1	1	1	2	2
	Collect information (inventarisation)	R;C;I;S	A					1	1	1	1	1
	Discuss information with TC (inventarisation)	R;A;C;S		I				1	1	1	1	1
	Determine data and applications for migration (inventarisation)	A;I;S		R;C				1	1	1	1	1
	Determine devices to be delivered (inventarisation)	R;C;I;S			A			1	1	1	1	1
	Discuss transition with customer (inventarisation)	C;I;S	R;A					1	1	1	1	1
	Plan training (training Plein)	R;A;S;C;I						1	1	1	1	1
	Give training (training Plein)	R;A;S;C;I						1	1	1	1	1
	Ask feedback (training Plein)	R;A;S;C;I						1	1	1	1	1
	Receive feedback (training Plein)	R;A;S;C;I						1	1	1	1	1
	Process feedback (training Plein)	R;A;S;C;I						1	1	1	1	1
	Determine Pleins to be designed (Plein design)	R;I;S	A	C				1	1	1	1	1
	Determine applications to be displayed in Plein (Plein design)	R;I;S	A	C				1	1	1	1	1
	Send forms for data migration (Prepare Google)	A;C;I;S		R;A;C				1	2	1	2	1
	Check forms for completeness (Prepare Google)	A;C;I;S		R;A;C				1	2	1	2	1
	Migrate data to Google (Prepare Google)	ASI		RC				1	1	1	1	1
	Design mobile management (Prepare Google)	ASI		RC				1	1	1	1	1
	Discuss with colleagues (support)	R;A;C				I;S		1	1	1	1	1
	Answer question (support)	A				R;C;I;S		1	1	1	1	1
	Vertical analysis											
	#R	12	1	5	0	1						
	#A	13	5	2	1	0						
	#S	17	0	0	0	2						
	#C	13	0	8	0	1						
	#I	15	1	2	0	2						

Figure 54: RASCI matrix A Plein (2)

From the results of Figure 53 and Figure 54, it can be observed that almost each task has an appropriate amount of responsible and accountable employees. The business actors involved by the advisors are the same; the second response has more I's, C's and S's than the first one, but this is something that has already been observed in the previous matrices, and therefore is not exceptional. The integrated results are found below in Figure 55.

Integration of the results								
	Tasks							
Roles		*A (Plein)*	*PM*	*TC*	*SA (Plein)*	*SM*		
	Make appointment with customer (inventarisation)	RCS	AIC	CI	CS			Common
	Collect information (inventarisation)	RACIS	A	CS				1
	Discuss information with TC (inventarisation)	RACS	C	I				2
	Determine data and applications for migration (inventarisation)	RAIS	AI	RC				
	Determine devices to be delivered (inventarisation)	RACIS			CA			
	Discuss transition with customer (inventarisation)	RCIS	RA	S				
	Plan training (training Plein)	RASCI						
	Give training (training Plein)	RASCI						
	Ask feedback (training Plein)	RASCI						
	Receive feedback (training Plein)	RASCI						
	Process feedback (training Plein)	RASCI						
	Determine Pleins to be designed (Plein design)	RIS	A	SC				
	Determine applications to be displayed in Plein (Plein design)	RIS	A	C				
	Send forms for data migration (Prepare Google)	RACIS		ASRC				
	Check forms for completeness (Prepare Google)	ACIS		RAC				
	Migrate data to Google (Prepare Google)	SIA		RC				
	Design mobile management (Prepare Google)	SIA		RC				
	Discuss with colleagues (support)	RAC	A	SC		SI		
	Answer question (support)	AR	C	C		RCIS		
	Concordance on role responsibility:							
	R	70%						
	A	48%						
	S	12%						
	C	0%						
	I	14%						
	Total	27%						

Figure 55: RASCI integration A Plein

As can be noted from Figure 55, the advisors at Plein agree mostly on who should perform tasks; for what concerns accountability, their concordance rate is 48%, which is the highest concordance score concerning the A's of all results, yet too low given the importance of this role within business

execution. In general, alike the results obtained so far, the concordance of these respondents with the same function is low.

Finally, a RASCI matrix has been filled for the sales process at Plein. This matrix is however of little interest for the remainder of the section, since it has been filled by just one employee and therefore could not be compared with another matrix.

Summarizing, it has been observed that, overall, in the majority of cases participants with the same function (and therefore involved in the same process) roughly agree on who should be executing the tasks within the process. Nonetheless, there seems to be a lot of unclarity on who should be held accountable for the completion of a task: this is something that could be a problem, especially when things go wrong. The remaining roles are the ones on which participants agreed the least: this is however partly to motivate with the fact that these are generally less determinant roles than the responsible and accountable ones and so leave more room for interpretation. Overall, it can be concluded that process task responsibilities seem not to be clear to process actors.

In the next section, the findings obtained so far are summarised and the current scenario is sketched.

4.4: Findings

Having analysed the results obtained with the RASCI matrices, the findings from sections 4.1, 4.2 and 4.3 are summarised in this section. The current scenario is described, and based on it an improved scenario is proposed. Finally, the two are compared and focus points for a solution proposal are formulated.

From the analyses performed in 4.1 , 4.2 and 4.3, the following has been discovered:

- *Similar processes are being performed separately by Puur and Plein, showing overlap in the majority of executed tasks:*
  Sales, implementation, account management and support are all processes that are executed at both departments in a very similar way, with comparable tasks and outcomes. The fact these are being currently executed in a majorly separate fashion, has as result that several tasks that could be performed jointly at the same time, or that could eventually be skipped whenever departments would actively share customer information with each other, are now doubly performed, making the process inefficient. The latter aspect (information sharing) has been taken into account within the design of the To-Be business process model, as this belongs to the research's focus point, namely collaboration. The possible joint execution of similar tasks is discussed in more detail in section 5.1.3 and chapter 7, as it offers a starting point for further research.
- *Collaboration between Puur and Plein is ad-hoc:*
  Collaboration, which can be defined in terms of joint work, planning, information sharing, communication, etc. is currently purely based on individual initiative. At the moment, the process isn't explicitly designed for joint planning (i.e. formalizing groups, roles and responsibilities), process actors are only partly aware of the processes the departments entail together with the involved business actors, and projects that share a common customer are not (systematically) coordinated.
- *There is a gap between the perceived levels of interdepartmental communication, coordination, awareness and information sharing and their perceived relevance:*
  As a result of the analysis performed in 4.2, it has been observed that in general, there is a gap between the current level of collaboration and its desired level. Moreover, no one of the

domains used to assess the current interdepartmental collaboration has been graded with a sufficient grade (i.e. 6/10 or higher).

- *Participants agree on the need for collaboration improvement:*
  On average, to the statement claiming collaboration between Puur and Plein should be improved, participants reacted with "agree".
- *Responsibilities for the execution of tasks within the examined processes are not clear to the business actors involved:*
  As shown in 4.3, employees with the same role do not always agree on who should execute tasks, and generally disagree on who is accountable and should be involved within task execution.

Altogether, these findings give a current scenario of collaboration within Ecare of the Puur and Plein departments. To set goals to be reached for better collaboration, and thus proposing an improved scenario, guidelines from the CollabMM maturity model are used.

As described, the current interdepartmental collaboration belongs to the lowest level, the ad-hoc level. In order to determine the target collaboration level Ecare wishes to reach, the same two employees from 4.1.2 have been consulted to discuss which level would be required and feasible. From the discussion, it has been concluded the target level to reach is the reflexive level, i.e. the highest CollabMM collaboration level.

To achieve this level, requirements of the other levels need to be met as well (Magdaleno, A.M., 2009). Starting from the situation Puur and Plein currently are in, the next highest collaboration scenario would be the planned level. This level has multiple requirements; the first one is planning for collaboration: this comprises formalising groups, roles, and responsibilities and defining appropriate communication channels among group members. Moreover, coordination is another aspect that is required by the maturity level. The role of a coordinator is needed in the process to centralise and manage activities, and to foster commitment, encouraging members to accomplish their goals, assigning responsibilities, planning group work (Magdaleno, A.M., 2008).

The next step is to achieve the aware level. Within the aware level, the most important characteristic is self-monitoring. Groups members are aware of their tasks and their responsibilities and how activities are related with others to perform these objectives. Additionally, processes at this level consider explicitly a shared knowledge repository for storing group artefacts. Process participants are aware of this repository and know they must contribute to it (Magdaleno, A.M., et al, 2008). Finally, for the reflexive level, processes are designed to provide self-understanding: considering communication, processes must be formally concluded and their results communicated. Lessons learned can be captured, and ideas for future improvements formulated and collected (Magdaleno, A.M., et al, 2008).

The current and desired situation have been defined, together with the gap (requirements) between the two.

4.5: Chapter summary

In this chapter, data gathered throughout the Delphi study described in chapter 3 has been analysed. Three major data types have been analysed: the As-Is model, the experts' opinions on the current collaboration domains and the resource allocation within the RASCI matrices. From the analysis of the As-Is model, it can be observed that Puur and Plein execute similar processes with similar activities. These are currently executed separately by the business actors at the two departments; when done so for a shared customer, it can be seen that these activities become overlapping. For

example, at both departments information on the customer's organisational structure is collected by an advisor during the implementation. Whenever a customer is being implemented by both departments, this type of information is not shared; consequently, Ecare gathers the same type of information doubly (by the Puur advisor and the Plein advisor). Therefore, this overlap makes the process inefficient. When looking at the collaboration maturity level of the business processes, it can be observed that very few collaborative activities are in place. From both the model and questions asked to key stakeholders at the two departments, it becomes clear collaboration in the processes at Puur and Plein is ad-hoc: collaboration solely takes place as a consequence of individual insights and initiative.

When looking at the experts' opinion on the current situation in terms of collaboration, a gap is evident between its current and desired level. For each of the collaboration domains presented (communication, coordination, awareness, memory), participants indicated a higher level for each domain is needed than there currently is in place. Scores assigned to the domains are not higher than a 6/10. To the statement inquiring whether an improvement is needed in terms of collaboration between departments, experts agreed.

Another aspect that adds up to the findings on collaboration so far, is the unclarity concerning responsibilities within the execution of process tasks. This has been evidenced by the results of the RASCI matrices filled by participants with the same company role; when comparing the results, overall, the responsibilities and people allocated to a certain task differed significantly. From this, it can be concluded that there aren't clear agreements in place regarding how a business task should be executed and who should be involved. This undermines interdepartmental collaboration, as misunderstandings may occur as a consequence of this unclarity.

Given the mentioned findings, a general situation of the interdepartmental collaboration has been sketched. Together with two company stakeholders, the target level of collaboration maturity for Ecare has been set; Ecare aims to reach the reflexive level, i.e. the highest collaboration maturity level. To do so, aspects like active communication between departments, information sharing, defining joint planning of activities, evaluating together processes for improvement need to be integrated into the business processes of Puur and Plein.

In the next chapter, a solution is designed and proposed to improve the current situation and thus to reach the target collaboration maturity. This is done, among others, by designing a To-Be business process model.

Chapter 5: Proposed solution

In this chapter, the considerations made in 4.4 are translated into a proposed solution. As had been explained within chapter 1, part of the solution proposed is the design of a To-Be business process model that describes how the current business processes can be improved. This is discussed in detail in the first part of this chapter. In the second part, the remaining parts of the solution proposal are discussed. Finally, the chapter is summarised in section 5.3.

5.1: Design of the To-Be business process model

Within this part, the business process model representing an improved business scenario for Ecare is discussed. First, considerations made for the design of the To-Be model are briefly discussed in section 5.1.1. Next, the To-Be model is presented and discussed.

5.1.1: Exploration of potential business process merging

Within section 2.3.2, the research question on how to design a To-Be business process model had been answered by identifying the CollabMM maturity model as framework. As explained, the CollabMM has been tailored to the practice of process modelling and is therefore considered as a good method to address the research topic. Nevertheless, after the As-Is model had been analysed, additional ways to design the To-Be model have been considered as well.

As discussed in chapter 4, several tasks within similar business processes at Puur and Plein are overlapping when executed separately for the same customer. From this observation the possibility of merging parts of the business processes of the two departments for common/similar activities has been considered. As a consequence, approaches to merge business process models have been researched.

Literature found on this topic proposes contextually similar approaches: models should be converted into either graphs or any type of workflow language; then, activities would be analysed for similarity and combined into one common graph/workflow. Redundant elements would be eliminated following a merging algorithm and a new model would be obtained as result (La Rosa, M., et al, 2010), (Sebu, M. L., Ciocârlie, H., 2015), (Kunchala, J., Yu, J., Yongchareon, S. et al., 2019) .

Among these sources, the approach proposed by Sebu and Ciocârlie (2015) seemed to be potentially the most interesting given its relative simplicity. Their work proposes an approach for merging business processes into a common workflow in order to promote an interorganizational collaborative scenario. Within this approach, the two business process models would first have to be translated into direct graph elements: here each node present in the original model is translated into a graphing element describing the node type (activity, event, join/split) and its modelling purpose. Then, a common graph would be constructed: this is a graph with nodes and corresponding edges that are shared by the two input process models. In order to establish which nodes can be considered as common, these are compared for semantic similarity. Nodes with a high similarity score are considered to be common, and are mapped into the common graph. Then, the graph is filled with all remaining, non-common nodes and edges. Edges receive a score, based on the number of graphs containing that edge. Once this is done, redundant edges are removed using an algorithm; the obtained graph is then translated back into a business process model, obtaining a unified model for two (or more processes) (Sebu, M. L., Ciocârlie, H., 2015).

Even though this is an interesting approach, as it offers the possibility to merge two business process models in a very systematic and relatively simple way, this is something that cannot be applied (yet) to the current scenario: the approach is in fact designed to unify business activities considering one common customer (the examples provided by all named works are business processes with a

supplier-buyer relationship). As the two departments still have their own customers, for which a unified business process of the other department would be of little sense, they still need to have a separate, department-specific business process for that particular customer type. The latter approach becomes interesting for Ecare as they move towards more shared customers of the two departments. Hence, whenever in the future the Puur and Plein products would be exclusively sold together, then the merging of two business processes for a common workflow would actually make sense. This consideration is discussed further in chapter 7.

Nevertheless, the consideration of having either one of the two departments performing tasks like gathering information at the customer has been considered. This has been discussed with Ecare: more information is given in section 5.1.3.

Given the above considerations, it has been chosen to use the CollabMM maturity model to design the To-Be model, as originally planned.

In the next section, the design of the To-Be business process model is discussed.

5.1.2: To-Be business process model

In this section, the designed To-Be BPMN model is discussed. For the improvement of the current scenario, guidelines proposed by the CollabMM maturity model were followed. As already discussed, the current collaboration maturity level is ad-hoc, while the set target level is reflexive. To reach the latter, the following aspects need to be designed in the business processes:

- Common planning, including formalization of groups, roles and responsibilities
- Coordination
- Monitoring of the collaboration activities
- Information sharing with active communication and storing knowledge in a common repository
- Evaluation practices for continuous improvement

For the design, first similar processes of the two departments have been taken into consideration. Next, the named aspects have been translated into the introduction of new activities and eventually business actors.

In Figure 56, Figure 57, Figure 58, Figure 59 and Figure 60 the To-Be business process model is given. For the sake of clarity, the model has been split in the figures for each modelled process. First, in Figure 56, the sales process is modelled, with the Puur department in the upper part of the model and Plein in the lower part. Next, the implementation process has been modelled in Figure 57, where for the Plein department the assessment, Plein development, Google preparation and training processes have been grouped together into the implementation process. In Figure 58, the account management process is represented; in Figure 59, the support process and finally, in Figure 60 the subprocesses called within the diagrams for the Puur department are given. Please note that the subprocesses haven’t been modified.

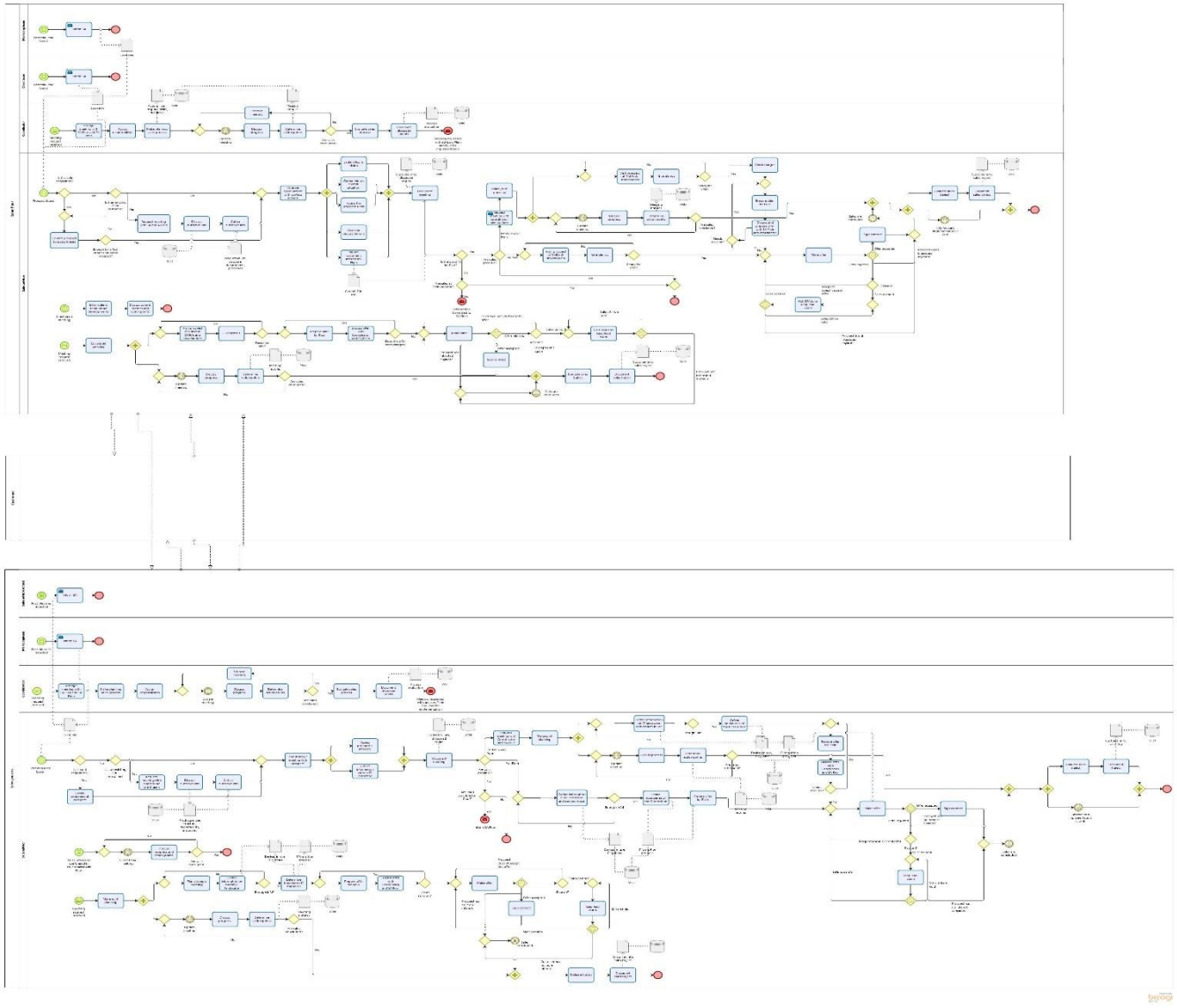


Figure 56: To-Be business process model (sales)

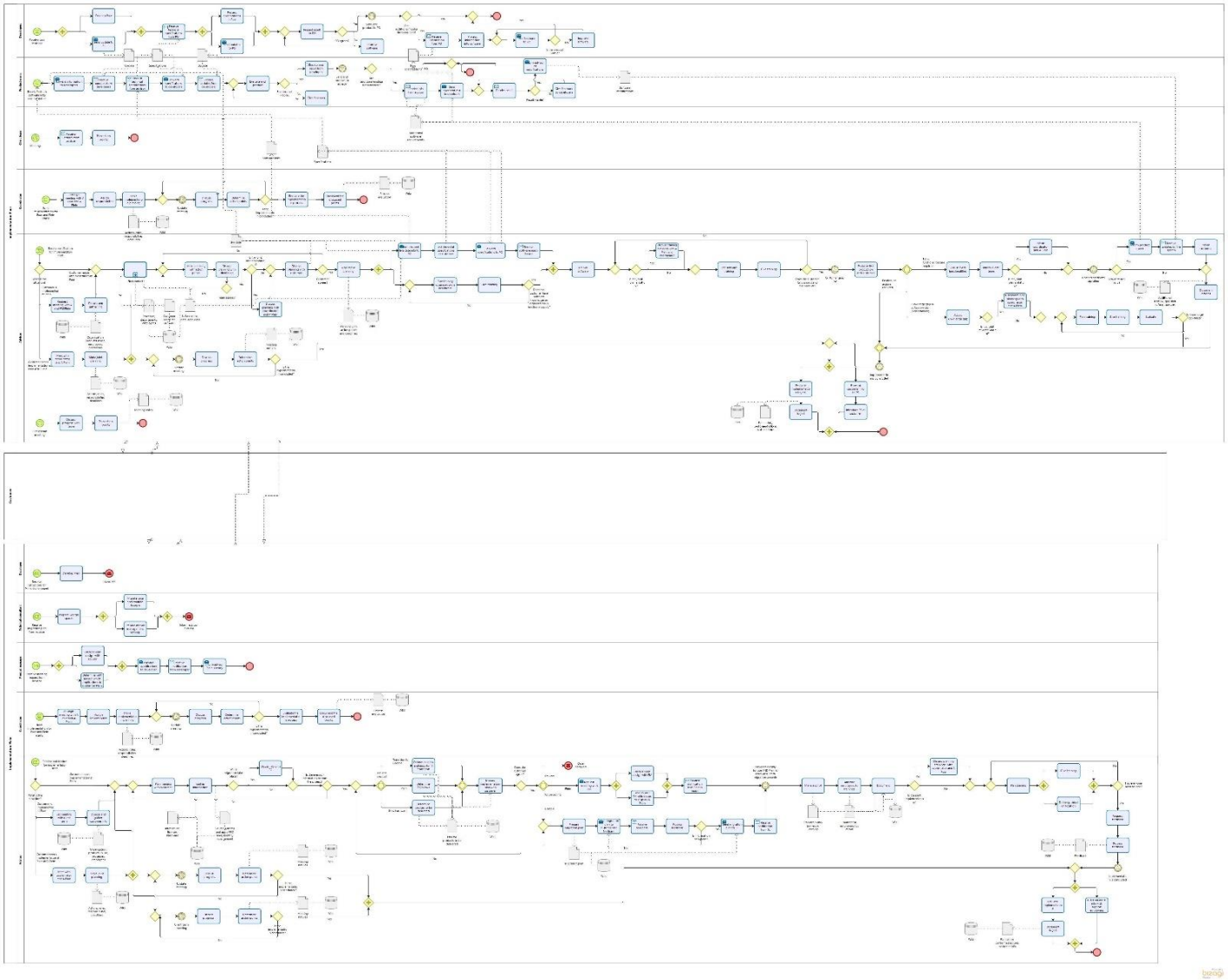


Figure 57: To-Be business process model (implementation)

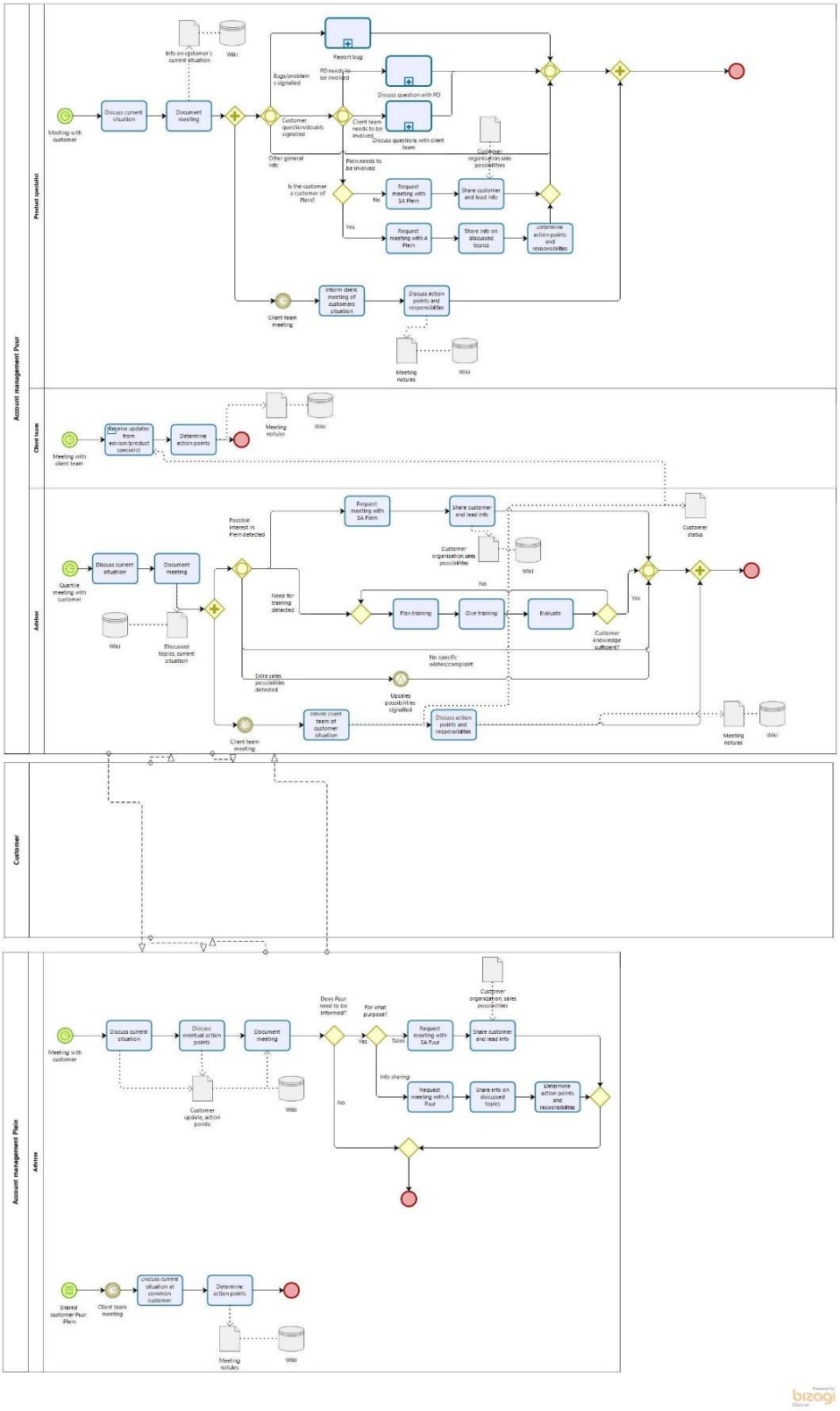


Figure 58: To-Be business process model (account management)

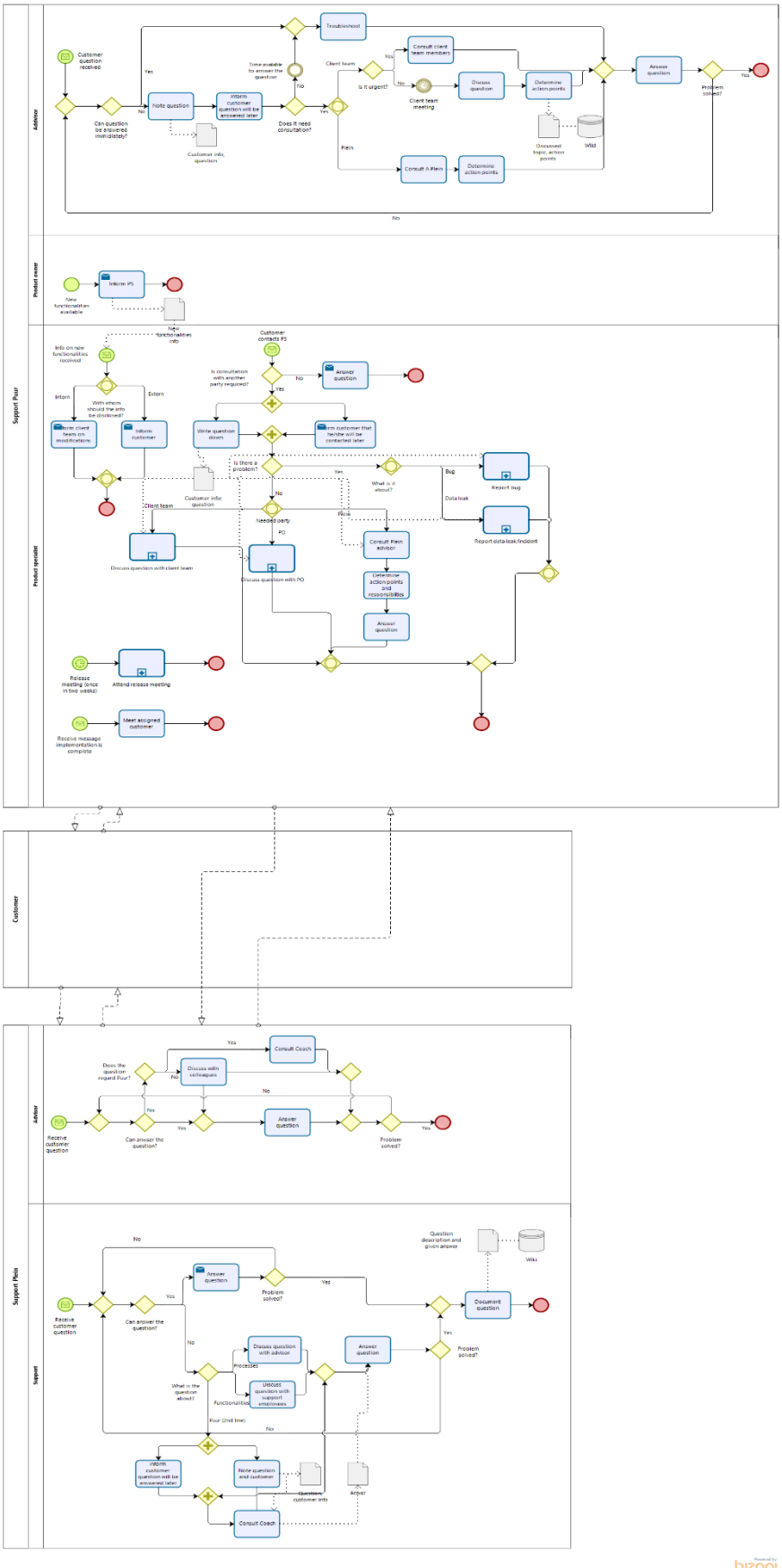


Figure 59: To-Be business process model (support)

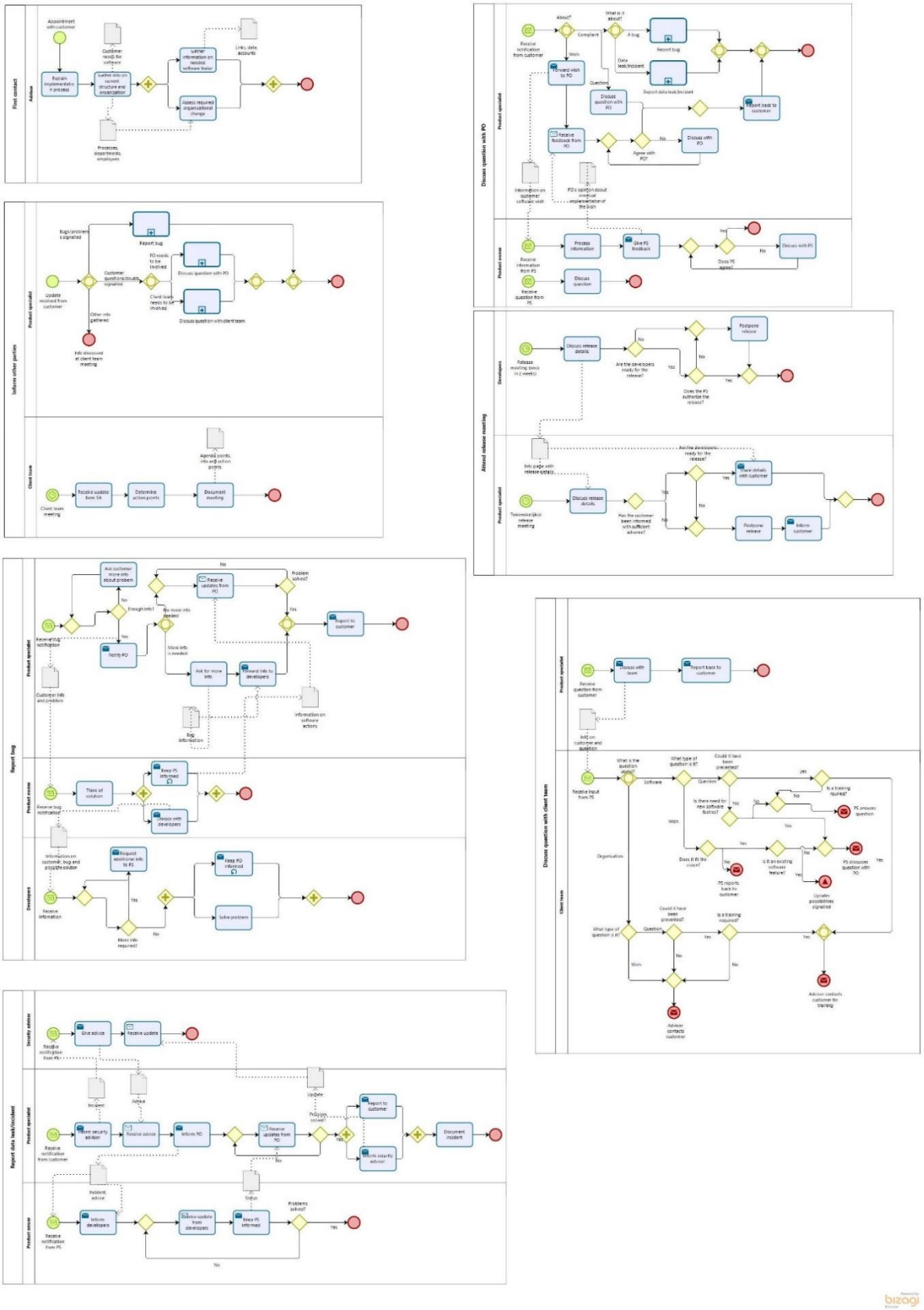


Figure 60: To-Be business process model (suprocesses Puur)

Below, a summary of the major changes in the departments' business processes is given.

In the sales process, three scenarios have been distinguished: (i) the process is started and executed for a new prospect; this prospect is only interested in the products offered by the department for which the process is started. In this case, the process is executed separately; however, a series of activities for documenting information gathered throughout the process and storing the documented information in a common database (for example, Ecare's intranet) have been added. This because certain information types (e.g. general customer information, the number of customer's locations, employees, departments, general IT organisation) can be used by the other department whenever in the future the customer would decide to buy their products. In addition, activities for evaluating the process and documenting the evaluation points have been added as well. Examples of these additions in the To-Be model are depicted below in Figure 61 and Figure 62.

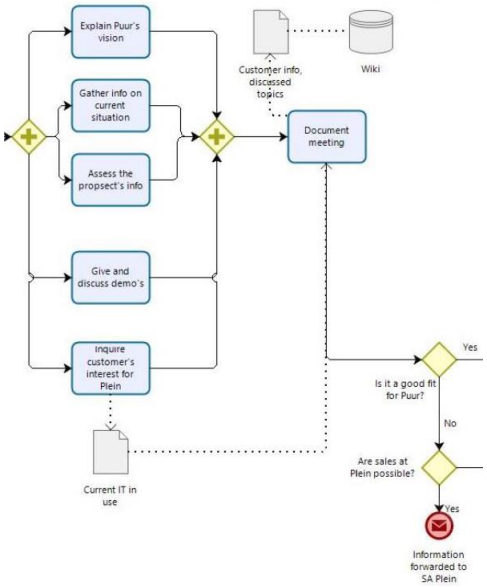


Figure 61: Detail of the To-Be model (documentation)

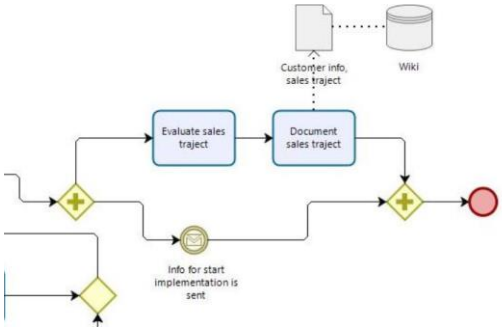


Figure 62: Detail of the To-Be model (evaluation)

In the second scenario (ii), the sales process for a prospect who is already customer of the other department is started. In this case, prior to contacting the customer, the sales advisor in question needs to consult the sales advisor and advisor of the other department who respectively have conducted the sales and implementation for that prospect. Here, the information stored in the first scenario (i.e. general customer information, departments, processes, etc) is gathered and documentation in the common repository needs to be consulted as well. This is an improvement with regards of the previous scenario, as having gathered this information in advance can significantly reduce the execution time of activities in which the same type of information is ought to

be gathered. This addition is depicted in the example in Figure 63. Similarly to the previous scenario, evaluation activities have been explicitly included in the model.

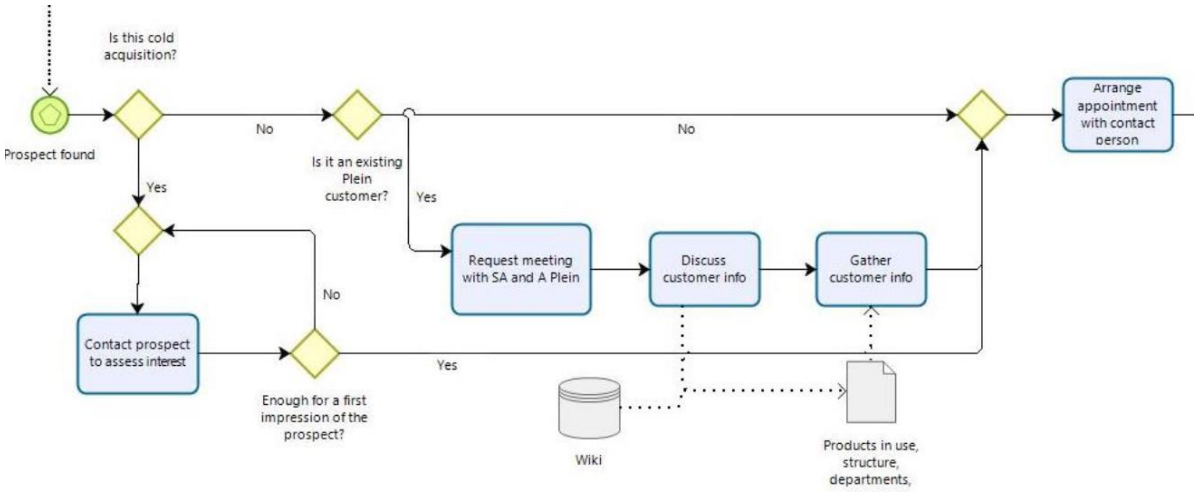


Figure 63: Detail of the To-Be model (information sharing)

The third case is where a new prospect starts the sales process at either one of the two parts, and it turns out being interested in acquiring both departments' products (iii). For this particular case, a new business actor has been introduced, namely a coordinator. Whenever a sales advisor detects the prospect is interested in both, he/she requests a meeting with the other sales advisor and a coordinator. Within this meeting, a common planning is discussed: here, action points are defined and responsibilities for the action points are clearly assigned. Then, a next meeting is set. The three actors should meet with regularity to discuss the progress of sales and determine new action points. The coordinator can in this way monitor the progress of the process and prevent miscommunication. Action points, planning and discussed topics during this meeting should be documented and stored in a common repository: ideally, the coordinator would do this. The update meetings take place until the sales are concluded (i.e. either sales are made or the prospect retreats). At the end of the process, a joint meeting should be held to evaluate the collaboration within the process and set learning points for the next project. These details are depicted below. First, in Figure 64, the sales advisor of either one of the two departments (Puur in the depicted detail view) requests a meeting with the coordinator; in Figure 65 the actions for common planning and monitoring of the process performed by the coordinator are depicted.

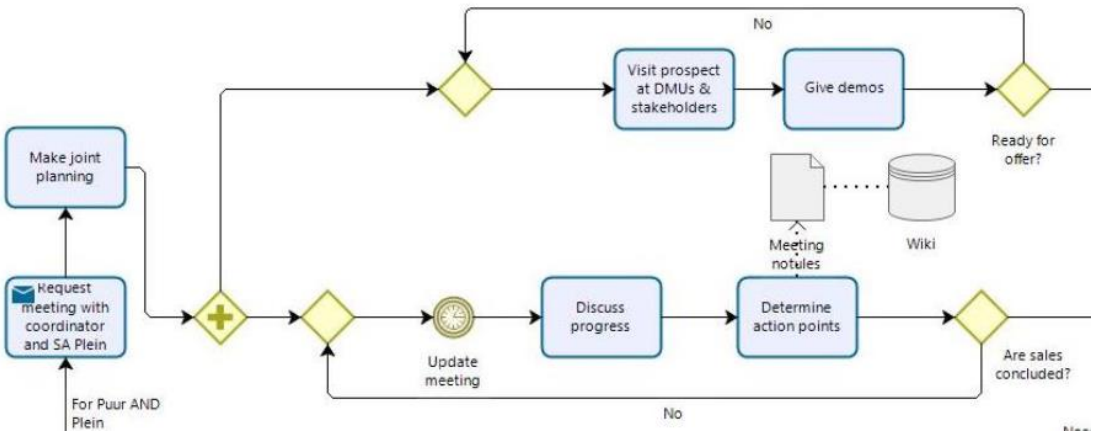


Figure 64: Detail of the To-Be model (request meeting with coordinator)

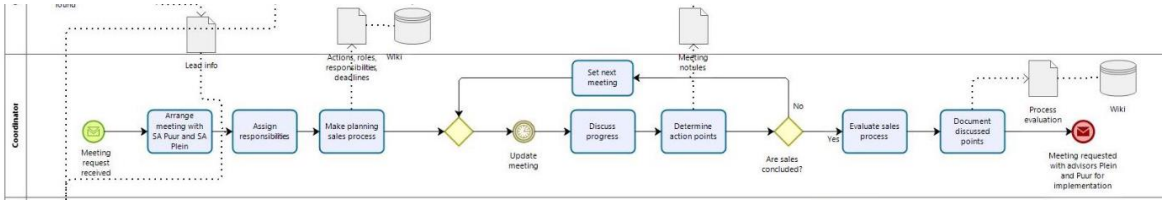


Figure 65: Detail of the To-Be model (coordinator role)

Once the process is evaluated, the implementation is started. Within the implementation process, three similar scenarios are distinguished. In the case of a new customer for Ecare, it is important information is well documented and stored in the common repository. In case the customer to be implemented is an existing customer of the other department, advisors doing the account management at the customer need to be consulted prior to the start of the other implementation activities (similarly to what depicted in Figure 63). In case the implementation needs to be performed by the two departments at the same time, the same coordinator that monitored the sales process requests a meeting with the two advisors. Similarly to the sales process, a shared planning and clear responsibility assignment should be made, and the business actors should meet for updates with regularity (similarly to the addictions to the sales process as depicted in Figure 65). Moreover, whenever one of the advisors plans a training at the customer, this should be done in concordance with the coordinator and other advisor. Similarly to sales, relevant information within the process is ought to be documented and published on the company's intranet, and once the joint implementation is concluded, the collaboration should be evaluated and lessons learned noted.

Within the account management for Puur, both meetings that are regularly held at the customer by the advisor and the product specialist have been modelled together. As already explained, both perform account management, whereas the product specialist does it from the software perspective and the advisor from the organisational perspective. At Plein, account management is performed by an advisor. At both sides, whenever matters that are related to the other department emerge during a meeting with the client, the actor is then responsible for requesting a meeting and sharing information with the relevant colleague of the other department, being it a sales advisor in case of sales-related topics or an advisor for other things. An example is depicted in Figure 66, where the business actor is a product specialist at Puur; in case ongoing matters have been detected that involve the Plein department, the PS should request a meeting with an advisor of Plein or with a sales advisor in case a potential lead has been detected.

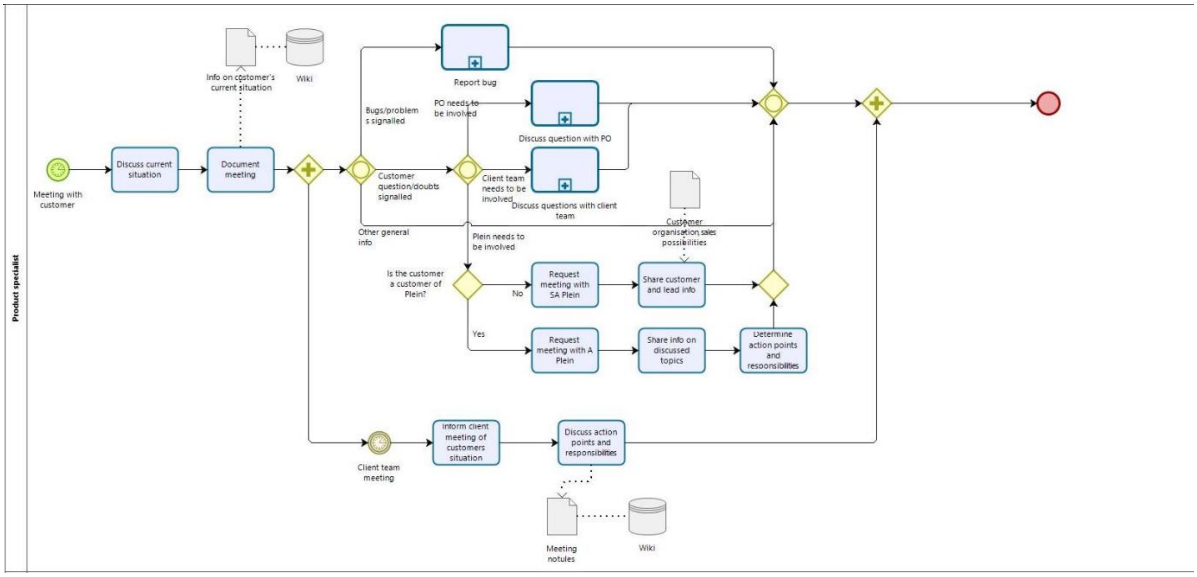


Figure 66: Detail of the To-Be model (information sharing in account management)

For common customers, it has been proposed in the model to have the involved advisor or sales advisor from Plein participating into the client team meetings (see Figure 67) , as this has been considered an almost effortless way to promote information sharing. For the sales advisor at Plein, this would happen for the duration of the sales process for a shared customer, while for an advisor, this would be the case either during the implementation, account management or both.

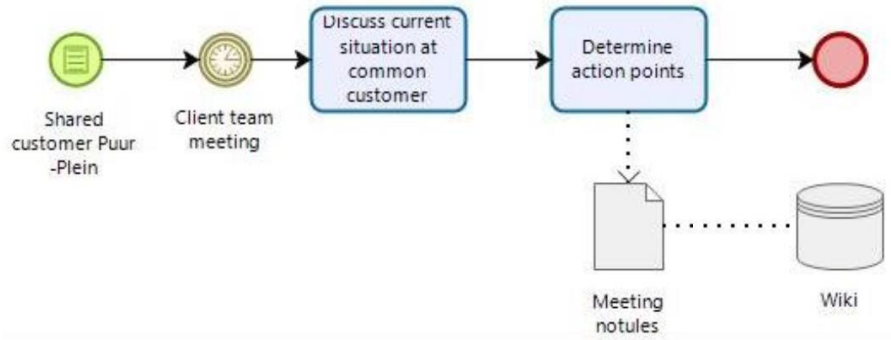


Figure 67: Detail of To-Be model (Plein to client team meetings)

Given that the client teams meet on average twice a month, and that for joint sales and implementation the involved people would also have to meet with the coordinator, it is suggested for the Plein employee in question to attend the client team meeting once a month; as well as the update meeting with the coordinator to take place once monthly. These are suggestions but the employees are free to choose another meeting frequency, as long as these meetings are planned and take place regularly.

Within the support process, less evident modifications have been applied. On the Puur side, if questions are received that fall more within the IT domain and thus more within Plein, the product specialist/advisor receiving the question should consult the responsible Plein advisor, determine action points and then get back to the customer with an answer to the question. Please note that telling the customer an advisor from Plein will contact him/her to be of further assistance is also an answer. At the Plein side of support, a similar procedure should be started whenever a question is received that regards Puur; in this case however, the question could be answered by either a

product specialist or an advisor, depending on the question. Given the limited knowledge of the product Puur, an advisor may have difficulty in assessing who can be consulted best. To overcome this, the questions should be asked to the coach, who can in the best case either answer the question him/herself or in any case direct the advisor to the right person (refer to Figure 68).

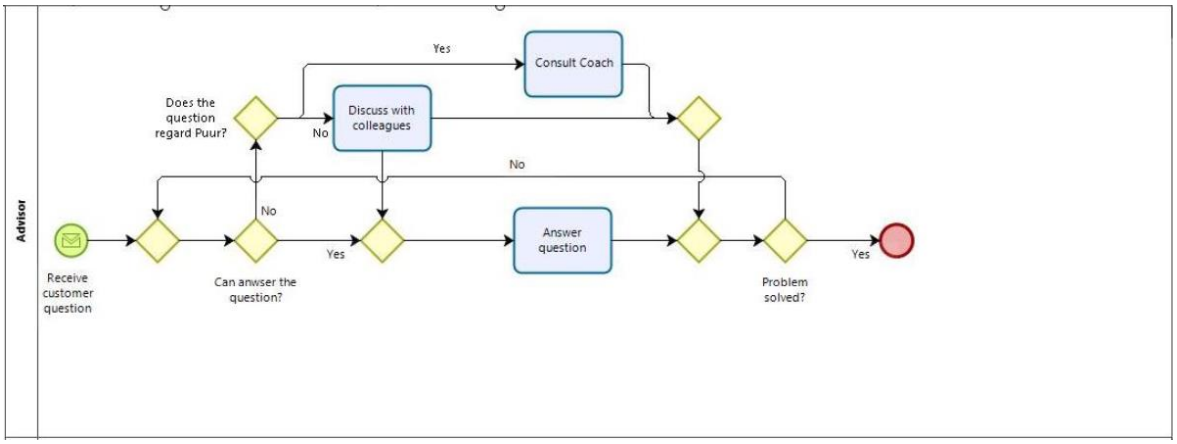


Figure 68: Detail of To-Be model (support consult Coach)

As no changes have been applied to the subprocesses, these are not further discussed.

Besides what has been discussed so far, there are two points that need to be mentioned with regards to the To-Be model. First of all, the fact a new business process actor has been included (i.e. the coordinator), doesn't imply a new function should be created nor that new employees should be hired. In fact, intuitively the actions performed by the coordinator in the To-Be scenario could be executed best by the client team coach or/and by the product manager, as both have a good overview of the two departments in general and already have similar responsibilities within their own departments.

Another thing that needs to be agreed on are which information types should be stored where in the repository, as participants shouldn't only be able to access the information they need but also to find it. As has been understood by (informally) speaking to various employees, a common repository is currently is use; however, agreements on what type of documentation should be stored in the repository and where are yet to be made. It is important to do so, as this is a necessary thing for the domain of information sharing, according to the CollabMM (Magdaleno, A. M., 2009).

In the next section, a brief discussion on the proposed To-Be model is given.

5.1.3: Discussion on the To-Be model

The above-mentioned aspects have been included in the To-Be model in order to elevate the current collaboration level of Puur and Plein from the ad-hoc level to the reflexive level. The inclusion of activities for common planning, revision of planning and the inclusion of a coordinator ensure the business processes comply with the CollabMM planned level. The explicit documentation of information and storage into a common repository, together with the modelled update meetings with the coordinator elevate collaboration to the aware level; finally, the evaluation of collaborative projects ensures collaboration between the departments complies with the reflexive level.

Therefore, the proposed To-Be business scenario improves collaboration for the Puur and Plein departments; the implementation of the processes as depicted in it represent therefore a solution to the core problem.

Even though the model represents an improvement in collaboration for the two departments, the modelled processes are not efficient yet. As observed in chapter 4, there is a number of tasks with high similarity that are executed at both departments. These are tasks that, when performing a process jointly for a shared customer, could be performed by either one of the two departments, avoiding overlap within the process. Gathering information at the customer could be taken as example of this kind of tasks. Whenever one of the two parties would be appointed as contact reference for the customer, and therefore become responsible of gathering information that is needed by both departments and sharing it internally, the other party wouldn't need to perform the information gathering tasks, saving the involved business actor time and accelerating the execution of the process. This would ultimately save Ecare money.

Therefore, the possibility of having just one of the two departments doing the data gathering whenever a project has to be done jointly has been investigated. Two company employees have been consulted (the same ones mentioned for the evaluation of the collaboration maturity level and setting the target level); both of them agreed on the fact that this is currently not possible. In fact, they argue employees at the two departments currently have too little knowledge of each other's product, and therefore wouldn't be able to perform such information gathering as the information needed is still very product-specific. This is also confirmed by the data and generally by the insights that had been gathered throughout the research. They both agreed that, to move towards such scenario, employees at both sides would need to be trained first.

It has been considered to make an additional model, representing an ideal situation where tasks like the ones mentioned would be executed by just one person. However, it has been decided not to do so, as the term "ideal situation" might be misleading. In fact, whereas intuitively it would be ideal to eliminate tasks that are executed doubly by the two departments for a same customer, there isn't sufficient information available to assess whether the cost savings from the proposed interventions would outweigh the costs of training the personnel, as this might also be a long and costly process.

Given the little information available, and the fact this exceeds the scope of this research, it is advisable for Ecare to research this further, as it might be an interesting step not only to improve collaboration further but also to optimize their processes. To undertake this, Ecare should start looking at tasks that present overlap; the To-Be model can be used for this first step.

In the next section, other parts belonging to the proposed solution are discussed.

5.2: Responsibility and awareness

Whereas the To-Be business process model can be taken as blueprint for redesigning Ecare's processes to improve collaboration, two more aspects highlighted by the analysis in chapter 4 still need to be tackled, namely the unclear role definition highlighted by the results of the RASCI matrices and the perceived gap by participants in awareness of the other department's business processes and business actors.

To tackle the first aspect, one intuitive solution would be the formalization of roles using the same RASCI matrices that have been used during the third and fourth Delphi round. The reason for using RASCI are multiple; it is a fairly simple and intuitive method to assign responsibilities, it gives clear guidelines on how responsibility types for a task should be assigned, it helps spotting eventual problems within resource allocation to tasks when using vertical and horizontal analysis, and finally, it is costless and a lot of literature on RASCI can be found.

Given the fact that the results showed discordance between employees with the same role, it would be a good idea to start by formalizing the tasks responsibilities for each role internally and then proceed onto the tasks that need to be performed within teams.

To do so, it would be a good solution for Ecare to undertake the following steps, which have been derived from literature (Morgan, R., 2008), (Cabanillas, C., 2012, 2018):

- First, identify a process and the business actors involved in the process. These are the people that need to meet and discuss together their responsibility allocation.
- Then, identify the key activities that are performed within the process. For the first two steps, the To-Be business process model can be used.
- Once the latter has been done, make a RASCI matrix: the identified activities should be placed in the rows and the identified roles in the columns. Then, discuss for each activity which roles are involved and how. To do so the following aspects should be considered:
    - Overall, it is a good rule of thumb to have (no more than) one person with the accountable role for a task: this avoids confusion on who should be held accountable for tasks and consulted when questions arise concerning a certain task. In the case of the Puur department, many consulted participants argue that for the majority of tasks, the client team is accountable as a group. This is fine, as long as within the client team tasks are on their turn clearly defined and responsibilities assigned.
    - Every task should have at least one accountable person.
    - Every task should have at least one responsible person (otherwise the task will never be executed).
    - For complex tasks or tasks that involve taking relevant decisions it is generally a good thing to have people with the role support/consulted.
    - Be careful with having too much C's and I's: while it is generally a good thing to have people consulted and/or informed for tasks, ensuring there is a certain degree of task monitoring, too many of them might slow down the execution of tasks. Literature doesn't provide strict guidelines for what is to be understood as "too many", for the case of Ecare I would advise to have no more than half of the business actors involved for each activity.
- Once all agree on the RASCI matrices, communicate the discussed points with other people within the company. A good thing would be to publish the matrices on the Wiki (Ecare's intranet), so that everyone can have access to them and leaving no room for ambiguity.

It is advised to do so not only for the departments internally, but also to use RASCI for when discussing tasks and responsibilities within joint projects of the two departments: for when the coordinator and the other involved stakeholders from the two departments would meet (refer to the To-Be model), RASCI can be used to facilitate the assignment of tasks and responsibilities for the project in question. Also here it is advisable to document the agreements and publish them on company's intranet, as this ensures employees can easily retrieve the information whenever in doubt.

Finally, for improving the awareness of employees at Puur and Plein, an effortless solution for Ecare would be to publish the proposed To-Be business process model (if Ecare intends to implement it) on its intranet, and have people at the departments consulting the model. This fits within the aims of business process modelling proposed by Münch et al (2012), namely process propagation. Doing so, companies do not only ensure business actors become aware of which processes are in place and which actors are involved, but also that actors execute processes in a correct and unified way,

mitigating the risk of having certain tasks skipped or executed differently. In order to prevent employees from not understanding the model, a document with explanation of BPMN elements could be attached to the model.

5.3: Chapter summary

In this chapter, a solution to the identified problems in 4.4 are proposed: a To-Be model has been designed proposing processes that would improve collaboration between the departments under investigation; implementation of the processes as proposed in the model can thus help Ecare grow from its current maturity level to the desired one.

Major additions to the processes in place regarded the distinction of three scenarios. Within the first one, when a new Ecare customer needs to be implemented by either Puur or Plein, it is important that information gathered throughout the process that can be used by the other department in a possible future implementation is documented and stored in a common repository. Within the model, artefact objects have been added to indicate which types of information gathered at the customer can be used by both departments. This includes the customer's organizational structure, an overview of the IT systems in use, the number and types of employees active at the customer, etc.

In the second scenario, one of the two departments needs to implement an existing customer of the other department. In this case, the responsible business actors for this process should meet prior to the start of the sales/implementation with the employees that had led the implementation of that customer at the other department. Within this meeting, knowledge on the customer should be shared. Moreover, customer information should be retrieved from existing documentation (derived from the first scenario). Meetings discussing ongoing matters of existing customers should be held involving both advisors of Puur and Plein. Given that client team meetings already take place on a regular basis, it has been suggested within the model to have advisors of Plein taking part to this meetings. Again, documentation and storage of commonly used information has been (explicitly) included in the process models by means of artefact elements.

Finally, in the third scenario, a new customer needs to be implemented simultaneously by the two departments. In this case, a new role comes in: the coordinator. He/she has the role to monitor the collaboration between Puur and Plein throughout the process, and ensure tasks are divided clearly and that activities are planned. In order to enforce this practices, a regular meeting should be held with the coordinator and relevant stakeholders of the two departments. Ideally, the coordinator would either be the coach or the product manager, as they have the most understanding of who Puur and Plein operate. At the end of the process, a joint evaluation should be held and lessons learned documented.

Within the formulation of a joint planning, the use of RASCI matrices has been identified as possible solution for the detected unclarity on responsibilities within tasks: using the matrices to define these responsibilities and publishing them on the company's intranet helps resolving this ambiguity and to foster collaboration. Finally, awareness of the people working at the departments of the other side's processes and roles can be tackled by publishing the business process model in Ecare's intranet.

In the next chapter, the evaluation of the developed artefact is carried out and discussed.

Chapter 6: Evaluation

In this chapter, the value of the designed artifact is evaluated. Following the guidelines of the DSRM, within the evaluation phase, observations and/or measurements should be made on how well the artifact supports a solution to the problem. For this aim, the objectives of a solution should be compared with results obtained from the demonstration phase. Evaluation can take any form of appropriate empirical evidence or logical proof (Peffers, K., et al, 2007).

For this research, the design of the As-Is business process model has been identified as way to spot collaboration improvement points within Ecare's processes. From there, the design of the To-Be model would propose a business process scenario that would improve the current collaboration. These points together define the objectives of the solution. Therefore, it is sought in this phase to verify whether the latter objectives have been properly fulfilled.

As discussed in section 1.4.4, different methods to perform an evaluation recognised within Design Science have been considered. It has been decided to evaluate the model using experts opinion: experts should be presented with the artifact and asked to imagine its effectiveness within a real world scenario. Feedback from the experts should be used mainly to weed out unrealistic ideas presented by the artifact (Wieringa, R. J., 2014). As discussed, the expert's opinion evaluation will take two forms: first, the research population that has been involved within the Delphi study will be asked to give opinions on collaboration domains as proposed within the To-Be model. With this measurement, opinions given on the current (As-Is) situation (please refer to sections 3.3.5 and 4.2 for more detail) can be compared and the value of the proposed solution in terms of collaboration improvement assessed. The second evaluation will take place in the form of a semi-structured interview with the direction; as the research has been commissioned by them, it is valuable to understand whether the results and proposed solutions match with their expectations towards the problem solution.

As a result of this chapter, research question 6 ("How can the design be evaluated?") is answered.

In the first part of this chapter, the evaluation carried out with the experts is discussed first. Next, in section 6.2, the evaluation with the direction is presented. An overview of the evaluations is given in section 6.3 and finally, considerations on the research's validity and reliability are made in section 6.4.

6.1: Collaboration analysis proposed situation

In this section, the experts' opinions on the interdepartmental collaboration as proposed within the To-Be model are collected, analysed and compared to the opinions on the As-Is collaboration. First, the design of the questionnaire that has been used to gather these opinions is discussed in 6.1.1. Next the responses are analysed and compared in 6.1.2.

6.1.1: Design of the evaluation questionnaire

In order to fairly compare the opinions on the current and proposed collaboration in business processes, the same measurement type has been performed. Hence, for this evaluation, a questionnaire has been used as well; in the questionnaire, experts were again asked to react to statements using a given closed-ended set opinions, and to assign a grade to each considered collaboration domain.

The questionnaire is attached to appendix U. The To-Be model from chapter 5 for which participants were asked to answer the questions, has been published on Ecare's intranet.

The experts were first given an introduction. Within the introduction, the evaluation aim and the structure of the To-Be model (which has been split per relevant process, as depicted in chapter 5, in order to make it readable) were explained. Next, participants were asked to fill in their department, function and team; again, this has been done in order to be able to distinguish the responses from different views. For the questions, the same domains as the ones mentioned in 3.3.5 have been considered: communication, coordination, awareness and memory. For each domain, two questions were given.

The first one was a statement, inquiring eventual improvement on that particular domain in the To-Be model; so for example, the statement related to the communication domain, has been phrased as follows: “For the processes I am currently involved with, in the To-Be model I see an improvement in communication between Puur and Plein”. For this statement, the same set of options as in the other questionnaire was offered (i.e. form totally disagree to totally agree). The reason for choosing this scale was again for being able to later easily assign a numerical label to the responses, and thereby performing statistical calculations like the mean, standard deviation and coefficient of variation (CV) of the obtained responses (similarly to what has been done in section 4.2). With these measures, it was sought to gain an indication on the general opinion by participants (using the mean) and the degree to which opinions differ from each other (standard deviation) and from the mean (CV); the last two measures would ultimately be of use to decide when taking a general (mean) opinion as representative or not, as peaks in CV would point out to overly disagreement from participants for a certain question.

The second question type asked to grade that particular domain as proposed within the To-Be model, again using a scale from 0 to 10. This is the same scale as the one used for the assessment of the As-Is collaboration by experts (described in section 4.2); having two (numerical) measures for the collaboration domains (using the same scale) would then make it possible to compare the two measurements, and so determine the increase/decrease for collaboration given the proposed solution.

Following this fashion, questions 1 and 2 regarded the communication domain; 3 and 4 coordination, 5 and 6 awareness, 7 and 8 memory, and 9 and 10 collaboration in general, thereby matching the questions used during the data gathering phase.

Please note that as for the questions used to assess the current level of collaboration, the domain of memory has been again expressed in terms of information sharing (as is done within the questions proposed by Magdaleno et al that have been used in chapter 4 and have been discussed in chapter 2), which can take the forms of information storage in a common repository, active communication, etc.

For this questionnaire it has been chosen not to ask again an opinion on the relevance of each collaboration domain, as it has been assumed that this wouldn’t differ for either a current or ideal situation.

The final question (Q11) inquired whether the expert had additional feedback: this was done, among other reasons, to give the participant the opinion to describe elements within the To-Be model that would be of none added value, thus weeding out unrealistic ideas presented in the artifact as described in Wieringa (2014).

The responses are presented and analysed in the next section.

6.1.2: Responses and comparison

For the analysis of the responses obtained, a similar approach as the one discussed in section 4.2 has been taken. The responses from the experts on given statements have been given a numerical value: 1 for totally disagree, 2 for disagree, 3 for partially disagree, 4 for neutral, 5 for partially agree, 6 for agree and 7 for totally agree. This way, the average opinion from participants could be computed. As with regards of the grades, the scale is from 0 to 10, no changes have been applied there. All answers have been analysed cumulatively: the reason for doing so is that there was no need any more to highlight the collaboration domains for each individual process, like during the design and development phase. In fact, during the design and development phase, knowing the opinions on collaboration per function was considered important as it could be of help to know what aspect needed the most improvement within a certain process, and so to keep that in mind for the design of the To-Be model. For this phase, it has been assumed that if any, the To-Be model would need minor modifications, therefore highlighting collaboration domains per process wouldn't be necessary.

As for the analysis in section 4.2, the standard deviation and coefficient of variation (CV) of the answers have been computed, in order to rule out responses on a question that vary to much from each other. Below, the results of the evaluation are given: in Figure 69, the opinions regarding improvement of the different collaboration models within the To-Be model are given: the columns represent the mean answers, the orange line the standard deviation and the grey line the coefficient of variation. Results go on a scale from 1 to 7, the 0 has been included in order to measure the standard deviation and CV.

In Figure 70, the grades assigned to collaboration from the As-Is and To-Be situation are compared; again, columns give the mean values, while the orange and grey line represent the standard deviation and coefficient of variation respectively. The detailed As-Is/To-Be comparison for each considered domain is given in Figure 71, Figure 72, Figure 73 and Figure 74.

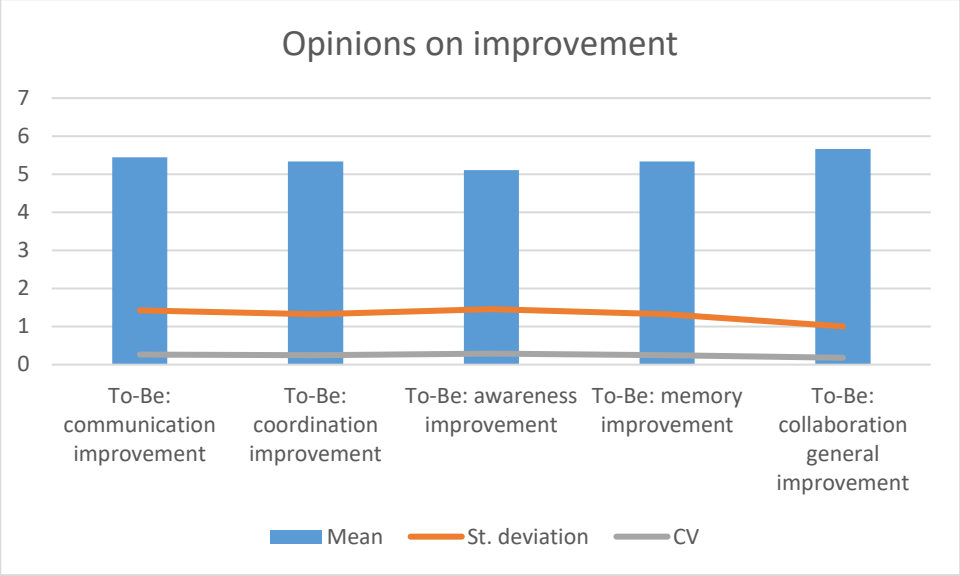


Figure 69: Experts' opinions on collaboration improvement in the To-Be model

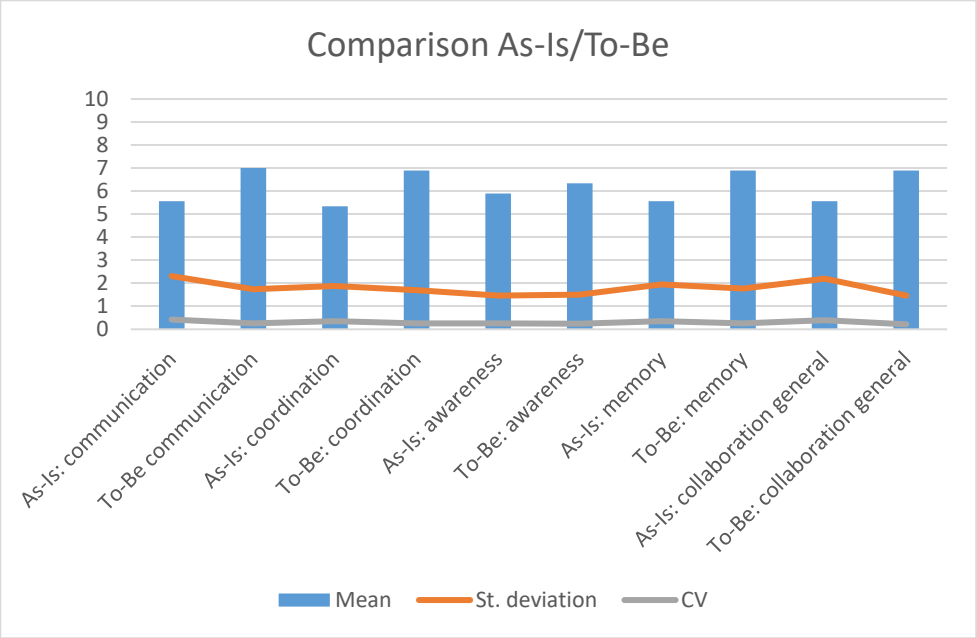


Figure 70: Comparison of collaboration levels in the As-Is and To-Be scenarios

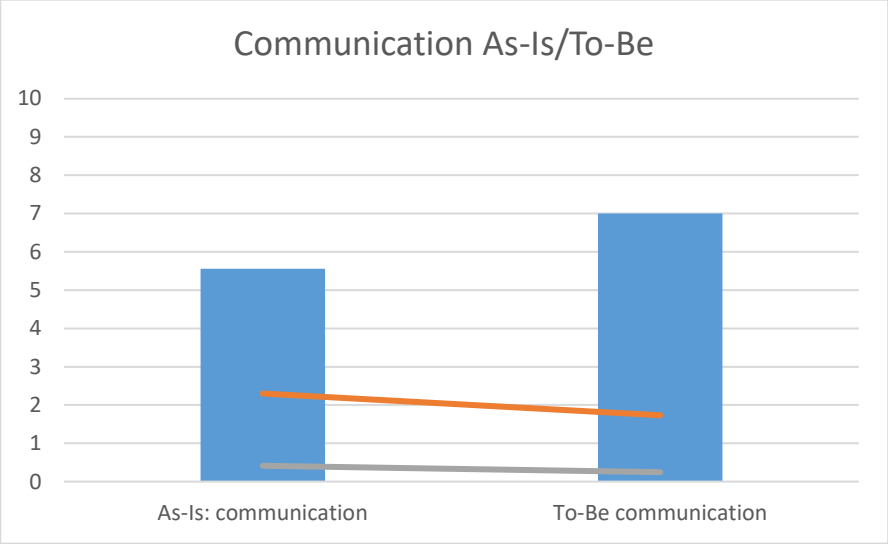


Figure 71: As-Is/To-Be communication comparison

From the graph in Figure 69, it can be concluded that experts partially agree on improvements in communication, coordination, awareness and memory for the interdepartmental relations. When asking on collaboration improvements overall, the experts tend to agree there is an observable improvement with the proposed scenario.

When looking at the numerical side of the evaluation, it can be concluded the To-Be model clearly improves the processes in terms of collaboration. An exception to this trend is observable when it comes to awareness (see Figure 72): a minimal improvement is registered here, with an average grade of 5.89 for the As-Is scenario and 6.33 for the To-Be scenario. This doesn't come as a surprise: as understood from the interviews with employees (mentioned in 5.1.3), employees at the two departments still have very limited knowledge of each other's products and ways of working, for which a merger of common activities would not be feasible for Ecare at the moment. Thus, showing

them models of the other department's business processes and involved actors, has a limited contribution to improvement in awareness.

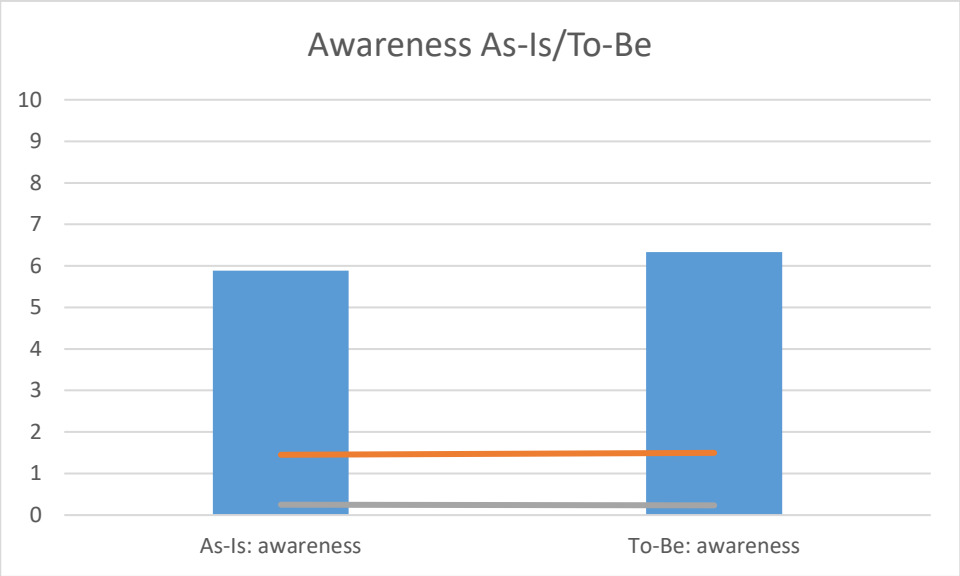


Figure 72: As-Is/To-Be awareness comparison

The major improvement in terms of grades is registered for the domain of coordination: whereas the As-Is scenario scored an average of 5.33, the interdepartmental coordination as proposed by the To-Be models scores a 6.89 (as shown below in Figure 73).

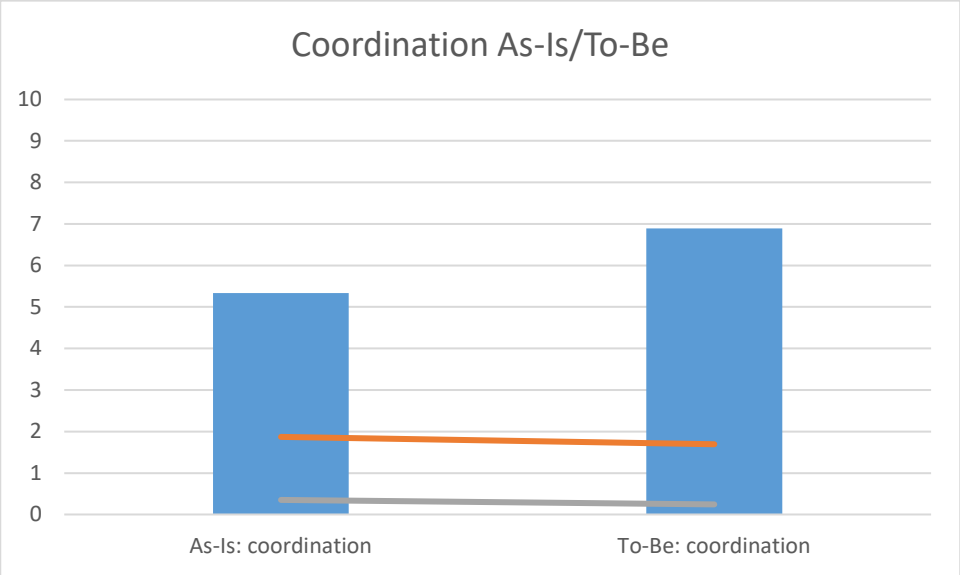


Figure 73: As-Is/To-Be coordination comparison

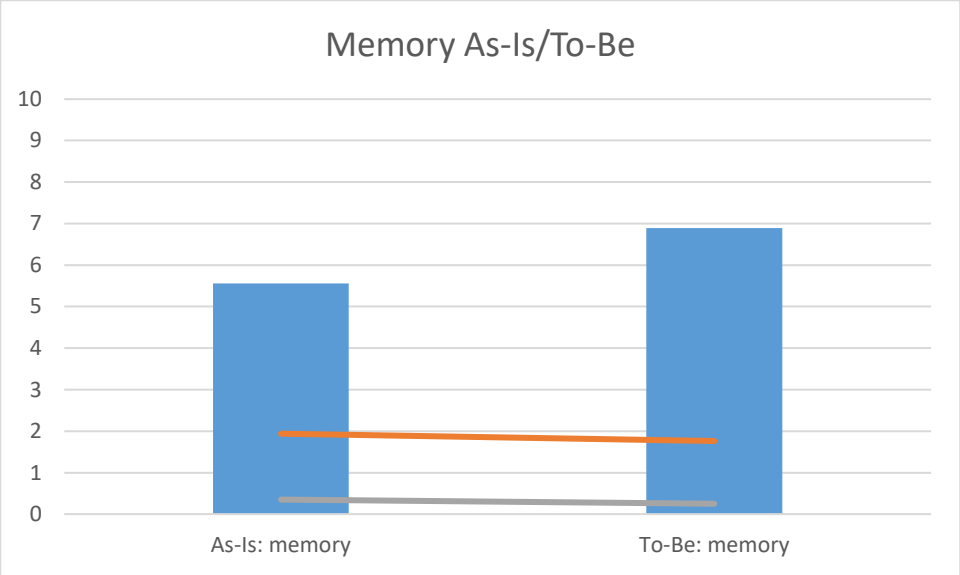


Figure 74: As-Is/To-Be memory comparison

From the above it can be concluded the proposed To-Be model improves the current collaboration between Puur and Plein, achieving thus its objective.

Despite its positive evaluation, feedback for improving the To-Be model has been received. The feedback has been registered as open-ended answers to question 11 in the questionnaire. The feedback's content has been analysed and the responses received have been labelled. Two labels have been identified, based on the responses: error or suggestion. The label error indicates that either something is wrong or missing in the To-Be model, while the label suggestion indicates the respondent had a suggestion to improve the model.

Two quotations have been labelled as error: in the implementation process, at the Puur side, an activity was missing for testing the software before delivering it to the customer. Another missing element was the missing interaction within the support process between the 1st line support at Plein and the product specialists.

One quotation has been labelled as suggestion: the respondent suggested to add, within the sales process, a regular meeting between the sales advisors of the two departments. The respondent argued that sales advisors have generally the most information on both customers and/or prospects/leads of Ecare, and therefore should be responsible of sharing that info with each other, and subsequently within their department internally.

Given that, according to the DSRM, the artifact may be modified as a result of the evaluation, the modelling errors mentioned above have been corrected within the To-Be model for the implementation and support processes. For what concerns the suggestion on a joint sales meeting, based on the data gathered throughout the research and general opinions captured from employees, this has been considered as a valuable idea to include in the To-Be model; therefore, the sales process has been adjusted accordingly.

In the next section, the evaluation performed with the direction is briefly discussed.

6.2: Evaluation with the management

In this part, the evaluation carried out with the management is briefly discussed. For the evaluation, the management was first provided with a presentation of how the research had been performed,

stating the objectives of the designing effort and the research model used. Then, the As-Is model has been presented, along with the RASCI analyses and the current collaboration assessment. Findings discussed in 4.4 were then presented, and finally, the To-Be model from chapter 5 together with the complementary parts of the solution have been presented. Once this had been done, a semi-structured interview has been carried out. The (translated) transcript is attached in appendix V.

First, the management was asked about whether the objectives of the first component of the artifact, namely the As-Is model, had been fulfilled. For this aim, it has been inquired whether the As-Is model faithfully represents the current business process scenario at the two departments, and whether the model is perceived useful by them in visualizing improvement possibilities for collaboration. The responses were positive: the management could recognize the company as it currently is within the As-Is model, and that the (low) collaboration level within the model is evident.

Since no further elaboration of the answers were needed, the interview was continued with questions regarding the perceived value of the solution, as represented by the To-Be model.

Overall, the management reacted positively to the proposed solution: the model was clear and the theoretical basis used throughout the research seemed to support logically the elaboration of the solution that has been proposed. The changes within the process depicted by the model are perceived to be quite intuitive, which the direction regards as a positive thing. The only aspect with question marks is what the reaction of employees would be to the proposed new way of working; it was nonetheless recognized that this is out of the scope of the performed research.

From the management's side, no further remarks on the model's content needed to be made. Since the purpose of this evaluation meeting was to assess whether the management's expectations towards the research have been met by the proposed solution, and a more detailed evaluation on the value of the models had already been performed with the experts of the Delphi study, no further questions were asked.

What can be concluded from this meeting, was that the expectations of the management have been met: the proposed solutions within the To-Be model have been regarded as value-adding, as they are seen as intuitive, don't need excessive effort nor invasive changes within Ecare's current way of working, clear and well-motivated.

In the next section, general conclusions from the two evaluations are made, and implications on the designed models discussed.

6.3: Evaluation overview and implications for the proposed solution

Given the evaluations discussed in sections 6.1 and 6.2, it can be asserted that the artifact designed throughout this research meets the preset objectives. There is general agreement that the As-Is model gives a good overview of the current collaboration between Puur and Plein, and that the designed To-Be model represents a business process scenario in which collaboration is improved. The solution tackles the core problem, as the proposed To-Be model aligns the business processes at Puur and Plein; by agreeing on implementation of the proposed business structure, the two departments would move towards the direction of better collaboration, aligning in that way their business processes.

From the feedback collected during the evaluation, errors and suggestions for improvement have been taken into account. As mentioned in 6.1.2, the To-Be model has been adjusted accordingly with the feedback. This has as practical implication that the proposed solution by the To-Be model includes one additional aspect, namely a regular sales meeting for Puur and Plein. The apsetcs that

have been added/corrected to the model are highlighted below in Figure 75 and Figure 76, while the modified diagrams of the To-Be model are given in Figure 77, Figure 78 and Figure 79.

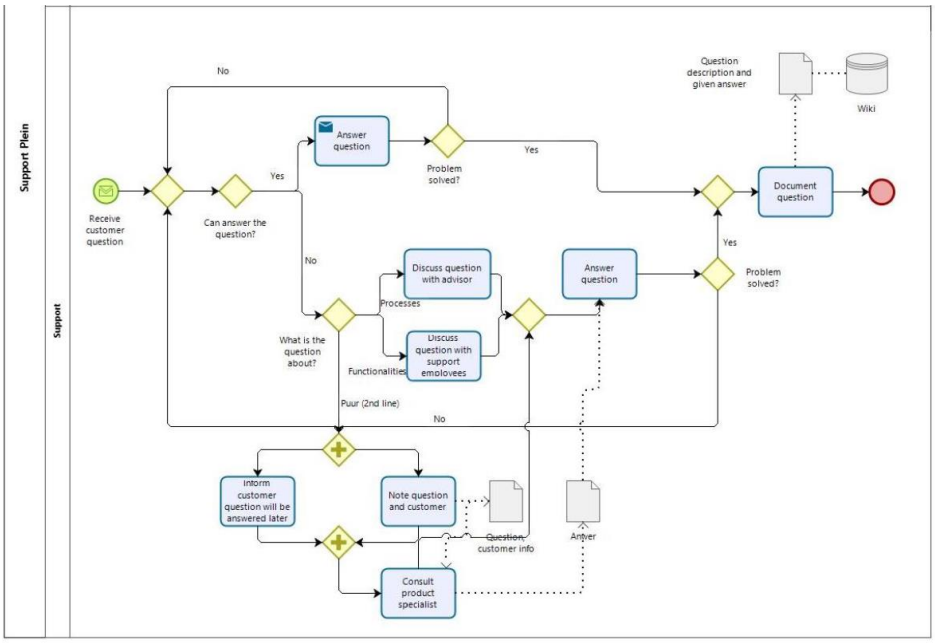


Figure 75: Modification to To-Be model (support)

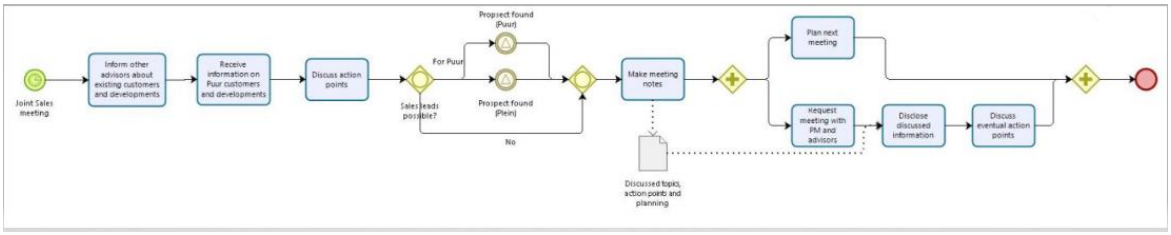


Figure 76: Modification to To-Be model (joint sales meeting)

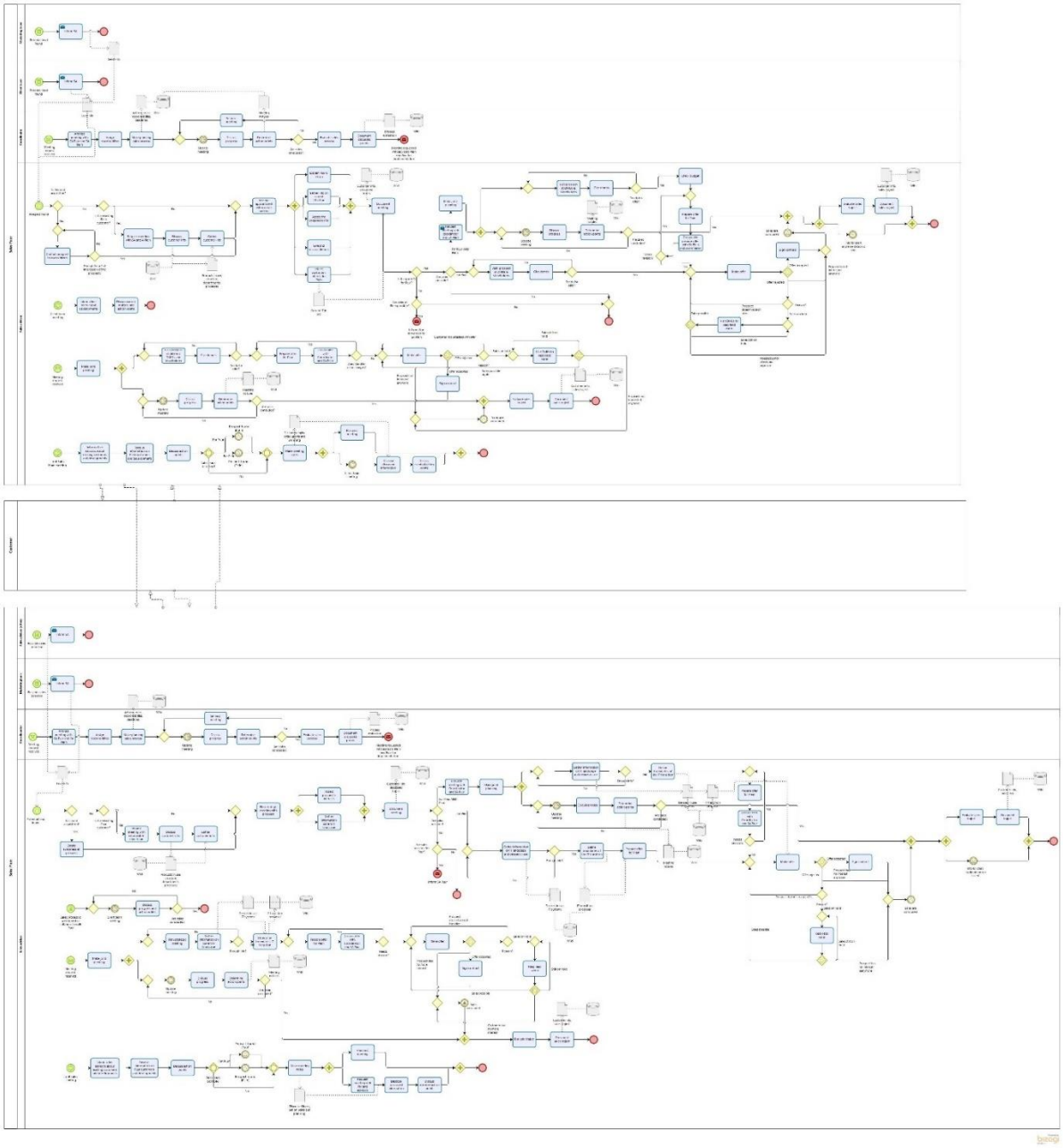


Figure 77: Improved To-Be model (sales)

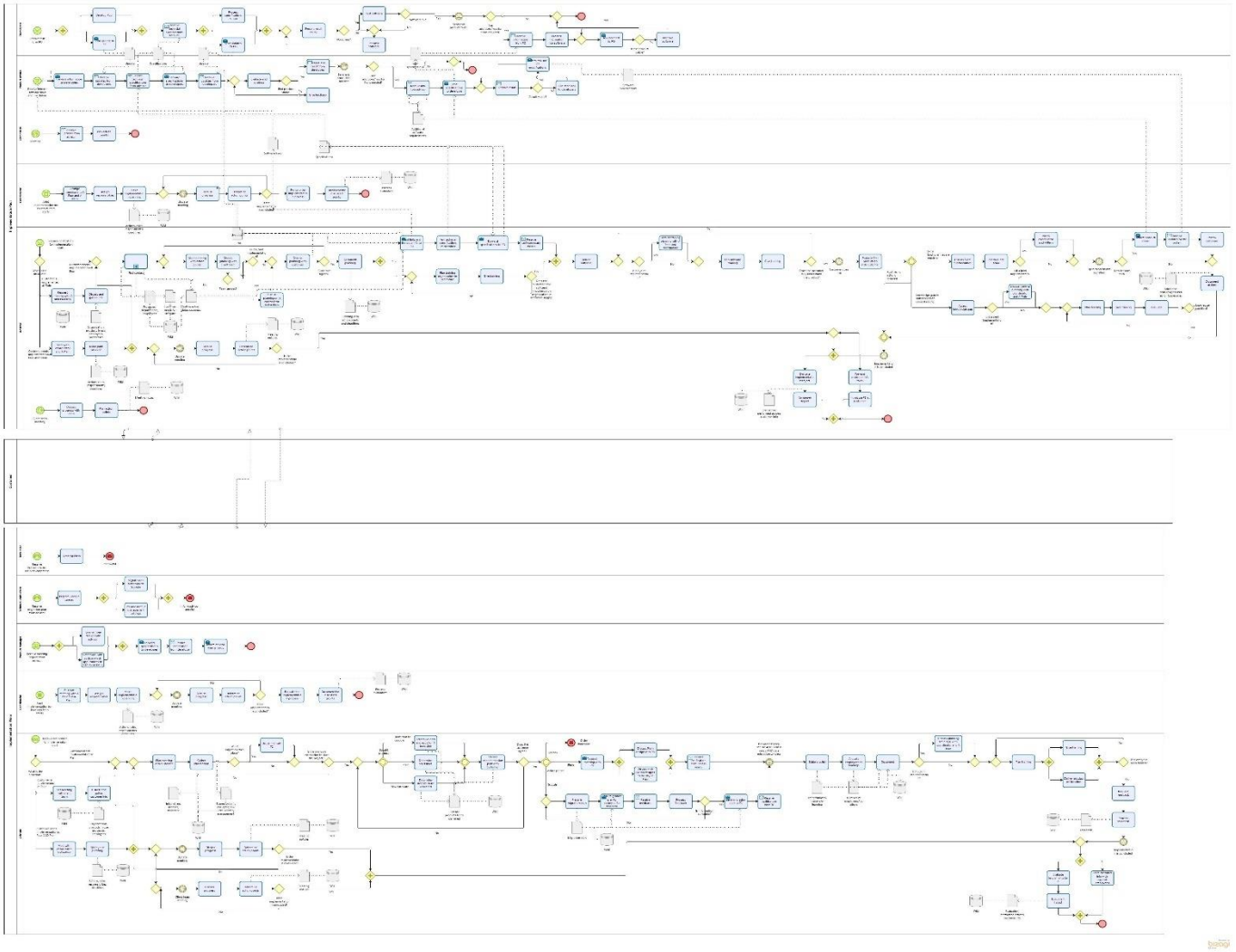


Figure 78: Improved To-Be model (implementation)

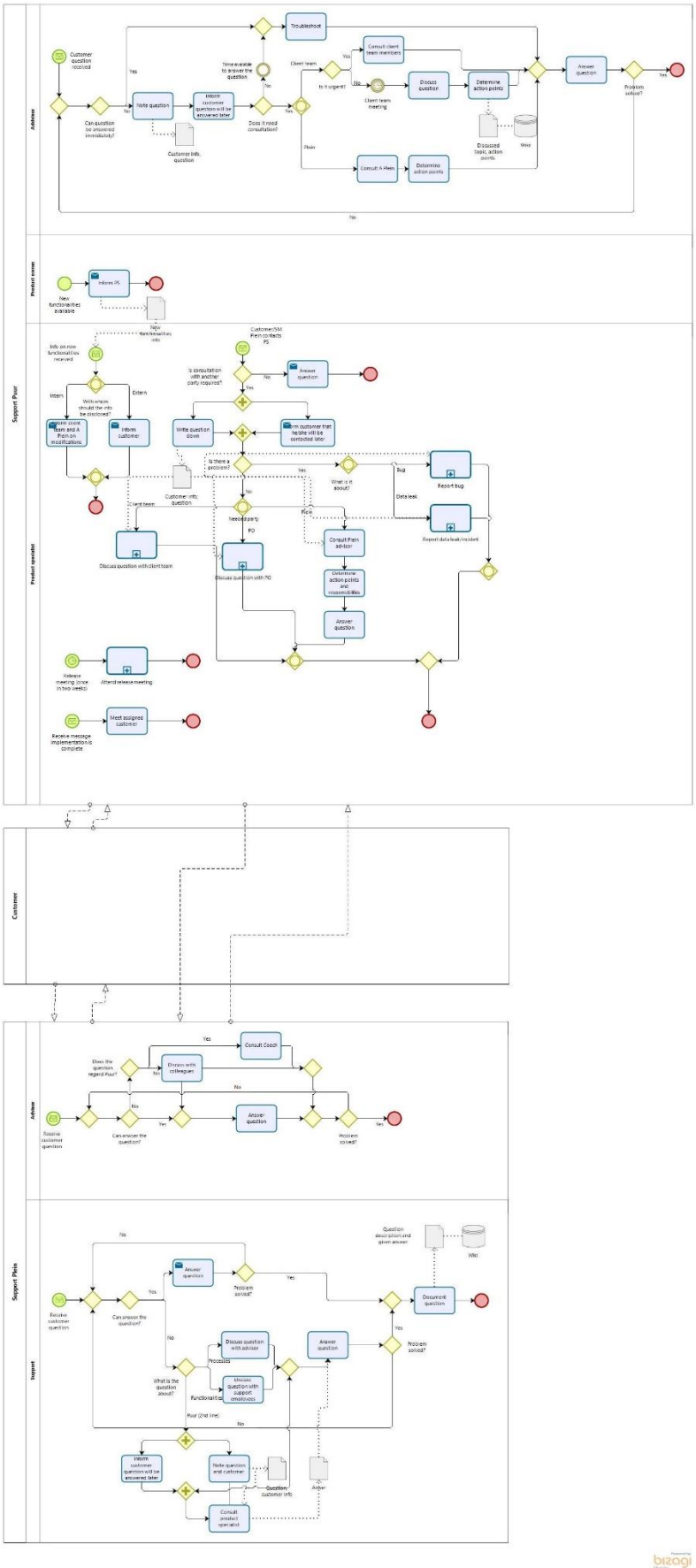


Figure 79: Improved To-Be model (support)

6.4: Validity and reliability

In order to assess the value of the research, and to offer perspective to the proposed solution, considerations on its validity and reliability are ought to be made. Reliability refers to the extent to which the same answers can be obtained using the same instruments more than one time; it is related to the accuracy and precision of a measurement (Cooper, D. R., Schindler, P. S., 2014). Validity is concerned with whether what is wished to be measured is actually measured. On its turn, validity can be distinguished in internal and external. Internal validity is concerned with whether the research design and the measuring instruments have been properly formulated and constructed (Heerkens, H., Winden, A. van, 2017); external validity is related to the degree to which results obtained from the research can be generalized across persons, time and settings (Cooper, D.R., Schindler, P. S., 2014).

First, reliability is considered. All data gathered during this research comes from individuals. As every individual in the company is biased by its own personal beliefs, interests and opinions, it is natural that opinions gathered from one employee can significantly differ from the ones of another employee. Therefore, if another research was to be performed with the same instruments, but perhaps with a slightly different research population, results obtained could differ from the ones present in this research. Nevertheless, it can be argued that this would have a limited impact on some insights obtained. In fact, the design of the research has taken this aspect into consideration when selecting the research population by applying triangulation, as for each role-specific view from which data has been gathered, at least two employees have been included (with the exception of one role, which is on its turn is unique for that individual). It could be argued, however, whether the research population can still be seen as representative, as with a bigger research population the opinion of one participant would have less weight on the average than it is the case for this research. When looking at the case of the analysis of the RASCI matrices, conclusions on the clarity of role definition have been drawn from two responses for each role: results would perhaps have been different if three or more respondents for that role would have been involved.

Another threat in reliability is related to the design of the proposed To-Be model. Even though guidelines have been followed to design the model, these provided general elements that needed to be added in the processes in order to elevate them to a desired maturity level. The way the elements have been added into the processes is subjective to the modeller, making the result subject to personal bias. This isn't necessarily a negative thing, as long as the requirements set by CollabMM are followed, but it does imply that different results could be obtained from different researchers staring with the same As-Is model and using the CollabMM as framework.

Another factor that potentially influences the reliability of the research is the degree to which participants of the study understood the models they have been asked feedback on. This applies to both business process models (and landscapes) and RASCI matrices. This threat to reliability has been considered within the design of the questionnaires: participants were provided prior with instructions to answer the questionnaires, explanations on BPMN modelling and RASCI matrices, and finally, were solicited to reach out in case of any doubt. However, the fact that the mentioned actions have been taken in order to prevent this kind of bias, doesn't mean this reliability threat hasn't occurred.

When looking at the research's validity, the following considerations can be made. A major threat to the research's internal validity is related to the evaluation phase. In fact, evaluation has been carried out by making a comparison of the opinion of participants on a before and after scenario, using the collaboration domains proposed by CollabMM as framework. The reason for choosing this way to

evaluate the artifact is motivated by the fact the CollabMM doesn't provide with a formal way to evaluate the To-Be model (except from after having implemented it in real life). Nonetheless, given that the CollabMM was in use for the assessment of the As-Is model and the design of the To-Be model, and that inquiring experts' opinion is an accepted evaluation method within Design Science (Wieringa, R. J., 2014), it has been decided to carry out the evaluation as described in this chapter. Hence, the evaluation has been carried out following partly personal insights and reasonings, therefore influencing the internal validity of the research.

When looking at the questions used within the assessment of the As-Is and To-Be collaboration according to experts, another potential threat to internal validity can be noticed. In fact, within the questions on the As-Is situation, participants were asked opinions on the current level of a particular collaboration domain; for the To-Be scenario, opinions on whether that level had been improved have been asked. Perhaps, it would have been better to ask for the perceived level (instead on whether the level has been improved) for the To-Be scenario: this way, a more objective comparison with the As-Is situation could have been made. Given that the ultimate goal of the evaluation was to assess whether the objective of improving collaboration had been achieved by the To-Be model, asking whether the participants see improvement in the proposed scenario isn't necessarily a bad thing; however, asking this could have influenced the results with social desirability bias, i.e. bias that drives the respondent to answer in a way that is more favourable to the experimenter (Cooper, R. D., Schindler, P. S., 2014).

Finally, the research's external validity is limited. As the recommendations are tailored for Ecare's situation, it is hard to generalise these to other companies. Moreover, the theoretical model used to approach the research is the result of the integration of a number of theories within BPM. For the method to be considered effective within different contexts, and therefore being externally valid, more testing to other case studies would be needed. Nevertheless, companies that find themselves in the position of being willing to improve interdepartmental collaboration could use the To-Be model as source of inspiration for modifying their business processes, as the model includes all aspects that (should) belong to the highest collaboration level as proposed by the CollabMM, and therefore presents features that could be implemented in other processes by other companies as well.

Chapter 7: Conclusions and recommendations

Within this final chapter, the conclusions of the research are presented. This is done starting with the discussion on the research questions in section 7.1; this part ends with additional conclusions. Next, recommendations for Ecare are given in section 7.2. Third, considerations regarding the research's limitations and implications for future work are given. The research's theoretical and practical relevance is discussed in the fourth part of the chapter and, finally, a brief reflection is given.

7.1: Discussion

Within this section, a recap of the answers to the research questions is given (for the approach used to provide the answers, please refer to the respective dissertation chapters). The section ends with an overview of the conclusions that have been drawn having analysed the gathered data.

7.1.1: Which business process modelling techniques can be used in order to improve inter-process collaboration?

This research question needed to be answered in order to set the objectives of the solution for the identified core problem; it has been addressed in chapter 2. In order to address the question, knowledge from literature needed to be gathered; this has been operationalized using a systematic literature review, described in detail in appendix A. Different insights and theories bound to the business process management perspective have been gathered. These have been compared and theories that had been considered as suitable for the research topic have been selected; together, the theories have been combined in a model of theoretical approach to the research.

Following the formulated approach, information on the processes in place at Puur and Plein has been gathered and used to design the As-Is business process model of the two departments; first, the processes have been visualized in high-level models, the business process landscapes. From there, detail was added to the processes and BPMN models could be designed, until obtaining the desired level of detail and thus the As-Is model. To gather more insight in how tasks are allocated and which business process actors are involved, RASCI matrices have been used complementary to the As-Is model. Next, the model (and matrices) have been analysed: collaboration between Puur and Plein as represented in the model has been analysed using the CollabMM maturity model as framework; subsequently, an As-Is collaboration level could be identified. From the analysed data, a To-Be model has been designed: this model has the objective to represent an improved collaborative scenario for the two departments, and how processes could be readjusted in real life in order to improve collaboration between the two. Collaborative aspects to be included within this model have again been derived using the CollabMM; as a target maturity level has been set, the requirements listed in the maturity model have been translated into new elements within the To-Be model.

7.1.2: What is the current operations flow?

This research question (addressed in chapter 3) belongs to the design and development phase of the research: in order to design the As-Is model of Puur and Plein, knowledge on the operations flow at the two departments was required. A brief recap is given:

Puur

At Puur, different processes are executed; these can be grouped into four main categories: sales, implementation, account management and support. A summary of the main operations performed within these processes is given in Table 12.

Table 12: Summary of Puur's operations

Process	Involved business actors	Start of the process	End of the process	Main activities performed
Sales	Sales advisors, client team, marketing team	Prospect for sales is found or up-sales possibilities are found	Sales are made, message is sent to an advisor/product specialist/client team in general; prospect/customer has no interest anymore and pulls out of deal	Arrange meetings to assess prospects' needs, gather information on the organization, signal possibilities to Plein, explain vision, give demos, keep client team informed, sign contract
Implementation	Advisor, client team, product owner, developers	Sales are terminated, customer needs implementation	Product is delivered and customer trained, no additional features/trainings are needed	Gather information on customer's organization, gather technical details for software preparation, train the customer, deliver software, keep client team informed, evaluate
Account management	Advisor, client team, product specialist, product owner	Implementation is terminated	The process has no end (as long as the customer remains a customer at Ecare)	Discuss ongoing matters with the customer, signal possibilities for Puur and Plein, signal problems/need for trainings, assess customer needs, keep track of customer's satisfaction, keep client team informed
Support	Product specialist, client team, product owner, developers, security advisor	Implementation is terminated	The process has no end (as long as the customer remains a customer at Ecare)	Help the customer with ongoing software-related matters, signal sales opportunities for Puur/Plein, signal need for trainings, discuss software related matters with the product owner/developers,

				signal data leaks incidents, keep the client team informed, inform the customer on software changes, signal bugs

Plein

At Plein processes can be grouped in similar categories as the ones used for Puur: these are summarized in Table 13 below:

Table 13: Summary of Plein's operations

Process	Involved business actors	Start of the process	End if the process	Main activities performed
Sales	Sales advisors, marketing team	Prospect or existing customer found for possible sales	Sales are made; prospect/customer has no interest anymore and pulls out of deal	Assess prospect's needs, gather information on organization, gather information on current IT landscape in use, define boundaries of IT transition, signal leads to Puur, sign contract
Implementation	Advisor, product manager, technical consultant, developer	Sales are terminated	Products are delivered, customer's personnel is trained	Gather necessary info at customer (organization, employees, IT in use, etc.), define details IT transition, prepare G-suite, order and prepare hardware, prepare Plein, train the customer, deliver the products
Account management	Advisor	Implementation is terminated	The process has no end (as long as the customer remains a customer at Ecare)	Discuss ongoing matters, keep track of customer satisfaction, keep track of customer's needs and situation in general
Support	Support employee, advisor	Implementation is terminated	The process has no end (as long as the customer remains a customer at Ecare)	Provide 1st line support for Puur and Plein products, provide 2nd line technical support for Plein

7.1.3: Who is responsible for the identified business process tasks?

The type of information required to answer this research question was sought in order to give more context to the activities identified within the business process models; for the aim of improving collaboration between the two departments, it was considered important to have an overview of who exactly is involved within process activities and which role he/she has. To answer this question, participants of the Delphi study have been asked to fill in RASCI matrices containing the most relevant activities identified within the designed As-Is model. The execution of this data gathering is performed in 3.3.3, 3.3.4 and 3.3.5. From the analysis performed in section 4.3, it can be concluded that this research question cannot be answered entirely: the evident differences in answers provided by experts with the same role makes it impossible to define with certainty who is exactly involved in the execution of certain process activities and which role he/she has. Nevertheless, for the identified tasks it can be assumed that the tasks are executed by the business actor as modelled within the As-Is model. This conclusion is supported by the fact that the As-Is model has been validated within the Delphi study by the experts; therefore, it has been confirmed implicitly that activities modelled within a lane of a certain business actor are indeed performed by the actor.

In general, it can be concluded that from the data gathered it cannot be understood with certainty who is responsible for the identified business tasks, as there is too much discordance in the answers given by participants. A conclusion that can be drawn from the latter, is that tasks are not clearly defined for the consulted business actors, i.e. responsibilities are not clearly/explicitly assigned to specific roles within Ecare.

7.1.4: How can an As-Is business process model be designed?

In order to translate the gathered information on Puur's and Plein's processes to a business process model, knowledge was required on how such model can be designed. For this purpose, literature sources have been used, as described in chapter 2. Weske (2012) stresses the importance of identifying the processes that need to be modelled prior to starting the modelling effort. This can be done using business process landscapes: here, the main business processes of the company (or business unit) under investigation are represented, together with their supplier/customer relations. By the latter it is meant that streams between processes represent an output for one process, that is on its turn used as input by another one. Once all relevant processes have been identified, the elicitation of each individual process can be started, investigating the process start, products, and the activities needed to produce that products (Weske, M., 2012). The multi-view process modelling method is a way to elicit and design a descriptive process model, for which individual views from involved business users are collected. Once the information collected is complete, these views are integrated into one model (Münch, J. et al, 2012). Finally, for eliciting the information, Münch et al (2012) propose to start by gathering information on the process backwards: first products, then move to the activities to produce the product, information needed, up to the start and start conditions (necessary input) of the process.

With this information, the research question has been answered: the As-Is process has been designed starting with the identification of the main processes in place at Puur and Plein and their customer/supplier relations. For this purpose, business process landscapes have been used. Next, information has been elicited; involved experts in the process have been asked information solely on their business processes of competence. Once the information was sufficient, the views have been integrated in the As-Is model, as proposed by the multi-view modelling approach. Information has been elicited as proposed by Münch et al (2012), hence starting with the process products backwards until the process start.

7.1.5: How can a To-Be business process model be designed?

Once the As-Is model had been completed, analysis of the model revealed where collaboration between the departments could be improved. However, how the To-Be model would have to be designed in order to improve collaboration was not intuitive: therefore, guidelines on how the To-Be model could be designed were needed. This question has been addressed within chapter 2 and partly section 5.1.1.

It has been decided to design the To-Be model as follows: a target collaboration level would first be identified; next, following the guidelines by CollabMM, the requirements to reach the target have been translated to the design of new collaborative activities within processes. In practice, the target level was set to reflexive: this is the highest collaboration level of CollabMM. To reach the level, requirements for all lower levels need to be met as well (Magdaleno, A.M., et al., 2009). Given the collaboration maturity level was ad-hoc (the lowest level), requirements from the planned and aware level were required as well. Overall, these are summed up as: common planning, coordination, establishment of communication channels, monitoring of collaborative activities, direct and indirect information sharing and reflection on collaboration. As to meet these, new activities for making a shared planning before the start of a project, keeping track of the development of collaborative projects, information sharing within meetings and a common repository, joint evaluations have been added within the To-Be model (for detail please refer to chapter 5).

7.1.6: How can the design be evaluated?

Finally, to assess the value of a solution as contribution to solve the identified problem, this research question needed to be answered. For this purpose, two evaluations have been carried out: one with the experts that had been involved in the design and development of the models and one with the direction, who requested the start of this research. This research question has been addressed in chapter 6.

From both evaluations, the responses indicated the proposed solution effectively sketches an improved collaboration scenario for the company, and therefore provides values as it helps solving the identified problem. It can be therefore expected that implementation of the solution would yield benefits for the interdepartmental collaboration.

7.1.7: Additional conclusions

Along with the knowledge gained from answering the above mentioned research questions, a number of insights have been reached, leading to the following additional conclusions:

- *Experts at both Puur and Plein believe an improvement in collaboration is needed:* this has been concluded from the results of the opinions gathered from experts on the current situation at Ecare.
- *The As-Is collaboration maturity level is ad-hoc, the To-Be maturity level is reflexive:* as mentioned in 7.1.5, from the analysis of the As-Is model, collaboration between Puur and Plein corresponds to the lowest level as proposed in the CollabMM. This implies collaboration between the two may happen, but is not structural; it depends solely on individuals' insights and initiative. The desired collaboration maturity level is reflexive: this implies that to reach the level, business processes at Puur and Plein need to include activities that involve making a common planning, monitoring the collaboration activities, share information with each other, coordinate activities, set communication channels and reflect on collaboration systematically.

- *Employees of the two departments have in general little knowledge of each other:* by this conclusion is meant that the employees lack of knowledge of each other's products, but also of each other's processes and involved business actors.
- *There is a common repository for information storage and sharing, however agreements on information (used by both departments) to be stored lack:* there is a repository in use to which all Ecare employees have access, and therefore can be used as asset for information sharing. However, agreements between the two departments on how it should be used to store information on common customers lack.

7.2: Recommendations

In this section, based on the obtained results, recommendations are given to Ecare. These recommendations are in practice an answer to the research's main question: *How can the business processes involving the delivery of Puur and Plein as a combined product be reorganised in order to improve process collaboration?*

7.2.1: Process reorganisation

Given the current collaboration level, namely the ad-hoc level, and the target reflexive level, Ecare needs to reorganize its processes in order to fill the gap. The most important step to undertake is to make collaboration structural: as it currently goes, there are occasions where collaboration occurs between Plein and Puur, but this doesn't happen systematically. In order to introduce systematic collaboration in their processes, Ecare is advised to implement the processes as have been depicted in the (final version of the) To-Be model. It is important that Ecare recognizes there are three possible scenarios; the first one where either one of the two departments needs to sell and implement their product separately to a new customer: even though there is no need for collaborative activities within this types of processes, it is important to document and store customer information in the common repository, in a way that it may be easily found, accessed and used by the other departments in the future. In the second scenario, either one of the two departments needs to implement an existing customer of the other department: here, it is important that the two parties meet prior to the start of the process (and during process execution whenever necessary) in order to share information on that customer with each other. This ensures two things: first, it can save a lot of time for the party that needs to carry out the implementation, as with this prior knowledge of the customer, less meetings would be needed to be planned to gather certain types of information. Secondly, it prevents the two departments to appear as two separate companies to the customer, as had occurred in the past. For this scenario, documentation and communication for Plein and Puur is very important. In order to foster that communication, it has been proposed for shared customers of Puur and Plein, to let the advisors at Plein attend regularly the client team meetings of Puur. This doesn't necessarily have to happen for each meeting, only for the ones where matters concerning a shared customer are discussed.

The third scenario, where most collaborative activities (should) take place, is where a customer needs to be implemented at both departments simultaneously. In that case, a new role is introduced to the processes, namely the coordinator. He/she should coordinate the two sides during the sales and implementation phases. Among his/her responsibilities are the monitoring of the collaborative activities, the request of meetings and/or updates from both sides and making a common planning where responsibilities and tasks are clearly assigned. It should be noted that the introduction of this new role in the process doesn't imply that new personnel should be hired nor that a new company function should be created. It is in fact advisable to have either the coach or the product manager take that role, as they have currently the best overview and knowledge of both departments.

Throughout the process it is important to keep documenting and storing information in the common repository, as illustrated in the model. After a process has been completed, it is important to evaluate the collaboration and lessons learned documented for the next time.

As discussed within the evaluation chapter, in addition to these changes in the processes a joint sales meeting has been added to the sales process. This has been done as sales advisors have in general best overview on ongoing matters and customers: sharing actively this information with each other can help in signalling sales possibilities to each other and share information in general.

As it has been learned shortly after the evaluation, the latter recommendation has already been implemented recently.

7.2.2: Responsibilities

From the analysis of the RASCI matrices, it has been concluded that different employees with the same role don't have the same perception of responsibility for process tasks and who is involved. This is a problem, since then processes are not executed in an uniform way, leading to potential misunderstandings and so undermining collaboration between the departments. To tackle this, it is advisable for Ecare to define, for a set of identified tasks, which business actors are involved and which responsibility role they should have. A good way to do this is using RASCI: it is an intuitive method, provides clear role definitions and therefore leaves little or no room for interpretation, there is a lot of literature to find on it and it costs no money. For the identification of process tasks, activities as illustrated in the To-Be model can be taken as starting point. In section 5.2, a procedure list on how to do this responsibility assignment is proposed. Within the To-Be model, at the first meeting between the coordinator and the advisors of Puur and Plein, a shared planning should be made: it is advisable for that planning to make use of RASCI matrices, for the same reasons mentioned above. As the responsibilities are assigned, it is advisable to document the matrices and store them in the common repository, so that employees can access them whenever in doubt for a certain task.

7.2.3: Information sharing

As discussed, Ecare has already a common repository in place, namely the Wiki. At the moment, this is not used to its full potential, as there are no clear agreements between the departments on what information should be stored and where. In the To-Be model, artefact objects give an indication of relevant information that should be documented; therefore, it is advised for Ecare to determine where and how this information should be documented in the Wiki. This way, information sharing can be facilitated and therefore improved.

7.2.4: Awareness

The last recommendation regards awareness of the employees. It has in fact signalled that employees currently have limited knowledge of the other department's products, roles and processes. Knowledge of the latter two elements can be improved by publishing the To-Be model (eventually together with this dissertation) in Ecare's intranet and make sure employees read and understand what is being depicted there. To facilitate the understanding of the model, a document with explanation of BPMN modelling can be attached and/or a training could be given.

7.3: Research's limitations and future work

There are a number of limitations to this research; the consideration of these can be of inspiration for eventual future work. As mentioned, the research was focused on the investigation of processes that involve intensive contact with the customer. Researching the remaining processes executed at the two departments could reveal additional opportunities for improving collaboration. Moreover,

the research was focused on the two main departments, leaving Shared Services out of scope; research on how collaboration with that department can be improved could lead to interesting insights as well.

This research was solely concerned with the formulation of a possible solution; researching the effects of the implementation of this research's recommendations in quantifiable measures (e.g. expected reduction of execution time for process tasks, cost savings, etc.) can lead to a proper evaluation of the proposed solution and eventually be the starting point for additional improvement. Moreover, trade-offs (e.g. in terms of additional costs, time) of implementing the processes as depicted in the To-Be model haven't been considered. Together, these aspects form a major limitation of the research, as with this information the management would be in a better position to decide whether the benefits of following the recommendations would outweigh the possible trade-offs of the solution or not.

Given the limited time for the research, a limited number of Delphi iterations could be performed, with a limited panel of participants size. Future research with different time constraints could add further detail level to the process models, as more iterations could be performed and eventually with a bigger (and therefore more statistically representative) research population.

For the collaboration assessment of the business processes, a maturity model (CollabMM) has been used. However, collaboration seen from another perspective, defined in terms of other variables and properly translated to indicators such as time and costs could lead to different, interesting results.

Another limitation to this research is the design choice to only use RASCI complementary to the As-Is model to gather information on Ecare's resource assignment. The approach by Surova et al. (2011) is very extensive (and so time-consuming) and has therefore not been considered for this research. However, the combination of a business process modelling effort with the responsibility roles definition by the RASCI method and the extensive task context proposed by Surova et al could provide an even more detailed view of the current processes in place. In case Ecare wishes to gain this level of detail, the approach proposed by Surova et al. (2011) could be used.

More generally, the research's external applicability is a major limitation. In fact, the results obtained are hardly usable by other companies with similar situations yet slightly different process structures. Companies could eventually use the same method applied in this particular study; however, to be certain that this method could be effective for other (similar) settings, it would need to be tested in multiple studies under (relatively) different circumstances. Positive results from other situations would eventually provide a solid argument to claim the method used in this research is applicable by other companies that experience the same problems as Ecare.

A research topic that can potentially be of interest for Ecare would be on the knowledge gap of employees of the two departments on each other's products and the benefits of reducing the gap. As mentioned, potentially, the processes currently in use could further be optimised by having tasks such as information gathering being performed by either Puur or Plein: this could reduce the execution time of the process and potentially lead to cost savings. However, research should be carried out to determine the magnitude of these optimisation benefits and compare it to the time and costs needed to train Ecare's personnel. The To-Be model could then be taken as starting point, as similar activities could be easily spotted, as the type of information gathered within the activities.

Another research topic that can be considered in the future is the merger of the departments' workflows into one; this could be an additional improvement to the collaboration level of Puur and Plein, and perhaps lead to cost savings. This is something that could be taken in consideration once

Puur and Plein would have the majority of their customers shared, cancelling therefore the need of having separate processes for different customers.

7.4: Research relevance

This research doesn't only have direct implications for Ecare, but also theoretical and practical implications. The first ones are described in section 7.4.1; the latter ones in section 7.4.2 below.

7.4.1: Theoretical relevance

As for the theoretical perspective, this research enriches the existing body of knowledge on business process management, as it shows how a business process modelling effort can be used as a way to improve collaboration between two business processes. Moreover, in the used approach, a suggestion for improvement to the existing theory has been made to evaluate the proposed solution. This has been done as the CollabMM does not provide with a method to check the collaboration improvement within the To-Be model. The latter aspect can be seen as relevant for existing literature as well, as it may be taken as starting point for the development of a pre-implementation evaluation method to be used together to CollabMM.

The knowledge gathered throughout this research has been generalized into a methodology (shown in Figure 16). Even though the method needs more testing to see whether it is applicable to other settings, it can potentially be used within different situations. The steps of the method are in fact formulated in way that it allows the researcher to decide which specific techniques from BPM he/she would want to apply to the research topic. In that case, the same method could be used, but for example with Petri nets as modelling language instead of BPMN. Another possible variation would be the choice of using another maturity model than CollabMM. Other maturity models offer also maturity levels for a certain aspect, together with requirements to comply with a certain level. Therefore, the method's steps could hypothetically be followed in the same way: first, the current maturity level would need to be assessed using the obtained As-Is model; next, a target level can be set and requirements to comply with that level used to design an improved To-Be model. Therefore, the method is extendible beyond the scope of collaboration. This makes it interesting for further research. These design decisions allow to ideally apply the method to different settings, making it interesting for students/researchers that intend to improve collaboration (or other aspects, as long as these are somewhere categorised in a maturity model) within an organization using business process modelling techniques.

7.4.2: Practical relevance

Next to its theoretical relevance, this research also has practical implications for other companies. As mentioned in the external validity discussion and limitations, the research has been tailored to Ecare's specific organization, therefore the recommendations are specific for their processes. Nevertheless, these interventions are derived from a set of well-defined requirements to improve collaboration by the CollabMM (e.g. monitoring collaborative activities, evaluating collaborations, etc.). These are general changes that are theoretically applicable to any setting. Therefore, following the procedure explained within this dissertation, any company wishing to improve collaboration, either between departments, teams or business units in general, could easily follow the same theoretical model to formulate changes to apply to their business processes.

7.5: Reflection

"All models are wrong, some are useful" George Box

This quote by the famous statistician George Box sums up the essence of the reflection on this research.

This research focused on giving an as accurate representation of the Puur and Plein departments as possible, identifying points for improvement for collaboration between the two and propose a scenario to streamline their processes and thus enhance collaboration. Ecare is a very dynamic company, fast-growing and with a quite unique product proposition and vision. Therefore, it has been no easy task to capture the complexity of their daily operations and translate it to the models that have been designed. It has been even a bigger challenge to design business processes that would on the one side improve interdepartmental collaboration and on the other one still fit in Ecare's way of working and especially of thinking. There are still many aspects of Ecare's business processes that are not included or not represented in their full complexity within the model; after all, this is all what a model is about: a simplification of reality.

The solution's aim is to bring structure in how Ecare works and make sure Puur and Plein become more aware of the potential benefits that can result from executing their processes in a more collaborative way, and as a consequence start actively striving towards that collaboration.

If the latter will be achieved bringing visible benefits as consequence, then the models used in this research could be regarded as wrong, yet useful.

Either way, Ecare has a brilliant future ahead and plenty of possibilities for growing even further. It has been a pleasure investigating the sometimes chaotic, yet fascinating worlds of IT and healthcare this company brings together.

References

- Arkilic, G., Reijers, H. A., & Goverde, R. H. (2012). How Good Is and AS-IS Model Really? *Business Process Management Workshops*, 12
- Business dictionary. (n.d.). Collaboration definition. Retrieved from http://www.businessdictionary.com/definition/collaboration.html
- Cabanillas, C., et al. (2012). *Automated Resource Assignment in BPMN Models Using RACI Matrices*. On the Move to Meaningful Internet Systems: OTM 2012, Berlin, Heidelberg, Springer Berlin Heidelberg.
- Cabanillas, C., Resinas, M., & Ruiz-Cortes, A. (2018). *A template-based approach for responsibility management in executable business processes*. Enterprise Information Systems, 12(5), 550–586. https://doi.org/10.1080/17517575.2017.1390166
- Cooper, D. R., & Schindler, P. S. (2014). Business Research Methods (12th ed.). New York, United States: McGraw-Hill Education.
- Heerkens, H., & van Winden, A. (2017). *Solving Managerial Problems Systematically* (1st ed.). Groningen, Netherlands: Noordhoff.
- Kamphuis, E. P. (2018). *Planning at Polder Valley: Redesigning the planning process through qualitative research*. University of Twente. Retrieved from https://essay.utwente.nl/76539/
- Kunchala, J., Yu, J., Yongchareon, S. et al. (2019) *An approach to merge collaborating processes of an inter-organizational business process for artifact lifecycle synthesis.* Computing 102, 951–976 (2020). https://doi.org/10.1007/s00607-019-00770-z
- La Rosa, M., Dumas, M.,Uba, R.,Dijkman, R. (2010). *Merging Business Process Models*. 6426. 96-113. 10.1007/978-3-642-16934-2_10.
- Magdaleno, A. M., de Araujo, R. M., & Borges, M. R. S. (2007). *Designing Collaborative Processes*. Retrieved from https://www.semanticscholar.org/paper/Designing-Collaborative-Processes-Magdaleno-Araujo/435c7e5bc77bda5753a49e1f6d7df26f746244be
- Magdaleno, A. M., de Araujo, R. M., & da Silva Borges, M. R. (2009). *A maturity model to promote collaboration in business processes*. International Journal of Business Process Integration and Management, 4(2), 112. https://doi.org/10.1504/IJBPIM.2009.027779
- Magdaleno, A. M., de Araujo, R., Werner, C. (2011). *A roadmap to the Collaboration Maturity Model (CollabMM) evolution*. Proceedings of the 2011 15th International Conference on Computer Supported Cooperative Work in Design, CSCWD 2011. 105-112. 10.1109/CSCWD.2011.5960062.
- Magdaleno, A. M., Cappelli, C., Baião, F., Santoro, F., Araujo, R. (2007). *A Practical Experience in Designing Business Processes to Improve Collaboration*. 4928. 156-168. 10.1007/978-3-540-78238-4_17.
- Meijer, D. T. M. J. (2019). *Statistics for engineers*. Enschede, The Netherlands: Univerity of Twente.
- Morgan, R. (2008, December). *How to Do RACI Charting and Analysis: A Practical Guide.* Retrieved from https://www.projectsmart.co.uk/how-to-do-raci-charting-and-analysis.php
- Münch, J., Armbrust, O., Kowalczyk, M., Soto, M. (2012). *Descriptive Process Models*. 10.1007/978-3-642-24291-5_3.
- Noort, P. (2019). Systematic Literature Review [Slides]. Retrieved from https://canvas.utwente.nl/courses/5037/files/1413723/download?wrap=1
- Object Management Group. (2011). *Business Process Model and Notation (BPMN) version 2.0.*

- Okoli, C., & Pawlowski, S. D. (2004). *The Delphi method as a research tool: an example, design considerations and applications*. Information & Management, 15–29. Retrieved from https://www.sciencedirect.com/science/article/abs/pii/S0378720603001794
- Peffers, K., Tuunanen, T., Rothenberger, M. A., & Chatterjee, S. (2007). *A Design Science Research Methodology for Information Systems Research*. Journal of Management Information Systems, 24(3), 45–78. Retrieved from https://doi.org/10.2753/MIS0742-1222240302
- Quirkos - Simple Qualitative Analysis Software. (2019, November 19). Beginners guide to coding qualitative data. Retrieved from https://youtube.com/watch?v=lYzhgMZii3o&t=376s
- Sebu, M. L., Ciocârlie, H*., Merging business processes for a common workflow in an organizational collaborative scenario*, 2015 19th International Conference on System Theory, Control and Computing (ICSTCC), Cheile Gradistei, 2015, pp. 134-139, doi: 10.1109/ICSTCC.2015.7321282.
- Surova, E., Boev, S., Nikolov, K., & Zhivkoc, V. (2011). *Incorporating Collaboration in Business Processes: How to merge business processes and collaboration activities in an efficient and agile way*. Retrieved from https://www.icb.bg/attachments/article/135/IncorporatingCollaborationInBusinessProcesses.pdf
- University of Twente, & van Dijk, F. W. (2017*). Adopting the Cloud A multi-method approach towards developing a cloud maturity model.* Retrieved from http://purl.utwente.nl/essays/73075
- Weske, M. (2012). *Business Process Management* (2nd ed.). Heidelberg, Germany: Springer.
- Wieringa, R. J. (2014). *Design science methodology for information systems and software engineering*. London: Springer. https://doi.org/10.1007/978-3-662-43839-8

Appendix

Appendix A: Systematic literature review

In this part, the systematic literature review that has been performed to gather identify the objectives of a solution to the research problem is discussed. This review has been performed according to the methodology proposed by Noort (2019). First, the research goal has been defined; next, a brief scoping research has been performed: from the scoping research, the research question and relevant key terms to be used within the search strings have been identified. Next, the inclusion and exclusion criteria for literature works have been determined. Relevant databases to be used to perform the search have been identified. Next, the performed research and selection of literature work has been summarized in the search log. At last, the final selection of literature is presented and conceptualized using a conceptual matrix.

Research goal

The research goal is to gain knowledge on how business process models can be used to improve collaboration between the modelled business processes; a desired outcome of this review would be either a methodology, list of relevant aspects or framework to use business process modelling as aid for the fore-mentioned goal.

Scoping research

Prior to performing the literature review, a scoping research has been performed. A scoping research consists of consulting work found on the topic of interest in order to define key terms and concepts to use within the search for literature. It can also be used to identify additional bibliographic work (Noort, P., 2019).

For the search, the book Business Process Management by Weske (2012) has been consulted first. The book addresses several business process modelling languages with their respective features: among these BPMN (2.0) seemed to fit the research aim best. As Weske claims, BPMN has become in recent years the de facto language for representing business processes, due to its generally accepted understandability and extensions. BPMN appears to be widely used to represent the flow of activities together with the communication flows that take place during their execution. With the aid of the book insight into three important types of processes within BPMN modelling were gained: orchestrations, choreographies and collaborations. Orchestrations are standard processes, within a single business entity that is contained within a pool and with a well-formed context. Collaboration processes show participants and their interactions; hereby only the participants' pools and message flows are given. Finally, choreography processes have the purpose to show interaction between participants in a different format and concentrate on the message flow rather than on the detailed tasks of a process. Besides Weske's work, Looking through dissertations of fellow IEM students revealed a bachelor thesis on a similar topic as the one of this research. Within this dissertation, the planning of activities is not only represented by BPMN models but also by an additional artifact, being RACI matrices. RACI matrices are so called responsibility assignment matrices, and offer a handy tool to visualize by which specific actor a task is executed, together with all the actors involved in the task execution (Kamphuis, E. P., 2018) . This finding has lead to broaden the scope of this systematic literature review to the fields of resource allocation using RACI matrices.

Research question

Given the above, the research question that was ought to be answered by the systematic literature review is:

Which business process modelling techniques can be used in order to improve inter-departmental collaboration?

Key terms

From the scoping research, a list of key terms to be used within the search queries has been defined:

Key terms: BPM, business process modelling, RACI matrix, "improve collaboration"

Along with the key terms, synonyms and related terminology has been identified in order to eventually use it whenever experiencing difficulties in finding articles on the research topic (Noort, P., 2019).

Synonyms found with thesaurus for collaboration: alignment, harmony, framework

Synonyms found for improvement: enhancement, optimization

Related terms: data flow, information sharing, process redesign, process reengineering.

Inclusion and exclusion criteria

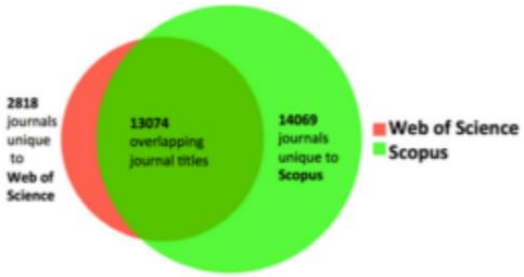
The following criteria have been pre-established prior to performing the literature review:

Exclusion criteria		
Number	**Criterium**	**Reason for exclusion**
1	Article is not freely available	There is no money for the research
2	Term collaboration* not present in title or abstract	The aim of the research is to increment process collaboration, therefore articles that do not have collaboration as related topic are not considered to be relevant
3	Article language other than English, Dutch or Italian	These are the languages for which a topic at a high-scientific level could be understood.

Inclusion criteria		
Number	**Criterium**	**Reason for inclusion**
1	Business process model present either in title, abstract or conclusions	Business process modelling is the theoretical perspective from which the research is performed
2	Two separate processes or more	It should be about collaboration between processes and not internal process coordination
3	Improvement*	The end goal is to improve collaboration

Databases

For database selection, the following have been considered: Scopus, Web of Science, Google Scholar, Business Source Elite. Among these, Google Scholar is the broadest, with estimated 100-389 million indexed records; a downside of Google is that it includes the most variate sources of information, including non-peer reviewed articles (Noort, P., 2019). Scopus and Web of science are multidisciplinary and have far more sources dan Business Source Elite, which is more focused on the domain of Management and Economics (Noort, P., 2019). Given this limitation, Business Source Elite has been labelled as non-eligible for this literature review. For the comparison of the remaining databases, information from Noort (2019) has been used: comparing Scopus and Web of Science, the two databases have about 13074 articles in common, with 2818 articles unique for Web of Science and 14069 for Scopus as depicted below.



Given that for the research as many articles as possible were sought to be found (as the research topic is very specific and therefore restrictive), it has been chosen so select Scopus as main database to be used for the research. Google Scholar has been used as eventual backup, in case the research databases needed to be broader.

Search log

The execution of the research for literature is given below. The research phase has been terminated once a satisfactory number of selected articles had been found, in order to answer the research question.

Literature found				
Database	**Search String**	**Additional filters**	**Date**	**Entries**
Scopus	Use AND BPM AND improve AND collaboration		13-04-2020	37 (7 articles selected on title and abstract scan)
Scopus	RACI AND matrix AND improving AND collaborations		14-04-2020	No entries
Scopus	RACI AND matrix		14-04-2020	21 (4 articles selected on title and abstract scan)
Scopus	(“business process model”OR RACI) AND improving		14-04-2020	18 (2 articles selected on title and abstract scan)

	AND collaboration			
Total			15-04-2020	**13**
First selection			13-04-2020 / 15-04-2020	-7
Removal of duplicates			14-04-2020	-1
Removal because of unavailability			13-04-2020	-1
Additional literature found in bibliographic references			15-04-2020	+6
Total used articles				**10**

The literature selection is listed below:

1. Cabanillas, C., et al. (2012). *Automated Resource Assignment in BPMN Models Using RACI Matrices*. On the Move to Meaningful Internet Systems: OTM 2012, Berlin, Heidelberg, Springer Berlin Heidelberg.
2. Cabanillas, C., Resinas, M., & Ruiz-Cortes, A. (2018). *A template-based approach for responsibility management in executable business processes*. Enterprise Information Systems, 12(5), 550–586. https://doi.org/10.1080/17517575.2017.1390166
3. Magdaleno, A. M., de Araujo, R. M., & Borges, M. R. S. (2007). *Designing Collaborative Processes*. Retrieved from https://www.semanticscholar.org/paper/Designing-Collaborative-Processes-Magdaleno-Araujo/435c7e5bc77bda5753a49e1f6d7df26f746244be
4. Magdaleno, A. M., de Araujo, R. M., & da Silva Borges, M. R. (2009). *A maturity model to promote collaboration in business processes*. International Journal of Business Process Integration and Management, 4(2), 112. https://doi.org/10.1504/IJBPIM.2009.027779
5. Magdaleno, A., Araujo, R., Werner, C. (2011). *A roadmap to the Collaboration Maturity Model (CollabMM) evolution*. Proceedings of the 2011 15th International Conference on Computer Supported Cooperative Work in Design, CSCWD 2011. 105-112. 10.1109/CSCWD.2011.5960062.
6. Magdaleno, A., Cappelli, C., Baião, F., Santoro, F., Araujo, R. (2007). *A Practical Experience in Designing Business Processes to Improve Collaboration*. 4928. 156-168. 10.1007/978-3-540-78238-4_17
7. Morgan, R. (2008, December). *How to Do RACI Charting and Analysis: A Practical Guide.* Retrieved from https://www.projectsmart.co.uk/how-to-do-raci-charting-and-analysis.php
8. Münch, J., Armbrust, O., Kowalczyk, M., Soto, M. (2012). *Descriptive Process Models*. 10.1007/978-3-642-24291-5_3.
9. Surova, E., Boev, S., Nikolov, K., & Zhivkoc, V. (2011). *Incorporating Collaboration in Business Processes: How to merge business processes and collaboration activities in an efficient and agile way*. Retrieved from https://www.icb.bg/attachments/article/135/IncorporatingCollaborationInBusinessProcesses.pdf
10. Weske, M. (2012). *Business Process Management* (2nd ed.). Heidelberg, Germany: Springer.

Conceptual matrix

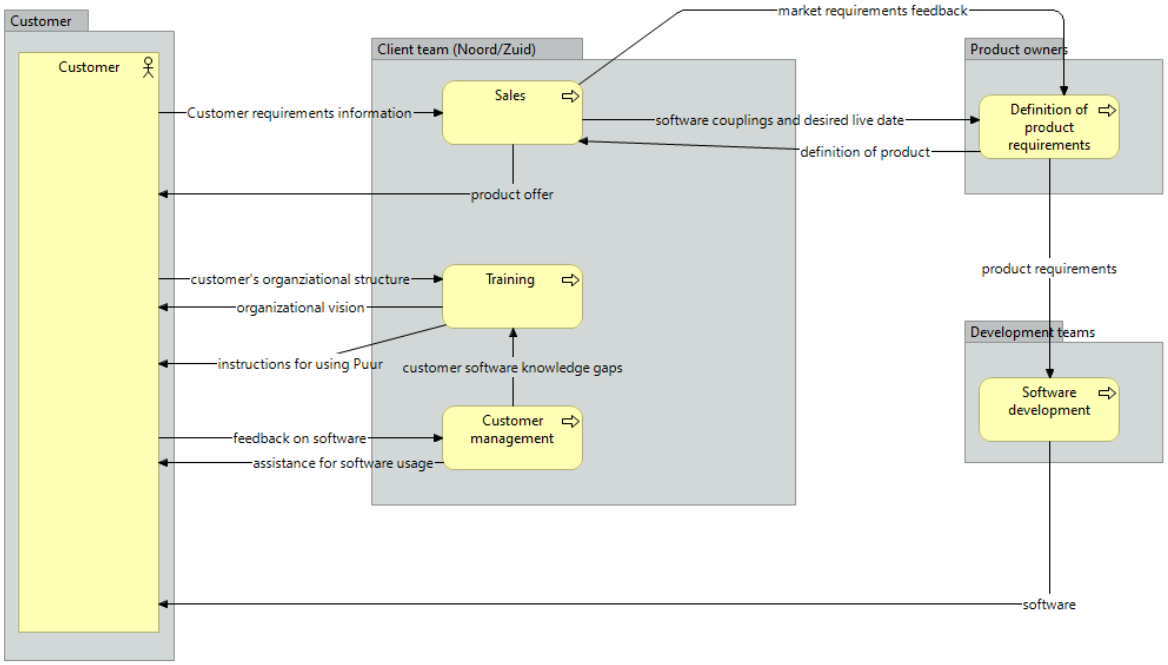
Source	Authors	Year	Research subjects	Applications	Methods	Key findings
Automated Resource Assignment in BPMN Models Using RACI Matrices	Cabanillas, C., et al.	2012	na	Automatic aggregated BPMN model generation tool using BP and RACI models	Qualitative longitudinal research	BPMN alone are not suited for expressing collaborations due to their lack of semantics. Aggregation of RASCI matrices with BPMN models gives a complete overview of task allocation and therefore better visualization of the process collaborations.
A template-based approach for responsibility management in executable business processes	Cabanillas, C., et al.	2018	Na	Automatic aggregated BPMN model generation tool using BP and RACI models with RAL	Qualitative longitudinal research	It is a continuation on previous work (see above). The authors further elaborate on RAL (Resource Assignment language) for its use in automated task allocation within software
A maturity model to promote collaboration in business processes	Magdaleno, A. M., de Araujo, R. M., & da Silva Borges, M. R.	2009	na	The CollabMM for conceptualization of collaboration in levels and set of requirements for each level	Qualitative longitudinal research	The authors propose a maturity model based on previous models to define collaboration. Collaboration can be assessed within a business process with the domains of communication, coordination, awareness and memory and can be classified in the levels ad-hoc, planned, aware and reflexive, each with a set of requirements to comply with the level.
Designing collaborative processes	Magdaleno, A.M., Araujo, R.M., Marcos R., S., & Borges	2007	Two medium-sized Brazilian firms in the consulting sector	A model with a set of requirements for assessing and implementing levels of collaborations	Two case studies and re-elaboration of state of the art models and practices	The model can be used to assess the degree of collaboration within a firm's business processes and aid modelling to-be requirements to elevate the firm to a higher collaboration standard

				observed with the aid of BPMs		
A Practical Experience in Designing Business Processes to Improve Collaboration	Magdaleno A.M., Cappelli C., Baiao F., Santoro F., de Araujo R.M.	2008	The Northeast GEDIG Pilot Projects at PETROBAS (the Brazilian's main petrol company)	Example of design of an As-is BP model, assessment of the collaboration level and design of a To-be BP model	Implementation of a real project for one of the biggest petroleum multinationals worldwide and elaboration of the CollabMM model	Use of the CollabMM model for collaboration assessment and improvement is effective in the design and implementation of a to-be business process model
A roadmap to the Collaboration Maturity Model (CollabMM) evolution.	Magdaleno, A., Araujo, R., Werner, C.	2011	Observation of case studies	Strengths and limitations of the CollabMM	Review of the results from case studies that have adopted the CollabMM	Measurement of the collaboration levels need more detailed definition. Moreover, CollabMM doesn't have a repository to track model evolution, in contrast with other maturity models.
Descriptive process models	Münch, J., Armbrust, O., Kowalczyk, M., Soto, M.	2012	Three companies operative in software development	Design of descriptive process models	Review of three case studies	Descriptive process modelling can be defined as the practice of collecting and modelling information on existing processes for various purposes, like process dissemination, optimisation administration etc. The authors propose a 8-step method to design a descriptive process model. Along with that, they propose the use of alternative methodologies like the multi-view process modelling method and Elicit.

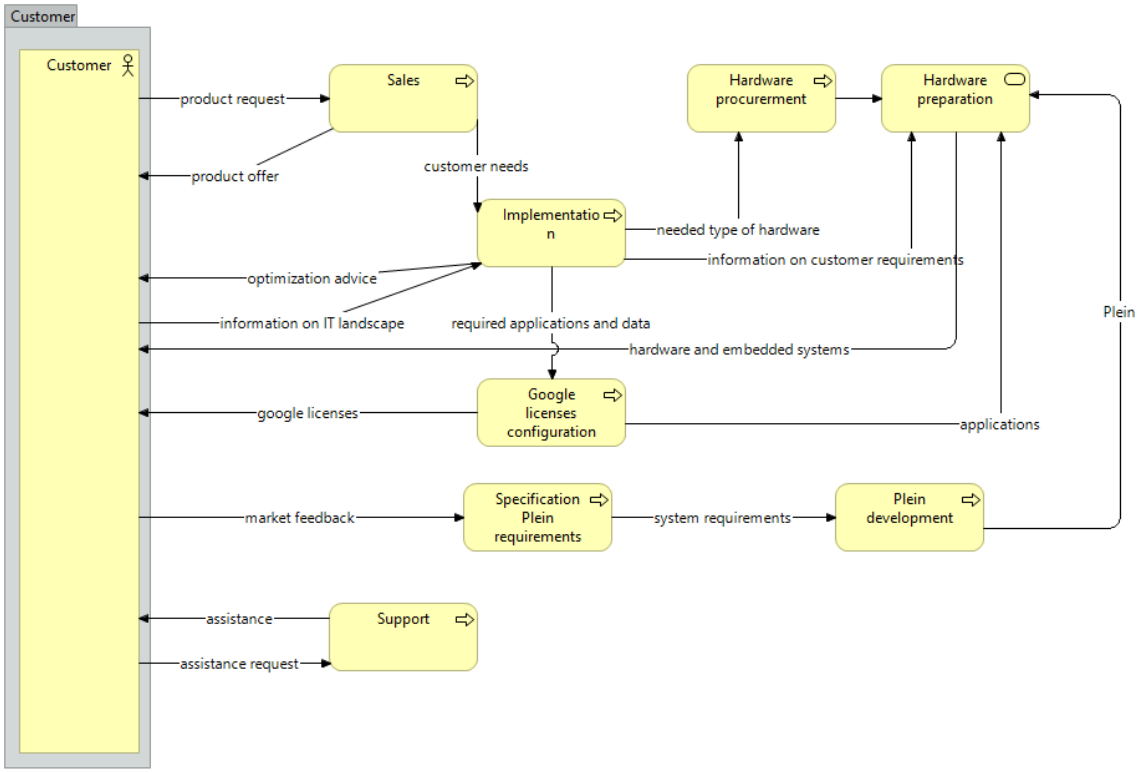
Incorporating Collaboration In Business Processes: How to Merge Business Processes and Collaboration Activities in an Efficient and Agile Way	Surova, E., Nikolov, K., Zhivkov, V., & Boev, S.S.	2011	na	Extensions of task objects within business processing languages	Qualitative longitudinal research	Semantics used in business process modelling are not sufficient for providing enough insight in collaborative activities. Collaboration activities having the specified attributes within the paper and incorporated into a task add more significance to the business process model.
Business Process Management	Weske, M.	2012	na	Business process management	Literature review	The book describes the practice of business process management, the objectives of this practice, features of various modelling languages and modelling techniques, and gives a general approach for business process modelling projects

Appendix B: Business process landscapes first Delphi iteration

Puur:



Plein:



Appendix C: Questionnaire first Delphi iteration

Delphi study Ecare round 1

Start of Block: Introductie

Introductie Geachte deelnemer, Allereerst, bedankt voor jouw deelname. Zoals al benoemd, de bedoeling van dit onderzoek is de huidige werkwijze bij Puur en Plein in kaart te brengen. Jouw kennis en inzichten zijn daarom noodzakelijk voor een goed resultaat van dit onderzoek. Dit onderzoek bestaat uit vier rondes. Per ronde zul je een vragenlijst en een model ontvangen; de vragen gaan over het bijgevoegd model. De antwoorden van iedere ronde zullen worden verzameld en uitgewerkt tot een accurater model. Het gewenste resultaat aan het einde van de vierde ronde is een model dat goed weergeeft wat de huidige situatie is bij Puur en Plein. De invulling van de vragenlijsten zal ongeveer 30 minuten duren. Vanwege de korte tijd voor dit onderzoek, verzoek ik je om de vragen binnen 3 dagen na ontvangst te beantwoorden en terug te sturen. Indien je verhinderd bent , vraag ik dit door te geven Mocht je vragen of opmerkingen hebben, neem gerust contact met me via de mail (Vittorio.Minghetti@ecare.nl). Onderaan vindt je instructies voor het invullen van de vragen voor de eerste ronde.

Model 1: Landschap Plein

Model 2: Landschap Puur

Instructies De eerste bijgevoegde modellen zijn twee business landschap modellen.
De landschappen zijn een schematische weergave van de belangrijkste processen binnen Plein en Puur. De grijze vierhoeken symboliseren teams/groepen betrokken bij executie van de processen. Bijvoorbeeld, in het landschap van Puur worden de processen “Salestraject”, “Implementatie/training”, “Klantenmanagement” door de groep Klantenteam Noord/Zuid uitgevoerd. De gele vierkanten zijn belangrijke processen die plaatsvinden. De pijlen die naar een proces wijzen zijn de belangrijkste inputs, terwijl de pijlen die uit een proces komen zijn de belangrijkste outputs. De bedoeling van dit questionnaire is verder inzoomen op die processen die in bovenstaande modellen weergegeven zijn. Dit betekent praktisch dat ik voldoende informatie zou moeten hebben om per proces te kunnen beschrijven wat de belangrijkste acties zijn die uitgevoerd worden binnen een proces.
Een voorbeeld van het gewenste niveau van detail wordt weergegeven door onderstaand flowchart:

NB: dit is maar een voorbeeld van een beschrijving van een proces

Voor het beantwoorden van de komende vragen, vraag ik je om antwoord te geven voor de processen waarbij je direct bent betrokken.

End of Block: Introductie

Start of Block: Algemeen

Q1 Ik ben betrokken bij:

- ☐ Plein (1)
- ☐ Puur (2)
- ☐ Beide (3)

Q2 Team:

_____

Q3 Functie:

_____

End of Block: Algemeen

Start of Block: Feedack op landschap modellen

Proces landschap Puur
Proces landschap Plein

Beantwoord onderstaande vragen:
- Voor het landschap model van Puur als je bij Puur bent betrokken
- Voor het landschap model van Plein als je bij Plein bent betrokken
- Voor beide modellen als je bij beide betrokken bent

Q4 Zijn er processen, input/outputstromen of andere belangrijke elementen die in bovenstaand model ontbreken? Zo ja, beschrijf welke:

_____

_____

_____

_____

_____

Q5 Kloppen alle aspecten die in de modellen weergegeven zijn? Zo niet, wat klopt er niet?

_____

_____

_____

_____

_____

Q6 Algemeene feedback op model:

_____

_____

_____

_____

_____

End of Block: Feedack op landschap modellen

Start of Block: Inzoomen

Q7 In welke processen ben jij direct betrokken? Mochten er processen ontbreken in het landschap model, benoem het proces, de in- en outputstromen.

_____

_____

_____

_____

_____

Q8 (Per benoemd proces in vraag 7): wat zijn de belangrijkste uitkomsten van het proces? Denk aan producten, data, documenten, informatie die door andere processen/collega's gebruikt wordt…

_____

_____

_____

_____

_____

Q9 Wat zijn belangrijke eisen aan de bovengenoemde uitkomsten?

_____

_____

_____

_____

_____

Q10 (Per benoemd proces in vraag 7): wanneer eindigt het proces?

_____

_____

_____

_____

_____

Q11 (Per benoemd proces in vraag 7): welke acties worden uitgevoerd tijdens het proces? Beschrijf deze in chronologische volgorde.

_____

_____

_____

_____

_____

Q12 Wie is betrokken bij deze acties?

_____

_____

_____

_____

_____

Q13 Zijn er bepaalde knooppunten binnen het proces waarin een beslissing moet worden gemaakt? Beschrijf deze kort:

_____

_____

_____

_____

_____

Q14 Welke informatie is nodig om deze acties (genoemd, per proces uit vraag 7, in vraag 11) uit te voeren?

_____

_____

_____

_____

_____

Q15 Welke informatie wordt er bij jouw proces opgeleverd wat gebruikt wordt door andere collega's/bij andere processen?

_____

_____

_____

_____

_____

Q16 (Per benoemd proces in vraag 7): wanneer begint het proces?

_____

_____

_____

_____

_____

Q17 Heb je nog feedback over het questionnaire?

_____

_____

_____

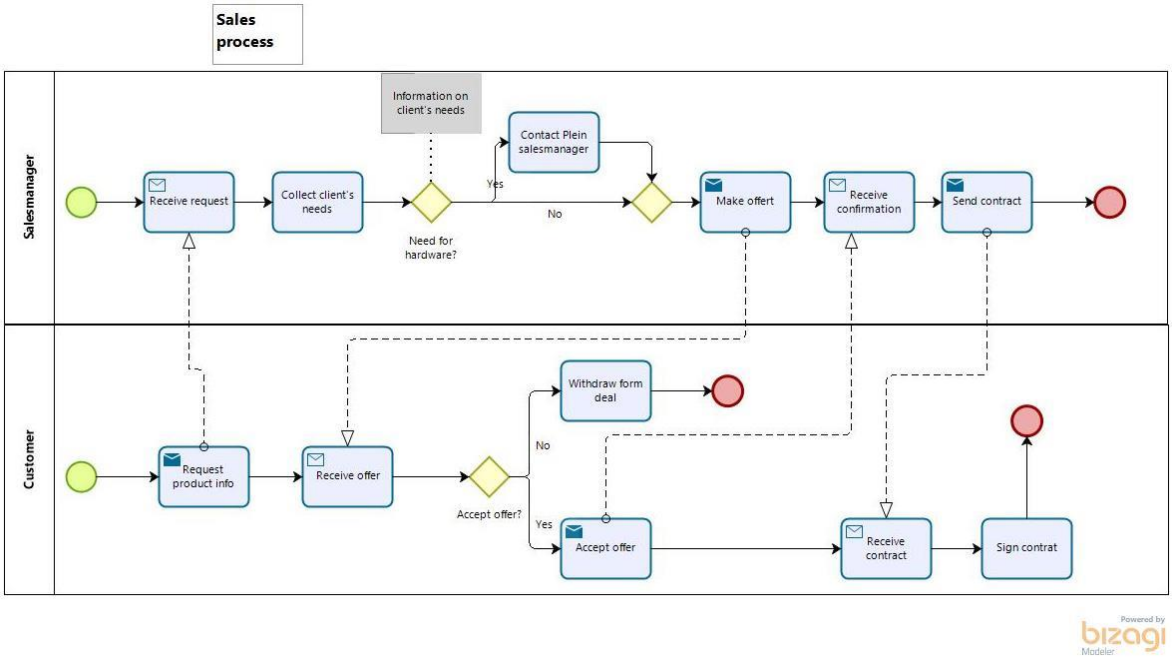
_____

_____

End of Block: Inzoomen

Start of Block: Overig

Appendix D: Attached example of BPMN model first Delphi iteration



Appendix E: Codes overview qualitative analysis first Delphi iteration

---

○ **Add inputstream**

Comment: by 31627

> *An input stream is missing in the process landscape. Description of what is missing and to which process/es it is related is given*

1 Groups:

Process landscapes

○ **Add outputstream**

Comment: by 31627

> *An outputstream from a process is missing in the landscape model. Descritpion of the outputstream and its position in the model is given.*

1 Groups:

Process landscapes

○ **Add process**

Comment: by 31627

> *There is a process missing to the model in question. This type of answer suggests the addition of a process to the model and describes what the process entails.*

1 Groups:

Process landscapes

○ **Business actors**

Comment: by 31627

> *The respondent describes the business actors involved in the process.*

1 Groups:

BPMN elements

○ **Change element**

Comment: by 31627

> *Element is incorrrect, needs change in positioning, name, etc.*

1 Groups:

Process landscapes

○ **Change process**

Comment: by 31627

> *Something to the process represented in the landscape model needs to be changed. E.g. name is incorrect, position in the model is incorrect etc.*

1 Groups:

Process landscapes

○ **Confirm element**

Comment: by 31627

> *Confirmation of the correctness of a feature within the model.*

1 Groups:

Process landscapes

○ **Confirm process**

Comment: by 31627

> *The process modelled is correct.*

1 Groups:

Process landscapes

○ **Control flow**

Comment: by 31627

> *The respondent describes a control flow in the process with corresponding tasks/events/decision points*

1 Groups:

BPMN elements

○ **Delete stream**

Comment: by 31627

> *A modelled input/output stream is not correct. Information on the position of the streamline in the model and why it needs to be removed is given.*

1 Groups:

Process landscapes

○ **Department**

Comment: by 31627

> *Department where the respondent is active. Can either be Plein, Puur, or both*

1 Groups:

Organizational position

○ **Don't know**

Comment: by 31627

> *The respondent hasn't sufficient knowledge to answer the question*

2 Groups:

Feedback

Process landscapes

○ **End event**

Comment: by 31627

> *The participant describes an end event of the process*

1 Groups:

BPMN elements

○ **Function**

Comment: by 31627

> *The respondent fills in his/her function*

1 Groups:

Organizational position

○ **Information**

Comment: by 31627

> *The respondent is talking about information either used or produced by the process.*

1 Groups:

BPMN elements

○ **Join/split**

Comment: by 31627
> *The respondent is talking about a join/split point in the process.*

1 Groups:

BPMN elements

○ **Modelling aspect is not clear**

Comment: by 31627
> *The respondent doesn't understand the meaning of a certain modelleing aspect.*

1 Groups:

Process landscapes

○ **Negative feedback**

Comment: by 31627
> *The respondent has complaints about the questionnaire/data gathering*

2 Groups:

Feedback

Process landscapes

○ **No changes needed**

Comment: by 31627
> *The model is correct, no changes to it are needed*

1 Groups:

Process landscapes

○ **Positive feedback**

Comment: by 31627
> *The respondent appraises an aspect of the questionnaire/model*

2 Groups:

Feedback

Process landscapes

○ **Product**

Comment: by 31627
> *The respondent is describing a process product*

1 Groups:

BPMN elements

○ **Start event**

Comment: by 31627
> *The respondent is describing a start event in the process*

1 Groups:

BPMN elements

○ **Suggestions for improvement**

Comment: by 31627
> *Suggestions to improve the data gathering/questionnaire*

2 Groups:

Feedback

Process landscapes

○ **Task**

Comment: by 31627
> *The respondent is describing a task executed during the process.*

1 Groups:

BPMN elements

○ **Team**

Comment: by 31627
> *Team in which the respondent is active*

1 Groups:

Organizational position

○ **Unclear**

Comment: by 31627
> *The respondent doesn't understand the question being asked.*

1 Groups:

Feedback

Appendix F: Quotations report process landscapes first Delphi iteration

Report for Query: Process landscapes

(75) quotations

1:1 Ik denk dat het onderdeel Training ook als los element bij het Plein g…… (5:264 [5:516]) - D 1: Respons A [redacted]

Ik denk dat het onderdeel Training ook als los element bij het Plein gezien mag worden. Het is voor een organisatie een hele transitie naar een nieuwe werkplek, waarbij de training ook een essentieel onderdeel is om het project tot een succes te maken.

1 Codes:

○ **Add process**

Comment: by 31627

> *There is a process missing to the model in question. This type of answer suggests the addition of a process to the model and describes what the process entails.*

1:2 Daarnaast zou ik een los element toevoegen: Technische inrichting G-s…… (5:518 [5:746]) - D 1: Respons A [redacted]

Daarnaast zou ik een los element toevoegen: Technische inrichting G-suite. Hierbij wordt in afstemming met de organisatie gekeken de achterkant van G-suite wordt ingericht en welke rechten mensen binnen de organisatie hebben.

1 Codes:

○ **Add process**

Comment: by 31627

> *There is a process missing to the model in question. This type of answer suggests the addition of a process to the model and describes what the process entails.*

1:3 De implementatie is eigenlijk het laatste moment in het project. Deze…… (5:840 [5:1305]) - D 1: Respons A [redacted]**)**

De implementatie is eigenlijk het laatste moment in het project. Deze zou ik echter veranderen in inventarisatie om vervolgens de implementatie als laatste element toe te voegen. Hieronder probeer ik een beetje te schetsen wat ik bedoel: 1.Sales 2. Inventarisatie (Hardware / licenties / huidige IT landschap) 3a. Hardware uitrollen 3b. Technische inrichting G-suite 3c. Plein inrichten 3d. Training en voorbereiding overgang. 4. Implementatie 5.

Nazorg (Support)

1 Codes:

○ **Add process**

Comment: by 31627

There is a process missing to the model in question. This type of answer suggests the addition of a process to the model and describes what the process entails.

1:4 Goed dat bij elk element de klant wordt betrokken (5:1342 [5:1390]) - D 1: Respons A [redacted]

Goed dat bij elk element de klant wordt betrokken

1 Codes:

○ **Positive feedback**

Comment: by 31627

The respondent appraises an aspect of the questionnaire/model

---

1:5 Verder vind ik het een erg overzichtelijke manier om een proces weer…… (5:1449 [5:1529]) - D 1: Respons A [redacted]

Verder vind ik het een erg overzichtelijke manier om een proces weer te geven!

1 Codes:

○ **Positive feedback**

Comment: by 31627

The respondent appraises an aspect of the questionnaire/model

---

1:31 Inventarisatie (5:1805 [5:1819]) - D 1: Respons A [redacted]

Inventarisatie

1 Codes:

○ **Add process**

Comment: by 31627

There is a process missing to the model in question. This type of answer suggests the addition of a process to the model and describes what the process entails.

1:32 Training organisatie (5:1823 [5:1842]) - D 1: Respons A [redacted]

Training organisatie

1 Codes:

○ **Add process**

Comment: by 31627

There is a process missing to the model in question. This type of answer suggests the addition of a process to the model and describes what the process entails.

1:33 Inrichting Plein (5:1846 [5:1861]) - D 1: Respons A [redacted]

Inrichting Plein

1 Codes:

○ **Confirm process**

Comment: by 31627
> *The process modelled is correct.*

1:34 Implementatie (5:1865 [5:1877]) - D 1: Respons A [redacted]

Implementatie

1 Codes:

○ **Confirm process**

Comment: by 31627
> *The process modelled is correct.*

2:4 Volgens mij staan alle elementen er wel in. Google, Plein en Hardware……. (5:264 [5:436]) - D 2: Respons A [redacted]

Volgens mij staan alle elementen er wel in. Google, Plein en Hardware. Wellicht het gedeelte van Sales naar Google, plein of hardware. Je kunt het ook afzonderlijk nemen.

2 Codes:

○ **Confirm element**

Comment: by 31627
> *Confirmation of the correctness of a feature within the model.*

○ **No changes needed**

Comment: by 31627
> *The model is correct, no changes to it are needed*

2:5 Alles in de breedste zin van het woord klopt. (5:530 [5:574]) - D 2: Respons A [redacted]

Alles in de breedste zin van het woord klopt.

2 Codes:

○ **Confirm element**

Comment: by 31627
> *Confirmation of the correctness of a feature within the model.*

○ **No changes needed**

Comment: by 31627

> *The model is correct, no changes to it are needed*

2:6 Alleen aan het eind komt er nog wel training bij, op alle vlakken. Dez…… (5:576 [5:671]) - D 2: Respons A [redacted]

Alleen aan het eind komt er nog wel training bij, op alle vlakken. Deze zie ik niet terugkomen.

1 Codes:

- **Add process**

Comment: by 31627

> *There is a process missing to the model in question. This type of answer suggests the addition of a process to the model and describes what the process entails.*

3:4 Maar mis wel het onderdeel advies of accountmanagement (5:322 [5:375]) - D 3: Respons adviseur team [redacted]

Maar mis wel het onderdeel advies of accountmanagement

1 Codes:

- **Add process**

Comment: by 31627

> *There is a process missing to the model in question. This type of answer suggests the addition of a process to the model and describes what the process entails.*

3:5 optimization advice' staat gerelateerd aan implementatie, maar blijf d…… (5:453 [5:662]) - D 3: Respons adviseur team [redacted]

optimization advice' staat gerelateerd aan implementatie, maar blijf daarna ook altijd voortduren bij Ecare. In de vorm van het klantteam waarbij een de adviseur het vaste eerste aanspreekpunt is voor de klant

2 Codes:

- **Add inputstream**

Comment: by 31627

> *An input stream is missing in the process landscape. Description of what is missing and to which process/es it is related is given*

- **Add process**

Comment: by 31627

> *There is a process missing to the model in question. This type of answer suggests the addition of a process to the model and describes what the process entails.*

3:6 Het onderdeel 'customer needs' loopt tijdens en na de implementatie du…… (5:783 [5:1120]) - D 3: Respons adviseur team [redacted]

Het onderdeel 'customer needs' loopt tijdens en na de implementatie dus ook in eerste instantie via de adviseur. Wanneer er extra investeringen gedaan moeten worden zoals het aanbrengen van een koppeling of het afnemen van extra trainingen zal de aanvraag om hiervoor een prikvoorstel te doen via de adviseur naar Sales gedaan worden.

1 Codes:

- **Add inputstream**

Comment: by 31627

> *An input stream is missing in the process landscape. Description of what is missing and to which process/es it is related is given*

3:7 Volgens mij complee (5:1155 [5:1173]) - D 3: Respons adviseur team [redacted]

Volgens mij complee

1 Codes:

- **Positive feedback**

Comment: by 31627

> *The respondent appraises an aspect of the questionnaire/model*

3:8 Ik zie wel dat Sales echt als losse entiteit is aangegeven, terwijl in…… (5:1177 [5:1298]) - D 3: Respons adviseur team [redacted]

Ik zie wel dat Sales echt als losse entiteit is aangegeven, terwijl in mijn beleving sales onderdeel is van het klantteam

1 Codes:

- **Change process**

Comment: by 31627

> *Something to the process represented in the landscape model needs to be changed. E.g. name is incorrect, position in the model is incorrect etc.*

4:4 Beveilings Incidenten / Datalekken worden vaak ook door de klant aan E…… (5:264 [5:477]) - D 4: Respons [redacted]

Beveilings Incidenten / Datalekken worden vaak ook door de klant aan Ecare support gerapporteerd. Dit valt niet noodzakelijk onder software feedback.

Support handelt deze af en verzorgt de feedback aan de klant.

2 Codes:

- **Add inputstream**

  Comment: by 31627
  > *An input stream is missing in the process landscape. Description of what is missing and to which process/es it is related is given*

- **Add outputstream**

  Comment: by 31627
  > *An outputstream from a process is missing in the landscape model. Descritpion of the outputstream and its position in the model is given.*

4:5 Kan ik vanuit mijn functie niet goed beoordelen (5:571 [5:617]) - D 4: Respons [redacted]

Kan ik vanuit mijn functie niet goed beoordelen

1 Codes:

- **Don't know**

  Comment: by 31627
  > *The respondent hasn't sufficient knowledge to answer the question*

4:6 Misschien dat de naamgeving van de verschillende processen wat beter k…… (5:654 [5:820]) - D 4: Respons [redacted]

Misschien dat de naamgeving van de verschillende processen wat beter kan aansluiten op de naamgeving die binnen ecare gebruikt wordt (als daar een standaard voor is)

1 Codes:

- **Change process**

  Comment: by 31627
  > *Something to the process represented in the landscape model needs to be changed. E.g. name is incorrect, position in the model is incorrect etc.*

4:10 Het rapporteren van beveiligings-/beschikbaarheids- incidenten (5:974 [5:1035]) - D 4: Respons [redacted]

Het rapporteren van beveiligings-/beschikbaarheids- incidenten

1 Codes:

- **Add process**

  Comment: by 31627
  > *There is a process missing to the model in question. This type of answer suggests the addition of a process to the model and describes what the process entails.*

5:4 De support op het product lijkt te ontbreken. Zij spelen(product speci…… (5:264 [5:503]) - D 5: Respons [redacted]

De support op het product lijkt te ontbreken. Zij spelen(product specialisten) een belangrijke rol in het ontvangen van feedback en issues, maar ook kennen zij het product van binnen en buiten waardoor ze advies aan klanten kunnen geven.

1 Codes:

- **Add process**

Comment: by 31627

> *There is a process missing to the model in question. This type of answer suggests the addition of a process to the model and describes what the process entails.*

5:5 Zij spelen(product specialisten) een belangrijke rol in het ontvangen…… (5:310 [5:503]) - D 5: Respons [redacted]

Zij spelen(product specialisten) een belangrijke rol in het ontvangen van feedback en issues, maar ook kennen zij het product van binnen en buiten waardoor ze advies aan klanten kunnen geven.

2 Codes:

- **Add inputstream**

Comment: by 31627

> *An input stream is missing in the process landscape. Description of what is missing and to which process/es it is related is given*

- **Add outputstream**

Comment: by 31627

> *An outputstream from a process is missing in the landscape model. Descritpion of the outputstream and its position in the model is given.*

5:6 Wat mij betreft wel globaal. (5:597 [5:624]) - D 5: Respons [redacted]

Wat mij betreft wel globaal.

1 Codes:

- **No changes needed**

Comment: by 31627

> *The model is correct, no changes to it are needed*

5:7 Het helpt als het schema ook bij dit onderdeel getoond wordt. Die is w…… (7:1241 [7:1370]) - D 5: Respons [redacted]

Het helpt als het schema ook bij dit onderdeel getoond wordt. Die is wel handig om naast de vragen te kunnen blijven raadplegen.

1 Codes:

- **Suggestions for improvement**

  Comment: by 31627
  > *Suggestions to improve the data gathering/questionnaire*

6:4 Er zijn nog een aantal producten die we los van Google verkopen. Zoals…… (5:289 [5:501]) - D 6: Respons [redacted]

Er zijn nog een aantal producten die we los van Google verkopen. Zoals bijvoorbeeld Mobile Iron, Lookout, telefonie, etc.

Misschien zou je het iets algemener kunnen verwoorden ipv 'Google licenses configuration'

1 Codes:

- **Change process**

  Comment: by 31627
  > *Something to the process represented in the landscape model needs to be changed. E.g. name is incorrect, position in the model is incorrect etc.*

6:5 Wat denk ik belangrijk is om wel te verwoorden is dat we een advies g…… (5:503 [5:824]) - D 6: Respons [redacted]

Wat denk ik belangrijk is om wel te verwoorden is dat we een advies geven over het IT landschap en hoe dat kan worden vereenvoudigd. Dat hoort bij de implementatie maar dat is wel een samenspel van informatie van de klant en een advies dat wij daarover geven. Dat is best wel een prominent onderdeel van de implementatie

2 Codes:

- **Add inputstream**

  Comment: by 31627
  > *An input stream is missing in the process landscape. Description of what is missing and to which process/es it is related is given*

- **Add outputstream**

  Comment: by 31627
  > *An outputstream from a process is missing in the landscape model. Descritpion of the outputstream and its position in the model is given.*

6:6 Support is inderdaad assistentie op gebruikersvragen (5:827 [5:879]) - D 6: Respons [redacted]

Support is inderdaad assistentie op gebruikersvragen

1 Codes:

○ **Confirm element**

Comment: by 31627

> *Confirmation of the correctness of a feature within the model.*

6:7 Dat betekent ook dat ze veel informatie krijgen over vraagstukken bij…… (5:1083 [5:1245]) - D 6: Respons [redacted]

Dat betekent ook dat ze veel informatie krijgen over vraagstukken bij klanten. Dat vormt dan weer belangrijke input voor de 'Specification Plein requirements'.

1 Codes:

○ **Add inputstream**

Comment: by 31627

> *An input stream is missing in the process landscape. Description of what is missing and to which process/es it is related is given*

6:8 Wat er daarnaast nog speelt en een belangrijk element is, is dat we ve…… (5:882 [5:1081]) - D 6: Respons [redacted]

Wat er daarnaast nog speelt en een belangrijk element is, is dat we veel ICT vraagstukken bij de klant weghalen. Dat betekend heel concreet dat er veel minder capaciteit nodig bij de klant op locatie

1 Codes:

○ **Add outputstream**

Comment: by 31627

> *An outputstream from a process is missing in the landscape model. Descritpion of the outputstream and its position in the model is given.*

6:9 Hardware preparation: - Plein development is gelinked, dat staat er ec…… (5:1360 [5:1773]) - D 6: Respons [redacted]

Hardware preparation: - Plein development is gelinked, dat staat er echter los van. De voorbereiding van de hardware per klant is een proces dat altijd hetzelfde is, er worden geen specifieke zaken geïnstalleerd op basis van de Plein specificaties per klant. Plein is een softwareproduct dat via internet te ontsluiten is met een specifieke inrichting per klant, dat staat los van de hardware die gebruikt wordt.

1 Codes:

○ **Delete stream**

Comment: by 31627

> *A modelled input/output stream is not correct. Information on the position of the streamline in the model and why it needs to be removed is given.*

6:10 Wat bedoel je precies met 'Hardware and embedded systems'? (5:1777 [5:1835]) - D 6: Respons [redacted]

Wat bedoel je precies met 'Hardware and embedded systems'?

1 Codes:

- **Modelling aspect is not clear**

  Comment: by 31627
  > *The respondent doesn't understand the meaning of a certain modelleing aspect.*

6:11 Ik zou zeggen dat er een pijl van implementation naar support zou moet…… (5:1838 [5:2039]) - D 6: Respons [redacted]

Ik zou zeggen dat er een pijl van implementation naar support zou moeten gaan. Na de implementation wordt support aangehaakt in het proces en wordt de klant met haar vragen als het ware overgedragen.

2 Codes:

- **Add inputstream**

  Comment: by 31627
  > *An input stream is missing in the process landscape. Description of what is missing and to which process/es it is related is given*

- **Add outputstream**

  Comment: by 31627
  > *An outputstream from a process is missing in the landscape model. Descritpion of the outputstream and its position in the model is given.*

6:12 In algemeenheid ene duidelijk model! (5:2074 [5:2111]) - D 6: Respons [redacted]

In algemeenheid ene duidelijk model!

1 Codes:

- **Positive feedback**

  Comment: by 31627
  > *The respondent appraises an aspect of the questionnaire/model*

6:13 Het is een vrij uitgebreide vragenlijst, ik ben hier al gauw 1,5 uur m…… (7:2239 [7:2391]) - D 6: Respons [redacted]

Het is een vrij uitgebreide vragenlijst, ik ben hier al gauw 1,5 uur mee bezig geweest (kan aan mij liggen uiteraard) maar dat voelt toch wat lang aan.

1 Codes:

○ **Negative feedback**

Comment: by 31627

> *The respondent has complaints about the questionnaire/data gathering*

7:4 Qua processen heb ik zelf een invulling gemaakt van de processen in de…… (5:264 [5:413]) - D 7: Respons PS [redacted]

Qua processen heb ik zelf een invulling gemaakt van de processen in de verschillende stadia (voor implementatie, implementatie en na implementatie).

3 Codes:

○ **Add inputstream**

Comment: by 31627

> *An input stream is missing in the process landscape. Description of what is missing and to which process/es it is related is given*

○ **Add outputstream**

Comment: by 31627

> *An outputstream from a process is missing in the landscape model. Descritpion of the outputstream and its position in the model is given.*

○ **Add process**

Comment: by 31627

> *There is a process missing to the model in question. This type of answer suggests the addition of a process to the model and describes what the process entails.*

7:5 Vooral het stuk customer management is breed en daar mis ik wel wat in…… (5:414 [5:1311]) - D 7: Respons PS [redacted]

Vooral het stuk customer management is breed en daar mis ik wel wat input/outputstromen. Er is meer dan alleen ondersteuning op hoe de software gebruikt moet worden, het gaat ook over organisatieadvies. Klanten komen ook niet alleen met vragen over de software naar onze adviseurs, dit kan ook over processen in de zorg of andere onderwerpen zijn. Daarnaast kan je vanuit customer management ook ten oren krijgen dat er iets mist (maar ik ga er vanuit dat je dan weer via het lijntje 'customer requirements information' naar sales gaat. Vanuit customer management ga je juíst naar de ontwikkelorganisatie omdat je daar de meeste gebruikersinformatie ophaalt, en andersom komt veel informatie over de mogelijkheden/beperkingen in de software via het klantteam naar de klant via customer management. Daarnaast zijn er natuurlijk ook wel uitstapjes buiten Puur naar bijvoorbeeld Shared Services.

3 Codes:

○ **Add inputstream**

Comment: by 31627

> *An input stream is missing in the process landscape. Description of what is missing and to which process/es it is related is given*

○ **Add outputstream**

Comment: by 31627

> *An outputstream from a process is missing in the landscape model. Descritpion of the outputstream and its position in the model is given.*

○ **Add process**

Comment: by 31627

> *There is a process missing to the model in question. This type of answer suggests the addition of a process to the model and describes what the process entails.*

7:6 Wat bedoel je precies met het lijntje 'customer's organizational struc…… (5:1313 [5:1805]) - D 7: Respons PS [redacted]

Wat bedoel je precies met het lijntje 'customer's organizational structure'? Ik kan die niet helemaal plaatsen bij training. Hetzelfde geldt voor 'organizational vision', in mijn ogen is dit namelijk iets wat je zowel in de sales, training en customer management hebt. Of als je training als implementatie ziet, dan past het trainen na implementatie niet helemaal in dit proces omdat er ook trainingen gegeven kunnen worden zonder dat het perse om implementatie van een stukje software gaat

1 Codes:

○ **Modelling aspect is not clear**

Comment: by 31627

> *The respondent doesn't understand the meaning of a certain modelleing aspect.*

7:7 Of als je training als implementatie ziet, dan past het trainen na im…… (5:1583 [5:1805]) - D 7: Respons PS [redacted]

Of als je training als implementatie ziet, dan past het trainen na implementatie niet helemaal in dit proces omdat er ook trainingen gegeven kunnen worden zonder dat het perse om implementatie van een stukje software gaat

2 Codes:

○ **Change process**

Comment: by 31627

> *Something to the process represented in the landscape model needs to be changed. E.g. name is incorrect, position in the model is incorrect etc.*

○ **Delete stream**

Comment: by 31627

> *A modelled input/output stream is not correct. Information on the position of the streamline in the model and why it needs to be removed is given.*

7:8 Zoals je hierboven kan lezen heb ik wel mijn twijfels bij sommige aspe…… (5:1901 [5:2076]) - D 7: Respons PS [redacted]

Zoals je hierboven kan lezen heb ik wel mijn twijfels bij sommige aspecten aangezien het mij nu niet helemaal duidelijk is wat bijvoorbeeld onder het proces 'training' valt.

1 Codes:

○ **Modelling aspect is not clear**

Comment: by 31627

> *The respondent doesn't understand the meaning of a certain modelleing aspect.*

7:9 Het is een heel globaal model (5:2111 [5:2139]) - D 7: Respons PS [redacted]

Het is een heel globaal model

1 Codes:

○ **Negative feedback**

Comment: by 31627

> *The respondent has complaints about the questionnaire/data gathering*

7:10 Als ik kijk naar de figuur op de eerste pagina waarin je per proces de…… (5:2142 [5:2364]) - D 7: Respons PS [redacted]

Als ik kijk naar de figuur op de eerste pagina waarin je per proces de belangrijkste acties wil gaan opstellen, dan moet je rekening houden met de verschillende fasen (voor implementatie, implementatie en na implementatie)

1 Codes:

○ **Add process**

Comment: by 31627

> *There is a process missing to the model in question. This type of answer suggests the addition of a process to the model and describes what the process entails.*

7:11 Het proces 'sales' heeft andere acties wanneer het gaat om sales from…… (5:2367 [5:2523]) - D 7: Respons PS [redacted]

Het proces 'sales' heeft andere acties wanneer het gaat om sales from scratch dan wanneer we het hebben over upsales. Dat geldt voor de andere processen ook

1 Codes:

○ **Change process**

Comment: by 31627

> *Something to the process represented in the landscape model needs to be changed. E.g. name is incorrect, position in the model is incorrect etc.*

7:12 Als ik dan kijk naar het model van Plein heb je dat meer kunnen opbre…… (5:2526 [5:2623]) - D 7: Respons PS [redacted]

Als ik dan kijk naar het model van Plein heb je dat meer kunnen opbreken in kleinere processen.

1 Codes:

- **Suggestions for improvement**

  Comment: by 31627
  > *Suggestions to improve the data gathering/questionnaire*

7:13 Ik vind de vragen soms een beetje vaag. (7:937 [7:976]) - D 7: Respons PS [redacted]

Ik vind de vragen soms een beetje vaag.

1 Codes:

- **Negative feedback**

  Comment: by 31627
  > *The respondent has complaints about the questionnaire/data gathering*

7:14 Zou je bij de volgende vragenlijsten een indicatie de duur willen toev…… (7:977 [7:1053]) - D 7: Respons PS [redacted]

Zou je bij de volgende vragenlijsten een indicatie de duur willen toevoegen?

1 Codes:

- **Suggestions for improvement**

  Comment: by 31627
  > *Suggestions to improve the data gathering/questionnaire*

8:1 Er is wel degelijk een informatie uitwisseling tussen product owners e…… (5:264 [5:400]) - D 8: Respons PS [redacted]

Er is wel degelijk een informatie uitwisseling tussen product owners en customer management, en development teams en customer management.

2 Codes:

- **Add inputstream**

  Comment: by 31627
  > *An input stream is missing in the process landscape. Description of what is missing and to which process/es it is related is given*

- **Add outputstream**

  Comment: by 31627

> *An outputstream from a process is missing in the landscape model. Descritpion of the outputstream and its position in the model is given.*

8:2 Customer management wordt voor een groot deel door Product specialiste…… (5:403 [5:577]) - D 8: Respons PS [redacted]

Customer management wordt voor een groot deel door Product specialisten opgevangen, zij zijn verbonden met development teams (die weer worden aangestuurd door product owners)

2 Codes:

- **Add inputstream**

  Comment: by 31627
  > *An input stream is missing in the process landscape. Description of what is missing and to which process/es it is related is given*

- **Add outputstream**

  Comment: by 31627
  > *An outputstream from a process is missing in the landscape model. Descritpion of the outputstream and its position in the model is given.*

8:3 Product specialisten zijn een belangrijke schakel bij het wel of niet…… (5:580 [5:776]) - D 8: Respons PS [redacted]

Product specialisten zijn een belangrijke schakel bij het wel of niet doorgaan van releases door het ontwikkelteam, hier gaat het vooral om de impact die een release kan hebben op de klantomgeving

1 Codes:

- **Add process**

  Comment: by 31627
  > *There is a process missing to the model in question. This type of answer suggests the addition of a process to the model and describes what the process entails.*

8:4 Daarnaast schakelen zij geregeld met Product Owners wanneer er vanuit…… (5:779 [5:964]) - D 8: Respons PS [redacted]

Daarnaast schakelen zij geregeld met Product Owners wanneer er vanuit de klant belangrijke ontwikkelingen zijn die van invloed kunnen zijn op de huidige ontwikkelingen / stand van zaken

3 Codes:

- **Add inputstream**

  Comment: by 31627
  > *An input stream is missing in the process landscape. Description of what is missing and to which process/es it is related is given*

○ **Add outputstream**

Comment: by 31627

> *An outputstream from a process is missing in the landscape model. Descritpion of the outputstream and its position in the model is given.*

○ **Add process**

Comment: by 31627

> *There is a process missing to the model in question. This type of answer suggests the addition of a process to the model and describes what the process entails.*

8:5 Ook kunnen teamleden van customer support de sales erop attenderen wa…… (5:967 [5:1196]) - D 8: Respons PS [redacted]

Ook kunnen teamleden van customer support de sales erop attenderen wanneer zij mogelijkheden zien tot upselling, of een uitbreiding van het Puur gebruik bij bestaande klanten, of mogelijkheden zien bij nieuwe (nog geen) klanten.

2 Codes:

○ **Add inputstream**

Comment: by 31627

> *An input stream is missing in the process landscape. Description of what is missing and to which process/es it is related is given*

○ **Add outputstream**

Comment: by 31627

> *An outputstream from a process is missing in the landscape model. Descritpion of the outputstream and its position in the model is given.*

8:6 de output "Instructions for using Puur" is ook iets wat customer suppo…… (5:1198 [5:1306]) - D 8: Respons PS [redacted]

de output "Instructions for using Puur" is ook iets wat customer support levert aan klanten (klein detail).

1 Codes:

○ **Add outputstream**

Comment: by 31627

> *An outputstream from a process is missing in the landscape model. Descritpion of the outputstream and its position in the model is given.*

8:7 Ik weet niet of je marketing bij Sales rekent, maar zij spelen (vooral…… (5:1441 [5:1688]) - D 8: Respons PS [redacted]

Ik weet niet of je marketing bij Sales rekent, maar zij spelen (vooral nu) een grote rol in het verspreiden van Puur, door de online Webinars, en de informatiedeling op de social media. Wellicht is het een overweging om dit expliciet te benoemen.

1 Codes:

- **Modelling aspect is not clear**

Comment: by 31627
> *The respondent doesn't understand the meaning of a certain modelleing aspect.*

8:8 Het model geeft eenvoudig (in 1 oogopslag) weer hoe het proces rondom…… (5:1724 [5:1805]) - D 8: Respons PS [redacted]

Het model geeft eenvoudig (in 1 oogopslag) weer hoe het proces rondom Puur verloop

1 Codes:

- **Positive feedback**

Comment: by 31627
> *The respondent appraises an aspect of the questionnaire/model*

8:9 Op sommige punten (zie onder andere de antwoorden op Q4 en Q5) kan er…… (5:1809 [5:1920]) - D 8: Respons PS [redacted]

Op sommige punten (zie onder andere de antwoorden op Q4 en Q5) kan er eventueel wat worden toegevoegd/aangepast

1 Codes:

- **Suggestions for improvement**

Comment: by 31627
> *Suggestions to improve the data gathering/questionnaire*

8:10 maar ik weet niet hoe ver je in detail moet treden wat dat betreft. (5:1923 [5:1991]) - D 8: Respons PS [redacted]

maar ik weet niet hoe ver je in detail moet treden wat dat betreft.

1 Codes:

- **Modelling aspect is not clear**

Comment: by 31627
> *The respondent doesn't understand the meaning of a certain modelleing aspect.*

8:11 Een uitgebreide questionnaire, het zet je wel aan het denken en vergt…… (8:1186 [8:1301]) - D 8: Respons PS [redacted]

Een uitgebreide questionnaire, het zet je wel aan het denken en vergt denk ik vooral de eerste keer wat meer tijd.

1 Codes:

○ **Positive feedback**

Comment: by 31627

> *The respondent appraises an aspect of the questionnaire/model*

8:52 het melden van bugs en wensen van klanten aan de product owners en de…… (5:2381 [5:2466]) - D 8: Respons PS [redacted]

het melden van bugs en wensen van klanten aan de product owners en development teams.

1 Codes:

○ **Add process**

Comment: by 31627

> *There is a process missing to the model in question. This type of answer suggests the addition of a process to the model and describes what the process entails.*

8:53 het bijwonen van de tweewekelijkse releasemeeting, waarin de releasede…… (5:2470 [5:2644]) - D 8: Respons PS [redacted]

het bijwonen van de tweewekelijkse releasemeeting, waarin de releasedetails onder de development teams worden besproken. Hieropvolgend deel ik deze informatie met de klanten.

3 Codes:

○ **Add inputstream**

Comment: by 31627

> *An input stream is missing in the process landscape. Description of what is missing and to which process/es it is related is given*

○ **Add outputstream**

Comment: by 31627

> *An outputstream from a process is missing in the landscape model. Descritpion of the outputstream and its position in the model is given.*

○ **Add process**

Comment: by 31627

> *There is a process missing to the model in question. This type of answer suggests the addition of a process to the model and describes what the process entails.*

8:54 schakelen met sales wanneer ik mogelijkheden zie bij bestaande of nieu…… (5:2648 [5:2729]) - D 8: Respons PS [redacted]

schakelen met sales wanneer ik mogelijkheden zie bij bestaande of nieuwe klanten.

2 Codes:

○ **Add inputstream**

Comment: by 31627

> *An input stream is missing in the process landscape. Description of what is missing and to which process/es it is related is given*

- **Add outputstream**

Comment: by 31627

> *An outputstream from a process is missing in the landscape model. Descritpion of the outputstream and its position in the model is given.*

8:55 assisteren en instrueren van klanten bij het gebruik van Puur function…… (5:2733 [5:2811]) - D 8: Respons PS [redacted]

assisteren en instrueren van klanten bij het gebruik van Puur functionaliteiten

1 Codes:

- **Confirm process**

Comment: by 31627

> *The process modelled is correct.*

8:56 het opmerken van klantbehoeften, en aanvoelen waar het kennisgebrek z…… (5:2816 [5:2922]) - D 8: Respons PS [redacted]

het opmerken van klantbehoeften, en aanvoelen waar het kennisgebrek zit (of waar een opfrissing nodig is).

1 Codes:

- **Confirm element**

Comment: by 31627

> *Confirmation of the correctness of a feature within the model.*

8:57 bij klanten waarvan ik de product specialist ben heb ik geregeld conta…… (5:2926 [5:3075]) - D 8: Respons PS [redacted]

bij klanten waarvan ik de product specialist ben heb ik geregeld contact, om knelpunten/bugs/wensen te bespreken, of slechts een gesprek hoe het gaat

2 Codes:

- **Confirm element**

Comment: by 31627

> *Confirmation of the correctness of a feature within the model.*

- **Confirm process**

Comment: by 31627

> *The process modelled is correct.*

8:58 belangrijke informatie wat betreft klanten delen binnen je klantteam (…… (5:3080 [5:3178]) - D 8: Respons PS [redacted]

belangrijke informatie wat betreft klanten delen binnen je klantteam (of Ecare-breed wanneer nodig)

2 Codes:

- **Add inputstream**

  Comment: by 31627

  > *An input stream is missing in the process landscape. Description of what is missing and to which process/es it is related is given*

- **Add outputstream**

  Comment: by 31627

  > *An outputstream from a process is missing in the landscape model. Descritpion of the outputstream and its position in the model is given.*

9:4 Het proces rondom de acquisitie, om de potentiele customer tot custome…… (5:266 [5:479]) - D 9: Respons SA [redacted]

Het proces rondom de acquisitie, om de potentiele customer tot customer te bewegen ontbreekt. Dit betreft de samenwerking tussen marketing, sales Puur en Plein. De schema's lijken meer geënt op excisting business

1 Codes:

- **Add process**

  Comment: by 31627

  > *There is a process missing to the model in question. This type of answer suggests the addition of a process to the model and describes what the process entails.*

9:5 Puur: de software wordt vanuit een bestaande visie ontwikkeld en poten…… (5:483 [5:748]) - D 9: Respons SA [redacted]

Puur: de software wordt vanuit een bestaande visie ontwikkeld en potentiële klanten worden hierin meegenomen. Dat is anders dan in het schema opgenomen, het ontwikkelen op basis van markt requirements (beperkter aangezien we vanuit een bepaalde visie ontwikkelen)

1 Codes:

- **Delete stream**

  Comment: by 31627

  > *A modelled input/output stream is not correct. Information on the position of the streamline in the model and why it needs to be removed is given.*

9:6 Er worden wat andere termen gebruikt (5:844 [5:879]) - D 9: Respons SA [redacted]

Er worden wat andere termen gebruikt

1 Codes:

- **Change element**

  Comment: by 31627
  > *Element is incorrrect, needs change in positioning, name, etc.*

9:7 op hoofdlijnen te volgen (5:882 [5:905]) - D 9: Respons SA [redacted]

op hoofdlijnen te volgen

1 Codes:

- **Positive feedback**

  Comment: by 31627
  > *The respondent appraises an aspect of the questionnaire/model*

9:8 Bij Puur ontbreekt het onderdeel "implementation" , daaronder valt ook…… (5:911 [5:1076]) - D 9: Respons SA [redacted]

Bij Puur ontbreekt het onderdeel "implementation" , daaronder valt ook het onderdeel training en "Support". B. bij Plein ontbreekt het onderdeel "customer management

1 Codes:

- **Add process**

  Comment: by 31627
  > *There is a process missing to the model in question. This type of answer suggests the addition of a process to the model and describes what the process entails.*

10:4 Voor wat Sales betreft dekken de stromen wel de lading zoals ik het zi…… (5:264 [5:334]) - D 10: Respons SA [redacted]

Voor wat Sales betreft dekken de stromen wel de lading zoals ik het zie

1 Codes:

- **No changes needed**

  Comment: by 31627
  > *The model is correct, no changes to it are needed*

10:5 Natuurlijk volgt een product offer niet alleen na 'customer requires i…… (5:337 [5:490]) - D 10: Respons SA [redacted]

Natuurlijk volgt een product offer niet alleen na 'customer requires information'.

Hier ziet ook een proactieve rol in dmv acquisitie of beursbezoeken.

1 Codes:

- **Add outputstream**

  Comment: by 31627
  > *An outputstream from a process is missing in the landscape model. Descritpion of the outputstream and its position in the model is given.*

10:6 Zover ik kan zien wel (5:584 [5:604]) - D 10: Respons SA [redacted]

Zover ik kan zien wel

2 Codes:

- **Confirm element**

  Comment: by 31627
  > *Confirmation of the correctness of a feature within the model.*

- **No changes needed**

  Comment: by 31627
  > *The model is correct, no changes to it are needed*

10:7 Heldere schematische weergave van betrokken mensen/afdelingen en hun v…… (5:641 [5:787]) - D 10: Respons SA [redacted]

Heldere schematische weergave van betrokken mensen/afdelingen en hun verantwoordelijkheden. Geeft een goed beeld hoe we globaal zijn georganiseerd

1 Codes:

- **Positive feedback**

  Comment: by 31627
  > *The respondent appraises an aspect of the questionnaire/model*

10:8 Ik moest een aantal keer terug naar de eerste pagina om de schema's we…… (7:1208 [7:1369]) - D 10: Respons SA [redacted]

Ik moest een aantal keer terug naar de eerste pagina om de schema's weer te bekijken. Wellicht een idee om deze op elke pagina weer te geven met een korte uitleg

1 Codes:

- **Suggestions for improvement**

  Comment: by 31627
  > *Suggestions to improve the data gathering/questionnaire*

10:9 Verder inhoudelijk prima! (7:1372 [7:1397]) - D 10: Respons SA [redacted]

Verder inhoudelijk prima!

1 Codes:

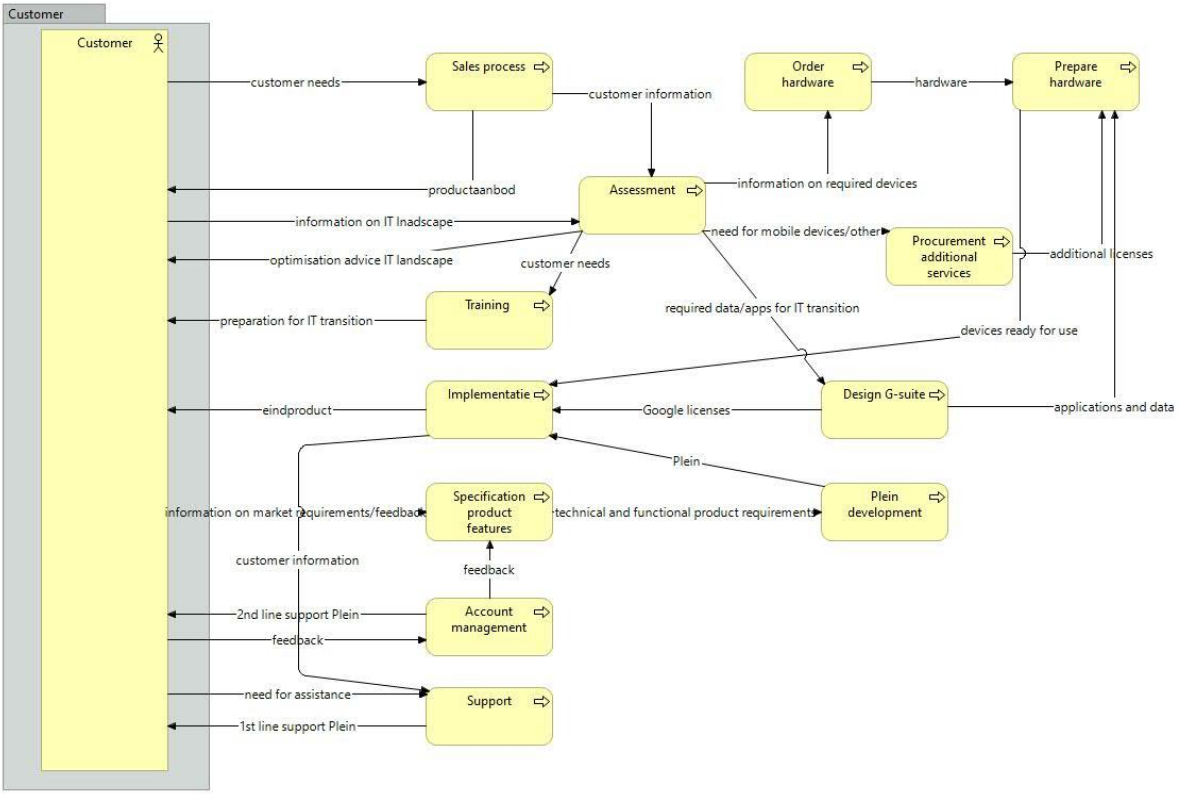
- **Positive feedback**

  Comment: by 31627

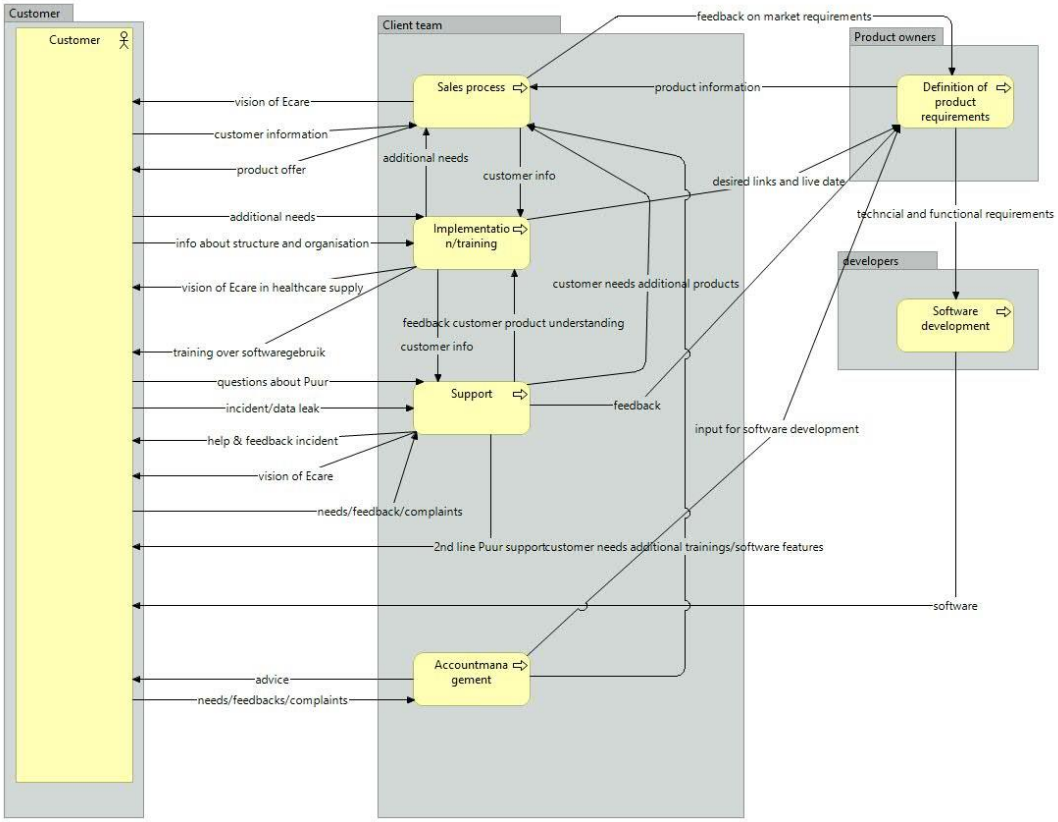
  > *The respondent appraises an aspect of the questionnaire/model*

Appendix G: Business process landscapes second Delphi iteration

Plein:



Puur:



Appendix H: Quotations report BPMN elements first Delphi iteration

Report for Query: BPMN elements

Scope: Sales advisors Puur
(17) quotations

9:13 Aantallen leads en conversie leads naar klanten. (6:4 [6:51]) - D 9: Respons SA [redacted]

Aantallen leads en conversie leads naar klanten.

1 Codes:

- **Product**

Comment: by 31627
> *The respondent is describing a process product*

9:14 Het proces beëindigd op het moment dat een lead een customer wordt. In…… (6:262 [6:396]) - D 9: Respons SA [redacted]

Het proces beëindigd op het moment dat een lead een customer wordt. In feite daar waar de in deze uitvraag opgenomen schema's beginnen.

1 Codes:

- **End event**

Comment: by 31627
> *The participant describes an end event of the process*

9:15 1. In kaart brengen doelgroep 2.marketing campagnes en/of koude acquis…… (6:534 [6:633]) - D 9: Respons SA [redacted]

1. In kaart brengen doelgroep 2.marketing campagnes en/of koude acquisitie 3. afspraken/presentaties

1 Codes:

- **Control flow**

Comment: by 31627
> *The respondent describes a control flow in the process with corresponding tasks/events/decision points*

9:16 Marketing en Sales (6:677 [6:694]) - D 9: Respons SA [redacted]

Marketing en Sales

1 Codes:

○ **Business actors**

Comment: by 31627

> *The respondent describes the business actors involved in the process.*

9:17 Inzicht in marketing resultaten en sales acquisitie (pipeline) (7:249 [7:310]) - D 9: Respons SA [redacted]

Inzicht in marketing resultaten en sales acquisitie (pipeline)

1 Codes:

○ **Information**

Comment: by 31627

> *The respondent is talking about information either used or produced by the process.*

9:18 Bij bepalen van organisatiedoelstellingen (7:380 [7:420]) - D 9: Respons SA [redacted]

Bij bepalen van organisatiedoelstellingen

1 Codes:

○ **Start event**

Comment: by 31627

> *The respondent is describing a start event in the process*

10:19 Het belangrijkste doel van mijn Sales activiteiten is het werven van n…… (6:1 [6:92]) - D 10: Respons SA [redacted]

Het belangrijkste doel van mijn Sales activiteiten is het werven van new business klanten.

1 Codes:

○ **Product**

Comment: by 31627

> *The respondent is describing a process product*

10:20 Het proces eindigt in principe bij het ondertekenen van het contract. (6:444 [6:513]) - D 10: Respons SA [redacted]

Het proces eindigt in principe bij het ondertekenen van het contract.

1 Codes:

○ **End event**

Comment: by 31627

> *The participant describes an end event of the process*

10:21 Op dit moment neemt de adviseur over en verzorgt hij/zij de implementa…… (6:514 [6:628]) - D 10: Respons SA [redacted]

Op dit moment neemt de adviseur over en verzorgt hij/zij de implementatie en verdere opvolging vwb de klantrelatie

1 Codes:

○ **Start event**

Comment: by 31627

> *The respondent is describing a start event in the process*

10:22 Bij eventuele up- of cross-sell mogelijkheden wordt de sales adviseur…… (6:631 [6:719]) - D 10: Respons SA [redacted]

Bij eventuele up- of cross-sell mogelijkheden wordt de sales adviseur wel weer betrokken.

1 Codes:

○ **Start event**

Comment: by 31627

> *The respondent is describing a start event in the process*

10:23 Koude acquisitie - Opvolgen leads (via marketing, beurzen, partners, c…… (6:858 [6:1145]) - D 10: Respons SA [redacted]

Koude acquisitie - Opvolgen leads (via marketing, beurzen, partners, collega's) - Bezoeken van beurzen - Onderhouden van relatie met prospects - Offertes schrijven - plannen van demo's bij prospects - Prospects bezoeken op diverse DMU (Zorgmanager, Bestuurder, ICT, Leidinggevende etc.)

1 Codes:

○ **Control flow**

Comment: by 31627

> *The respondent describes a control flow in the process with corresponding tasks/events/decision points*

10:24 Marketing, Partners (adviesbureau's die prospects helpen bij hun keuze…… (6:1189 [6:1294]) - D 10: Respons SA [redacted]

Marketing, Partners (adviesbureau's die prospects helpen bij hun keuze voor een nieuw ECD), klantteam Zuid

1 Codes:

○ **Business actors**

Comment: by 31627

The respondent describes the business actors involved in the process.

10:25 Met name vanuit klantperspectief moet een beslissing worden gemaakt om…… (7:1 [7:110]) - D 10: Respons SA [redacted]

Met name vanuit klantperspectief moet een beslissing worden gemaakt om wel of niet met PUUR. te willen werken.

1 Codes:

- **Join/split**

Comment: by 31627

The respondent is talking about a join/split point in the process.

10:26 Het belangrijkste dat ik nodig heb is klantinformatie, die mij aanleid…… (7:284 [7:620]) - D 10: Respons SA [redacted]

Het belangrijkste dat ik nodig heb is klantinformatie, die mij aanleiding geeft om in contact te zijn met een prospect. Dit kan vanuit verschillende hoeken komen; - Via marketing (marketing qualified leads) - Via collega's (hebben iets gehoord in de markt) - Via Partners - Via website van de klant (jaarverslagen, kwaliteitsverslagen)

3 Codes:

- **Business actors**

Comment: by 31627

The respondent describes the business actors involved in the process.

- **Information**

Comment: by 31627

The respondent is talking about information either used or produced by the process.

- **Start event**

Comment: by 31627

The respondent is describing a start event in the process

10:27 Feedback van klanten op onze software kan worden gebruikt door product…… (7:747 [7:824]) - D 10: Respons SA [redacted]

Feedback van klanten op onze software kan worden gebruikt door product owners.

2 Codes:

- **Business actors**

Comment: by 31627

The respondent describes the business actors involved in the process.

- **Information**

Comment: by 31627
> *The respondent is talking about information either used or produced by the process.*

10:28 Daarnaast kunnen ook algemene marktontwikkelingen die je vanuit sales…… (7:826 [7:975]) - D 10: Respons SA [redacted]

Daarnaast kunnen ook algemene marktontwikkelingen die je vanuit sales perspectief hoort interessant zijn in de doorontwikkeling van onze producten.

1 Codes:

○ **Information**

Comment: by 31627
> *The respondent is talking about information either used or produced by the process.*

10:29 Het proces begint op het moment dat je voor de eerste keer met een pro…… (7:1043 [7:1157]) - D 10: Respons SA [redacted]

Het proces begint op het moment dat je voor de eerste keer met een prospect in contact komt of probeert te komen.

1 Codes:

○ **Start event**

Comment: by 31627
> *The respondent is describing a start event in the process*

Report for Query: BPMN elements

Scope: Advisors Puur
(39) quotations

3:31 Sales --> Goed werkend product, tevreden klant (6:1 [6:49]) - D 3: Respons adviseur [redacted]

Sales --> Goed werkend product, tevreden klant

1 Codes:

○ **Product**

Comment: by 31627
> *The respondent is describing a process product*

3:32 After sales --> Vlotte goed lopende implementatie, Juiste documenta…… (6:51 [6:137]) - D 3: Respons adviseur [redacted]

After sales --> Vlotte goed lopende implementatie, Juiste documentatie en overdracht

1 Codes:

- **Product**

Comment: by 31627
> *The respondent is describing a process product*

3:33 Advies --> Goede klankrelatie, vertrouwen, extra opdrachten (6:139 [6:201]) - D 3: Respons adviseur [redacted]

Advies --> Goede klankrelatie, vertrouwen, extra opdrachten

1 Codes:

- **Product**

Comment: by 31627
> *The respondent is describing a process product*

3:34 Stakeholder --> Inbreng over nieuwe en bestaande software (6:203 [6:263]) - D 3: Respons adviseur [redacted]

Stakeholder --> Inbreng over nieuwe en bestaande software

1 Codes:

- **Product**

Comment: by 31627
> *The respondent is describing a process product*

3:35 Training --> Goed opgeleide medewerkers, tevreden klant, langdurig…… (6:264 [6:350]) - D 3: Respons adviseur [redacted]

Training --> Goed opgeleide medewerkers, tevreden klant, langdurig gebruik software

1 Codes:

- **Product**

Comment: by 31627
> *The respondent is describing a process product*

3:36 Ik denk dat het proces nooit echt eindigt. (6:801 [6:844]) - D 3: Respons adviseur [redacted]

Ik denk dat het proces nooit echt eindigt.

1 Codes:

- **End event**

Comment: by 31627

The participant describes an end event of the process

3:37 Sales --> kennismaking, informatieverschaffing, demo, referentbezoe…… (6:980 [6:1089]) - D 3: Respons adviseur [redacted]

Sales --> kennismaking, informatieverschaffing, demo, referentbezoeken,aankoopvoorstel,overgaan tot aankoop

1 Codes:

○ **Control flow**

Comment: by 31627

The respondent describes a control flow in the process with corresponding tasks/events/decision points

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3:38 implementatie -> Kennismaking klantteam, demo's, formeren werkgroe…… (6:1092 [6:1258]) - D 3: Respons adviseur [redacted]

implementatie -> Kennismaking klantteam, demo's, formeren werkgroep(en),plannen implementatie, inrichting software, trainingen, jivegang, overdracht naar support.

1 Codes:

○ **Control flow**

Comment: by 31627

The respondent describes a control flow in the process with corresponding tasks/events/decision points

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3:39 advies --> doorlopend advies, kwartaalgesprekken. (6:1259 [6:1311]) - D 3: Respons adviseur [redacted]

advies --> doorlopend advies, kwartaalgesprekken.

1 Codes:

○ **Control flow**

Comment: by 31627

The respondent describes a control flow in the process with corresponding tasks/events/decision points

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3:40 stakeholder voor productontwikkeling--> kennisdeling mbt bouw nieuw…… (6:1313 [6:1406]) - D 3: Respons adviseur [redacted]

stakeholder voor productontwikkeling--> kennisdeling mbt bouw nieuwe en bestaande software.

1 Codes:

○ **Control flow**

Comment: by 31627

> *The respondent describes a control flow in the process with corresponding tasks/events/decision points*

3:41 raining -- >overdracht van kennis over software aan klant. (6:1409 [6:1471]) - D 3: Respons adviseur [redacted]

raining -- >overdracht van kennis over software aan klant.

1 Codes:

○ **Control flow**

Comment: by 31627

> *The respondent describes a control flow in the process with corresponding tasks/events/decision points*

3:42 Sales --> sales adviseur klant team (6:1514 [6:1551]) - D 3: Respons adviseur [redacted]

Sales --> sales adviseur klant team

1 Codes:

○ **Business actors**

Comment: by 31627

> *The respondent describes the business actors involved in the process.*

3:43 Implementatie--> adviseur (6:1553 [6:1580]) - D 3: Respons adviseur [redacted]

Implementatie--> adviseur

1 Codes:

○ **Business actors**

Comment: by 31627

> *The respondent describes the business actors involved in the process.*

3:44 Advies --> Adviseur (6:1582 [6:1603]) - D 3: Respons adviseur [redacted]

Advies --> Adviseur

1 Codes:

○ **Business actors**

Comment: by 31627

> *The respondent describes the business actors involved in the process.*

3:45 Stakeholder --> Adviseur, productspecialist (6:1605 [6:1650]) - D 3: Respons adviseur [redacted]

Stakeholder --> Adviseur, productspecialist

1 Codes:

- **Business actors**

Comment: by 31627

> *The respondent describes the business actors involved in the process.*

3:46 Training --> trainingsadviseur/trainer (6:1652 [6:1693]) - D 3: Respons adviseur [redacted]

Training --> trainingsadviseur/trainer

1 Codes:

- **Business actors**

Comment: by 31627

> *The respondent describes the business actors involved in the process.*

3:47 Na salesproces wordt bepaald welke adviseur eindverantwoordelijk wordt…… (7:1 [7:84]) - D 3: Respons adviseur [redacted]

Na salesproces wordt bepaald welke adviseur eindverantwoordelijk wordt voor de klant

1 Codes:

- **Join/split**

Comment: by 31627

> *The respondent is talking about a join/split point in the process.*

3:48 Productowner beslist wat hij/zij doet met input van stakeholders (7:155 [7:219]) - D 3: Respons adviseur [redacted]

Productowner beslist wat hij/zij doet met input van stakeholders

1 Codes:

- **Control flow**

Comment: by 31627

> *The respondent describes a control flow in the process with corresponding tasks/events/decision points*

3:49 Training --> Voor en Na training altijd terugkoppeling met de klant…… (7:220 [7:339]) - D 3: Respons adviseur [redacted]

Training --> Voor en Na training altijd terugkoppeling met de klant waarbij besloten wordt wat er verder nodig is.

1 Codes:

- **Join/split**

  Comment: by 31627
  > *The respondent is talking about a join/split point in the process.*

3:50 Klantinformatie, omvang, populatie, aantal medewerkers etc. Wensen kla…… (7:450 [7:536]) - D 3: Respons adviseur [redacted]

Klantinformatie, omvang, populatie, aantal medewerkers etc. Wensen klant mbt inrichting

1 Codes:

- **Information**

  Comment: by 31627
  > *The respondent is talking about information either used or produced by the process.*

3:51 Informatie wordt in ieder geval in het klantteam gedeeld en door hen a…… (7:663 [7:1005]) - D 3: Respons adviseur [redacted]

Informatie wordt in ieder geval in het klantteam gedeeld en door hen allemaal gebruikt. Soms wordt klantinformatie gebruikt door ontwikkelteam of productowners van andere teams. Shared services gebruikt ook veel klantinformatie en heeft nauwe samenwerking met het klantteam waar het gaat om inrichting van de software ivm declaratieproces.

2 Codes:

- **Business actors**

  Comment: by 31627
  > *The respondent describes the business actors involved in the process.*

- **Information**

  Comment: by 31627
  > *The respondent is talking about information either used or produced by the process.*

3:52 Marktverkenning (7:1073 [7:1087]) - D 3: Respons adviseur [redacted]

Marktverkenning

1 Codes:

- **Start event**

Comment: by 31627
> *The respondent is describing a start event in the process*

3:53 en daarna de eerste kennismaking met een potentiële klant. (7:1089 [7:1148]) - D 3: Respons adviseur [redacted]

en daarna de eerste kennismaking met een potentiële klant.

1 Codes:

- **Start event**

Comment: by 31627
> *The respondent is describing a start event in the process*

5:25 Sales heeft als belangrijkste uitkomst een klant. Bij voorkeur voor al…… (6:1 [6:343]) - D 5: Respons [redacted]

Sales heeft als belangrijkste uitkomst een klant. Bij voorkeur voor alle onderdelen van Ecare (dus ook Plein en Shared Service). Daarnaast dat de klant aangesloten is bij de visie die Ecare heeft en dat wij hen daarin mee kunnen nemen. Dit maakt de weg vrij voor de adviseurs en trainers die vervolgens aan de slag gaan bij de implementatie.

1 Codes:

- **Product**

Comment: by 31627
> *The respondent is describing a process product*

5:26 Belangrijkste resultaat hier is dat zorgprofessionals goed worden opge…… (6:482 [6:626]) - D 5: Respons [redacted]

Belangrijkste resultaat hier is dat zorgprofessionals goed worden opgeleid en adviseurs de organisatie op hu hand hebben als vertrouwd adviseur.

2 Codes:

- **End event**

Comment: by 31627
> *The participant describes an end event of the process*

- **Product**

Comment: by 31627
> *The respondent is describing a process product*

5:27 Vervolgens komen de product specialisten om de hoek kijken om samen me…… (6:628 [6:744]) - D 5: Respons [redacted]

Vervolgens komen de product specialisten om de hoek kijken om samen met de adviseur structurele support te leveren.

1 Codes:

- **Product**

  Comment: by 31627
  > *The respondent is describing a process product*

5:28 Sales eindigt na de handtekening, maar loopt nog wel eens door bij uit…… (6:1278 [6:1372]) - D 5: Respons [redacted]

Sales eindigt na de handtekening, maar loopt nog wel eens door bij uitbreiding van de software.

2 Codes:

- **End event**

  Comment: by 31627
  > *The participant describes an end event of the process*

- **Start event**

  Comment: by 31627
  > *The respondent is describing a start event in the process*

5:29 Adviseur zou eigenlijk nooit moeten eindigen, net als product special…… (6:1374 [6:1449]) - D 5: Respons [redacted]

Adviseur zou eigenlijk nooit moeten eindigen, net als product specialisten.

1 Codes:

- **End event**

  Comment: by 31627
  > *The participant describes an end event of the process*

5:30 Trainer zou na de implementatie nog geregeld terug moeten komen voor b…… (6:1451 [6:1536]) - D 5: Respons [redacted]

Trainer zou na de implementatie nog geregeld terug moeten komen voor bijscholing etc.

2 Codes:

- **End event**

  Comment: by 31627
  > *The participant describes an end event of the process*

- **Start event**

  Comment: by 31627

The respondent is describing a start event in the process

5:31 Sales: de zorgorganisatie wordt benadert via een sales adviseur of nee…… (6:1673 [6:1995]) - D 5: Respons [redacted]

Sales: de zorgorganisatie wordt benadert via een sales adviseur of neemt contact met ons op. Vaak leidt dat tot een eerste gesprek, dan een eerste demo en dan nog een demo met meer of andere gebruikers. Daarna wil de zorgorganisatie vaak nog referenten spreken en dan volgt contractonderhandeling en contractondertekening

1 Codes:

- **Control flow**

Comment: by 31627

The respondent describes a control flow in the process with corresponding tasks/events/decision points

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5:32 Adviseurs/trainers/product specialisten: Trainers geven training tijde…… (6:1998 [6:2630]) - D 5: Respons [redacted]

Adviseurs/trainers/product specialisten: Trainers geven training tijdens het implementatieproces en eventueel na livegang ook nog. De adviseurs begeleiden de technische implementatie zowel intern als bij de klant. Daarbij is het van belang oom ook de processen van de klant door te lichten en de klant aan te laten sluiten bij onze filosofie. De product specialisten komen om de hoek kijken na livegang en maken in eerste instantie kennis met de klant. Daarna gaan ze maandelijks op bezoek en bespreken ze lopende issues met elkaar. De Adviseur blijft betrokken als organisatieadviseur en voor ontwikkelingen omtrent de software.

1 Codes:

- **Control flow**

Comment: by 31627

The respondent describes a control flow in the process with corresponding tasks/events/decision points

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5:33 In het onderhandelen voor het contract, wat doen we wel en niet? (7:1 [7:64]) - D 5: Respons [redacted]

In het onderhandelen voor het contract, wat doen we wel en niet?

1 Codes:

- **Join/split**

Comment: by 31627

The respondent is talking about a join/split point in the process.

5:34 Tijdens de implementatie worden verschillende functionele keuzes gemaa…… (7:66 [7:137]) - D 5: Respons [redacted]

Tijdens de implementatie worden verschillende functionele keuzes gemaakt

1 Codes:

- **Control flow**

Comment: by 31627

> *The respondent describes a control flow in the process with corresponding tasks/events/decision points*

5:35 Rondom contractondertekening wordt besloten welke adviseur gekoppeld…… (7:140 [7:227]) - D 5: Respons [redacted]

Rondom contractondertekening wordt besloten welke adviseur gekoppeld wordt aan de klant

1 Codes:

- **Task**

Comment: by 31627

> *The respondent is describing a task executed during the process.*

5:36 Tijdens de livegang wordt bepaald welke product specialist aan de kla…… (7:230 [7:319]) - D 5: Respons [redacted]

Tijdens de livegang wordt bepaald welke product specialist aan de klant wordt gekoppeld.

1 Codes:

- **Task**

Comment: by 31627

> *The respondent is describing a task executed during the process.*

5:37 Kennis over de aanstaande klant is nodig om te beslissen welke adviseu…… (7:431 [7:541]) - D 5: Respons [redacted]

Kennis over de aanstaande klant is nodig om te beslissen welke adviseur gekoppeld wordt. wat is de beste match?

1 Codes:

- **Information**

Comment: by 31627

> *The respondent is talking about information either used or produced by the process.*

5:38 Daarnaast is het van belang intern welke adviseur er het meeste ruimt…… (7:543 [7:667]) - D 5: Respons [redacted]

Daarnaast is het van belang intern welke adviseur er het meeste ruimte voor is. Datzelfde geldt voor de product specialisten

1 Codes:

○ **Information**

Comment: by 31627
> *The respondent is talking about information either used or produced by the process.*

5:39 Met betrekking tot de contractonderhandelingen is dat vooral financie…… (7:670 [7:742]) - D 5: Respons [redacted]

Met betrekking tot de contractonderhandelingen is dat vooral financieel.

1 Codes:

○ **Information**

Comment: by 31627
> *The respondent is talking about information either used or produced by the process.*

5:40 Daarnaast wordt omtrent de datum van livegang met name door de klant e…… (7:744 [7:924]) - D 5: Respons [redacted]

Daarnaast wordt omtrent de datum van livegang met name door de klant eea gevraagd. voor ons is dan van belang of we in staat zijn de trainingen in die tijd te kunnen faciliteren.

2 Codes:

○ **Information**

Comment: by 31627
> *The respondent is talking about information either used or produced by the process.*

○ **Join/split**

Comment: by 31627
> *The respondent is talking about a join/split point in the process.*

Report for Query: BPMN elements

Scope: Product specialists Puur
(62) quotations

7:28 Informatie die door andere processen/collega's gebruikt wordt (6:1 [6:61]) - D 7: Respons PS [redacted]

Informatie die door andere processen/collega's gebruikt wordt

2 Codes:

- **Information**

  Comment: by 31627
  > *The respondent is talking about information either used or produced by the process.*

- **Product**

  Comment: by 31627
  > *The respondent is describing a process product*

7:29 Afhankelijk van waar de informatie naartoe gaat (signaleer je iets, wi…… (6:130 [6:314]) - D 7: Respons PS [redacted]

Afhankelijk van waar de informatie naartoe gaat (signaleer je iets, wil je dat er iets aangepast/aangevuld wordt in de software, etc.) - gefundeerde informatie met voldoende details.

2 Codes:

- **Information**

  Comment: by 31627
  > *The respondent is talking about information either used or produced by the process.*

- **Product**

  Comment: by 31627
  > *The respondent is describing a process product*

7:30 Zo lang de klant, klant blijft is dit proces niet ten einde. (6:383 [6:444]) - D 7: Respons PS [redacted]

Zo lang de klant, klant blijft is dit proces niet ten einde.

1 Codes:

- **End event**

  Comment: by 31627
  > *The participant describes an end event of the process*

7:31 1. Er komt een vraag over de software > check of deze vraag voorkom…… (6:769 [6:1249]) - D 7: Respons PS [redacted]

1. Er komt een vraag over de software > check of deze vraag voorkomen had kunnen worden. Zo ja, ga naar klant om uitleg te geven, of bespreek binnen klantteam voor mogelijkheden (training, niveau serviceteam). Zo nee, is het iets wat in de software aangepast moet worden (Bug of niet intuïtief genoeg)? Meldt het aan de productspecialist van het ontwikkelteam en het ontwikkelteam zelf.

Hou de klant op de hoogte van de progress. Uiteindelijk wordt de vraag altijd beantwoord

1 Codes:

○ **Control flow**

Comment: by 31627

> *The respondent describes a control flow in the process with corresponding tasks/events/decision points*

7:32 2. Als je signaleert dat er dingen spelen binnen de organisatie die n…… (6:1252 [6:1422]) - D 7: Respons PS [redacted]

2. Als je signaleert dat er dingen spelen binnen de organisatie die niet perse te maken hebben met software > bespreken binnen klantteam (meestal pakt adviseur dit op)

1 Codes:

○ **Control flow**

Comment: by 31627

> *The respondent describes a control flow in the process with corresponding tasks/events/decision points*

7:33 3. Als je signaleert dat er mogelijk behoefte is aan software dat wij…… (6:1425 [6:1585]) - D 7: Respons PS [redacted]

3. Als je signaleert dat er mogelijk behoefte is aan software dat wij leveren > bespreken binnen klantteam zodat (sales) adviseurs dit verder kunnen oppakken

1 Codes:

○ **Control flow**

Comment: by 31627

> *The respondent describes a control flow in the process with corresponding tasks/events/decision points*

7:34 4. Bij vraag naar nieuwe features binnen de software > aangeven wa…… (6:1588 [6:1825]) - D 7: Respons PS [redacted]

4. Bij vraag naar nieuwe features binnen de software > aangeven waarom wij dit niet doen (vanuit visie) als je dit weet of als je dit besproken hebt met PO/PM, of meenemen naar de ontwikkelorganisatie om dit op de backlog te krijgen.

1 Codes:

○ **Control flow**

Comment: by 31627

> *The respondent describes a control flow in the process with corresponding tasks/events/decision points*

7:35 5. Wanneer er nieuwe dingen in de software beschikbaar komen hou je ac…… (6:1827 [6:1928]) - D 7: Respons PS [redacted]

5. Wanneer er nieuwe dingen in de software beschikbaar komen hou je actief de klanten op de hoogte.

1 Codes:

- **Control flow**

Comment: by 31627

> *The respondent describes a control flow in the process with corresponding tasks/events/decision points*

7:36 Het klantteam, andere productspecialisten, Product owners, product man…… (6:1970 [6:2058]) - D 7: Respons PS [redacted]

Het klantteam, andere productspecialisten, Product owners, product manager, ontwikkelaars

1 Codes:

- **Business actors**

Comment: by 31627

> *The respondent describes the business actors involved in the process.*

7:37 De grootste vragen zijn; Wat gaan we hiermee doen? Gaan we dit oppakke…… (7:114 [7:199]) - D 7: Respons PS [redacted]

De grootste vragen zijn; Wat gaan we hiermee doen? Gaan we dit oppakken ja/nee, waarom

1 Codes:

- **Join/split**

Comment: by 31627

> *The respondent is talking about a join/split point in the process.*

7:38 Dit kan over vragen voorkomen zijn (trainingen, software aanpassen),…… (7:202 [7:321]) - D 7: Respons PS [redacted]

Dit kan over vragen voorkomen zijn (trainingen, software aanpassen), of na signaleringen van behoeftes van een klant.

1 Codes:

- **Start event**

Comment: by 31627

> *The respondent is describing a start event in the process*

7:39 Voldoende kennis over het product en de vraag moet duidelijk zijn. (7:432 [7:498]) - D 7: Respons PS [redacted]

Voldoende kennis over het product en de vraag moet duidelijk zijn.

1 Codes:

- **Information**

Comment: by 31627

> *The respondent is talking about information either used or produced by the process.*

7:40 De urgentie/prioriteit om dingen op te pakken voor ecare, en de juiste…… (7:624 [7:718]) - D 7: Respons PS [redacted]

De urgentie/prioriteit om dingen op te pakken voor ecare, en de juiste informatie voor de klant

1 Codes:

- **Information**

Comment: by 31627

> *The respondent is talking about information either used or produced by the process.*

7:41 Voor een productspecialist bij overdracht van de klant (7:788 [7:841]) - D 7: Respons PS [redacted]

Voor een productspecialist bij overdracht van de klant

1 Codes:

- **Start event**

Comment: by 31627

> *The respondent is describing a start event in the process*

7:42 voor een adviseur natuurlijk veel eerder. (7:844 [7:884]) - D 7: Respons PS [redacted]

voor een adviseur natuurlijk veel eerder.

1 Codes:

- **Start event**

Comment: by 31627

> *The respondent is describing a start event in the process*

8:59 het melden van bugs en wensen van klanten aan de product owners en dev…… (6:3 [6:231]) - D 8: Respons PS [redacted]

het melden van bugs en wensen van klanten aan de product owners en development teams. UITKOMST: informatie over wat er speelt, en wanneer gewenst door het ontwikkelteam, documenten en aanvullende data over het probleem / de wens

1 Codes:

- **Product**

Comment: by 31627
> *The respondent is describing a process product*

8:60 het bijwonen van de tweewekelijkse releasemeeting, waarin de released…… (6:235 [6:567]) - D 8: Respons PS [redacted]

het bijwonen van de tweewekelijkse releasemeeting, waarin de releasedetails onder de development teams worden besproken. Hieropvolgend deel ik deze informatie met de klanten. UITKOMST: informatiepagina met de belangrijkste details over de aankomende release, met wanneer nodig aanvullende documenten met meer gedetailleerde uitleg

1 Codes:

- **Product**

Comment: by 31627
> *The respondent is describing a process product*

8:61 schakelen met sales wanneer ik mogelijkheden zie bij bestaande of nieu…… (6:572 [6:700]) - D 8: Respons PS [redacted]

schakelen met sales wanneer ik mogelijkheden zie bij bestaande of nieuwe klanten. UITKOMST: klantinformatie, salesmogelijkheden.

2 Codes:

- **Information**

Comment: by 31627
> *The respondent is talking about information either used or produced by the process.*

- **Product**

Comment: by 31627
> *The respondent is describing a process product*

8:62 assisteren en instrueren van klanten bij het gebruik van Puur functio…… (6:703 [6:847]) - D 8: Respons PS [redacted]

assisteren en instrueren van klanten bij het gebruik van Puur functionaliteiten. UITKOMST: gebruikservaring van klanten / informatievoorziening

2 Codes:

- **Information**

  Comment: by 31627
  > *The respondent is talking about information either used or produced by the process.*

- **Product**

  Comment: by 31627
  > *The respondent is describing a process product*

8:63 het opmerken van klantbehoeften, en aanvoelen waar het kennisgebrek z…… (6:851 [6:1007]) - D 8: Respons PS [redacted]

het opmerken van klantbehoeften, en aanvoelen waar het kennisgebrek zit (of waar een opfrissing nodig is). UITKOMST: klantwensen / klachten / mogelijkheden

2 Codes:

- **Information**

  Comment: by 31627
  > *The respondent is talking about information either used or produced by the process.*

- **Product**

  Comment: by 31627
  > *The respondent is describing a process product*

8:64 bij klanten waarvan ik de product specialist ben heb ik geregeld cont…… (6:1010 [6:1228]) - D 8: Respons PS [redacted]

bij klanten waarvan ik de product specialist ben heb ik geregeld contact, om knelpunten/bugs/wensen te bespreken, of slechts een gesprek hoe het gaat.

UITKOMST: klantwensen / klachten / mogelijkheden / bezoekverslagen

2 Codes:

- **Information**

  Comment: by 31627
  > *The respondent is talking about information either used or produced by the process.*

- **Product**

  Comment: by 31627
  > *The respondent is describing a process product*

8:65 belangrijke informatie wat betreft klanten delen binnen je klantteam (…… (6:1231 [6:1376]) - D 8: Respons PS [redacted]

belangrijke informatie wat betreft klanten delen binnen je klantteam (of Ecare- breed wanneer nodig) UITKOMST: klantinformatie / bezoekverslagen

2 Codes:

- **Information**

  Comment: by 31627
  > *The respondent is talking about information either used or produced by the process.*

- **Product**

  Comment: by 31627
  > *The respondent is describing a process product*

8:66 het melden van bugs en wensen van klanten aan de product owners en dev…… (6:1912 [6:2190]) - D 8: Respons PS [redacted]

het melden van bugs en wensen van klanten aan de product owners en development teams. EIND: wanneer een ontwikkelteam genoeg informatie heeft om het probleem op te lossen / de wijziging door te voeren. Uiteindelijk weer terug bij de klant wanneer het daadwerkelijk functioneert.

1 Codes:

- **End event**

  Comment: by 31627
  > *The participant describes an end event of the process*

8:67 het bijwonen van de tweewekelijkse releasemeeting, waarin de released…… (6:2193 [6:2425]) - D 8: Respons PS [redacted]

het bijwonen van de tweewekelijkse releasemeeting, waarin de releasedetails onder de development teams worden besproken. Hieropvolgend deel ik deze informatie met de klanten. EIND: Het verstrekken van de informatie aan de klanten.

1 Codes:

- **End event**

  Comment: by 31627
  > *The participant describes an end event of the process*

8:68 schakelen met sales wanneer ik mogelijkheden zie bij bestaande of nie…… (6:2428 [6:2586]) - D 8: Respons PS [redacted]

schakelen met sales wanneer ik mogelijkheden zie bij bestaande of nieuwe klanten. EIND: Bij de sales afdeling, zij nemen dan het initiatief richting de klant

2 Codes:

- **End event**

  Comment: by 31627
  > *The participant describes an end event of the process*

○ **Start event**

Comment: by 31627
> *The respondent is describing a start event in the process*

8:69 assisteren en instrueren van klanten bij het gebruik van Puur functio…… (6:2591 [6:2742]) - D 8: Respons PS [redacted]

assisteren en instrueren van klanten bij het gebruik van Puur functionaliteiten. EIND: Bij de klanten, zij moeten dit wanneer nodig intern verpsreiden.

1 Codes:

○ **End event**

Comment: by 31627
> *The participant describes an end event of the process*

8:70 het opmerken van klantbehoeften, en aanvoelen waar het kennisgebrek z…… (6:2746 [6:2946]) - D 8: Respons PS [redacted]

het opmerken van klantbehoeften, en aanvoelen waar het kennisgebrek zit (of waar een opfrissing nodig is). EIND: Binnen je klantteam, daarna wordt er per functie gekeken wie wat het beste kan oppakken

2 Codes:

○ **Start event**

Comment: by 31627
> *The respondent is describing a start event in the process*

○ **Task**

Comment: by 31627
> *The respondent is describing a task executed during the process.*

8:71 bij klanten waarvan ik de product specialist ben heb ik geregeld cont…… (6:2951 [6:3169]) - D 8: Respons PS [redacted]

bij klanten waarvan ik de product specialist ben heb ik geregeld contact, om knelpunten/bugs/wensen te bespreken, of slechts een gesprek hoe het gaat.

EIND: Binnen je klantteam, nadat je een bezoekverslag hebt gemaakt

2 Codes:

○ **End event**

Comment: by 31627
> *The participant describes an end event of the process*

○ **Task**

Comment: by 31627

> *The respondent is describing a task executed during the process.*

8:72 belangrijke informatie wat betreft klanten delen binnen je klantteam (…… (6:3174 [6:3311]) - D 8: Respons PS [redacted]

belangrijke informatie wat betreft klanten delen binnen je klantteam (of Ecare- breed wanneer nodig) EIND: Binnen je klantteam (of Ecare)

1 Codes:

- **End event**

Comment: by 31627

> *The participant describes an end event of the process*

8:73 het melden van bugs en wensen van klanten aan de product owners en dev…… (6:3451 [6:3815]) - D 8: Respons PS [redacted]

het melden van bugs en wensen van klanten aan de product owners en development teams. ACTIES: melding --> bug / wens checken (is het echt een probleem?) --> zoeken naar een (tijdelijke) workaround --> bespreken met de product owner --> indien nodig ticket aanmaken --> wachten tot het ticket wordt opgepakt --> oplossing terugkoppelen aan klant.

1 Codes:

- **Control flow**

Comment: by 31627

> *The respondent describes a control flow in the process with corresponding tasks/events/decision points*

8:74 het bijwonen van de tweewekelijkse releasemeeting, waarin de released…… (6:3818 [6:4220]) - D 8: Respons PS [redacted]

het bijwonen van de tweewekelijkse releasemeeting, waarin de releasedetails onder de development teams worden besproken. Hieropvolgend deel ik deze informatie met de klanten. ACTIES: meeting bijwonen --> belangrijke ontwikkelingen noteren --> vragen naar eventuele nadelen voor klanten --> releasenotes per ontwikkelteam verzamelen en controleren - -> releasenotes opsturen naar klanten.

1 Codes:

- **Control flow**

Comment: by 31627

> *The respondent describes a control flow in the process with corresponding tasks/events/decision points*

8:75 schakelen met sales wanneer ik mogelijkheden zie bij bestaande of nieu…… (6:4224 [6:4388]) - D 8: Respons PS [redacted]

schakelen met sales wanneer ik mogelijkheden zie bij bestaande of nieuwe klanten. ACTIES: salesmogelijkheid zien --> info delen met adviseur --> klantcontact

1 Codes:

- **Control flow**

Comment: by 31627

> *The respondent describes a control flow in the process with corresponding tasks/events/decision points*

8:76 assisteren en instrueren van klanten bij het gebruik van Puur function…… (6:4391 [6:4601]) - D 8: Respons PS [redacted]

assisteren en instrueren van klanten bij het gebruik van Puur functionaliteiten.

ACTIES: melding ontvangen --> meekijken bij klant --> how to uitleggen aan klanten --> vraag of ze het proces begrijpen

1 Codes:

- **Control flow**

Comment: by 31627

> *The respondent describes a control flow in the process with corresponding tasks/events/decision points*

8:77 het opmerken van klantbehoeften, en aanvoelen waar het kennisgebrek z…… (6:4604 [6:4831]) - D 8: Respons PS [redacted]

het opmerken van klantbehoeften, en aanvoelen waar het kennisgebrek zit (of waar een opfrissing nodig is). ACTIES: opmerken --> mogelijkheden bekijken --> communiceren binnen klantteam --> (niet) tot actie overgaan. -

1 Codes:

- **Control flow**

Comment: by 31627

> *The respondent describes a control flow in the process with corresponding tasks/events/decision points*

8:78 bij klanten waarvan ik de product specialist ben heb ik geregeld conta…… (6:4833 [6:5123]) - D 8: Respons PS [redacted]

bij klanten waarvan ik de product specialist ben heb ik geregeld contact, om knelpunten/bugs/wensen te bespreken, of slechts een gesprek hoe het gaat. ACTIES: bezoek --

> bespreken van lopende zaken --> aanvullende punten bespreken --> ter plekke oplossen of later intern bespreken

1 Codes:

○ **Control flow**

Comment: by 31627

> *The respondent describes a control flow in the process with corresponding tasks/events/decision points*

8:79 belangrijke informatie wat betreft klanten delen binnen je klantteam (…… (6:5128 [6:5348]) - D 8: Respons PS [redacted]

belangrijke informatie wat betreft klanten delen binnen je klantteam (of Ecare- breed wanneer nodig) ACTIES: informatie van klantbezoeken noteren in je bezoekverslag --> delen binnen het team en op de wiki plaatsen.

1 Codes:

○ **Control flow**

Comment: by 31627

> *The respondent describes a control flow in the process with corresponding tasks/events/decision points*

8:80 - het melden van bugs en wensen van klanten aan de product owners en d…… (7:1 [7:468]) - D 8: Respons PS [redacted]

- het melden van bugs en wensen van klanten aan de product owners en development teams. ACTIES: melding --> bug / wens checken (is het echt een probleem?) --> zoeken naar een (tijdelijke) workaround --> bespreken met de product owner --> indien nodig ticket aanmaken --> wachten tot het ticket wordt opgepakt --> oplossing terugkoppelen aan klant. BETROKKEN: product specialisten (customer management), product owners, development teams en klanten

1 Codes:

○ **Business actors**

Comment: by 31627

> *The respondent describes the business actors involved in the process.*

8:81 het bijwonen van de tweewekelijkse releasemeeting, waarin de releasede…… (7:471 [7:931]) - D 8: Respons PS [redacted]

het bijwonen van de tweewekelijkse releasemeeting, waarin de releasedetails onder de development teams worden besproken. Hieropvolgend deel ik deze informatie met de klanten. ACTIES: meeting bijwonen --> belangrijke ontwikkelingen noteren --> vragen naar eventuele nadelen voor klanten --> releasenotes per ontwikkelteam verzamelen en controleren --> releasenotes opsturen naar klanten.

BETROKKEN: development teams, product specialist, klanten

1 Codes:

- **Business actors**

Comment: by 31627
> *The respondent describes the business actors involved in the process.*

8:82 schakelen met sales wanneer ik mogelijkheden zie bij bestaande of nieu…… (7:934 [7:1127]) - D 8: Respons PS [redacted]

schakelen met sales wanneer ik mogelijkheden zie bij bestaande of nieuwe klanten.

ACTIES: salesmogelijkheid zien --> info delen met adviseur --> klantcontact BETROKKEN: klanten, klantteam

1 Codes:

- **Business actors**

Comment: by 31627
> *The respondent describes the business actors involved in the process.*

8:83 assisteren en instrueren van klanten bij het gebruik van Puur functio…… (7:1130 [7:1383]) - D 8: Respons PS [redacted]

assisteren en instrueren van klanten bij het gebruik van Puur functionaliteiten. ACTIES: melding ontvangen --> meekijken bij klant --> how to uitleggen aan klanten --> vraag of ze het proces begrijpen BETROKKEN: klanten, customer management.

1 Codes:

- **Business actors**

Comment: by 31627
> *The respondent describes the business actors involved in the process.*

8:84 het opmerken van klantbehoeften, en aanvoelen waar het kennisgebrek zi…… (7:1386 [7:1661]) - D 8: Respons PS [redacted]

het opmerken van klantbehoeften, en aanvoelen waar het kennisgebrek zit (of waar een opfrissing nodig is). ACTIES: opmerken --> mogelijkheden bekijken --> communiceren binnen klantteam --> (niet) tot actie overgaan. BETROKKEN: customer support, klanten, klantteam -

1 Codes:

- **Business actors**

Comment: by 31627
> *The respondent describes the business actors involved in the process.*

8:85 bij klanten waarvan ik de product specialist ben heb ik geregeld conta…… (7:1663 [7:2005]) - D 8: Respons PS [redacted]

bij klanten waarvan ik de product specialist ben heb ik geregeld contact, om knelpunten/bugs/wensen te bespreken, of slechts een gesprek hoe het gaat. ACTIES: bezoek --> bespreken van lopende zaken --> aanvullende punten bespreken --> ter plekke oplossen of later intern bespreken. BETROKKEN: klanten, product specialist, klantteam

1 Codes:

- **Business actors**

Comment: by 31627

> *The respondent describes the business actors involved in the process.*

8:86 belangrijke informatie wat betreft klanten delen binnen je klantteam…… (7:2007 [7:2267]) - D 8: Respons PS [redacted]

belangrijke informatie wat betreft klanten delen binnen je klantteam (of Ecare-breed wanneer nodig) ACTIES: informatie van klantbezoeken noteren in je bezoekverslag --> delen binnen het team en op de wiki plaatsen. BETROKKEN: product specialist, klantteam

1 Codes:

- **Business actors**

Comment: by 31627

> *The respondent describes the business actors involved in the process.*

8:87 - wel of niet oplossen van bugs / wensen (7:2389 [7:2428]) - D 8: Respons PS [redacted]

- wel of niet oplossen van bugs / wensen

1 Codes:

- **Join/split**

Comment: by 31627

> *The respondent is talking about a join/split point in the process.*

8:88 wel of niet doorgaan van releases (7:2432 [7:2465]) - D 8: Respons PS [redacted]

wel of niet doorgaan van releases

1 Codes:

- **Join/split**

Comment: by 31627

> *The respondent is talking about a join/split point in the process.*

8:89 wel of niet delen van informatie (7:2468 [7:2499]) - D 8: Respons PS [redacted]

wel of niet delen van informatie

1 Codes:

- **Join/split**

Comment: by 31627

> *The respondent is talking about a join/split point in the process.*

8:90 informatie over het probleem, met wanneer nodig aanvullende info (scre…… (7:2613 [7:2712]) - D 8: Respons PS [redacted]

informatie over het probleem, met wanneer nodig aanvullende info (screenshots, documenten, video's)

1 Codes:

- **Information**

Comment: by 31627

> *The respondent is talking about information either used or produced by the process.*

8:91 informatie over releasefunctionaliteiten, en eventuele nadelen daarva…… (7:2716 [7:2786]) - D 8: Respons PS [redacted]

informatie over releasefunctionaliteiten, en eventuele nadelen daarvan

1 Codes:

- **Information**

Comment: by 31627

> *The respondent is talking about information either used or produced by the process.*

8:92 informatie over de klant en wat er op gebied van sales kan worden toeg…… (7:2789 [7:2866]) - D 8: Respons PS [redacted]

informatie over de klant en wat er op gebied van sales kan worden toegevoegd

1 Codes:

- **Information**

Comment: by 31627

> *The respondent is talking about information either used or produced by the process.*

8:93 informatie over het huidige kennisniveau van de klant (7:2869 [7:2923]) - D 8: Respons PS [redacted]

informatie over het huidige kennisniveau van de klant

1 Codes:

- **Information**

  Comment: by 31627
  > *The respondent is talking about information either used or produced by the process.*

8:94 nformatie over wat er speelt bij klanten (7:2927 [7:2966]) - D 8: Respons PS [redacted]

nformatie over wat er speelt bij klanten

1 Codes:

- **Information**

  Comment: by 31627
  > *The respondent is talking about information either used or produced by the process.*

8:95 informatie over de juiste functionaliteiten binnen Puur (7:2970 [7:3024]) - D 8: Respons PS [redacted]

informatie over de juiste functionaliteiten binnen Puur

1 Codes:

- **Information**

  Comment: by 31627
  > *The respondent is talking about information either used or produced by the process.*

8:96 nformatie vanuit support (bugs/wensen) voor ontwikkelteams (7:3154 [7:3212]) - D 8: Respons PS [redacted]

nformatie vanuit support (bugs/wensen) voor ontwikkelteams

2 Codes:

- **Business actors**

  Comment: by 31627
  > *The respondent describes the business actors involved in the process.*

- **Information**

  Comment: by 31627
  > *The respondent is talking about information either used or produced by the process.*

8:97 informatie vanuit klantbezoeken (huidige stand van zaken, knelpunten e…… (7:3215 [7:3317]) - D 8: Respons PS [redacted]

informatie vanuit klantbezoeken (huidige stand van zaken, knelpunten en mogelijkheden) voor klantteams

2 Codes:

- **Business actors**

  Comment: by 31627
  > *The respondent describes the business actors involved in the process.*

- **Information**

  Comment: by 31627
  > *The respondent is talking about information either used or produced by the process.*

8:98 informatie vanuit het ontwikkelteam (wat wordt er ontwikkeld) voor kla…… (7:3321 [7:3407]) - D 8: Respons PS [redacted]

informatie vanuit het ontwikkelteam (wat wordt er ontwikkeld) voor klanten en klantteam

2 Codes:

- **Business actors**

  Comment: by 31627
  > *The respondent describes the business actors involved in the process.*

- **Information**

  Comment: by 31627
  > *The respondent is talking about information either used or produced by the process.*

8:99 het melden van bugs en wensen van klanten aan de product owners en dev…… (8:3 [8:139]) - D 8: Respons PS [redacted]

het melden van bugs en wensen van klanten aan de product owners en development teams. BEGIN: bij de klant, of bij een fout/storing in Puu

1 Codes:

- **Start event**

  Comment: by 31627
  > *The respondent is describing a start event in the process*

8:100 het bijwonen van de tweewekelijkse releasemeeting, waarin de released…… (8:143 [8:385]) - D 8: Respons PS [redacted]

het bijwonen van de tweewekelijkse releasemeeting, waarin de releasedetails onder de development teams worden besproken. Hieropvolgend deel ik deze informatie met de klanten. BEGIN: bij de ontwikkelteams, bij de start van een nieuwe release

2 Codes:

○ **Business actors**

Comment: by 31627
> *The respondent describes the business actors involved in the process.*

○ **Start event**

Comment: by 31627
> *The respondent is describing a start event in the process*

8:101 schakelen met sales wanneer ik mogelijkheden zie bij bestaande of nie…… (8:389 [8:498]) - D 8: Respons PS [redacted]

schakelen met sales wanneer ik mogelijkheden zie bij bestaande of nieuwe klanten. BEGIN: bij een klantgesprek

1 Codes:

○ **Start event**

Comment: by 31627
> *The respondent is describing a start event in the process*

8:102 assisteren en instrueren van klanten bij het gebruik van Puur function…… (8:502 [8:636]) - D 8: Respons PS [redacted]

assisteren en instrueren van klanten bij het gebruik van Puur functionaliteiten. BEGIN: wanneer een klant belt, of tijdens trainingen

1 Codes:

○ **Start event**

Comment: by 31627
> *The respondent is describing a start event in the process*

8:103 het opmerken van klantbehoeften, en aanvoelen waar het kennisgebrek zi…… (8:639 [8:820]) - D 8: Respons PS [redacted]

het opmerken van klantbehoeften, en aanvoelen waar het kennisgebrek zit (of waar een opfrissing nodig is). BEGIN: wanneer een klant belt, tijdens een bezoek, of tijdens een training

1 Codes:

○ **Start event**

Comment: by 31627
> *The respondent is describing a start event in the process*

8:104 bij klanten waarvan ik de product specialist ben heb ik geregeld conta…… (8:824 [8:1004]) - D 8: Respons PS [redacted]

bij klanten waarvan ik de product specialist ben heb ik geregeld contact, om knelpunten/bugs/wensen te bespreken, of slechts een gesprek hoe het gaat. BEGIN: als het gesprek begint

1 Codes:

○ **Start event**

Comment: by 31627
> *The respondent is describing a start event in the process*

8:105 belangrijke informatie wat betreft klanten delen binnen je klantteam…… (8:1008 [8:1133]) - D 8: Respons PS [redacted]

belangrijke informatie wat betreft klanten delen binnen je klantteam (of Ecare-breed wanneer nodig) BEGIN: na een klantbezoek

1 Codes:

○ **Start event**

Comment: by 31627
> *The respondent is describing a start event in the process*

Report for Query: BPMN elements

Scope: Advisors Plein [redacted]
(67) quotations

1:35 Erg belangrijk om goede informatie over de huidige processen te krijge…… (6:16 [6:88]) - D 1: Respons [redacted]

Erg belangrijk om goede informatie over de huidige processen te krijgen.

1 Codes:

○ **Product**

Comment: by 31627
> *The respondent is describing a process product*

1:36 Daarnaast is het belangrijk om te weten hoe het ICT landschap eruit zi…… (6:157 [6:279]) - D 1: Respons [redacted]

Daarnaast is het belangrijk om te weten hoe het ICT landschap eruit ziet ter voorbereiding om het inrichten van het Plein.

2 Codes:

○ **Information**

Comment: by 31627

The respondent is talking about information either used or produced by the process.

- **Product**

Comment: by 31627
The respondent is describing a process product

1:37 Als laatste is een goede inventarisatie nodig om in te kunnen schatte…… (6:281 [6:398]) - D 1: Respons [redacted]

Als laatste is een goede inventarisatie nodig om in te kunnen schatten hoeveel licenties en hardware er benodigd zijn

2 Codes:

- **Information**

Comment: by 31627
The respondent is talking about information either used or produced by the process.

- **Product**

Comment: by 31627
The respondent is describing a process product

1:38 Iedereen binnen de organisatie heeft een basiskennis om met de nieuwe…… (6:411 [6:523]) - D 1: Respons [redacted]

Iedereen binnen de organisatie heeft een basiskennis om met de nieuwe werkplek (Google, Plein) te kunnen werken.

1 Codes:

- **Product**

Comment: by 31627
The respondent is describing a process product

1:39 Zorgen dat er voor verschillende onderdelen een Plein is ingericht om…… (6:543 [6:630]) - D 1: Respons [redacted]

Zorgen dat er voor verschillende onderdelen een Plein is ingericht om vanuit te werken.

1 Codes:

- **Product**

Comment: by 31627
The respondent is describing a process product

1:40 De organisatie werkt in de nieuwe omgeving. Dus met de Google applicat…… (6:647 [6:755]) - D 1: Respons [redacted]

De organisatie werkt in de nieuwe omgeving. Dus met de Google applicaties, het Plein en op hun nieuwe device

2 Codes:

- **End event**

  Comment: by 31627
  > *The participant describes an end event of the process*

- **Product**

  Comment: by 31627
  > *The respondent is describing a process product*

1:41 Inventarisatie: Wanneer alle informatie vergaard is om een project te…… (6:1186 [6:1262]) - D 1: Respons [redacted]

Inventarisatie: Wanneer alle informatie vergaard is om een project te starten

1 Codes:

- **End event**

  Comment: by 31627
  > *The participant describes an end event of the process*

1:42 Training: Wanneer iedereen getraind is (6:1265 [6:1302]) - D 1: Respons [redacted]

Training: Wanneer iedereen getraind is

1 Codes:

- **End event**

  Comment: by 31627
  > *The participant describes an end event of the process*

1:43 Inrichting Plein: Wanneer er voor iedereen een werkbaar Plein is. (6:1305 [6:1371]) - D 1: Respons [redacted]

Inrichting Plein: Wanneer er voor iedereen een werkbaar Plein is.

1 Codes:

- **End event**

  Comment: by 31627
  > *The participant describes an end event of the process*

1:44 Implementatie: Wanneer de organisatie over is op de nieuwe werkplek. (6:1372 [6:1441]) - D 1: Respons [redacted]

Implementatie: Wanneer de organisatie over is op de nieuwe werkplek.

1 Codes:

- **End event**

  Comment: by 31627
  > *The participant describes an end event of the process*

1:45 Inventarisatie: - Huidige bronsysteem en applicatie landschap - Single…… (6:1577 [6:1750]) - D 1: Respons [redacted]

Inventarisatie: - Huidige bronsysteem en applicatie landschap - Single Sign On koppelingen - Identity management - Huidige intranet omgeving - Licenties aantallen - Hardware

1 Codes:

- **Control flow**

  Comment: by 31627
  > *The respondent describes a control flow in the process with corresponding tasks/events/decision points*

1:46 Training: - Draaiboek maken (zelf trainen, train-de-trainers, e-learni…… (6:1752 [6:1988]) - D 1: Respons [redacted]

Training: - Draaiboek maken (zelf trainen, train-de-trainers, e-learning) - Trainingen plannen - Trainingen uitvoeren Inrichting Plein: - Afstemming welke applicaties op plein komen - Onderscheid zorg en ondersteuning - Inrichten Plein

1 Codes:

- **Control flow**

  Comment: by 31627
  > *The respondent describes a control flow in the process with corresponding tasks/events/decision points*

1:47 Implementatie: - Data migreren - Mail migreren - Device in ontvangst…… (6:1989 [6:2083]) - D 1: Respons [redacted]

Implementatie: - Data migreren - Mail migreren - Device in ontvangst nemen - Plein startpagina

1 Codes:

- **Control flow**

  Comment: by 31627
  > *The respondent describes a control flow in the process with corresponding tasks/events/decision points*

1:48 Inventarisatie: Adviseur en technisch consultant (6:2127 [6:2174]) - D 1: Respons [redacted]

Inventarisatie: Adviseur en technisch consultant

1 Codes:

- **Business actors**

Comment: by 31627

> *The respondent describes the business actors involved in the process.*

1:49 Training: Adviseur (6:2176 [6:2193]) - D 1: Respons [redacted]

Training: Adviseur

1 Codes:

- **Business actors**

Comment: by 31627

> *The respondent describes the business actors involved in the process.*

1:50 Plein: Adviseur, product owner en developer (6:2195 [6:2238]) - D 1: Respons [redacted]

Plein: Adviseur, product owner en developer

1 Codes:

- **Business actors**

Comment: by 31627

> *The respondent describes the business actors involved in the process.*

1:51 Implementatie: Adviseur en technisch consultant (6:2239 [6:2286]) - D 1: Respons [redacted]

Implementatie: Adviseur en technisch consultant

1 Codes:

- **Business actors**

Comment: by 31627

> *The respondent describes the business actors involved in the process.*

1:52 Inventarisatie: Nemen we alles uit de oude omgeving mee? (Applicaties) (7:58 [7:128]) - D 1: Respons [redacted]

Inventarisatie: Nemen we alles uit de oude omgeving mee? (Applicaties)

1 Codes:

○ **Join/split**

Comment: by 31627

> *The respondent is talking about a join/split point in the process.*

1:53 Welk device en hoeveel licenties? (7:129 [7:162]) - D 1: Respons A [redacted])

Welk device en hoeveel licenties?

1 Codes:

○ **Join/split**

Comment: by 31627

> *The respondent is talking about a join/split point in the process.*

1:54 Plein: Hoeveel verschillende Pleinen gaan we inrichten? (Zorg, onders…… (7:218 [7:302]) - D 1: Respons [redacted]

Plein: Hoeveel verschillende Pleinen gaan we inrichten? (Zorg, ondersteuning, etc..)

1 Codes:

○ **Join/split**

Comment: by 31627

> *The respondent is talking about a join/split point in the process.*

1:55 Hierbij heb je een goed beeld nodig van de huidige situatie. Daarom is…… (7:415 [7:653]) - D 1: Respons [redacted]

Hierbij heb je een goed beeld nodig van de huidige situatie. Daarom is een goede inventarisatie van essentieel belang. Hierdoor kun je goed inschatten waar een organisatie behoefte aan heeft en waar je zou adviseren om het anders te doen.

1 Codes:

○ **Information**

Comment: by 31627

> *The respondent is talking about information either used or produced by the process.*

1:56 Inventarisatie: Wanneer de sales het overdraagt aan de dienstverlening (7:925 [7:994]) - D 1: Respons [redacted]

Inventarisatie: Wanneer de sales het overdraagt aan de dienstverlening

1 Codes:

○ **Start event**

Comment: by 31627

The respondent is describing a start event in the process

1:57 Training: Na de inventarisatie (7:997 [7:1026]) - D 1: Respons [redacted]

Training: Na de inventarisatie

1 Codes:

○ **Start event**

Comment: by 31627
The respondent is describing a start event in the process

1:58 nrichting Plein: Na de inventarisatie (7:1029 [7:1065]) - D 1: Respons A [redacted]

nrichting Plein: Na de inventarisatie

1 Codes:

○ **Start event**

Comment: by 31627
The respondent is describing a start event in the process

1:59 Implementatie: Wanneer het Plein ingericht is, de trainingen zijn afge…… (7:1068 [7:1209]) - D 1: Respons [redacted]

Implementatie: Wanneer het Plein ingericht is, de trainingen zijn afgerond, de devices gereed zijn en de technische achterkant is ingericht.

1 Codes:

○ **Start event**

Comment: by 31627
The respondent is describing a start event in the process

2:8 Vragen komen binnen per mail/telefoon --> direct doorzetten bij de…… (6:152 [6:273]) - D 2: Respons [redacted]

Vragen komen binnen per mail/telefoon --> direct doorzetten bij de juiste, of zelf oplossen. Of via Topdesk / Support.

1 Codes:

○ **Product**

Comment: by 31627
The respondent is describing a process product

2:26 Inplannen (5:940 [5:949]) - D 2: Respons [redacted]

Inplannen

1 Codes:

- **Task**

Comment: by 31627
> *The respondent is describing a task executed during the process.*

2:27 Trainingen (5:957 [5:967]) - D 2: Respons [redacted]

Trainingen

1 Codes:

- **Task**

Comment: by 31627
> *The respondent is describing a task executed during the process.*

2:28 ondersteunen (5:977 [5:989]) - D 2: Respons [redacted]

ondersteunen

1 Codes:

- **Task**

Comment: by 31627
> *The respondent is describing a task executed during the process.*

2:29 Formulieren/lijsten (5:997 [5:1015]) - D 2: Respons [redacted]

Formulieren/lijsten

1 Codes:

- **Task**

Comment: by 31627
> *The respondent is describing a task executed during the process.*

2:30 Data verzamelen (5:1023 [5:1038]) - D 2: Respons [redacted]

Data verzamelen

1 Codes:

- **Task**

Comment: by 31627
> *The respondent is describing a task executed during the process.*

2:31 Verwerken zelf/ technisch adviseur (5:1047 [5:1080]) - D 2: Respons [redacted]

Verwerken zelf/ technisch adviseur

1 Codes:

- **Task**

Comment: by 31627
> *The respondent is describing a task executed during the process.*

2:32 vraag klant (5:1090 [5:1100]) - D 2: Respons [redacted]

vraag klant

1 Codes:

- **Start event**

Comment: by 31627
> *The respondent is describing a start event in the process*

2:33 Support (5:1109 [5:1115]) - D 2: Respons [redacted]

Support

1 Codes:

- **Task**

Comment: by 31627
> *The respondent is describing a task executed during the process.*

2:34 Tweedelijns werkzaamheden en advies. (5:1127 [5:1163]) - D 2: Respons [redacted]

Tweedelijns werkzaamheden en advies.

1 Codes:

- **Task**

Comment: by 31627
> *The respondent is describing a task executed during the process.*

2:35 Zodra het product er is komen vragen direct binnen bij de adviseur, op…… (5:1164 [5:1248]) - D 2: Respons [redacted]

Zodra het product er is komen vragen direct binnen bij de adviseur, op alle vlakken.

1 Codes:

- **Start event**

Comment: by 31627
> *The respondent is describing a start event in the process*

2:36 - knelpunten signaleren (6:21 [6:43]) - D 2: Respons [redacted]

- knelpunten signaleren

1 Codes:

- **Product**

Comment: by 31627
> *The respondent is describing a process product*

2:37 Lijsten heeft technisch adviseur nodig. Stromingen en lijnen binnen de…… (6:48 [6:146]) - D 2: Respons [redacted]

Lijsten heeft technisch adviseur nodig. Stromingen en lijnen binnen de organisatie worden duidelijk

1 Codes:

- **Product**

Comment: by 31627
> *The respondent is describing a process product*

2:38 Wanneer iedereen training heeft gehad (6:455 [6:491]) - D 2: Respons [redacted]

Wanneer iedereen training heeft gehad

1 Codes:

- **End event**

Comment: by 31627
> *The participant describes an end event of the process*

2:39 Als lijsten volledig ingevuld zijn. Vergt veel controle. (6:497 [6:553]) - D 2: Respons [redacted]

Als lijsten volledig ingevuld zijn. Vergt veel controle.

1 Codes:

- **End event**

Comment: by 31627
> *The participant describes an end event of the process*

2:40 Zodra de klant geholpen is en tevreden. Of dat wij de dienst niet ver…… (6:557 [6:657]) - D 2: Respons [redacted]

Zodra de klant geholpen is en tevreden. Of dat wij de dienst niet verlenen en dus nee moeten zeggen.

1 Codes:

○ **End event**

Comment: by 31627

> *The participant describes an end event of the process*

2:41 Aantallen verdelen --> indelen --> mailen --> ruimte reserver…… (6:936 [6:1066]) - D 2: Respons [redacted]

Aantallen verdelen --> indelen --> mailen --> ruimte reserveren --> training geven --> feedback formulier toesturen

1 Codes:

○ **Control flow**

Comment: by 31627

> *The respondent describes a control flow in the process with corresponding tasks/events/decision points*

2:42 Lijsten klaarzetten - -> lijsten toelichten --> laten invullen…… (6:1071 [6:1227]) - D 2: Respons [redacted]

Lijsten klaarzetten - -> lijsten toelichten --> laten invullen --> meermaals controleren --> definitief --> verwerken toch technisch adviseur

1 Codes:

○ **Control flow**

Comment: by 31627

> *The respondent describes a control flow in the process with corresponding tasks/events/decision points*

2:43 vraag support --> tweedelijns --> uitzoeken/communiceren of vra…… (6:1231 [6:1354]) - D 2: Respons [redacted]

vraag support --> tweedelijns --> uitzoeken/communiceren of vraag projectgroep klant --> uitzoeken / communiceren

1 Codes:

○ **Control flow**

Comment: by 31627

> *The respondent describes a control flow in the process with corresponding tasks/events/decision points*

2:44 De klant, technisch adviseur, support, sales, (6:1398 [6:1442]) - D 2: Respons [redacted]

De klant, technisch adviseur, support, sales,

1 Codes:

- **Business actors**

Comment: by 31627

> *The respondent describes the business actors involved in the process.*

2:45 Hardware aantallen, (7:5 [7:23]) - D 2: Respons [redacted]

Hardware aantallen,

1 Codes:

- **Join/split**

Comment: by 31627

> *The respondent is talking about a join/split point in the process.*

2:46 begroting (7:25 [7:33]) - D 2: Respons [redacted]

begroting

1 Codes:

- **Join/split**

Comment: by 31627

> *The respondent is talking about a join/split point in the process.*

2:47 aantal licenties, (7:36 [7:52]) - D 2: Respons [redacted]

aantal licenties,

1 Codes:

- **Join/split**

Comment: by 31627

> *The respondent is talking about a join/split point in the process.*

2:48 deadline beslissingen (7:54 [7:74]) - D 2: Respons [redacted]

deadline beslissingen

1 Codes:

- **Join/split**

Comment: by 31627

> *The respondent is talking about a join/split point in the process.*

2:49 . aantal locaties en medewerkers (7:245 [7:277]) - D 2: Respons [redacted]

. aantal locaties en medewerkers

1 Codes:

- **Information**

Comment: by 31627

> *The respondent is talking about information either used or produced by the process.*

2:50 informatie over de huidige schijven, structuren en maiboxen. (7:281 [7:340]) - D 2: Respons [redacted]

informatie over de huidige schijven, structuren en maiboxen.

1 Codes:

- **Information**

Comment: by 31627

> *The respondent is talking about information either used or produced by the process.*

2:51 De afspraken. De richtlijnen wat we wel en niet doen bij de klant. (7:472 [7:539]) - D 2: Respons [redacted]

De afspraken. De richtlijnen wat we wel en niet doen bij de klant.

1 Codes:

- **Information**

Comment: by 31627

> *The respondent is talking about information either used or produced by the process.*

2:52 Zodra contracten zijn getekend en migratie gestart kan worden. (7:607 [7:670]) - D 2: Respons [redacted]

Zodra contracten zijn getekend en migratie gestart kan worden.

1 Codes:

- **Start event**

Comment: by 31627

The respondent is describing a start event in the process

6:25 Dat betekent dat de overdrachten van de ene naar de andere discipline…… (6:58 [6:276]) - D 6: Respons [redacted]

Dat betekent dat de overdrachten van de ene naar de andere discipline belangrijk zijn, daar probeer ik overall bij mee te kijken. Meestal betreft dat overdrachtsdocumenten zodat eenieder weet wat er speelt bij de klant

2 Codes:

- **Information**

  Comment: by 31627
  The respondent is talking about information either used or produced by the process.

- **Product**

  Comment: by 31627
  The respondent is describing a process product

6:26 k sta in nauw contact met klanten over de ontwikkeling van Plein. Ik…… (6:280 [6:583]) - D 6: Respons [redacted]

k sta in nauw contact met klanten over de ontwikkeling van Plein. Ik haal informatie op die we meenemen in het ontwikkelproces. Een belangrijke output vanuit de klant is dus belangrijke input voor ons product. Dat komt heel concreet neer op applicaties die in het proces van de klant gebruikt worden.

2 Codes:

- **Information**

  Comment: by 31627
  The respondent is talking about information either used or produced by the process.

- **Product**

  Comment: by 31627
  The respondent is describing a process product

6:27 Een belangrijke eis aan documentatie is dat het aansluit bij het proce…… (6:650 [6:1172]) - D 6: Respons [redacted]

Een belangrijke eis aan documentatie is dat het aansluit bij het proces dat gevolgd wordt door de discipline aan wie het wordt overgedragen. Dus het verstrekken van de relevante informatie. Voor de klant is het belangrijk dat wij het proces goed overzien en snappen wat voor de klant belangrijk is. Voor de klant is het belangrijk dat ze het proces herkennen in plein. Dat de applicaties die ze nodig hebben om de juiste zorg te kunnen leveren in Plein worden getoond. Dat is de output op basis van de input van de klant

1 Codes:

○ **Information**

Comment: by 31627
> *The respondent is talking about information either used or produced by the process.*

6:28 Sales stopt zodra de klant heeft getekend en over wil tot implementati…… (6:1244 [6:1347]) - D 6: Respons [redacted]

Sales stopt zodra de klant heeft getekend en over wil tot implementatie (een de voorbereiding daarvoor)

1 Codes:

○ **End event**

Comment: by 31627
> *The participant describes an end event of the process*

6:29 overdracht adviseurs De adviseurs stoppen zodra de klant in geïmpleme…… (6:1355 [6:1581]) - D 6: Respons [redacted]

overdracht adviseurs De adviseurs stoppen zodra de klant in geïmplementeerd, wanneer alle trainingen zijn gegeven en alle medewerker gebruik maken van de nieuwe digitale werkplek (hardware) in combinatie met Plein (software).

1 Codes:

○ **End event**

Comment: by 31627
> *The participant describes an end event of the process*

6:30 De adviseurs blijven overigens wel betrokken bij nieuwe ontwikkelingen…… (6:1583 [6:1700]) - D 6: Respons [redacted]

De adviseurs blijven overigens wel betrokken bij nieuwe ontwikkelingen en bij algemene ICT vraagstukken bij de klant.

1 Codes:

○ **Start event**

Comment: by 31627
> *The respondent is describing a start event in the process*

6:31 overdracht support Support blijft betrokken zolang de klant, klant bli…… (6:1709 [6:1794]) - D 6: Respons [redacted]

overdracht support Support blijft betrokken zolang de klant, klant blijft bij Ecare.

1 Codes:

○ **End event**

Comment: by 31627

> *The participant describes an end event of the process*

6:32 Sales creëert awareness of er is al awareness bij de klant. Ze zoeken…… (6:1930 [6:2559]) - D 6: Respons [redacted]

Sales creëert awareness of er is al awareness bij de klant. Ze zoeken uit wat het proces is dat de klant volgt en welke applicaties daarbij gebruikt worden. Er wordt een strategisch gesprek aangegaan over de applicaties die gebruikt worden (bij de implementatie wordt hier dieper op ingegaan).

Daarnaast wordt er gekeken naar het huidige hardwarelandschap, wat daarvan vervangen moet worden en met welke devices het dan vervangen zou moeten worden. Ze halen algemene gegevens op bij de klant die kunnen worden overgedragen naar de adviseurs voor de implementatie en ze zorgen voor een offerte en dat deze getekend retour komt.

1 Codes:

○ **Control flow**

Comment: by 31627

> *The respondent describes a control flow in the process with corresponding tasks/events/decision points*

6:33 Voor de implementatie kan ik het gehele proces niet uitschrijven, we z…… (6:2561 [6:3310]) - D 6: Respons [redacted]

Voor de implementatie kan ik het gehele proces niet uitschrijven, we zijn momenteel bezig met implementatiedocumentatie, dat zijn redelijk omvangrijke documenten, deze kan ik je eventueel separaat opsturen. Kort gezegd wordt er veel informatie aan de kant van de klant opgehaald, hier wordt kritisch naar gekeken en we gaan het gesprek aan met de klant over de applicaties en de hardware die ze momenteel gebruiken en wensen te gebruiken. Tevens wordt er informatie vergaard over de inrichting van Google (daar zijn redelijke veel mogelijkheden in). Dit wordt gedaan door onze technisch consultant. Ook zorgen ze ervoor dat de hardware op de juiste manier worden uitgerold, besteld (door afdeling inkoop) en geleverd (technische ondersteuning).

1 Codes:

○ **Control flow**

Comment: by 31627

> *The respondent describes a control flow in the process with corresponding tasks/events/decision points*

6:34 Sales, adviseurs, inkoop, technische ondersteuning, support, technisch…… (6:3353 [6:3436]) - D 6: Respons [redacted]

Sales, adviseurs, inkoop, technische ondersteuning, support, technisch consultant.

1 Codes:

- **Business actors**

Comment: by 31627

> *The respondent describes the business actors involved in the process.*

6:35 Welke applicaties er getoond moeten worden in plein - (7:115 [7:168]) - D 6: Respons [redacted]

Welke applicaties er getoond moeten worden in plein -

1 Codes:

- **Join/split**

Comment: by 31627

> *The respondent is talking about a join/split point in the process.*

6:36 Welke en hoeveel devices er gebruikt gaan worden (7:170 [7:217]) - D 6: Respons [redacted]

Welke en hoeveel devices er gebruikt gaan worden

1 Codes:

- **Join/split**

Comment: by 31627

> *The respondent is talking about a join/split point in the process.*

6:37 De inrichting van Google - De klant kan meebeslissen over de borging…… (7:221 [7:435]) - D 6: Respons [redacted]

De inrichting van Google - De klant kan meebeslissen over de borging van de kennis binnen de organisatie werken ze met mensen aan hun kant als eerstelijnssupport (digicoaches) of willen ze die uitbesteden aan ons.

1 Codes:

- **Join/split**

Comment: by 31627

> *The respondent is talking about a join/split point in the process.*

6:38 Sales: Input van de klant --> Wat is het applicatielandschap? Wat d…… (7:589 [7:1524]) - D 6: Respons [redacted]

Sales: Input van de klant --> Wat is het applicatielandschap? Wat draait er nog lokaal? Wat draait al in de cloud? Wat zijn de huidige contracten?

Lopen er nog leasecontracten? Wie zijn jullie partners op ICT vlak? Hoeveel devices moeten we vervangen? Hoeveel licenties meoten we inkopen?

Willen jullie gebruik maken van Lookout (beveiliging)? Willen jullie gebruik maken Mobile Iron (daarmee kunnen we apparatuur op afstand beheren)?

Wat zijn jullie afspraken met betrekking tot telefonie? Dit is een greep uit de vragen die we stellen, we hebben veel input van de klant nodig om een goed project neer te kunnen zetten. Vervolgens gaan de adviseurs met deze informatie aan de slag, wordt er een projectplan opgesteld en wordt er stil gestaan bij de inrichting van Google. Er vind een overdracht plaats naar support over hoe de klant is geïmplementeerd, wat we daar precies hebben gedaan, hoe de organisatie in elkaar zit, etc.

2 Codes:

- **Business actors**

  Comment: by 31627

  > *The respondent describes the business actors involved in the process.*

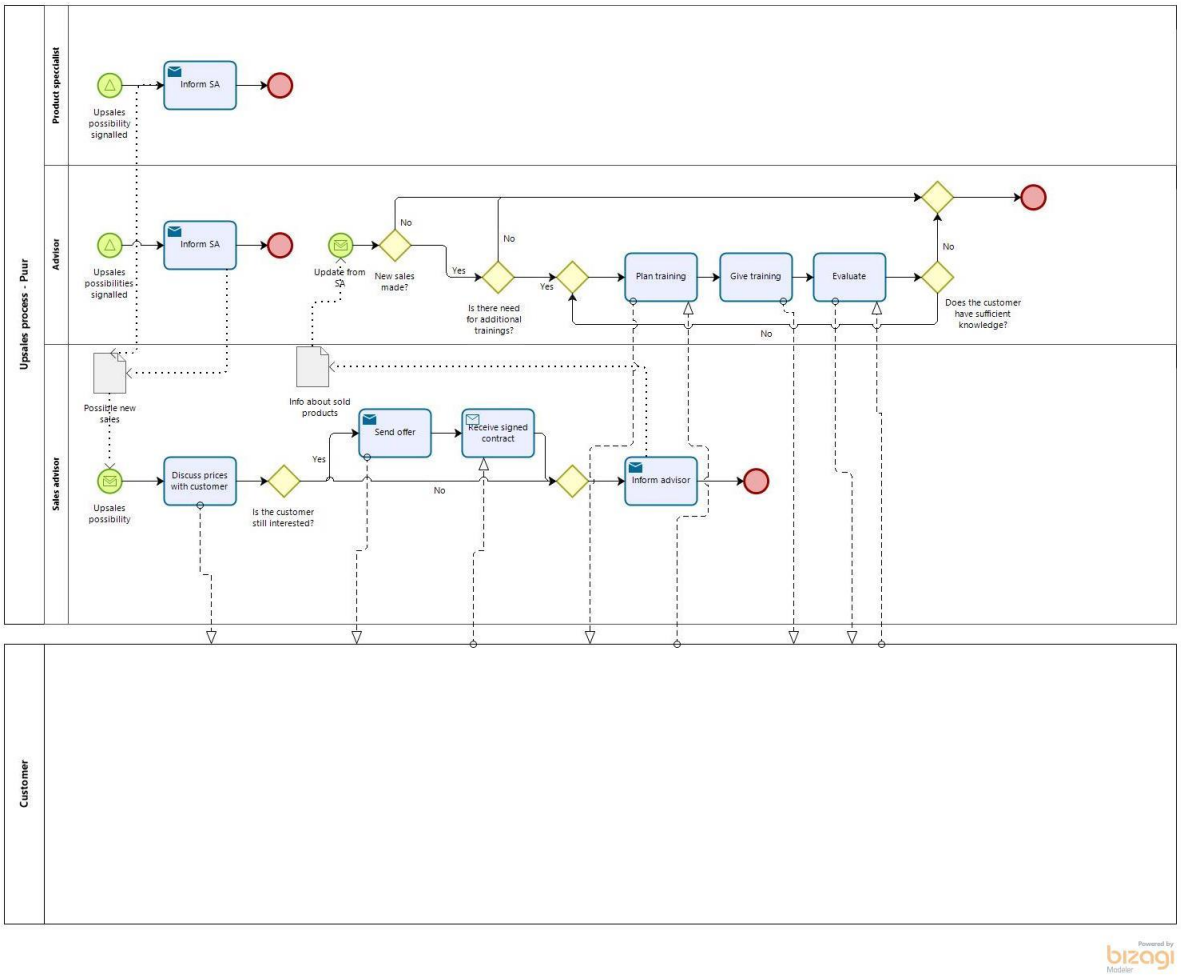
- **Information**

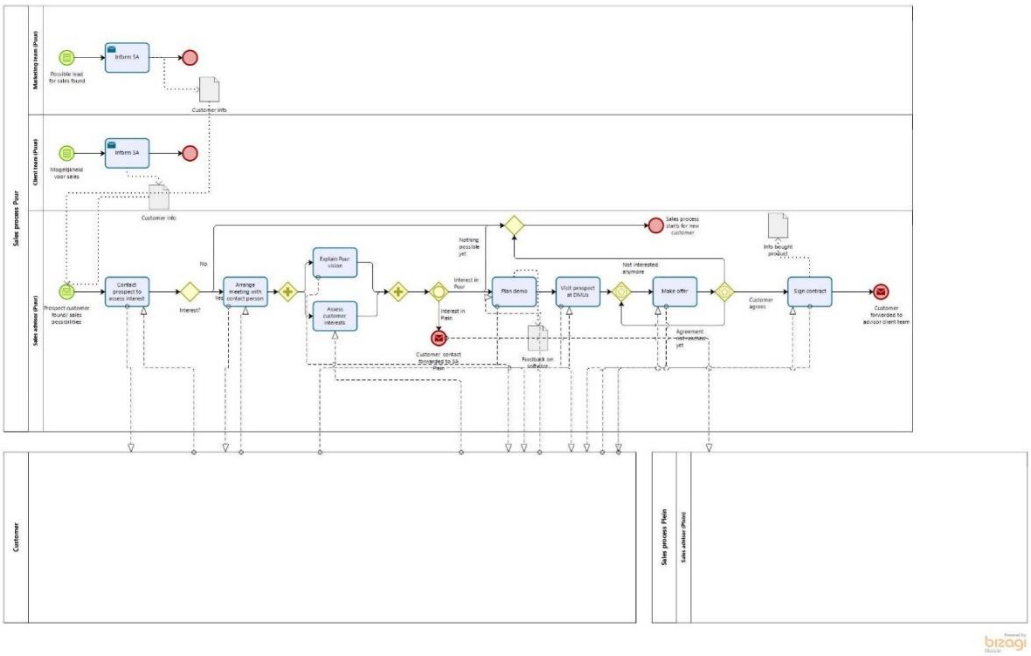
  Comment: by 31627

  > *The respondent is talking about information either used or produced by the process.*

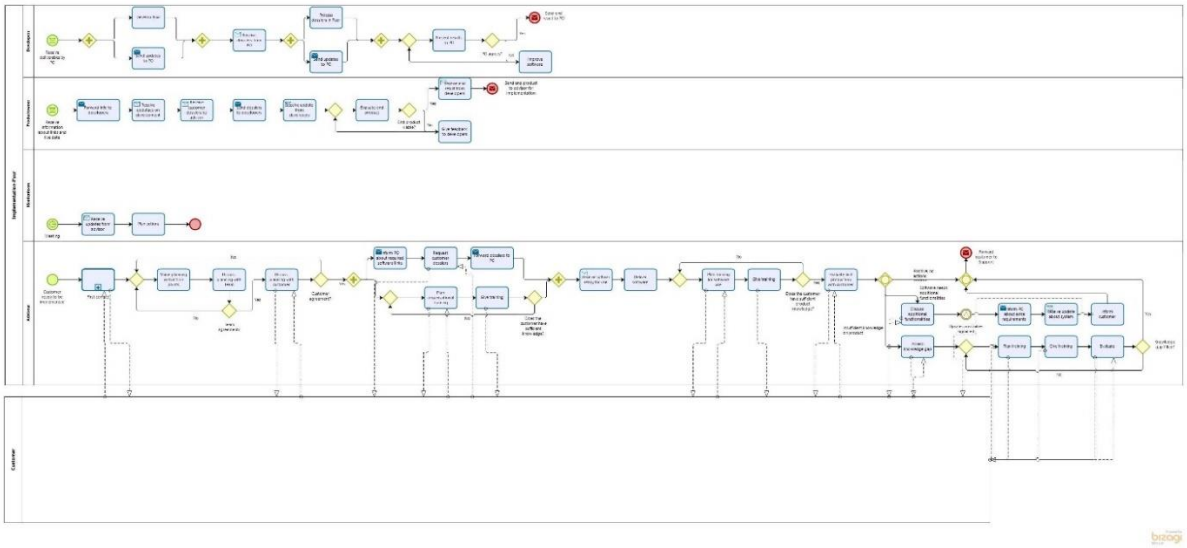
Appendix I: BPMN models second Delphi iteration

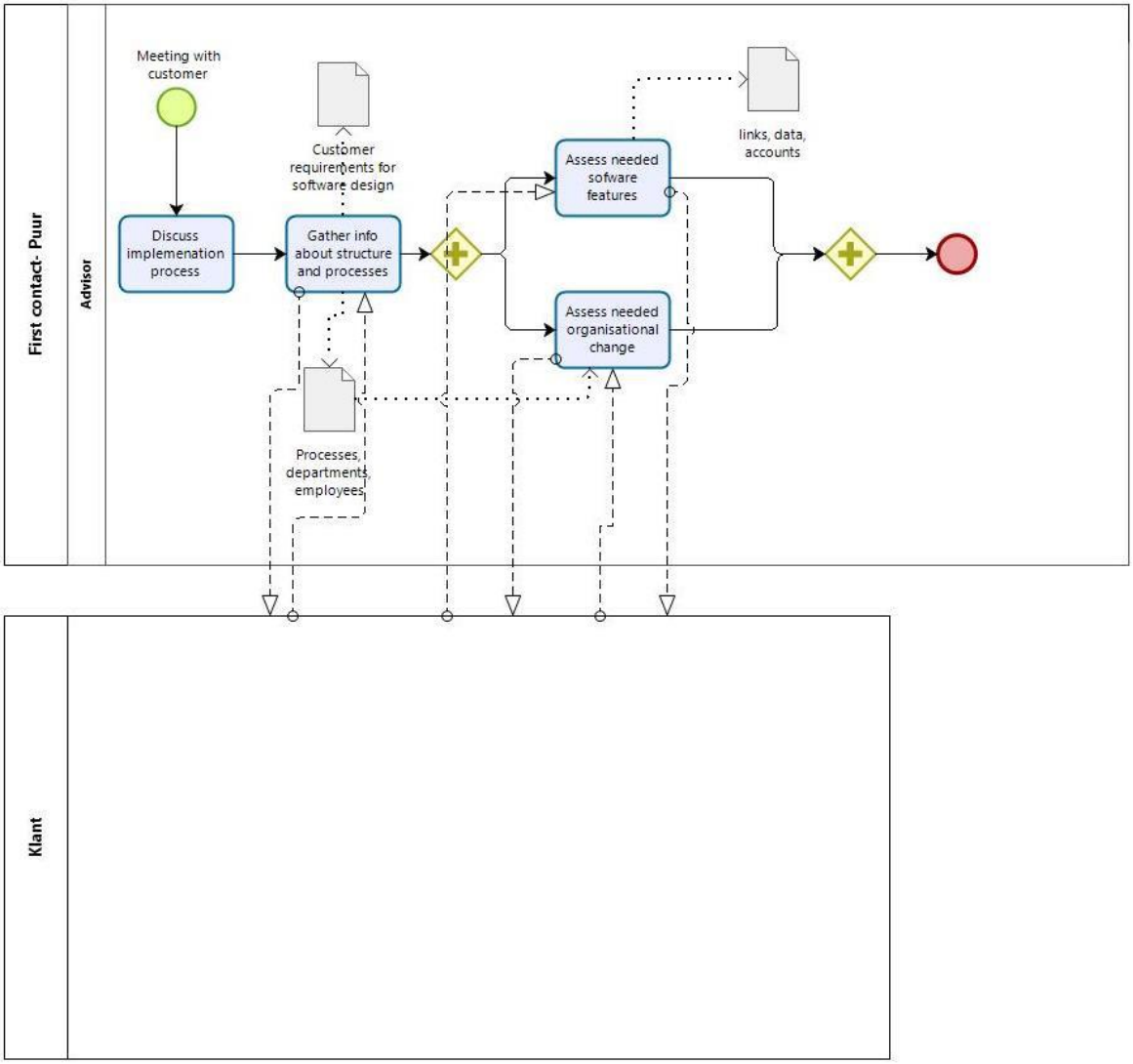
Sales Puur



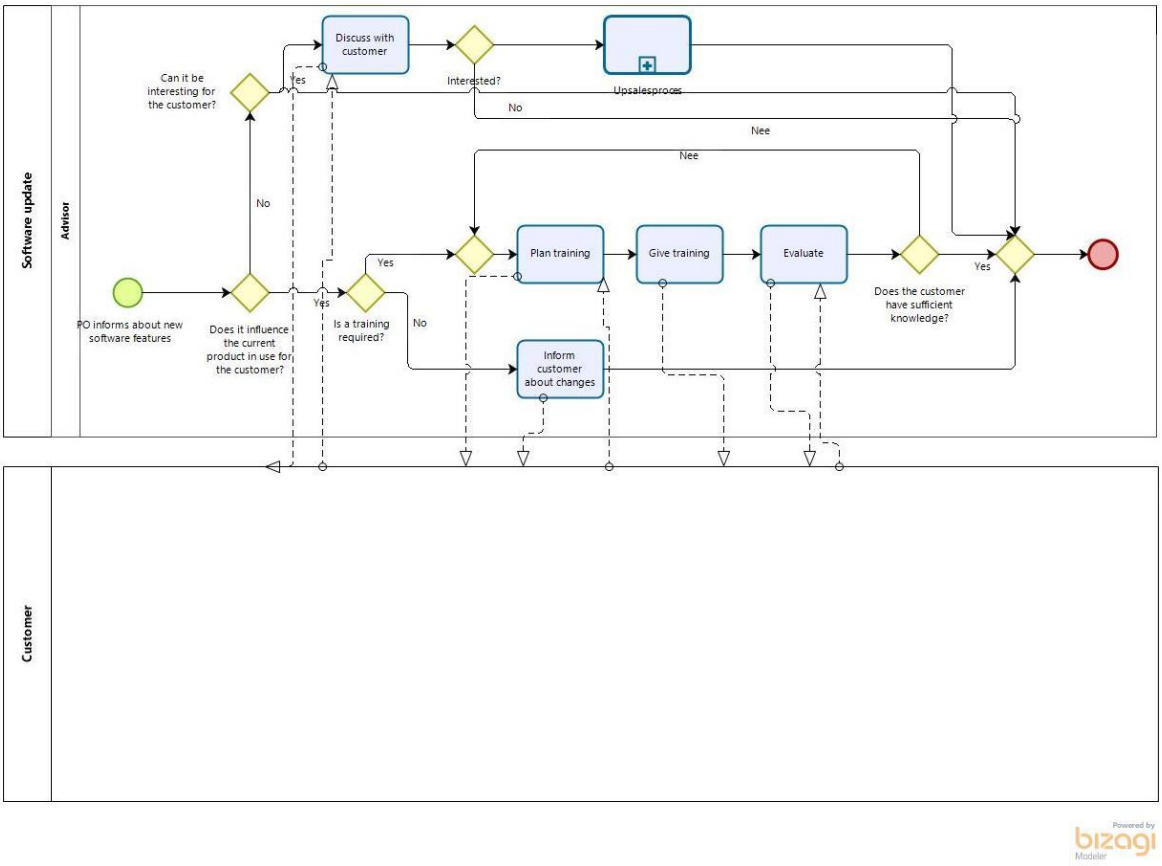


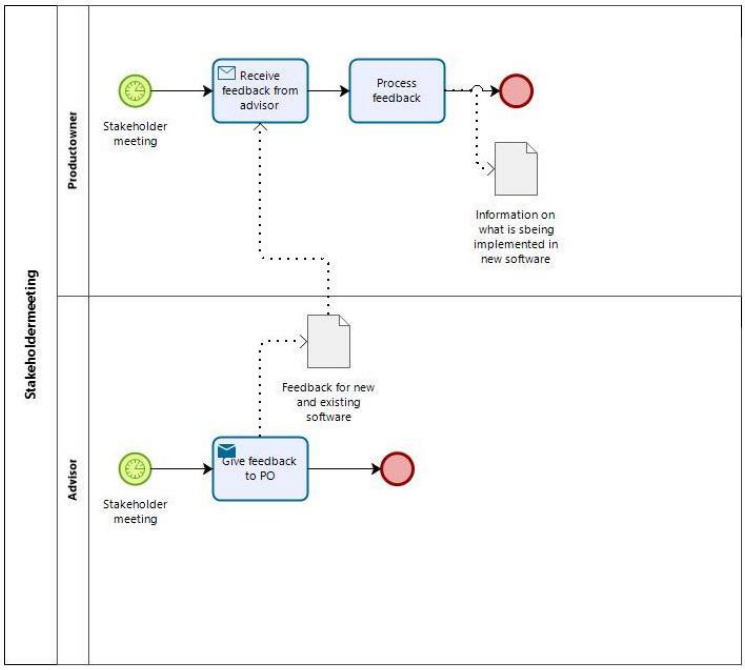
Implementation Puur

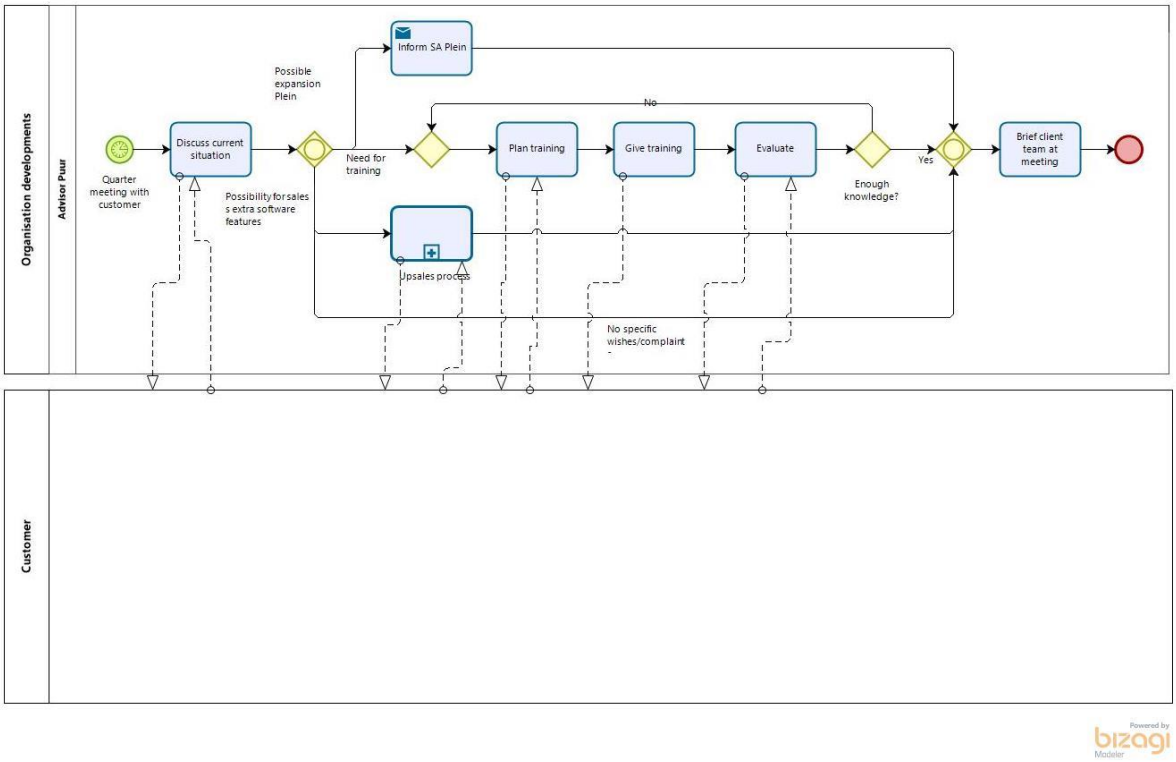




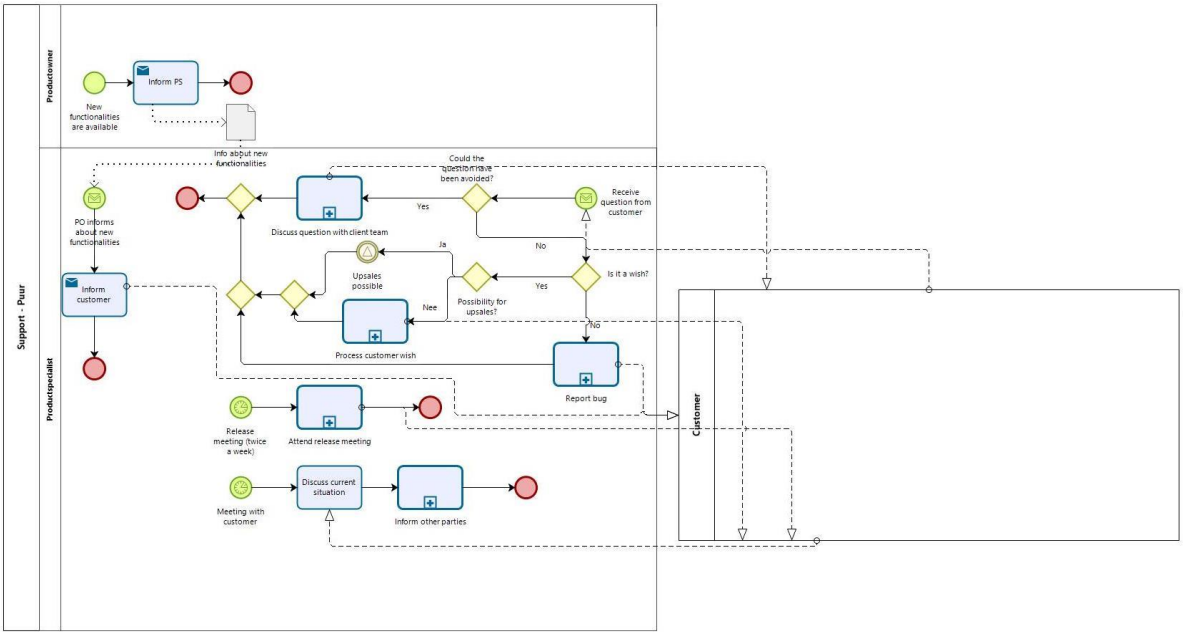
After-implementation Puur

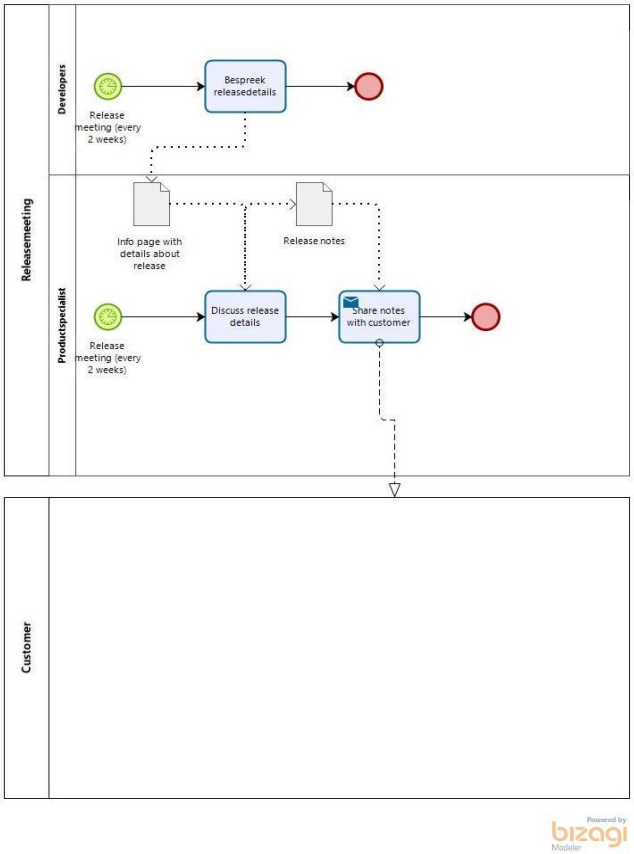


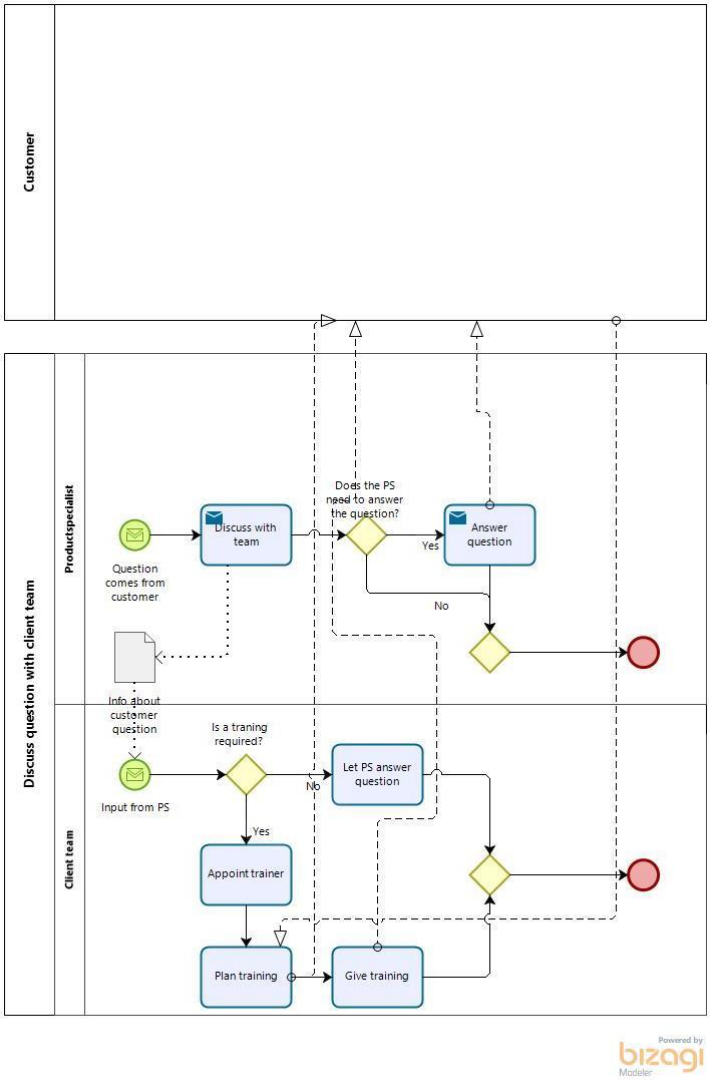

Stakeholdermeeting
Productowner
Advisor
Stakeholder meeting
Receive feedback from advisor
Process feedback
Information on what is sbeing implemented in new software
Feedback for new and existing software
Stakeholder meeting
Give feedback to PO

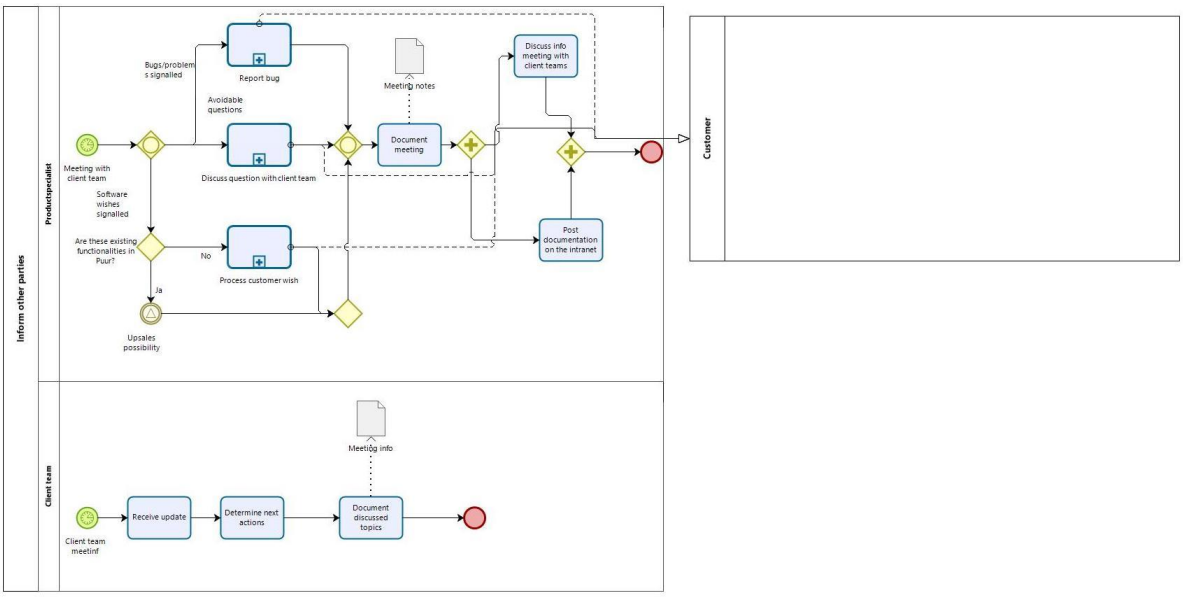

Organisation developments
Advisor Puur
Customer
Quarter meeting with customer
Discuss current situation
Possibility for sales s extra software features
Possible expansion Plein
Inform SA Plein
Need for training
Upsales process
Plan training
Give training
Evaluate
No
Enough knowledge?
Yes
Brief client team at meeting
No specific wishes/complaint

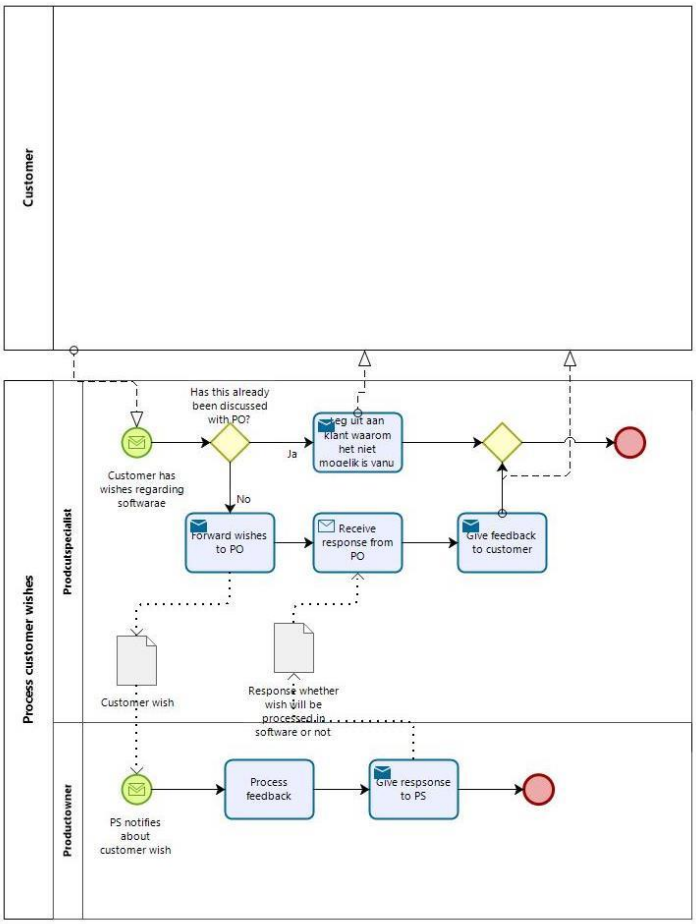
Support Puur

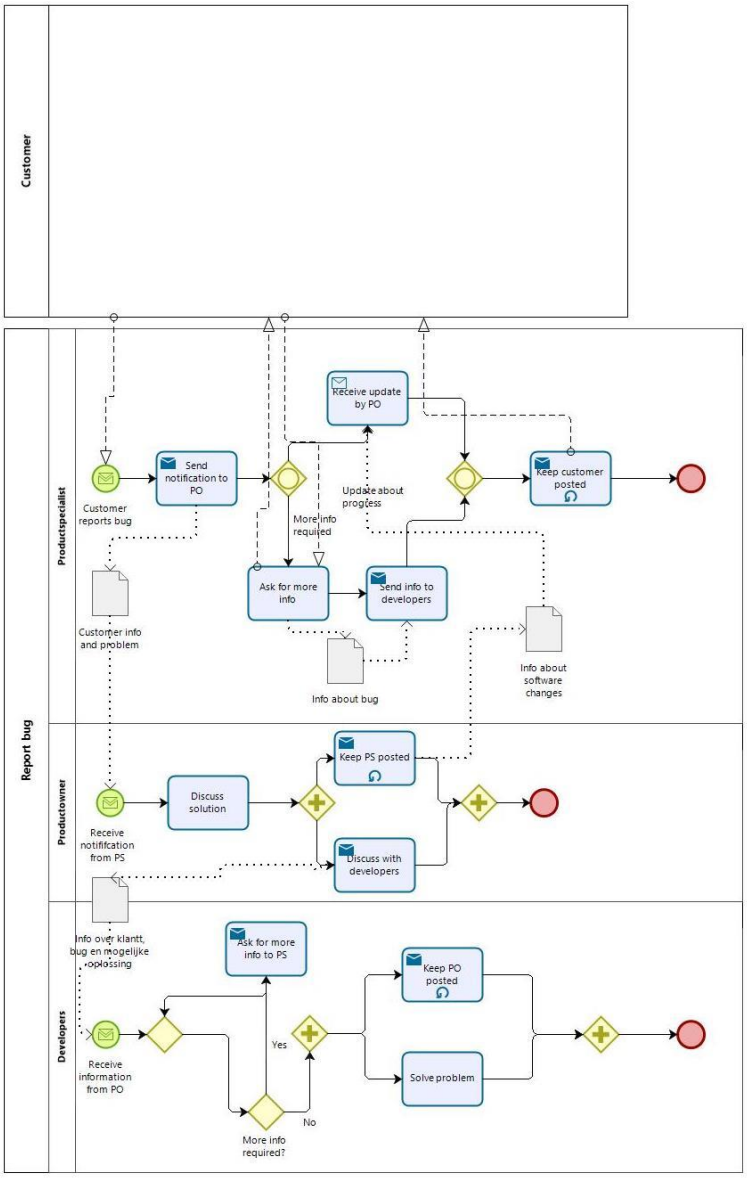




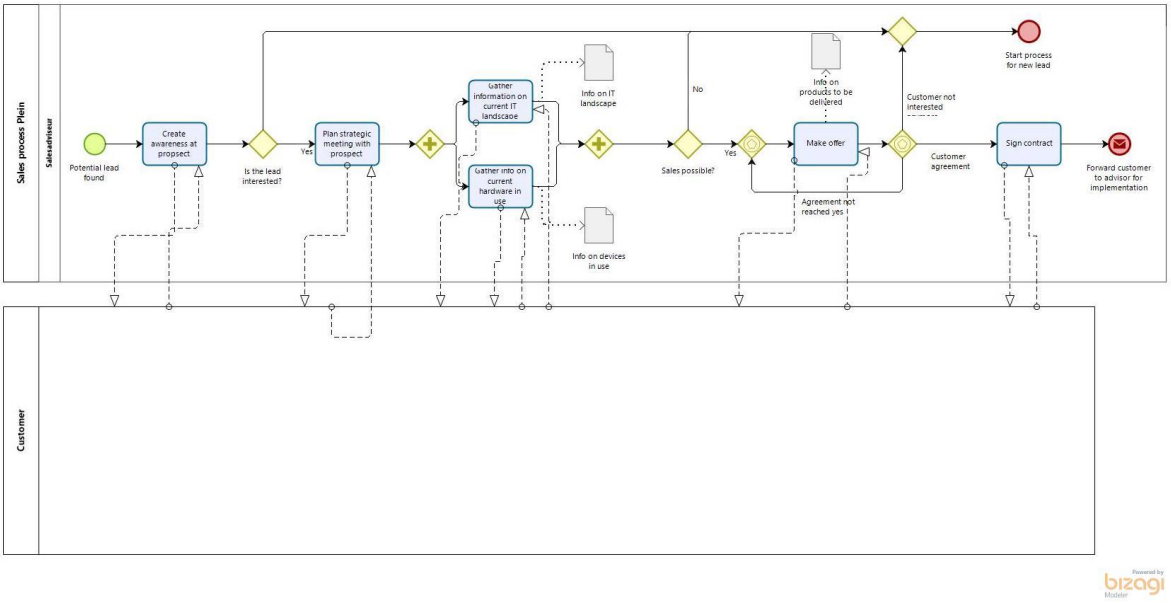

Customer
Discuss question with client team
Productspecialist
Client team
Question comes from customer
Discuss with team
Does the PS need to answer the question?
Yes
Answer question
No
Info about customer question
Input from PS
Is a traning required?
No
Let PS answer question
Yes
Appoint trainer
Plan training
Give training
Powered by
bizagi
Modeler


Inform other parties
Productspecialist
Client team
Customer
Bugs/problems signalled
Report bug
Meeting notes
Discuss info meeting with client teams
Avoidable questions
Meeting with client team
Discuss question with client team
Document meeting
Software wishes signalled
Are these existing functionalities in Puur?
No
Process customer wish
Post documentation on the intranet
Ja
Upsales possibility
Meeting info
Client team meeting
Receive update
Determine next actions
Document discussed topics
Powered by
bizagi
Modeler

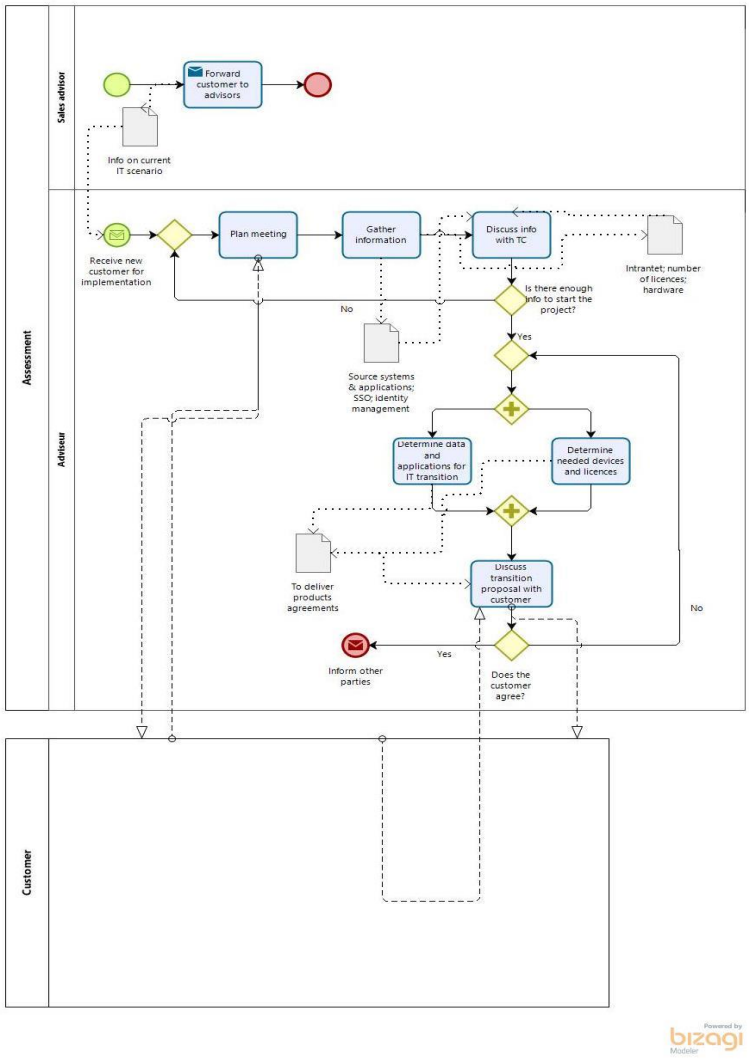

Customer
Process customer wishes
Productspecialist
Productowner
Has this already been discussed with PO?
Ja
No
Customer has wishes regarding softwarae
Forward wishes to PO
Receive response from PO
Give feedback to customer
Customer wish
Response whether wish will be processed in software or not
PS notifies about customer wish
Process feedback
Give respsonse to PS

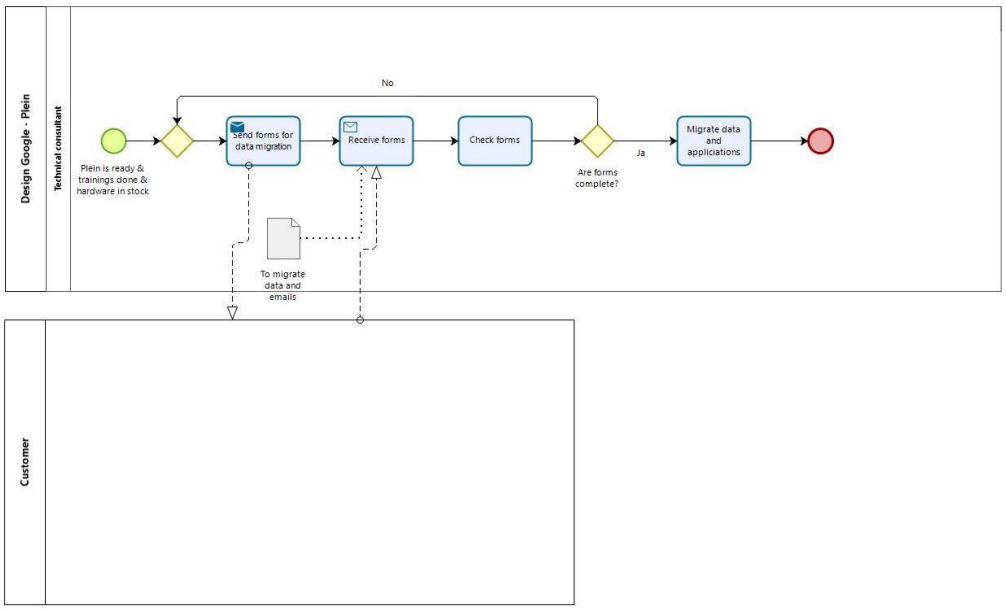

Customer
Report bug
Productspecialist
Productowner
Developers
Receive update by PO
Send notification to PO
Keep customer posted
Customer reports bug
More info required
Update about progress
Ask for more info
Send info to developers
Customer info and problem
Info about bug
Info about software changes
Keep PS posted
Discuss solution
Receive notifitcation from PS
Discuss with developers
Info over klantt, bug en mogelijke oplossing
Ask for more info to PS
Keep PO posted
Receive information from PO
Yes
Solve problem
No
More info required?

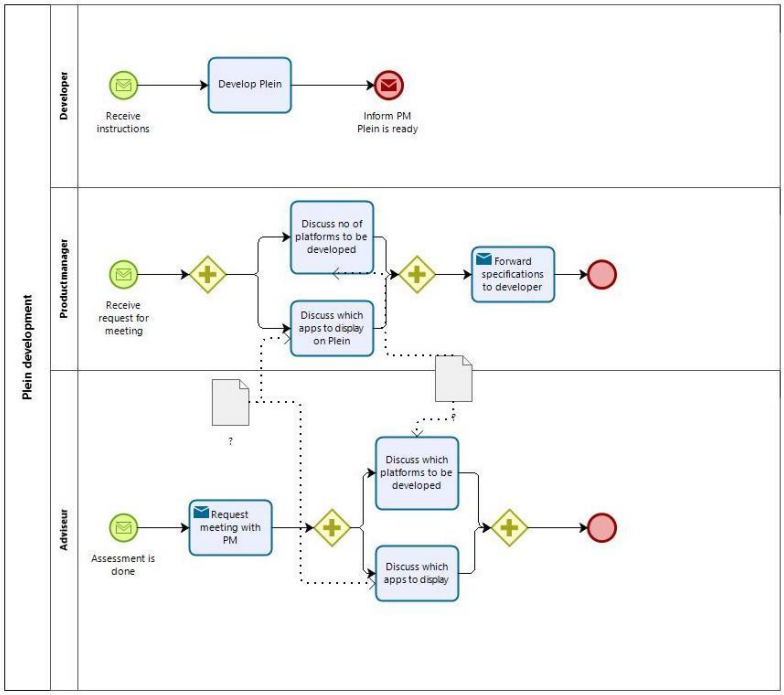
Sales Plein

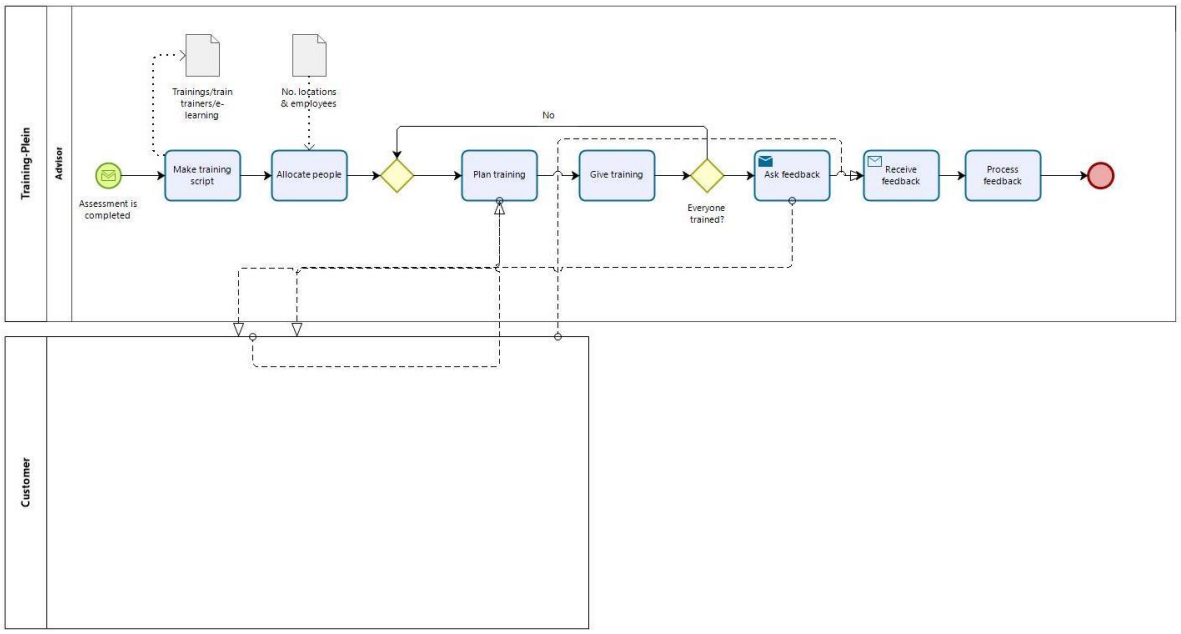


Implementation + support Plein


Sales advisor
Forward customer to advisors
Info on current IT scenario
Assessment
Adviseur
Receive new customer for implementation
Plan meeting
Gather information
Discuss info with TC
Intrantet; number of licences; hardware
Is there enough info to start the project?
No
Yes
Source systems & applications; SSO; identity management
Determine data and applications for IT transition
Determine needed devices and licences
To deliver products agreements
Discuss transition proposal with customer
No
Yes
Inform other parties
Does the customer agree?
Customer


Design Google - Plein
Technical consultant
No
Plein is ready & trainings done & hardware in stock
Send forms for data migration
Receive forms
Check forms
Are forms complete?
Ja
Migrate data and applications
To migrate data and emails
Customer


Plein development
Developer
Develop Plein
Receive instructions
Inform PM Plein is ready
Productmanager
Receive request for meeting
Discuss no of platforms to be developed
Discuss which apps to display on Plein
Forward specifications to developer
Adviseur
Assessment is done
Request meeting with PM
Discuss which platforms to be developed
Discuss which apps to display


Training-Plein
Adviseur
Trainings/train trainers/e-learning
No. locations & employees
Assessment is completed
Make training script
Allocate people
Plan training
Give training
Everyone trained?
No
Ask feedback
Receive feedback
Process feedback
Customer

Appendix J: Questionnaire second Delphi iteration

Delphi study Ecare round 2

Start of Block: Introductie

Introductie
Beste deelnemer,

Met behulp van jouw antwoorden heb ik een beeld gekregen van de huidige businessvoering bij Ecare. Dit beeld heb ik vertaald naar een aantal modellen. Voor deze ronde, is het de bedoeling om te kijken of die modellen ook daadwerkelijk een goede weergave zijn van de processen waarmee je dagelijks bezig bent. Ook is het de bedoeling om wat detail over die processen te krijgen.
Dit questionnaire bestaat uit 5 onderdelen:

-Instructies
- Verificatie van de business landschappen
- Verificatie van de business processen
- Verantwoordelijkheden bij uitvoering van de processen
-Overig

Zoals de afgelopen keer, vraag ik je dit questionnaire in te vullen met informatie die representatief is voor de huidige stand van zaken bij Ecare (en niet over hoe het idealiter zou moeten zijn). Daarnaast vraag ik om dit questionnaire binnen **3 werkdagen na ontvangst** in te vullen.
Voor het invullen van dit questionnaire geldt een tijdindicatie van ongeveer **45-60 minuten**
Tevens adviseer ik je dit questionnaire op een laptop in te vullen.
Mocht je vragen, opmerkingen, suggesties hebben, kun je contact met mij opnemen via Vittorio.Minghetti@Ecare.nl of via Slack.

Nogmaals dank voor jouw medewerking!

End of Block: Introductie

Start of Block: Instructies

InstructiesIn dit questionnaire, worden er twee types model weergegeven.
Business process landschappen (de modellen die afgelopen questionnaire ook in beeld kwamen) en business process modellen.

De business process landschappen geven een overzicht van de belangrijkste processen binnen Puur en Plein en hun input/outputstromen. In dit onderzoek wordt er naar de processen gekeken waarbij het meeste klantcontact plaatsvindt, daarom worden niet alle processen van Ecare in de landschappen meegenomen.
De business process modellen zijn een inzoom op die processen die in de landschappen

weergegeven worden. Hierin staan alle acties, personen, knooppunten en data die relevant zijn bij uitvoering van het proces. De business process models zijn in BPMN 2.0 taal gemodelleerd. Een uitleg over hoe je deze modellen moet lezen staat op de Wiki in het bestand **Uitleg BPMN modellen**, te vinden via de link:
https://wiki.ecare.nl/display/SEA/Onderzoeksbestanden+Vittorio+Minghetti#space-menu-link-content
Mocht de link niet werken, zijn de deze in de Wiki te vinden op de space Stage en Afstuderen en op de pagina Onderzoeksbestanden Vittorio Minghetti

Mocht je verstand hebben van BPMN modellen, kun je uiteraard het uitlegdocument overslaan.

De modellen zijn ook op de Wiki te vinden, op de volgende
link: https://wiki.ecare.nl/display/SEA/Onderzoeksbestanden+Vittorio+Minghetti#space-menu-link-content
Mocht de link niet werken, zijn de deze in de Wikii te vinden op de space Stage en Afstuderen en op de pagina Onderzoeksbestanden Vittorio Minghetti
Verder in het questionnaire wordt duidelijk gemaakt welke modellen jou wordt gevraagd te beoordelen.
Hierbij een vriendelijk verzoek om deze modellen niet te wijzigen, enkel te bekijken om vragen te beantwoorden.

End of Block: Instructies

Start of Block: Verificatie van de business landschappen

Verificatie van de business landschappen

Q1 Ik ben betrokken bij:

- ○ Puur (1)
- ○ Plein (2)
- ○ Beide (3)

Q2 Team:

_____

Q3 Functie:

_____

End of Block: Verificatie van de business landschappen

Start of Block: Verificatie van de business landschappen

Voor dit onderdeel, gaan vragen over de modellen **Proces landschap Puur** en **Proces landschap Plein**
Beantwoord onderstaande vragen voor de volgende modellen:
Proces landschap Puur als je bij Puur betrokken bent
Proces landschap Plein als je bij Plein betrokken bent
Proces landschap Puur en Proces landschap Plein als je bij beide betrokken bent

Q4 Klopt het model zoals weergegeven? Zo niet, wat klopt er niet?

_____

_____

_____

_____

_____

Q5 Zijn er belangrijke processen die in het model ontbreken? Zo ja, benoem deze met hun input/output stromen

_____

_____

_____

_____

_____

Q6 Heb je over het algemeen feedback over het model?

_____

_____

_____

_____

_____

End of Block: Verificatie van de business landschappen

Start of Block: Verificatie van de business processen

Verificatie van de business processen

De volgende vragen gaan over de modellen: **Sales Plein, Implementatie + support Plein, Sales Puur, Implementatie Puur, After-implementatie Puur, Support Puur.**

Om de modellen overzichtelijk te houden, zijn de bovengenoemde hoofdprocessen afgebeeld in verschillende losse modellen, ieder met een specifiek onderdeel van het proces. De specifieke onderdelen worden tussen haakjes genoemd na de naam van het model (bv: Sales Puur (Upsales)). Hieronder wordt er duidelijk gemaakt voor welke modellen je gevraagd wordt om de vragen te beantwoorden. Het is de bedoeling dat je de vragen beantwoordt **voor ieder onderdeel (tussen haakjes) van het aan jouw toegewezen model.**

Deze kun je vinden op deze Wiki pagina: https://wiki.ecare.nl/display/SEA/Onderzoeksbestanden+Vittorio+Minghetti#space-menu-link-content

Mocht de link niet werken, zijn de deze in de Wikii te vinden op de space Stage en Afstuderen en op de pagina Onderzoeksbestanden Vittorio Minghetti

Beantwoord onderstaande vragen voor de komende modellen:

- Sales Plein als je bij Plein betrokken bent en jouw functie [redacted] is.

- Implementatie + support Plein als je bij Plein betrokken bent en jouw functie Adviseur OF [redacted] is

- Sales Puur als je bij Puur betrokken bent en jouw functie Salesadviseur is OF als je bij beide betrokken bent en jouw functie Adviseur is.

- Implementatie Puur als je bij Puur betrokken bent en jouw functie Adviseur is OF als je bij Puur betrokken bent en jouw functie [redacted].

- After-implementatie Puur als je bij Puur betrokken bent en jouw functie Adviseur is OF als je bij Puur betrokken bent en jouw functie [redacted] is.

- Support Puur als je bij Puur betrokken bent an jouw functie Productspecialist is.

Q7 Kloppen de eindevenementen binnen het proces (rode cirkels)? Zo niet, beschrijf wat er niet klopt en hoe het afgebeeld proces eindigt:

_____

_____

_____

_____

_____

Q8 Kloppen de activiteiten (ronde vierhoeken) die in het proces weergegeven zijn? Zo niet, beschrijf wat er niet klopt:

_____

_____

_____

_____

_____

Q9 Kloppen de data objecten afgebeeld in het model? Zo niet, beschrijf wat er niet klopt:

_____

_____

_____

_____

_____

Q10 Klopt het verloop (sequence flow) van het proces? Zo niet, waar klopt het niet en hoe zou het moeten verlopen?

_____

_____

_____

_____

_____

Q11 Kloppen de message flows? Zo niet, wat klopt er niet?

_____

_____

_____

_____

_____

Q12 Kloppen de knooppunten (gele ruiten) binnen het proces? Zo niet, beschrijf wat er niet klopt

_____

_____

_____

_____

_____

Q13 Kloppen de startevenementen (groene cirkels) van het proces? Zo niet, beschrijf wat er niet klopt en hoe het proces begint

_____

_____

_____

_____

_____

End of Block: Verificatie van de business processen

Start of Block: Verificatie van de business processen

Q14 Zijn er eindevenementen die in het model ontbreken? Zo ja, welke?

_____

_____

_____

_____

_____

Q15 Zijn er startevenementen die in het model ontbreken? Zo ja, welke?

_____

_____

_____

_____

_____

Q16 Ontbreken er belangrijke acties die tijdens het proces uitgevoerd worden in het model? Zo ja, beschrijf deze en wanneer ze uitgevoerd worden.

_____

_____

_____

_____

_____

Q17 Zijn er bepaalde knooppunten/opties bij knooppunten die in het model ontbreken? Zo ja, welke?

_____

_____

_____

_____

_____

Q18 Zijn er bepaalde data objecten (denk aan informatie, documentatie, etc.) die in het model ontbreken? Zo ja, door welke actie worden ze gegenereerd/gebruikt?

_____

_____

_____

_____

_____

Q19 Zijn er bepaalde lanes (entiteiten) die in het model ontbreken? Zo ja, welke?

_____

_____

_____

_____

_____

Q20 Heb je verder suggesties voor aanvullingen op het model?

_____

_____

_____

_____

_____

End of Block: Verificatie van de business processen

Start of Block: Verantwoordelijkheden bij uitvoering van de processen

Verantwoordelijkheden bij uitvoering van de processen

Voor dit gedeelte wordt jou gevraagd om een matrix in te vullen.
Deze matrix geeft weer wie verantwoordelijk is voor welke actie. In de rijen, staan acties die bij een bepaald proces horen; deze zijn dezelfde als de afgebeelde acties in het model. In de kolommen, staan een aantal rollen die een bepaald type verantwoordelijkheid beschrijven.

Voor het invullen van de matrix wordt aangeraden om de business process modellen waar de afgelopen vragen over gingen erbij te houden; dit geeft context en maakt het invullen van de matrix eenvoudiger. Om onderscheid te maken tussen acties die in verschillende onderdelen (tussen haakjes) van een model zijn afgebeeld, wordt er na de actie tussen haakjes aangegeven in welk onderdeel de actie weergegeven wordt.

Er zijn 5 types verantwoordelijkheid:

Responsible (R): diegene die daadwerkelijk de actie uitvoert
Accountable (A): persoon die het werk van de responsible moet keuren en daar eindverantwoordelijk voor is
Consulted (C): persoon wiens advies/inzicht/opinie wordt gebruikt bij het uitvoeren van de actie
Informed (I): persoon die op de hoogte gesteld moet worden tijdens en na uitvoering van de actie
Support (S): persoon die actief meehelpt bij uitvoering van de actie. Verschil met consulted is dat deze rol ook daadwerkelijk de actie uitvoert samen met responsible.

Er wordt jou gevraagd om per rij (dus actie) in te vullen wie welk type verantwoordelijkheid heeft voor die actie. Voor iedere actie hoeven niet per se alle rollen gevuld te worden; wel moet er minimaal iemand zijn met de rol responsible en een met de rol accountable. Er kunnen ook meer personen aan een rol gekoppeld worden. Mocht er een actie zijn waarvan je eerder in het questionnaire aangegeven hebt niet te kloppen/foutief te zijn gemodelleerd, kun je de bijbehorende rij overslaan.

Voor het invullen van de matrix zijn er een aantal opties:

SA (Puur): salesadviseur van Puur
A (Puur): adviseur van Puur
PS (Puur): productspecialist van Puur
PO (Puur): productowner van Puur

Developers (Puur): developers van Puur
KT: Klantenteam (dus gezamelijk alle leden van het team)
CK: coach klantenteam
SA (Plein): salesadviseur van Plein
A (Plein): adviseur van Plein
TC (Plein): technisch consultant van Plein
PM: productmanager van Plein
SM: supportmedewerker van Plein
Developers (Plein): developers van Plein
n.v.t.: niet van toepassing
?: weet ik niet
Anders: hier zelf een persoon toevoegen

Q21 **Vul deze matrix in als je betrokken bij Plein bent en met de** [redacted]

Proces: Sales (Plein)

	Responsible (R)	Accountable (A)	Consulted (C)	Informed (I)	Support (S)
Creëer awareness bij de klant					
Plan strategisch gesprek met klant					
Verzamel informatie over huidig IT landschap					
Verzamel informatie over hardware in gebruik					
Maak offerte					
Laat klant contract tekenen					

Q22 **Vul deze matrix in als je betrokken bij Plein bent en met de functie Adviseur OF** [redacted]

SA (Puur): salesadviseur van Puur
A (Puur): adviseur van Puur
PS (Puur): productspecialist van Puur
PO (Puur): productowner van Puur
Developers (Puur): developers van Puur

KT: Klantenteam (dus gezamelijk alle leden van het team)
CK: coach klantenteam
SA (Plein): salesadviseur van Plein
A (Plein): adviseur van Plein
TC (Plein): technisch consultant van Plein
PM: productmanager van Plein
SM: supportmedewerker van Plein
Developers (Plein): developers van Plein
n.v.t.: niet van toepassing
?: weet ik niet
Anders: hier zelf een persoon toevoegen

Proces: Implementatie + support (Plein)

	Responsible (R)	Accountable (A)	Consulted (C)	Informed (I)	Support (S)
Plan afspraak met klant (Inventarisatie)					
Verzamel informatie (Inventarisatie)					
Bespreek info met TC (Inventarisatie)					
Bepaal data en applicaties voor de IT transitie (Inventarisatie)					
Bepaal te leveren devices en licenties (Inventarisatie)					
Bespreek transitievoorstel met klant (Inventarisatie)					
Plan training (Training Plein)					
Geef training (Training Plein)					
Vraag feedback (Training Plein)					
Ontvang feedback (Training Plein)					
Verwerk feedback (Training Plein)					
Bepaal welke Pleinen ingericht worden (Inrichting Plein)					
Bepaal welke applicaties op Plein komen (Inrichting Plein)					
Formulieren voor data migratie sturen (Inrichting van Google)					
Migreer data en applicaties naar Google licenties (Inrichting van Google)					
Uitzoeken/overleggen met collega's (Support)					
Beantwoord vraag (Support)					

Q23 **Vul deze matrix in als je betrokken bij Puur bent en met de functie Salesdviseur OF als je bij beide betrokken bent met de functie Adviseur**

Proces: Sales (Puur)

	Responsible (R)	Accountable (A)	Consulted (C)	Informed (I)	Support (S)
Contacteer prospect om interesse te peilen (Salesproces Puur)					
Maak afspraak met contact persoon (Salesproces Puur)					
Leg visie van Puur uit (Salesproces Puur)					
Plan demo (Salesproces Puur)					
Bezoek prospects op verschillende DMUs (Salesproces Puur)					
Maak offerte (Salesproces Puur)					
Teken contract (Salesproces Puur)					

Q24 **Vul deze matrix in als je betrokken bij Puur bent en met de functie Adviseur OF [redacted]**

SA (Puur): salesadviseur van Puur
A (Puur): adviseur van Puur
PS (Puur): productspecialist van Puur
PO (Puur): productowner van Puur
Developers (Puur): developers van Puur
KT: Klantenteam (dus gezamelijk alle leden van het team)
CK: coach klantenteam
SA (Plein): salesadviseur van Plein
A (Plein): adviseur van Plein
TC (Plein): technisch consultant van Plein
PM: productmanager van Plein
SM: supportmedewerker van Plein
Developers (Plein): developers van Plein
n.v.t.: niet van toepassing
?: weet ik niet
Anders: hier zelf een persoon toevoegen

Proces: Implementatie Puur

	Responsible (R)	Accountable (A)	Consulted (C)	Informed (I)	Support (S)
Inventariseer huidige structuur en processen (Kennismaking)					
Inventariseer benodigde features over software (Kennismaking)					
Inventariseer benodigde organisatie verandering (Kennismaking					
Bespreek planning met klant (Implementatie)					
Vraag dossiers op bij klant (Implementatie)					
Speel ontvangen dossiers door naar PO (Implementatie)					
Plan training					
Geef training (Implementatie)					

Lever software op bij klant (Implementatie)					
Plan training softwaregebruik (Implementatie)					
Geef training (Implementatie)					
Evalueer eerste productie met klant (Implementatie)					
Bespreek extra nodige functionaliteiten (Implementatie)					
Inventariseer gebrek aan kennis (Implementatie)					
Informeer PO over aanvullingen (Implementatie)					
Ontavang updatee over systeem (Implementatie)					
Informeer klant (Implementatie)					

Q25 **Vul deze matrix in als je betrokken bij Puur bent en met de functie Adviseur OF** [redacted]

SA (Puur): salesadviseur van Puur
A (Puur): adviseur van Puur
PS (Puur): productspecialist van Puur
PO (Puur): productowner van Puur
Developers (Puur): developers van Puur
KT: Klantenteam (dus gezamelijk alle leden van het team)
CK: coach klantenteam
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A (Plein): adviseur van Plein
TC (Plein): technisch consultant van Plein
PM: productmanager van Plein
SM: supportmedewerker van Plein
Developers (Plein): developers van Plein
n.v.t.: niet van toepassing
?: weet ik niet
Anders: hier zelf een persoon toevoegen

Proces: After-Implementatie Puur

	Responsible (R)	Accountable (A)	Consulted (C)	Informed (I)	Support (S)
Bespreek mogelijkheden met de klant (Update over software)					
Informeer klant over wijzigingen(Update over software)					
Plan training met klant (Update over software)					
Geef training (Update over software)					
Evalueer (Update over software)					
Bespreek stand van zaken (Organisatie ontwikkelingen)					
Informeer SA Plein (Organisatie ontwikkelingen)					
Informeer Sales adviseur (Upsalesproces)					
Geef feedback aan PO (Stakeholdermeeting voor productontwikkeling)					

Q26 **Vul deze matrix in als je betrokken bij Puur bent en met de functie Productspecialist**

SA (Puur): salesadviseur van Puur
A (Puur): adviseur van Puur
PS (Puur): productspecialist van Puur
PO (Puur): productowner van Puur
Developers (Puur): developers van Puur
KT: Klantenteam (dus gezamelijk alle leden van het team)
CK: coach klantenteam
SA (Plein): salesadviseur van Plein
A (Plein): adviseur van Plein
TC (Plein): technisch consultant van Plein
PM: productmanager van Plein
SM: supportmedewerker van Plein
Developers (Plein): developers van Plein

n.v.t.: niet van toepassing
?: weet ik niet
Anders: hier zelf een persoon toevoegen

Proces: Support Puur

	Responsible (R)	Accountable (A)	Consulted (C)	Informed (I)	Support (S)
Informeer klant (Support)					
Beantwoord vraag (bespreek vraag met klantenteam)					
Meld probleem bij PO (meld bug)					
Vraag naar meer informatie (Meld bug)					
Stuur informatie naar ontwikkelaars (Meld bug)					
Hou klant op de hoogte (Meld bug)					
Vraag aanvullende informatie aan PS (Meld bug)					
Geef wensen door aan PO (Verwerk wens van de klant)					
Leg uit aan klant waarom het niet mogelijk is vanuit visie (Verwerk wens van de klant)					
Bespreek releasedetails (Bijwonen releasemeeting)					
Deel informatie met klant (Bijwonen releasemeeting)					

End of Block: Verantwoordelijkheden bij uitvoering van de processen

Start of Block: Overig

Q27 Heb je feedback op de gepresenteerde modellen?

_____

_____

_____

_____

_____

Q28 Was het voor jou duidelijk wat er van jou gevraagd werd?

_____

_____

_____

_____

_____

Q29 Heb je nog feedback op deze vragenlijst?

_____

_____

_____

_____

_____

Q30 Heb je nog algemene vragen/opmerkingen/suggesties?

_____

_____

_____

_____

_____

End of Block: Overig

Appendix K: Codes overview qualitative analysis second Delphi iteration

Code Report

All (46) codes

○ **Blank**

Comment: by 31627
> *No comments given.*

3 Groups:

Feedback BPMN models / Feedback general / Feedback Landscape models

---

○ **Change input/output**

Comment: by 31627
> *The input/output stream in the landscape model needs to be modified. Description of the necessary changes is eventually given.*

1 Groups:

Feedback Landscape models

○ **Change process**

Comment: by 31627
> *The process depicted needs slight adjustment*

1 Groups:

Feedback Landscape models

○ **Clear**

Comment: by 31627
> *The respondent had no unclarities concerining the questionnaire aspect.*

1 Groups:

Feedback general

○ **Confirm artefact**

Comment: by 31627
> *Modelled artefact is correct, no changes needed*

1 Groups:

Feedback BPMN models

○ **Confirm control flow**

Comment: by 31627

> *The depicted control flow is correct, no changes are needed.*

1 Groups:

Feedback BPMN models

○ **Confirm event**

Comment: by 31627

> *The modelled element is correct, no changes are needed here.*

1 Groups:

Feedback BPMN models

○ **Confirm interaction**

Comment: by 31627

> *The message flow displayed in the model is correct. There is no need for changes.*

1 Groups:

Feedback BPMN models

○ **Confirm joint/split**

Comment: by 31627

> *Split/join modelled is correct, no changes are needed.*

1 Groups:

Feedback BPMN models

○ **Confirm model**

Comment: by 31627

> *The respondent confirms the model is correct and complete. No changes are needed.*

2 Groups:

Feedback BPMN models / Feedback Landscape models

○ **Confirm processes**

Comment: by 31627

> *The depicted processes in the model are correct and complete, no additions/changes need to be made.*

1 Groups:

Feedback Landscape models

○ **Confirm task**

Comment: by 31627

> *The denoted task is correct, no need for adjsutments*

1 Groups:

Feedback BPMN models

○ **Department**

Comment: by 31627

> *Description of the department the respondent is active in. Can either be Puur, Plein or both.*

1 Groups:

Company position

○ **Description of control flow**

Comment: by 31627

> *The respondent gives a description of the control flow within a particular process.*

1 Groups:

Feedback BPMN models

○ **Function**

Comment: by 31627

> *Description of the respondent's function.*

1 Groups:

Company position

○ **General feedback**

Comment: by 31627

> *General feedback on the model. Suggestions for improvement are eventually given.*

1 Groups:

Feedback BPMN models

○ **Incorrect business actor**

Comment: by 31627

> *The set of tasks modelled are performed by a different business actor than the one depicted in the model (lane). A description of who executes the tasks and who is additionally involved is eventually given.*

1 Groups:

Feedback BPMN models

○ **Incorrect control flow**

Comment: by 31627

> *The control flow displayed in the model is not correct: a description of the right control flow with eventually additional description of tasks/events/split/joins is given.*

1 Groups:

Feedback BPMN models

○ **Incorrect event**

Comment: by 31627

> *An event displayed in the model is not correct. This includes the description of the right event, eventually together with additional description of control flow/tasks/joints/splits.*

1 Groups:

Feedback BPMN models

○ **Incorrect interaction**

Comment: by 31627

> *The depicted message flow in the model is not correct. Description of how the interaction should be modelled is eventually given.*

1 Groups:

Feedback BPMN models

○ **Incorrect task**

Comment: by 31627

> *The depicted taks in the model is incorrect. Desription of changes to be applied to the task are eventually given.*

1 Groups:

Feedback BPMN models

○ **Incorrect terminology**

Comment: by 31627

> *Terminology used in the model is incorrect. Description of the correct terminology is eventually given.*

2 Groups:

Feedback BPMN models / Feedback Landscape models

○ **Missing artefact**

Comment: by 31627

> *An artefact in the form of data, information, documents etc. needs to be added to the model. Descritpion of the artefact and where to be positioned are eventually described.*

1 Groups:

Feedback BPMN models

○ **Missing business actor**

Comment: by 31627

> *A business actor is missing in the model (lane). Description of the actor and the process are eventually given.*

1 Groups:

Feedback BPMN models

○ **Missing control flow**

Comment: by 31627

> *A flow pattern is missing. Description of the flow, including tasks/elements/joints/splits is eventually given.*

1 Groups:

Feedback BPMN models

○ **Missing event**

Comment: by 31627

> *An event in the process is missing. Description of the event and its control flow are eventually given.*

1 Groups:

Feedback BPMN models

○ **Missing input/output**

Comment: by 31627

> *An input/output stream from and to a certain process is missing: a description of what is missing and where it is missing is given.*

1 Groups:

Feedback Landscape models

○ **Missing interaction**

Comment: by 31627

> *Message flows between business actors are missing in the model. Descriptions of the interactions and their positioning in the model are eventually given.*

1 Groups:

Feedback BPMN models

○ **Missing joint/split**

Comment: by 31627

> *A joint/split point representing a condition/decision point in the process is missing in the model. Description of the element together with its position in the control flow is given.*

1 Groups:

Feedback BPMN models

○ **Missing process**

Comment: by 31627

> *A process is missing in the model. Description of the process and its inputs/outputs is eventually given.*

1 Groups:

Feedback Landscape models

○ **Missing task**

Comment: by 31627

> *An important task is missing in the model. Description of the task together with its position in the control flow is given.*

1 Groups:

Feedback BPMN models

○ **Negative feedback**

Comment: by 31627

> *The respondent has remarks/complaints regarding something.*

1 Groups:

Feedback Landscape models

○ **No missing artefacts**

Comment: by 31627

> *The artefacts depicted in the model are correct and complete, additions are not required.*

1 Groups:

Feedback BPMN models

○ **No missing business actors**

Comment: by 31627

> *The business actors (lanes) depicted in the model are correcta and complete. No additions are required.*

1 Groups:

Feedback BPMN models

○ **No missing events**

Comment: by 31627

> *The events modelled are complete, no addition of any other event elements is required.*

1 Groups:

Feedback BPMN models

○ **No missing join/split**

Comment: by 31627

> *The join/split nodes depicted in the model are correct and complete. No additions are needed.*

1 Groups:

Feedback BPMN models

○ **No missing processes**

Comment: by 31627

> *The processes depicted in the model are correct and complete. No additions need to be made.*

1 Groups:

Feedback Landscape models

○ **No missing tasks**

Comment: by 31627
> *The tasks depicted in the model are complete, addition of tasks is not required.*

1 Groups:

Feedback BPMN models

○ **Other**

2 Groups:

Feedback BPMN models / Feedback general

○ **Positive feedback**

Comment: by 31627
> *General positive feedback about the model/questionnaire.*

3 Groups:

Feedback BPMN models / Feedback general / Feedback Landscape models

---

○ **Remove task**

Comment: by 31627
> *Task is either incorrect or not important*

1 Groups:

Feedback BPMN models

○ **Suggestions for improvement**

Comment: by 31627
> *Suggestions for improvement within the questionnaire are given.*

3 Groups:

Feedback BPMN models / Feedback general / Feedback Landscape models

---

○ **Team**

Comment: by 31627
> *Description of the team the respondent is active in.*

1 Groups:

Company position

○ **Time**

Comment: by 31627

> *The respondent has comments on the time needed to take the questionnaire. Elaboration is given.*

0 Groups

○ **Unclear**

Comment: by 31627

> *Respondent has unclarity concerining the questionnaire. Elaboration of what is not clear is given.*

2 Groups:

Feedback general / Feedback Landscape models

○ **Unclear modelling**

Comment: by 31627

> *The partecipant doesn't understand a particular modelled aspect. This misunderstaning is either expressed by the respons or assumptions/assertions are made incorrectly about a modelled aspect.*

2 Groups:

Feedback BPMN models / Feedback Landscape models

Appendix L: Quotations report process landscapes second Delphi iteration

Report for Query: Feedback Landscape models

(78) quotations

1:3 Het proces landschap Plein ziet er goed uit! Het klopt in mijn optiek…… (2:571 [2:669]) - D 1: Respons [redacted]

Het proces landschap Plein ziet er goed uit! Het klopt in mijn optiek ook goed met de werkelijkheid

1 Codes:

- **Confirm model**

Comment: by 31627

> *The respondent confirms the model is correct and complete. No changes are needed.*

1:4 Ik denk dat de belangrijkste processen omschreven zijn! Er zijn altijd…… (2:785 [2:1007]) - D 1: Respons [redacted]

Ik denk dat de belangrijkste processen omschreven zijn! Er zijn altijd nog wel relatief kleine processen die je in de werkelijkheid tegenkomt maar ik denk dat deze niet relevant zijn om in het proces landschap te benoemen.

1 Codes:

- **Confirm processes**

Comment: by 31627

> *The depicted processes in the model are correct and complete, no additions/changes need to be made.*

1:5 Het ziet er zeer netjes en goed uit! Knap gedaan! (3:56 [3:106]) - D 1: Respons [redacted]

Het ziet er zeer netjes en goed uit! Knap gedaan!

1 Codes:

- **Positive feedback**

Comment: by 31627

> *General positive feedback about the model/questionnaire.*

1:21 Verder geen aanvulling. Los van de punten hierboven. (6:69 [6:122]) - D 1: Respons [redacted]

Verder geen aanvulling. Los van de punten hierboven.

1 Codes:

○ **Blank**

Comment: by 31627
> *No comments given.*

1:22 Zien er mooi en overzichtelijk uit. (11:1022 [11:1056]) - D 1: Respons [redacted]

Zien er mooi en overzichtelijk uit.

1 Codes:

○ **Positive feedback**

Comment: by 31627
> *General positive feedback about the model/questionnaire.*

1:24 Nee (11:1311 [11:1313]) - D 1: Respons [redacted]

Nee

1 Codes:

○ **Blank**

Comment: by 31627
> *No comments given.*

1:25 Nee (12:1 [12:3]) - D 1: Respons [redacted]

Nee

1 Codes:

○ **Blank**

Comment: by 31627
> *No comments given.*

2:4 Dat lijkt te kloppen. (2:570 [2:592]) - D 2: Respons A team [redacted]

Dat lijkt te kloppen.

1 Codes:

○ **Confirm model**

Comment: by 31627
> *The respondent confirms the model is correct and complete. No changes are needed.*

2:5 Nee (2:705 [2:707]) - D 2: Respons A team [redacted]

Nee

1 Codes:

○ **No missing processes**

Comment: by 31627

> *The processes depicted in the model are correct and complete. No additions need to be made.*

2:6 Ik merk dat het wat onoverzichtelijk is, terwijl het denk ik juist ove…… (3:56 [3:338]) - D 2: Respons A team [redacted]

Ik merk dat het wat onoverzichtelijk is, terwijl het denk ik juist overzichtelijk moet zijn. Mijn ervaring bij het uitschrijven van dergelijke processen is dat het oog ook wat wil. Dat wil zeggen dat er best wel gelikt uit mag zien, ondanks dat het om een procesbeschrijving gaat.

2 Codes:

○ **Negative feedback**

Comment: by 31627

> *The respondent has remarks/complaints regarding something.*

○ **Suggestions for improvement**

Comment: by 31627

> *Suggestions for improvement within the questionnaire are given.*

2:7 Deze processtromen zien er overigens wel overzichtelijk uit (3:2504 [3:2562]) - D 2: Respons A team [redacted]

Deze processtromen zien er overigens wel overzichtelijk uit

1 Codes:

○ **Positive feedback**

Comment: by 31627

> *General positive feedback about the model/questionnaire.*

2:8 Bij implementatie Puur zijn er denk ik ook zaken die de klant moet doe…… (3:2279 [3:2503]) - D 2: Respons A team [redacted]

Bij implementatie Puur zijn er denk ik ook zaken die de klant moet doen. Deze stroom is nu leeg, maar ik weet niet of dat ook de bedoeling is? Anders zijn daar wel zaken die zijn bijvoorbeeld moeten uitzoeken of aanleveren.

1 Codes:

○ **Unclear**

Comment: by 31627

> *Respondent has unclarity concerining the questionnaire. Elaboration of what is not clear is given.*

2:21 Nee, ik denk mooie beschrijvingen per proces op deze manier (6:69 [6:127]) - D 2: Respons A team [redacted]

Nee, ik denk mooie beschrijvingen per proces op deze manier

1 Codes:

- **Positive feedback**

Comment: by 31627
> *General positive feedback about the model/questionnaire.*

2:23 Het zou mooi zijn als je het specifiek per rol kan maken. Nu ligt de v…… (11:1225 [11:1432]) - D 2: Respons A team [redacted]

Het zou mooi zijn als je het specifiek per rol kan maken. Nu ligt de verantwoordelijkheid bij degene die hem invult dat hij invult wat bij zijn rol hoort. Zou mooi zijn als de vragenlijst per rol apart is.

1 Codes:

- **Suggestions for improvement**

Comment: by 31627
> *Suggestions for improvement within the questionnaire are given.*

2:24 nee (12:1 [12:3]) - D 2: Respons A team [redacted]

nee

1 Codes:

- **Blank**

Comment: by 31627
> *No comments given.*

3:4 Vanuit support geef je niet alleen feedback over bugs etc. maar ook ne…… (2:657 [2:793]) - D 3: Respons PS [redacted]

Vanuit support geef je niet alleen feedback over bugs etc. maar ook net zoals vanuit account management input voor software ontwikkeling

1 Codes:

- **Missing input/output**

Comment: by 31627

> *An input/output stream from and to a certain process is missing: a description of what is missing and where it is missing is given.*

3:5 Daarnaast krijg je over bugs terugkoppeling vanuit de ontwikkelorganis…… (2:795 [2:987]) - D 3: Respons PS [redacted]

Daarnaast krijg je over bugs terugkoppeling vanuit de ontwikkelorganisatie, hierbij controleer je of dit ook daadwerkelijk het probleem van de klant oplost en koppel je het terug aan de klant

1 Codes:

- **Missing input/output**

Comment: by 31627

> *An input/output stream from and to a certain process is missing: a description of what is missing and where it is missing is given.*

3:6 Als je daarnaast de rest van de taken van een PS binnen een klantteam…… (2:990 [2:1236]) - D 3: Respons PS [redacted]

Als je daarnaast de rest van de taken van een PS binnen een klantteam onder accountmanagement laat vallen, dan is daar ook een belangrijke info stroom van accountmanagement naar de ontwikkelorganisatie over behoefte aan innovatie in de software,

1 Codes:

- **Missing input/output**

Comment: by 31627

> *An input/output stream from and to a certain process is missing: a description of what is missing and where it is missing is given.*

3:7 en aan de andere kant kan de je klant juist adviseren over het goede g…… (2:1238 [2:1450]) - D 3: Respons PS [redacted]

en aan de andere kant kan de je klant juist adviseren over het goede gebruik van de software omdat er een dikke stroom aan informatie van de ontwikkelorganisatie naar de PS is (en dus ook weer door naar de klant)

1 Codes:

- **Missing input/output**

Comment: by 31627

> *An input/output stream from and to a certain process is missing: a description of what is missing and where it is missing is given.*

3:8 Accountmanagement acteert ook vanuit de visie van puur, aangezien dit…… (2:1694 [2:1815]) - D 3: Respons PS [redacted]

Accountmanagement acteert ook vanuit de visie van puur, aangezien dit overal een aparte stroom is zou dat hier ook passen

1 Codes:

- **Missing input/output**

Comment: by 31627

> *An input/output stream from and to a certain process is missing: a description of what is missing and where it is missing is given.*

3:9 Wanneer er nieuwe dingen bij een bestaande klant geïmplementeerd wordt…… (2:1817 [2:1951]) - D 3: Respons PS [redacted]

Wanneer er nieuwe dingen bij een bestaande klant geïmplementeerd wordt heeft dit ook effect op accountmanagement, die link mis ik nog

1 Codes:

- **Missing input/output**

Comment: by 31627

> *An input/output stream from and to a certain process is missing: a description of what is missing and where it is missing is given.*

3:10 Daarnaast mis ik een lijn tussen support en accountmanagement. Op bei…… (2:1452 [2:1692]) - D 3: Respons PS [redacted]

Daarnaast mis ik een lijn tussen support en accountmanagement. Op beide punten wordt informatie opgehaald van de klant en dit kan juist samen een compleet beeld van de klant vormen omdat er vaak met verschillende lagen gecommuniceerd wordt

1 Codes:

- **Missing input/output**

Comment: by 31627

> *An input/output stream from and to a certain process is missing: a description of what is missing and where it is missing is given.*

3:58 Nee, aangezien een PS naast een rol in een klantteam ook een rol in ee…… (11:1480 [11:1603]) - D 3: Respons PS [redacted]

Nee, aangezien een PS naast een rol in een klantteam ook een rol in een ontwikkelteam heeft is het moeilijk in te schatten.

1 Codes:

- **Unclear**

Comment: by 31627

> *Respondent has unclarity concerining the questionnaire. Elaboration of what is not clear is given.*

3:59 Daarnaast hangt er meer met elkaar samen binnen een klantteam dan er…… (11:1604 [11:1716]) - D 3: Respons PS [redacted]

Daarnaast hangt er meer met elkaar samen binnen een klantteam dan er nu is gepresenteerd in de separate modellen

1 Codes:

○ **Suggestions for improvement**

Comment: by 31627

> *Suggestions for improvement within the questionnaire are given.*

4:5 Wat 'feedback' vanuit support betreft: Deze feedback kan ook gaan ove…… (2:658 [2:763]) - D 4: Respons PS [redacted]

Wat 'feedback' vanuit support betreft: Deze feedback kan ook gaan over foutmeldingen/bugs van het systeem

1 Codes:

○ **Change input/output**

Comment: by 31627

> *The input/output stream in the landscape model needs to be modified. Description of the necessary changes is eventually given.*

4:6 Het gebeurt ook geregeld dat er direct met een ontwikkelaar wordt gesc…… (2:766 [2:934]) - D 4: Respons PS [redacted]

Het gebeurt ook geregeld dat er direct met een ontwikkelaar wordt geschakeld en dat de product owner wordt overgeslagen wanneer het een specifiek stuk software betreft.

1 Codes:

○ **Missing input/output**

Comment: by 31627

> *An input/output stream from and to a certain process is missing: a description of what is missing and where it is missing is given.*

4:7 Daarnaast schakelen ontwikkelaars ook geregeld met Support om nieuwe f…… (2:936 [2:1128]) - D 4: Respons PS [redacted]

Daarnaast schakelen ontwikkelaars ook geregeld met Support om nieuwe functionaliteiten of bug fixes te testen op functionaliteit. Dit is omdat support toegang heeft tot alle klantomgevingen.

1 Codes:

- **Missing input/output**

Comment: by 31627

> *An input/output stream from and to a certain process is missing: a description of what is missing and where it is missing is given.*

4:8 Support geeft met de feedback ook bugs en foutmeldingen door aan de o…… (2:1359 [2:1560]) - D 4: Respons PS [redacted]

Support geeft met de feedback ook bugs en foutmeldingen door aan de ontwikkelteams die betrokken zijn bij dat stukje software. Dit wordt vaak wel afgestemd met de product owner wat betreft prioriteit.

1 Codes:

- **Missing input/output**

Comment: by 31627

> *An input/output stream from and to a certain process is missing: a description of what is missing and where it is missing is given.*

4:9 beveiligingsincidenten/datalekken kunnen ook door Support zelf of door…… (2:1564 [2:1740]) - D 4: Respons PS [redacted]

beveiligingsincidenten/datalekken kunnen ook door Support zelf of door ontwikkelaars/product owners worden opgemerkt. Wel loopt de terugkoppeling naar de klant toe via support.

1 Codes:

- **Missing input/output**

Comment: by 31627

> *An input/output stream from and to a certain process is missing: a description of what is missing and where it is missing is given.*

4:10 Het model is duidelijk en geeft de processen in zijn algemeenheid goed…… (3:56 [3:132]) - D 4: Respons PS [redacted]

Het model is duidelijk en geeft de processen in zijn algemeenheid goed weer.

1 Codes:

- **Positive feedback**

Comment: by 31627

> *General positive feedback about the model/questionnaire.*

4:28 Ze geven een duidelijk overzicht van hoe de processen lopen, (11:1565 [11:1624]) - D 4: Respons PS [redacted]

Ze geven een duidelijk overzicht van hoe de processen lopen,

1 Codes:

○ **Positive feedback**

Comment: by 31627
> *General positive feedback about the model/questionnaire.*

4:29 her en der kan evt detail worden toegevoegd, maar dit kan ook vervuili…… (11:1626 [11:1726]) - D 4: Respons PS [redacted]

her en der kan evt detail worden toegevoegd, maar dit kan ook vervuiling van de modellen veroorzaken

1 Codes:

○ **Suggestions for improvement**

Comment: by 31627
> *Suggestions for improvement within the questionnaire are given.*

4:31 Het model geeft goed en gedetailleerd weer hoe het proces binnen PUUR……. (2:580 [2:657]) - D 4: Respons PS [redacted]

Het model geeft goed en gedetailleerd weer hoe het proces binnen PUUR. werkt.

1 Codes:

○ **Positive feedback**

Comment: by 31627
> *General positive feedback about the model/questionnaire.*

5:4 Ja (2:576 [2:577]) - D 5: Respons SA [redacted]

Ja

1 Codes:

○ **Confirm model**

Comment: by 31627
> *The respondent confirms the model is correct and complete. No changes are needed.*

5:5 nvt (2:692 [2:694]) - D 5: Respons SA [redacted]

nvt

1 Codes:

○ **Confirm model**

Comment: by 31627
> *The respondent confirms the model is correct and complete. No changes are needed.*

5:6 Naar mijn mening een volledig model (3:56 [3:90]) - D 5: Respons SA [redacted]

Naar mijn mening een volledig model

1 Codes:

- **Positive feedback**

Comment: by 31627
> *General positive feedback about the model/questionnaire.*

5:21 nvt (6:69 [6:71]) - D 5: Respons SA [redacted]

nvt

1 Codes:

- **Blank**

Comment: by 31627
> *No comments given.*

5:22 Nee (11:1022 [11:1024]) - D 5: Respons SA [redacted]

Nee

1 Codes:

- **Blank**

Comment: by 31627
> *No comments given.*

5:24 nvt (11:1141 [11:1143]) - D 5: Respons SA [redacted]

[redacted]

1 Codes:

- **Blank**

Comment: by 31627
> *No comments given.*

5:25 nvt (12:1 [12:3]) - D 5: Respons SA [redacted]

nvt

1 Codes:

- **Blank**

Comment: by 31627
> *No comments given.*

6:4 Op hoofdlijnen klopt dit, gebruikte terminologieën sluiten niet aan bi…… (2:571 [2:682]) - D 6: Respons SA

Op hoofdlijnen klopt dit, gebruikte terminologieën sluiten niet aan bij Ecare, bv support & accountmanagement.

1 Codes:

- **Incorrect terminology**

Comment: by 31627
> *Terminology used in the model is incorrect. Description of the correct terminology is eventually given.*

6:5 * marketing (customerjourney) ontbreekt * (2:795 [2:835]) - D 6: Respons SA

* marketing (customerjourney) ontbreekt *

1 Codes:

- **Missing process**

Comment: by 31627
> *A process is missing in the model. Description of the process and its inputs/outputs is eventually given.*

6:6 beheer van de applicatie (door Ecare) ontbreekt (2:837 [2:883]) - D 6: Respons SA

beheer van de applicatie (door Ecare) ontbreekt

1 Codes:

- **Missing process**

Comment: by 31627
> *A process is missing in the model. Description of the process and its inputs/outputs is eventually given.*

6:7 Model gaat uit van klant - leverancier relatie, proces new business is…… (3:56 [3:166]) - D 6: Respons SA

Model gaat uit van klant - leverancier relatie, proces new business is anders en wordt hiermee niet afgedekt.

1 Codes:

○ **Missing process**

Comment: by 31627

> *A process is missing in the model. Description of the process and its inputs/outputs is eventually given.*

6:9 . Van marketing gaat het naar klantteam, dit moet salesadviseur zijn. (3:2248 [3:2317]) - D 6: Respons SA

. Van marketing gaat het naar klantteam, dit moet salesadviseur zijn.

1 Codes:

○ **Unclear modelling**

Comment: by 31627

> *The partecipant doesn't understand a particular modelled aspect. This misunderstaning is either expressed by the respons or assumptions/assertions are made incorrectly about a modelled aspect.*

6:15 Nee (6:75 [6:77]) - D 6: Respons SA

Nee

1 Codes:

○ **Blank**

Comment: by 31627

> *No comments given.*

6:16 Iets statisch en gebruikt terminologieën zijn wel marktconform, echter…… (11:1022 [11:1114]) - D 6: Respons SA

Iets statisch en gebruikt terminologieën zijn wel marktconform, echter niet Ecare specifiek.

1 Codes:

○ **Suggestions for improvement**

Comment: by 31627

> *Suggestions for improvement within the questionnaire are given.*

6:18 Nee (11:1230 [11:1232]) - D 6: Respons SA

Nee

1 Codes:

○ **Blank**

Comment: by 31627

No comments given.

6:19 Nee (12:1 [12:3]) - D 6: Respons SA

Nee

1 Codes:

- **Blank**

Comment: by 31627
No comments given.

7:4 Ik mis bij salesproject de andere producten ipv alleen de hardware (2:581 [2:646]) - D 7: Respons A [redacted]

Ik mis bij salesproject de andere producten ipv alleen de hardware

1 Codes:

- **Missing input/output**

Comment: by 31627
An input/output stream from and to a certain process is missing: a description of what is missing and where it is missing is given.

7:5 Een input kan ook al Google zijn. Overgaan naar Google daarbij komen L…… (2:761 [2:914]) - D 7: Respons A [redacted]

Een input kan ook al Google zijn. Overgaan naar Google daarbij komen Licenties kijken en daarnaast nog de hardware. Via beide ingangen kun je binnenkomen

1 Codes:

- **Unclear modelling**

Comment: by 31627
The partecipant doesn't understand a particular modelled aspect. This misunderstaning is either expressed by the respons or assumptions/assertions are made incorrectly about a modelled aspect.

7:19 Nee (6:69 [6:71]) - D 7: Respons A [redacted]

Nee

1 Codes:

- **Blank**

Comment: by 31627
No comments given.

7:20 Nee (11:1022 [11:1024]) - D 7: Respons [redacted]

Nee

1 Codes:

○ **Blank**

Comment: by 31627
> *No comments given.*

7:21 Soms niet helemaal. (11:1090 [11:1108]) - D 7: Respons [redacted]

Soms niet helemaal.

1 Codes:

○ **Unclear modelling**

Comment: by 31627
> *The partecipant doesn't understand a particular modelled aspect. This misunderstaning is either expressed by the respons or assumptions/assertions are made incorrectly about a modelled aspect.*

7:22 Ik vond de matrix wel erg duidelijk. Daarin kwamen wel alle onderdelen…… (11:1249 [11:1352]) - D 7: Respons [redacted]

Ik vond de matrix wel erg duidelijk. Daarin kwamen wel alle onderdelen van het proces/project naar voren

2 Codes:

○ **Clear**

Comment: by 31627
> *The respondent had no unclarities concerining the questionnaire aspect.*

○ **Positive feedback**

Comment: by 31627
> *General positive feedback about the model/questionnaire.*

7:23 Nee (12:1 [12:3]) - D 7: Respons [redacted]

Nee

1 Codes:

○ **Blank**

Comment: by 31627
> *No comments given.*

8:4 Mooi model (2:582 [2:592]) - D 8: Respons [redacted]

Mooi model

1 Codes:

- **Positive feedback**

Comment: by 31627

> *General positive feedback about the model/questionnaire.*

8:5 Dat stuk advisering moet nog wel bij het model in. (2:969 [2:1018]) - D 8: Respons [redacted]

Dat stuk advisering moet nog wel bij het model in.

1 Codes:

- **Missing input/output**

Comment: by 31627

> *An input/output stream from and to a certain process is missing: a description of what is missing and where it is missing is given.*

8:6 Het stuk advies dus in mijn optiek. In het salestraject moeten we al a…… (2:1190 [2:1665]) - D 8: Respons [redacted]

Het stuk advies dus in mijn optiek. In het salestraject moeten we al afstemmen met de klant dat wij werken vanuit een bepaalde visie. Dat we werken vanuit een standaard product en dienstverlening en dat we klanten helpen met het vereenvoudigen van het applicatielandschap en daarbij alle complexiteit omtrent ICT. Voor de adviseurs is het de taak om dit ook daadwerkelijk te laten beklijven binnen de orgnisatie. Ik zou zeggen dat dit voor de inventarisatie al plaatsvindt.

1 Codes:

- **Missing input/output**

Comment: by 31627

> *An input/output stream from and to a certain process is missing: a description of what is missing and where it is missing is given.*

8:7 nee verder niet. (3:56 [3:73]) - D 8: Respons [redacted]

nee verder niet.

1 Codes:

- **Blank**

Comment: by 31627

> *No comments given.*

9:3 The rest is correct (972:991) - D 9: Script interview [redacted]

The rest is correct

1 Codes:

- **Confirm model**

Comment: by 31627

> *The respondent confirms the model is correct and complete. No changes are needed.*

9:7 One little correction to a task is: discuss with the advisor which Ple…… (1746:1962) - D 9: Script interview [redacted]

One little correction to a task is: discuss with the advisor which Pleins will be developed. I would change that in: discuss the design. So which identity management will be used and how to link that within the system

1 Codes:

- **Incorrect terminology**

Comment: by 31627

> *Terminology used in the model is incorrect. Description of the correct terminology is eventually given.*

9:8 And it should be PM instead of PO. (1964:1998) - D 9: Script interview [redacted]

And it should be PM instead of PO.

1 Codes:

- **Incorrect terminology**

Comment: by 31627

> *Terminology used in the model is incorrect. Description of the correct terminology is eventually given.*

9:13 Yes, I have no further comments on this part (design of Google process…… (4866:4937) - D 9: Script interview [redacted]

Yes, I have no further comments on this part (design of Google process).

1 Codes:

- **Confirm model**

Comment: by 31627

> *The respondent confirms the model is correct and complete. No changes are needed.*

9:14 I'd change the name of the process to training Plein and Google. Of co…… (4939:5116) - D 9: Script interview [redacted]

I'd change the name of the process to training Plein and Google. Of course that depends on whether the customer has purchased Google or not but generally is a combination of both

1 Codes:

- **Incorrect terminology**

  Comment: by 31627

  > *Terminology used in the model is incorrect. Description of the correct terminology is eventually given.*

9:15 I think the model is complete. (5118:5149) - D 9: Script interview [redacted]

I think the model is complete.

1 Codes:

- **Confirm model**

  Comment: by 31627

  > *The respondent confirms the model is correct and complete. No changes are needed.*

9:19 Yes, apart from what are already mentioned they are. (6125:6176) - D 9: Script interview [redacted]

Yes, apart from what are already mentioned they are.

1 Codes:

- **Confirm model**

  Comment: by 31627

  > *The respondent confirms the model is correct and complete. No changes are needed.*

9:20 The only thing I miss are the logistical aspects, so for example the o…… (6178:6333) - D 9: Script interview [redacted]

The only thing I miss are the logistical aspects, so for example the order of hardware and how that is transported, but they are not very relevant I think.

1 Codes:

- **Missing process**

  Comment: by 31627

  > *A process is missing in the model. Description of the process and its inputs/outputs is eventually given.*

10:4 Ja het model klopt volgens mij grotendeels! (2:581 [2:623]) - D 10: Report A [redacted]

Ja het model klopt volgens mij grotendeels!

1 Codes:

- **Confirm model**

  Comment: by 31627
  > *The respondent confirms the model is correct and complete. No changes are needed.*

10:5 Wat ik wel bemerk is dat het blok implementatie los staat van het blok…… (2:625 [2:882]) - D 10: Report A [redacted]

Wat ik wel bemerk is dat het blok implementatie los staat van het blok accountmanagement. Het klantteam en met name de adviseur in eerste instantie begeleid de implementatie. Dit is in de huidige situatie eigenlijk ook onderdeel van het accountmanagement.

1 Codes:

- **Change process**

  Comment: by 31627
  > *The process depicted needs slight adjustment*

10:6 Bij het blok implementatie/training beschrijf je dat er een stuk visie…… (2:995 [2:1426]) - D 10: Report A [redacted]

Bij het blok implementatie/training beschrijf je dat er een stuk visie overgebracht wordt aan de klant samen met software training. Daarnaast biedt Ecare ook best veel vakinhoudelijke trainingen zoals training mbt het Omaha System, maar ook hoe begeleid je zelfsturende teams, of trainingen over klinisch redeneren. Hiermee onderscheidt Ecare zich ten opzichte van andere leveranciers. Misschien dat dit nog toegevoegd kan worden.

1 Codes:

- **Missing input/output**

  Comment: by 31627
  > *An input/output stream from and to a certain process is missing: a description of what is missing and where it is missing is given.*

10:7 Nee ziet er prima uit! (3:56 [3:79]) - D 10: Report A [redacted]

Nee ziet er prima uit!

1 Codes:

- **Positive feedback**

  Comment: by 31627
  > *General positive feedback about the model/questionnaire.*

10:10 Ik twijfel over deze serie blokken. 1 Informeer product owner over kop…… (4:1 [4:143]) - D 10: Report A [redacted]

Ik twijfel over deze serie blokken. 1 Informeer product owner over koppelingen 2 Vraag dossiers op bij klant (wat bedoel je hier precies mee?)

1 Codes:

- **Unclear modelling**

  Comment: by 31627

  > *The partecipant doesn't understand a particular modelled aspect. This misunderstaning is either expressed by the respons or assumptions/assertions are made incorrectly about a modelled aspect.*

10:22 Nee (6:69 [6:71]) - D 10: Report A [redacted]

Nee

1 Codes:

- **Blank**

  Comment: by 31627

  > *No comments given.*

10:23 Nee (11:1022 [11:1024]) - D 10: Report A [redacted]

Nee

1 Codes:

- **Blank**

  Comment: by 31627

  > *No comments given.*

10:26 Het ziet er heel erg compleet uit (12:1 [12:33]) - D 10: Report A [redacted]

Het ziet er heel erg compleet uit

1 Codes:

- **Positive feedback**

  Comment: by 31627

  > *General positive feedback about the model/questionnaire.*

11:1 At Ecare we don't have account managers but advisors. And the type of…… (229:698) - D 11: Transcript interview [redacted]

At Ecare we don’t have account managers but advisors. And the type of advisors you have is either functional or commercial. The real difference is that, differently from traditional firms, our advisors are involved throughout all processes of contact with the customer, from sales to after-implementation, as they are in the same team. And the advisor doesn’t have a commercial background but a functional background, so it is different from conventional market terms.

1 Codes:

- **Incorrect terminology**

Comment: by 31627

> *Terminology used in the model is incorrect. Description of the correct terminology is eventually given.*

11:2 Well, the one performed by the advisor, commercial and the support by…… (1102:1192) - D 11: Transcript interview [redacted]

Well, the one performed by the advisor, commercial and the support by product specialists.

1 Codes:

- **Incorrect terminology**

Comment: by 31627

> *Terminology used in the model is incorrect. Description of the correct terminology is eventually given.*

Appendix M: Quotations report BPMN feedback second Delphi iteration

Report for Query: Feedback BPMN models

Scope: Salesadvisors Puur
(44) quotations

5:4 Ja (2:576 [2:577]) - D 5: Respons SA [redacted]

Ja

1 Codes:

- **Confirm model**

Comment: by 31627
> *The respondent confirms the model is correct and complete. No changes are needed.*

5:5 nvt (2:692 [2:694]) - D 5: Respons SA [redacted]

nvt

1 Codes:

- **Confirm model**

Comment: by 31627
> *The respondent confirms the model is correct and complete. No changes are needed.*

5:6 Naar mijn mening een volledig model (3:56 [3:90]) - D 5: Respons SA [redacted]

Naar mijn mening een volledig model

1 Codes:

- **Positive feedback**

Comment: by 31627
> *General positive feedback about the model/questionnaire.*

5:7 Eindevenementen kloppen. (3:2033 [3:2056]) - D 5: Respons SA [redacted]

Eindevenementen kloppen.

1 Codes:

- **Confirm event**

Comment: by 31627
> *The modelled element is correct, no changes are needed here.*

5:8 Al kunnen er meerdere salestrajecten parallel aan elkaar lopen. Het is…… (3:2058 [3:2254]) - D 5: Respons SA [redacted]

Al kunnen er meerdere salestrajecten parallel aan elkaar lopen. Het is dus niet het geval dat er pas aan een nieuwe prospect wordt begonnen op het moment dat een lopend salestraject is afgerond.

1 Codes:

- **Other**

5:9 Bij een eerste afspraak wordt naast de visie van Puur in vrijwel alle…… (4:1 [4:252]) - D 5: Respons SA [redacted]

Bij een eerste afspraak wordt naast de visie van Puur in vrijwel alle gevallen juist ook al een demo gegeven. Dit is dus niet per se een latere stap in het proces. Ik zou deze in dezelfde fase zetten als 'leg visie uit' en 'inventariseer behoeften'.

1 Codes:

- **Missing task**

Comment: by 31627

> *An important task is missing in the model. Description of the task together with its position in the control flow is given.*

5:10 Ja (4:345 [4:346]) - D 5: Respons SA [redacted]

Ja

1 Codes:

- **Confirm artefact**

Comment: by 31627

> *Modelled artefact is correct, no changes needed*

5:11 Zie opmerking 2 vragen hier boven (4:467 [4:499]) - D 5: Respons SA [redacted]

Zie opmerking 2 vragen hier boven

1 Codes:

- **Other**

5:12 Ja (4:562 [4:563]) - D 5: Respons SA [redacted]

Ja

1 Codes:

○ **Confirm interaction**

Comment: by 31627

> *The message flow displayed in the model is correct. There is no need for changes.*

5:13 Ja (4:665 [4:666]) - D 5: Respons SA [redacted]

Ja

1 Codes:

○ **Confirm joint/split**

Comment: by 31627

> *Split/join modelled is correct, no changes are needed.*

5:14 Ja (4:799 [4:800]) - D 5: Respons SA [redacted]

Ja

1 Codes:

○ **Confirm event**

Comment: by 31627

> *The modelled element is correct, no changes are needed here.*

5:15 nvt (5:73 [5:75]) - D 5: Respons SA [redacted]

nvt

1 Codes:

○ **No missing events**

Comment: by 31627

> *The events modelled are complete, no addition of any other event elements is required.*

5:16 nvt (5:151 [5:153]) - D 5: Respons SA [redacted]

nvt

1 Codes:

○ **No missing events**

Comment: by 31627

> *The events modelled are complete, no addition of any other event elements is required.*

5:17 nvt (5:305 [5:307]) - D 5: Respons SA [redacted]

nvt

1 Codes:

- **No missing tasks**

  Comment: by 31627
  > *The tasks depicted in the model are complete, addition of tasks is not required.*

5:18 Het kan voorkomen dat in de offerte fase wordt gekozen voor uitstel va…… (5:410 [5:898]) - D 5: Respons SA [redacted]

Het kan voorkomen dat in de offerte fase wordt gekozen voor uitstel van het selectietraject door verschillende (externe) redenen. Er is dan dus wel interesse, maar op dit moment kunnen ze nog geen keuze maken. Het salesproces is niet afgerond maar komt wel on-hold (of afspraken met andere DMU om interesse in stand te houden). Er komt op dat moment niet meteen een nieuwe offerte maar het is ook niet het einde of een afgesloten traject.

Ik weet niet of en hoe dit in het model past.

2 Codes:

- **Missing control flow**

  Comment: by 31627
  > *A flow pattern is missing. Description of the flow, including tasks/elements/joints/splits is eventually given.*

- **Missing joint/split**

  Comment: by 31627
  > *A joint/split point representing a condition/decision point in the process is missing in the model. Description of the element together with its position in the control flow is given.*

5:19 nvt (5:1063 [5:1065]) - D 5: Respons SA [redacted]

nvt

1 Codes:

- **No missing artefacts**

  Comment: by 31627
  > *The artefacts depicted in the model are correct and complete, additions are not required.*

5:20 nvt (6:1 [6:3]) - D 5: Respons SA [redacted]

nvt

1 Codes:

- **No missing business actors**

Comment: by 31627

> *The business actors (lanes) depicted in the model are correcta and complete. No additions are required.*

5:21 nvt (6:69 [6:71]) - D 5: Respons SA [redacted]

nvt

1 Codes:

- **Blank**

Comment: by 31627

> *No comments given.*

5:22 Nee (11:1022 [11:1024]) - D 5: Respons SA [redacted]

Nee

1 Codes:

- **Blank**

Comment: by 31627

> *No comments given.*

5:24 nvt (11:1141 [11:1143]) - D 5: Respons SA [redacted]

nvt

1 Codes:

- **Blank**

Comment: by 31627

> *No comments given.*

5:25 nvt (12:1 [12:3]) - D 5: Respons SA [redacted]

nvt

1 Codes:

- **Blank**

Comment: by 31627

> *No comments given.*

6:4 Op hoofdlijnen klopt dit, gebruikte terminologieën sluiten niet aan bi…… (2:571 [2:682]) - D 6: Respons SA

Op hoofdlijnen klopt dit, gebruikte terminologieën sluiten niet aan bij Ecare, bv support & accountmanagement.

1 Codes:

- **Incorrect terminology**

  Comment: by 31627
  > *Terminology used in the model is incorrect. Description of the correct terminology is eventually given.*

6:8 het proces verloopt niet altijd van marketing naar sales, kan ook bij…… (3:2122 [3:2244]) - D 6: Respons SA

het proces verloopt niet altijd van marketing naar sales, kan ook bij sales beginnen en dat maak ik niet op uit het plaatje

1 Codes:

- **Incorrect event**

  Comment: by 31627
  > *An event displayed in the model is not correct. This includes the description of the right event, eventually together with additional description of control flow/tasks/joints/splits.*

6:9 . Van marketing gaat het naar klantteam, dit moet salesadviseur zijn. (3:2248 [3:2317]) - D 6: Respons SA

. Van marketing gaat het naar klantteam, dit moet salesadviseur zijn.

1 Codes:

- **Unclear modelling**

  Comment: by 31627
  > *The partecipant doesn't understand a particular modelled aspect. This misunderstaning is either expressed by the respons or assumptions/assertions are made incorrectly about a modelled aspect.*

6:10 proces verloop is natuurlijk schematisch lastig weer te geven. Zoals n…… (3:2322 [3:2722]) - D 6: Respons SA

proces verloop is natuurlijk schematisch lastig weer te geven. Zoals nu weergegeven is het een ideaal proces of hoe het zou kunnen gaan. In de praktijk zal het zo zijn dat er een andere fasering is. Bijvoorbeeld: in kaart brengen DMU staat nu ergens halverwege het salesproces, terwijl dit vaak al aan het begin vanhet acquisitie proces bekend is. Dan verloopt het hele proces / stroom dus anders.

1 Codes:

- **Incorrect control flow**

Comment: by 31627

> *The control flow displayed in the model is not correct: a description of the right control flow with eventually additional description of tasks/events/split/joins is given.*

6:11 Ja, vervolg verkoop (Ecare Puur, Plein, Shared Services) bij bestaande…… (5:73 [5:172]) - D 6: Respons SA

Ja, vervolg verkoop (Ecare Puur, Plein, Shared Services) bij bestaande klant en het referent zijn.

1 Codes:

- **Missing event**

Comment: by 31627

> *An event in the process is missing. Description of the event and its control flow are eventually given.*

6:12 Ja, samenwerking met externe adviseurs en referentieklanten (5:246 [5:304]) - D 6: Respons SA

Ja, samenwerking met externe adviseurs en referentieklanten

1 Codes:

- **Missing event**

Comment: by 31627

> *An event in the process is missing. Description of the event and its control flow are eventually given.*

6:13 Check op beschikbaar budget (5:456 [5:482]) - D 6: Respons SA

Check op beschikbaar budget

1 Codes:

- **Missing task**

Comment: by 31627

> *An important task is missing in the model. Description of the task together with its position in the control flow is given.*

6:14 gecombineerd salesproces Puur, Plein en Sharedsevices (5:485 [5:537]) - D 6: Respons SA

gecombineerd salesproces Puur, Plein en Sharedsevices

1 Codes:

- **Missing task**

Comment: by 31627

> *An important task is missing in the model. Description of the task together with its position in the control flow is given.*

6:15 Nee (6:75 [6:77]) - D 6: Respons SA

Nee

1 Codes:

- **Blank**

Comment: by 31627
> *No comments given.*

6:16 Iets statisch en gebruikt terminologieën zijn wel marktconform, echter…… (11:1022 [11:1114]) - D 6: Respons SA

Iets statisch en gebruikt terminologieën zijn wel marktconform, echter niet Ecare specifiek.

1 Codes:

- **Suggestions for improvement**

Comment: by 31627
> *Suggestions for improvement within the questionnaire are given.*

6:18 Nee (11:1230 [11:1232]) - D 6: Respons SA

Nee

1 Codes:

- **Blank**

Comment: by 31627
> *No comments given.*

6:19 Nee (12:1 [12:3]) - D 6: Respons SA

Nee

1 Codes:

- **Blank**

Comment: by 31627
> *No comments given.*

11:1 At Ecare we don’t have account managers but advisors. And the type of…… (229:698) - D 11: Transcript interview [redacted]

At Ecare we don't have account managers but advisors. And the type of advisors you have is either functional or commercial. The real difference is that, differently from traditional firms, our advisors are involved throughout all processes of contact with the customer, from sales to after-implementation, as they are in the same team. And the advisor doesn't have a commercial background but a functional background, so it is different from conventional market terms.

1 Codes:

- **Incorrect terminology**

  Comment: by 31627
  > *Terminology used in the model is incorrect. Description of the correct terminology is eventually given.*

11:2 Well, the one performed by the advisor, commercial and the support by…… (1102:1192) - D 11: Transcript interview [redacted]

Well, the one performed by the advisor, commercial and the support by product specialists.

1 Codes:

- **Incorrect terminology**

  Comment: by 31627
  > *Terminology used in the model is incorrect. Description of the correct terminology is eventually given.*

11:3 Every sales project is different: you might have cases where a new cus…… (1625:2140) - D 11: Transcript interview [redacted]

Every sales project is different: you might have cases where a new customer comes in from your customer network; hence, a company talks to an existing customer and has interest in one of Ecare's services. Then you have a different situation from where a lead is being approached by a sales advisor: here, you need to contact the lead, understand which people you need to speak to, visit events, and identify the stakeholders. In most cases, when starting a new project, we already have a good overview of the DMUs.

1 Codes:

- **Description of control flow**

  Comment: by 31627
  > *The respondent gives a description of the control flow within a particular process.*

11:4 Yes, of course. The one time you go talking to the DMUS, but sometimes…… (2250:2806) - D 11: Transcript interview [redacted]

Yes, of course. The one time you go talking to the DMUS, but sometimes you skip that part and start bottom-up. What I say here is, there is no ideal sales process, and so it is difficult to represent it in a model. What I observe is that every sales process has a different flow. An example regards a recent project we have started, where a new customer came in from

nowhere and that in very short time had made a request. It was in the form of an Excel file, and I think I rejected the majority of the requests, as it doesn't fit our vision on healthcare.

1 Codes:

- **Description of control flow**

  Comment: by 31627
  > *The respondent gives a description of the control flow within a particular process.*

11:5 Well, you always start by getting to know the organisation. So you alw…… (3084:3682) - D 11: Transcript interview [redacted]

Well, you always start by getting to know the organisation. So you always go talking to different stakeholders in the lead company, also to understand if they fit the Ecare vision. The conversations take place on different levels, so it is not only the DMUS you talk to but other stakeholders, might be a health manager, innovation manager. It is important to get both levels on board with our vision, otherwise a cooperation won't work. So, it entails speaking to these people, giving presentations, having reference conversations. These are the type of actions you have to complete in this phase.

1 Codes:

- **Description of control flow**

  Comment: by 31627
  > *The respondent gives a description of the control flow within a particular process.*

11:6 Yes, certainly. Giving a demo without this type of preparation is some…… (3874:4389) - D 11: Transcript interview [redacted]

Yes, certainly. Giving a demo without this type of preparation is something we prefer not to do. First it is important to understand the expectations; so first you need to understand their vision, their needs, expectations, the current scenario. If I'd go to a lead which has a very hierarchical organization type, with central planning etc. then I know it won't work, because the product we offer doesn't match. So first, you need to get a picture of the lead and then you can proceed with giving presentation etc.

1 Codes:

- **Confirm control flow**

  Comment: by 31627
  > *The depicted control flow is correct, no changes are needed.*

11:7 Well, of course you want a customer to buy more of our products. So th…… (4698:5119) - D 11: Transcript interview [redacted]

Well, of course you want a customer to buy more of our products. So this is the part where the customer is satisfied with your service, having as consequence they can bring in new leads from their network with other healthcare organisations. So, when you have customers in a certain

region, and they are satisfied with Ecare, they talk with other companies, bringing in new leads. That is what I mean by being a reference.

1 Codes:

- **Missing event**

Comment: by 31627

> *An event in the process is missing. Description of the event and its control flow are eventually given.*

11:8 We try to take a proactive role in this part. What happens is that the…… (5326:5666) - D 11: Transcript interview [redacted]

We try to take a proactive role in this part. What happens is that the advisor of a client team has close contact with the customer, and tries to keep track of the customer's satisfaction. There might be cases where a lead contacts the advisor and then as sales advisor you get involved, but often you get tipped by the advisor him/herself.

1 Codes:

- **Description of control flow**

Comment: by 31627

> *The respondent gives a description of the control flow within a particular process.*

11:9 Well, there are situations where the customer wishes a lot, but doesn'…… (5896:6065) - D 11: Transcript interview [redacted]

Well, there are situations where the customer wishes a lot, but doesn't have sufficient budget to buy it. So it is an important step to check whether they have the money.

1 Codes:

- **Missing task**

Comment: by 31627

> *An important task is missing in the model. Description of the task together with its position in the control flow is given.*

11:10 We try to harmonize it into one unique project. As sales advisor there…… (6339:6815) - D 11: Transcript interview [redacted]

We try to harmonize it into one unique project. As sales advisor there are cases where you gather information on a customer that can lead to other sales possibilities. For example, you can determine the type of systems a lead is currently using, and if it is outdated then you want to include the colleagues of Plein in the project. There can be cases where we do a unique presentation, or where other things that are more department-specific are left to another sales advisor.

1 Codes:

○ **Description of control flow**

Comment: by 31627
> *The respondent gives a description of the control flow within a particular process.*

11:11 Depends. If there are actions that are very specific to a certain depa…… (7015:7324) - D 11: Transcript interview [redacted]

Depends. If there are actions that are very specific to a certain department, then these are done by the respective sales advisor. But in more general cases, these are still performed by a sales advisor at Puur. So it depends on the situation, but generally we discuss it between sales advisor who does what.

1 Codes:

○ **Description of control flow**

Comment: by 31627

The respondent gives a description of the control flow within a particular

Report for Query: BPMN elements

Scope: Advisors Puur
(39) quotations

3:31 Sales --> Goed werkend product, tevreden klant (6:1 [6:49]) - D 3: Respons adviseur [redacted]

Sales --> Goed werkend product, tevreden klant

1 Codes:

○ **Product**

Comment: by 31627
> *The respondent is describing a process product*

3:32 After sales --> Vlotte goed lopende implementatie, Juiste documenta…… (6:51 [6:137]) - D 3: Respons adviseur [redacted]

After sales --> Vlotte goed lopende implementatie, Juiste documentatie en overdracht

1 Codes:

○ **Product**

Comment: by 31627
> *The respondent is describing a process product*

3:33 Advies --> Goede klankrelatie, vertrouwen, extra opdrachten (6:139 [6:201]) - D 3: Respons adviseur [redacted]

Advies --> Goede klankrelatie, vertrouwen, extra opdrachten

1 Codes:

- **Product**

Comment: by 31627
> *The respondent is describing a process product*

3:34 Stakeholder --> Inbreng over nieuwe en bestaande software (6:203 [6:263]) - D 3: Respons adviseur [redacted]

Stakeholder --> Inbreng over nieuwe en bestaande software

1 Codes:

- **Product**

Comment: by 31627
> *The respondent is describing a process product*

3:35 Training --> Goed opgeleide medewerkers, tevreden klant, langdurig…… (6:264 [6:350]) - D 3: Respons adviseur [redacted]

Training --> Goed opgeleide medewerkers, tevreden klant, langdurig gebruik software

1 Codes:

- **Product**

Comment: by 31627
> *The respondent is describing a process product*

3:36 Ik denk dat het proces nooit echt eindigt. (6:801 [6:844]) - D 3: Respons adviseur [redacted]

Ik denk dat het proces nooit echt eindigt.

1 Codes:

- **End event**

Comment: by 31627
> *The participant describes an end event of the process*

3:37 Sales --> kennismaking, informatieverschaffing, demo, referentbezoe…… (6:980 [6:1089]) - D 3: Respons adviseur [redacted]

Sales --> kennismaking, informatieverschaffing, demo, referentbezoeken,aankoopvoorstel,overgaan tot aankoop

1 Codes:

- **Control flow**

Comment: by 31627

> *The respondent describes a control flow in the process with corresponding tasks/events/decision points*

3:38 implementatie -> Kennismaking klantteam, demo's, formeren werkgroe…… (6:1092 [6:1258]) - D 3: Respons [redacted]

implementatie -> Kennismaking klantteam, demo's, formeren werkgroep(en),plannen implementatie, inrichting software, trainingen, jivegang, overdracht naar support.

1 Codes:

- **Control flow**

Comment: by 31627

> *The respondent describes a control flow in the process with corresponding tasks/events/decision points*

3:39 advies --> doorlopend advies, kwartaalgesprekken. (6:1259 [6:1311]) - D 3: Respons adviseur [redacted]

advies --> doorlopend advies, kwartaalgesprekken.

1 Codes:

- **Control flow**

Comment: by 31627

> *The respondent describes a control flow in the process with corresponding tasks/events/decision points*

3:40 stakeholder voor productontwikkeling--> kennisdeling mbt bouw nieuw…… (6:1313 [6:1406]) - D 3: Respons adviseur [redacted]

stakeholder voor productontwikkeling--> kennisdeling mbt bouw nieuwe en bestaande software.

1 Codes:

- **Control flow**

Comment: by 31627

> *The respondent describes a control flow in the process with corresponding tasks/events/decision points*

3:41 raining -- >overdracht van kennis over software aan klant. (6:1409 [6:1471]) - D 3: Respons adviseur [redacted]

raining -- >overdracht van kennis over software aan klant.

1 Codes:

- **Control flow**

Comment: by 31627

> *The respondent describes a control flow in the process with corresponding tasks/events/decision points*

3:42 Sales --> sales adviseur klant team (6:1514 [6:1551]) - D 3: Respons adviseur [redacted]

Sales --> sales adviseur klant team

1 Codes:

- **Business actors**

Comment: by 31627

> *The respondent describes the business actors involved in the process.*

3:43 Implementatie--> adviseur (6:1553 [6:1580]) - D 3: Respons adviseur [redacted]

Implementatie--> adviseur

1 Codes:

- **Business actors**

Comment: by 31627

> *The respondent describes the business actors involved in the process.*

3:44 Advies --> Adviseur (6:1582 [6:1603]) - D 3: Respons adviseur [redacted]

Advies --> Adviseur

1 Codes:

- **Business actors**

Comment: by 31627

> *The respondent describes the business actors involved in the process.*

3:45 Stakeholder --> Adviseur, productspecialist (6:1605 [6:1650]) - D 3: Respons adviseur [redacted]

Stakeholder --> Adviseur, productspecialist

1 Codes:

- **Business actors**

Comment: by 31627

> *The respondent describes the business actors involved in the process.*

3:46 Training --> trainingsadviseur/trainer (6:1652 [6:1693]) - D 3: Respons adviseur [redacted]

Training --> trainingsadviseur/trainer

1 Codes:

- **Business actors**

Comment: by 31627

> *The respondent describes the business actors involved in the process.*

3:47 Na salesproces wordt bepaald welke adviseur eindverantwoordelijk wordt…… (7:1 [7:84]) - D 3: Respons adviseur [redacted]

Na salesproces wordt bepaald welke adviseur eindverantwoordelijk wordt voor de klant

1 Codes:

- **Join/split**

Comment: by 31627

> *The respondent is talking about a join/split point in the process.*

3:48 Productowner beslist wat hij/zij doet met input van stakeholders (7:155 [7:219]) - D 3: Respons adviseur [redacted]

Productowner beslist wat hij/zij doet met input van stakeholders

1 Codes:

- **Control flow**

Comment: by 31627

> *The respondent describes a control flow in the process with corresponding tasks/events/decision points*

3:49 Training --> Voor en Na training altijd terugkoppeling met de klant…… (7:220 [7:339]) - D 3: Respons adviseur [redacted]

Training --> Voor en Na training altijd terugkoppeling met de klant waarbij besloten wordt wat er verder nodig is.

1 Codes:

○ **Join/split**

Comment: by 31627
> *The respondent is talking about a join/split point in the process.*

3:50 Klantinformatie, omvang, populatie, aantal medewerkers etc. Wensen kla…… (7:450 [7:536]) - D 3: Respons adviseur [redacted]

Klantinformatie, omvang, populatie, aantal medewerkers etc. Wensen klant mbt inrichting

1 Codes:

○ **Information**

Comment: by 31627
> *The respondent is talking about information either used or produced by the process.*

3:51 Informatie wordt in ieder geval in het klantteam gedeeld en door hen a…… (7:663 [7:1005]) - D 3: Respons adviseur [redacted]

Informatie wordt in ieder geval in het klantteam gedeeld en door hen allemaal gebruikt. Soms wordt klantinformatie gebruikt door ontwikkelteam of productowners van andere teams. Shared services gebruikt ook veel klantinformatie en heeft nauwe samenwerking met het klantteam waar het gaat om inrichting van de software ivm declaratieproces.

2 Codes:

○ **Business actors**

Comment: by 31627
> *The respondent describes the business actors involved in the process.*

○ **Information**

Comment: by 31627
> *The respondent is talking about information either used or produced by the process.*

3:52 Marktverkenning (7:1073 [7:1087]) - D 3: Respons adviseur [redacted]

Marktverkenning

1 Codes:

○ **Start event**

Comment: by 31627
> *The respondent is describing a start event in the process*

3:53 en daarna de eerste kennismaking met een potentiële klant. (7:1089 [7:1148]) - D 3: Respons adviseur [redacted]

en daarna de eerste kennismaking met een potentiële klant.

1 Codes:

- **Start event**

  Comment: by 31627
  > *The respondent is describing a start event in the process*

5:25 Sales heeft als belangrijkste uitkomst een klant. Bij voorkeur voor al…… (6:1 [6:343]) - D 5: Respons [redacted]

Sales heeft als belangrijkste uitkomst een klant. Bij voorkeur voor alle onderdelen van Ecare (dus ook Plein en Shared Service). Daarnaast dat de klant aangesloten is bij de visie die Ecare heeft en dat wij hen daarin mee kunnen nemen. Dit maakt de weg vrij voor de adviseurs en trainers die vervolgens aan de slag gaan bij de implementatie.

1 Codes:

- **Product**

  Comment: by 31627
  > *The respondent is describing a process product*

5:26 Belangrijkste resultaat hier is dat zorgprofessionals goed worden opge…… (6:482 [6:626]) - D 5: Respons [redacted]

Belangrijkste resultaat hier is dat zorgprofessionals goed worden opgeleid en adviseurs de organisatie op hu hand hebben als vertrouwd adviseur.

2 Codes:

- **End event**

  Comment: by 31627
  > *The participant describes an end event of the process*

- **Product**

  Comment: by 31627
  > *The respondent is describing a process product*

5:27 Vervolgens komen de product specialisten om de hoek kijken om samen me…… (6:628 [6:744]) - D 5: Respons [redacted]

Vervolgens komen de product specialisten om de hoek kijken om samen met de adviseur structurele support te leveren.

1 Codes:

- **Product**

  Comment: by 31627
  > *The respondent is describing a process product*

5:28 Sales eindigt na de handtekening, maar loopt nog wel eens door bij uit…… (6:1278 [6:1372]) - D 5: Respons [redacted]

Sales eindigt na de handtekening, maar loopt nog wel eens door bij uitbreiding van de software.

2 Codes:

- **End event**

  Comment: by 31627
  > *The participant describes an end event of the process*

- **Start event**

  Comment: by 31627
  > *The respondent is describing a start event in the process*

5:29 Adviseur zou eigenlijk nooit moeten eindigen, net als product special…… (6:1374 [6:1449]) - D 5: Respons [redacted]

Adviseur zou eigenlijk nooit moeten eindigen, net als product specialisten.

1 Codes:

- **End event**

  Comment: by 31627
  > *The participant describes an end event of the process*

5:30 Trainer zou na de implementatie nog geregeld terug moeten komen voor b…… (6:1451 [6:1536]) - D 5: Respons [redacted]

Trainer zou na de implementatie nog geregeld terug moeten komen voor bijscholing etc.

2 Codes:

- **End event**

  Comment: by 31627
  > *The participant describes an end event of the process*

- **Start event**

  Comment: by 31627
  > *The respondent is describing a start event in the process*

5:31 Sales: de zorgorganisatie wordt benadert via een sales adviseur of nee…… (6:1673 [6:1995]) - D 5: [redacted]

Sales: de zorgorganisatie wordt benadert via een sales adviseur of neemt contact met ons op. Vaak leidt dat tot een eerste gesprek, dan een eerste demo en dan nog een demo met meer of

andere gebruikers. Daarna wil de zorgorganisatie vaak nog referenten spreken en dan volgt contractonderhandeling en contractondertekening

1 Codes:

- **Control flow**

Comment: by 31627

> *The respondent describes a control flow in the process with corresponding tasks/events/decision points*

5:32 Adviseurs/trainers/product specialisten: Trainers geven training tijde…… (6:1998 [6:2630]) - D 5: Respons [redacted]

Adviseurs/trainers/product specialisten: Trainers geven training tijdens het implementatieproces en eventueel na livegang ook nog. De adviseurs begeleiden de technische implementatie zowel intern als bij de klant. Daarbij is het van belang oom ook de processen van de klant door te lichten en de klant aan te laten sluiten bij onze filosofie. De product specialisten komen om de hoek kijken na livegang en maken in eerste instantie kennis met de klant. Daarna gaan ze maandelijks op bezoek en bespreken ze lopende issues met elkaar. De Adviseur blijft betrokken als organisatieadviseur en voor ontwikkelingen omtrent de software.

1 Codes:

- **Control flow**

Comment: by 31627

> *The respondent describes a control flow in the process with corresponding tasks/events/decision points*

5:33 In het onderhandelen voor het contract, wat doen we wel en niet? (7:1 [7:64]) - D 5: Respons [redacted]

In het onderhandelen voor het contract, wat doen we wel en niet?

1 Codes:

- **Join/split**

Comment: by 31627

> *The respondent is talking about a join/split point in the process.*

5:34 Tijdens de implementatie worden verschillende functionele keuzes gemaa…… (7:66 [7:137]) - D 5: Respons [redacted]

Tijdens de implementatie worden verschillende functionele keuzes gemaakt

1 Codes:

- **Control flow**

Comment: by 31627

The respondent describes a control flow in the process with corresponding tasks/events/decision points

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5:35 Rondom contractondertekening wordt besloten welke adviseur gekoppeld…… (7:140 [7:227]) - D 5: Respons [redacted]

Rondom contractondertekening wordt besloten welke adviseur gekoppeld wordt aan de klant

1 Codes:

- **Task**

Comment: by 31627

The respondent is describing a task executed during the process.

5:36 Tijdens de livegang wordt bepaald welke product specialist aan de kla…… (7:230 [7:319]) - D 5: Respons [redacted]

Tijdens de livegang wordt bepaald welke product specialist aan de klant wordt gekoppeld.

1 Codes:

- **Task**

Comment: by 31627

The respondent is describing a task executed during the process.

5:37 Kennis over de aanstaande klant is nodig om te beslissen welke adviseu…… (7:431 [7:541]) - D 5: Respons [redacted]

Kennis over de aanstaande klant is nodig om te beslissen welke adviseur gekoppeld wordt. wat is de beste match?

1 Codes:

- **Information**

Comment: by 31627

The respondent is talking about information either used or produced by the process.

5:38 Daarnaast is het van belang intern welke adviseur er het meeste ruimt…… (7:543 [7:667]) - D 5: Respons [redacted]

Daarnaast is het van belang intern welke adviseur er het meeste ruimte voor is. Datzelfde geldt voor de product specialisten

1 Codes:

- **Information**

Comment: by 31627

The respondent is talking about information either used or produced by the process.

5:39 Met betrekking tot de contractonderhandelingen is dat vooral financie…… (7:670 [7:742]) - D 5: Respons [redacted]

Met betrekking tot de contractonderhandelingen is dat vooral financieel.

1 Codes:

○ **Information**

Comment: by 31627
> *The respondent is talking about information either used or produced by the process.*

5:40 Daarnaast wordt omtrent de datum van livegang met name door de klant e…… (7:744 [7:924]) - D 5: Respons [redacted]

Daarnaast wordt omtrent de datum van livegang met name door de klant eea gevraagd. voor ons is dan van belang of we in staat zijn de trainingen in die tijd te kunnen faciliteren.

2 Codes:

○ **Information**

Comment: by 31627
> *The respondent is talking about information either used or produced by the process.*

○ **Join/split**

Comment: by 31627
The respondent is talking about a join/split point in the process

Report for Query: BPMN elements

Scope: Product specialists Puur
(62) quotations

7:28 Informatie die door andere processen/collega's gebruikt wordt (6:1 [6:61]) - D 7: Respons PS [redacted]

Informatie die door andere processen/collega's gebruikt wordt

2 Codes:

○ **Information**

Comment: by 31627
> *The respondent is talking about information either used or produced by the process.*

○ **Product**

Comment: by 31627
> *The respondent is describing a process product*

7:29 Afhankelijk van waar de informatie naartoe gaat (signaleer je iets, wi…… (6:130 [6:314]) - D 7: Respons PS [redacted]

Afhankelijk van waar de informatie naartoe gaat (signaleer je iets, wil je dat er iets aangepast/aangevuld wordt in de software, etc.) - gefundeerde informatie met voldoende details.

2 Codes:

- **Information**

  Comment: by 31627
  > *The respondent is talking about information either used or produced by the process.*

- **Product**

  Comment: by 31627
  > *The respondent is describing a process product*

7:30 Zo lang de klant, klant blijft is dit proces niet ten einde. (6:383 [6:444]) - D 7: Respons PS [redacted]

Zo lang de klant, klant blijft is dit proces niet ten einde.

1 Codes:

- **End event**

  Comment: by 31627
  > *The participant describes an end event of the process*

7:31 1. Er komt een vraag over de software > check of deze vraag voorkom…… (6:769 [6:1249]) - D 7: Respons PS [redacted]

1. Er komt een vraag over de software > check of deze vraag voorkomen had kunnen worden. Zo ja, ga naar klant om uitleg te geven, of bespreek binnen klantteam voor mogelijkheden (training, niveau serviceteam). Zo nee, is het iets wat in de software aangepast moet worden (Bug of niet intuïtief genoeg)? Meldt het aan de productspecialist van het ontwikkelteam en het ontwikkelteam zelf.

Hou de klant op de hoogte van de progress. Uiteindelijk wordt de vraag altijd beantwoord

1 Codes:

- **Control flow**

  Comment: by 31627
  > *The respondent describes a control flow in the process with corresponding tasks/events/decision points*

7:32 2. Als je signaleert dat er dingen spelen binnen de organisatie die n…… (6:1252 [6:1422]) - D 7: Respons PS [redacted]

2. Als je signaleert dat er dingen spelen binnen de organisatie die niet perse te maken hebben met software > bespreken binnen klantteam (meestal pakt adviseur dit op)

1 Codes:

○ **Control flow**

Comment: by 31627

> *The respondent describes a control flow in the process with corresponding tasks/events/decision points*

7:33 3. Als je signaleert dat er mogelijk behoefte is aan software dat wij…… (6:1425 [6:1585]) - D 7: Respons PS [redacted]

3. Als je signaleert dat er mogelijk behoefte is aan software dat wij leveren > bespreken binnen klantteam zodat (sales) adviseurs dit verder kunnen oppakken

1 Codes:

○ **Control flow**

Comment: by 31627

> *The respondent describes a control flow in the process with corresponding tasks/events/decision points*

7:34 4. Bij vraag naar nieuwe features binnen de software > aangeven wa…… (6:1588 [6:1825]) - D 7: Respons PS [redacted]

4. Bij vraag naar nieuwe features binnen de software > aangeven waarom wij dit niet doen (vanuit visie) als je dit weet of als je dit besproken hebt met PO/PM, of meenemen naar de ontwikkelorganisatie om dit op de backlog te krijgen.

1 Codes:

○ **Control flow**

Comment: by 31627

> *The respondent describes a control flow in the process with corresponding tasks/events/decision points*

7:35 5. Wanneer er nieuwe dingen in de software beschikbaar komen hou je ac…… (6:1827 [6:1928]) - D 7: Respons PS [redacted]

5. Wanneer er nieuwe dingen in de software beschikbaar komen hou je actief de klanten op de hoogte.

1 Codes:

○ **Control flow**

Comment: by 31627

> *The respondent describes a control flow in the process with corresponding tasks/events/decision points*

7:36 Het klantteam, andere productspecialisten, Product owners, product man…… (6:1970 [6:2058]) - D 7: Respons PS [redacted]

Het klantteam, andere productspecialisten, Product owners, product manager, ontwikkelaars

1 Codes:

○ **Business actors**

Comment: by 31627

> *The respondent describes the business actors involved in the process.*

7:37 De grootste vragen zijn; Wat gaan we hiermee doen? Gaan we dit oppakke…… (7:114 [7:199]) - D 7: Respons PS [redacted]

De grootste vragen zijn; Wat gaan we hiermee doen? Gaan we dit oppakken ja/nee, waarom

1 Codes:

○ **Join/split**

Comment: by 31627

> *The respondent is talking about a join/split point in the process.*

7:38 Dit kan over vragen voorkomen zijn (trainingen, software aanpassen),…… (7:202 [7:321]) - D 7: Respons PS [redacted]

Dit kan over vragen voorkomen zijn (trainingen, software aanpassen), of na signaleringen van behoeftes van een klant.

1 Codes:

○ **Start event**

Comment: by 31627

> *The respondent is describing a start event in the process*

7:39 Voldoende kennis over het product en de vraag moet duidelijk zijn. (7:432 [7:498]) - D 7: Respons PS [redacted]

Voldoende kennis over het product en de vraag moet duidelijk zijn.

1 Codes:

○ **Information**

Comment: by 31627
> *The respondent is talking about information either used or produced by the process.*

7:40 De urgentie/prioriteit om dingen op te pakken voor ecare, en de juiste…… (7:624 [7:718]) - D 7: Respons PS [redacted]

De urgentie/prioriteit om dingen op te pakken voor ecare, en de juiste informatie voor de klant

1 Codes:

- **Information**

Comment: by 31627
> *The respondent is talking about information either used or produced by the process.*

7:41 Voor een productspecialist bij overdracht van de klant (7:788 [7:841]) - D 7: Respons PS [redacted]

Voor een productspecialist bij overdracht van de klant

1 Codes:

- **Start event**

Comment: by 31627
> *The respondent is describing a start event in the process*

7:42 voor een adviseur natuurlijk veel eerder. (7:844 [7:884]) - D 7: Respons PS [redacted]

voor een adviseur natuurlijk veel eerder.

1 Codes:

- **Start event**

Comment: by 31627
> *The respondent is describing a start event in the process*

8:59 het melden van bugs en wensen van klanten aan de product owners en dev…… (6:3 [6:231]) - D 8: Respons [redacted]

het melden van bugs en wensen van klanten aan de product owners en development teams. UITKOMST: informatie over wat er speelt, en wanneer gewenst door het ontwikkelteam, documenten en aanvullende data over het probleem / de wens

1 Codes:

- **Product**

Comment: by 31627
> *The respondent is describing a process product*

8:60 het bijwonen van de tweewekelijkse releasemeeting, waarin de released…… (6:235 [6:567]) - D 8: Respons PS [redacted]

het bijwonen van de tweewekelijkse releasemeeting, waarin de releasedetails onder de development teams worden besproken. Hieropvolgend deel ik deze informatie met de klanten. UITKOMST: informatiepagina met de belangrijkste details over de aankomende release, met wanneer nodig aanvullende documenten met meer gedetailleerde uitleg

1 Codes:

- **Product**

  Comment: by 31627
  > *The respondent is describing a process product*

8:61 schakelen met sales wanneer ik mogelijkheden zie bij bestaande of nieu…… (6:572 [6:700]) - D 8: Respons PS [redacted]

schakelen met sales wanneer ik mogelijkheden zie bij bestaande of nieuwe klanten. UITKOMST: klantinformatie, salesmogelijkheden.

2 Codes:

- **Information**

  Comment: by 31627
  > *The respondent is talking about information either used or produced by the process.*

- **Product**

  Comment: by 31627
  > *The respondent is describing a process product*

8:62 assisteren en instrueren van klanten bij het gebruik van Puur functio…… (6:703 [6:847]) - D 8: Respons PS [redacted]

assisteren en instrueren van klanten bij het gebruik van Puur functionaliteiten. UITKOMST: gebruikservaring van klanten / informatievoorziening

2 Codes:

- **Information**

  Comment: by 31627
  > *The respondent is talking about information either used or produced by the process.*

- **Product**

  Comment: by 31627
  > *The respondent is describing a process product*

8:63 het opmerken van klantbehoeften, en aanvoelen waar het kennisgebrek z…… (6:851 [6:1007]) - D 8: Respons PS [redacted]

het opmerken van klantbehoeften, en aanvoelen waar het kennisgebrek zit (of waar een opfrissing nodig is). UITKOMST: klantwensen / klachten / mogelijkheden

2 Codes:

- **Information**

  Comment: by 31627
  > *The respondent is talking about information either used or produced by the process.*

- **Product**

  Comment: by 31627
  > *The respondent is describing a process product*

8:64 bij klanten waarvan ik de product specialist ben heb ik geregeld cont…… (6:1010 [6:1228]) - D 8: Respons PS [redacted]

bij klanten waarvan ik de product specialist ben heb ik geregeld contact, om knelpunten/bugs/wensen te bespreken, of slechts een gesprek hoe het gaat.

UITKOMST: klantwensen / klachten / mogelijkheden / bezoekverslagen

2 Codes:

- **Information**

  Comment: by 31627
  > *The respondent is talking about information either used or produced by the process.*

- **Product**

  Comment: by 31627
  > *The respondent is describing a process product*

8:65 belangrijke informatie wat betreft klanten delen binnen je klantteam (…… (6:1231 [6:1376]) - D 8: Respons PS [redacted]

belangrijke informatie wat betreft klanten delen binnen je klantteam (of Ecare- breed wanneer nodig) UITKOMST: klantinformatie / bezoekverslagen

2 Codes:

- **Information**

  Comment: by 31627
  > *The respondent is talking about information either used or produced by the process.*

- **Product**

  Comment: by 31627

The respondent is describing a process product

8:66 het melden van bugs en wensen van klanten aan de product owners en dev…… (6:1912 [6:2190]) - D 8: Respons PS [redacted]

het melden van bugs en wensen van klanten aan de product owners en development teams. EIND: wanneer een ontwikkelteam genoeg informatie heeft om het probleem op te lossen / de wijziging door te voeren. Uiteindelijk weer terug bij de klant wanneer het daadwerkelijk functioneert.

1 Codes:

○ **End event**

Comment: by 31627
The participant describes an end event of the process

8:67 het bijwonen van de tweewekelijkse releasemeeting, waarin de released…… (6:2193 [6:2425]) - D 8: Respons PS [redacted]

het bijwonen van de tweewekelijkse releasemeeting, waarin de releasedetails onder de development teams worden besproken. Hieropvolgend deel ik deze informatie met de klanten. EIND: Het verstrekken van de informatie aan de klanten.

1 Codes:

○ **End event**

Comment: by 31627
The participant describes an end event of the process

8:68 schakelen met sales wanneer ik mogelijkheden zie bij bestaande of nie…… (6:2428 [6:2586]) - D 8: Respons PS [redacted]

schakelen met sales wanneer ik mogelijkheden zie bij bestaande of nieuwe klanten. EIND: Bij de sales afdeling, zij nemen dan het initiatief richting de klant

2 Codes:

○ **End event**

Comment: by 31627
The participant describes an end event of the process

○ **Start event**

Comment: by 31627
The respondent is describing a start event in the process

8:69 assisteren en instrueren van klanten bij het gebruik van Puur functio…… (6:2591 [6:2742]) - D 8: Respons PS [redacted]

assisteren en instrueren van klanten bij het gebruik van Puur functionaliteiten. EIND: Bij de klanten, zij moeten dit wanneer nodig intern verpsreiden.

1 Codes:

- **End event**

  Comment: by 31627
  > *The participant describes an end event of the process*

8:70 het opmerken van klantbehoeften, en aanvoelen waar het kennisgebrek z…… (6:2746 [6:2946]) - D 8: Respons PS [redacted]

het opmerken van klantbehoeften, en aanvoelen waar het kennisgebrek zit (of waar een opfrissing nodig is). EIND: Binnen je klantteam, daarna wordt er per functie gekeken wie wat het beste kan oppakken

2 Codes:

- **Start event**

  Comment: by 31627
  > *The respondent is describing a start event in the process*

- **Task**

  Comment: by 31627
  > *The respondent is describing a task executed during the process.*

8:71 bij klanten waarvan ik de product specialist ben heb ik geregeld cont…… (6:2951 [6:3169]) - D 8: Respons PS [redacted]

bij klanten waarvan ik de product specialist ben heb ik geregeld contact, om knelpunten/bugs/wensen te bespreken, of slechts een gesprek hoe het gaat.

EIND: Binnen je klantteam, nadat je een bezoekverslag hebt gemaakt

2 Codes:

- **End event**

  Comment: by 31627
  > *The participant describes an end event of the process*

- **Task**

  Comment: by 31627
  > *The respondent is describing a task executed during the process.*

8:72 belangrijke informatie wat betreft klanten delen binnen je klantteam (…… (6:3174 [6:3311]) - D 8: Respons PS [redacted]

belangrijke informatie wat betreft klanten delen binnen je klantteam (of Ecare- breed wanneer nodig) EIND: Binnen je klantteam (of Ecare)

1 Codes:

- **End event**

Comment: by 31627
> *The participant describes an end event of the process*

8:73 het melden van bugs en wensen van klanten aan de product owners en dev…… (6:3451 [6:3815]) - D 8: Respons PS [redacted]

het melden van bugs en wensen van klanten aan de product owners en development teams. ACTIES: melding --> bug / wens checken (is het echt een probleem?) --> zoeken naar een (tijdelijke) workaround --> bespreken met de product owner --> indien nodig ticket aanmaken --> wachten tot het ticket wordt opgepakt --> oplossing terugkoppelen aan klant.

1 Codes:

- **Control flow**

Comment: by 31627
> *The respondent describes a control flow in the process with corresponding tasks/events/decision points*

8:74 het bijwonen van de tweewekelijkse releasemeeting, waarin de released…… (6:3818 [6:4220]) - D 8: Respons PS [redacted]

het bijwonen van de tweewekelijkse releasemeeting, waarin de releasedetails onder de development teams worden besproken. Hieropvolgend deel ik deze informatie met de klanten. ACTIES: meeting bijwonen --> belangrijke ontwikkelingen noteren --> vragen naar eventuele nadelen voor klanten --> releasenotes per ontwikkelteam verzamelen en controleren - -> releasenotes opsturen naar klanten.

1 Codes:

- **Control flow**

Comment: by 31627
> *The respondent describes a control flow in the process with corresponding tasks/events/decision points*

8:75 schakelen met sales wanneer ik mogelijkheden zie bij bestaande of nieu…… (6:4224 [6:4388]) - D 8: Respons PS [redacted]

schakelen met sales wanneer ik mogelijkheden zie bij bestaande of nieuwe klanten. ACTIES: salesmogelijkheid zien --> info delen met adviseur --> klantcontact

1 Codes:

○ **Control flow**

Comment: by 31627

> *The respondent describes a control flow in the process with corresponding tasks/events/decision points*

8:76 assisteren en instrueren van klanten bij het gebruik van Puur function…… (6:4391 [6:4601]) - D 8: Respons PS [redacted]

assisteren en instrueren van klanten bij het gebruik van Puur functionaliteiten.

ACTIES: melding ontvangen --> meekijken bij klant --> how to uitleggen aan klanten --> vraag of ze het proces begrijpen

1 Codes:

○ **Control flow**

Comment: by 31627

> *The respondent describes a control flow in the process with corresponding tasks/events/decision points*

8:77 het opmerken van klantbehoeften, en aanvoelen waar het kennisgebrek z…… (6:4604 [6:4831]) - D 8: Respons PS [redacted]

het opmerken van klantbehoeften, en aanvoelen waar het kennisgebrek zit (of waar een opfrissing nodig is). ACTIES: opmerken --> mogelijkheden bekijken --> communiceren binnen klantteam --> (niet) tot actie overgaan. -

1 Codes:

○ **Control flow**

Comment: by 31627

> *The respondent describes a control flow in the process with corresponding tasks/events/decision points*

8:78 bij klanten waarvan ik de product specialist ben heb ik geregeld conta…… (6:4833 [6:5123]) - D 8: Respons PS [redacted]

bij klanten waarvan ik de product specialist ben heb ik geregeld contact, om knelpunten/bugs/wensen te bespreken, of slechts een gesprek hoe het gaat. ACTIES: bezoek --> bespreken van lopende zaken --> aanvullende punten bespreken --> ter plekke oplossen of later intern bespreken

1 Codes:

○ **Control flow**

Comment: by 31627

> *The respondent describes a control flow in the process with corresponding tasks/events/decision points*

8:79 belangrijke informatie wat betreft klanten delen binnen je klantteam (…… (6:5128 [6:5348]) - D 8: Respons PS [redacted]

belangrijke informatie wat betreft klanten delen binnen je klantteam (of Ecare- breed wanneer nodig) ACTIES: informatie van klantbezoeken noteren in je bezoekverslag --> delen binnen het team en op de wiki plaatsen.

1 Codes:

○ **Control flow**

Comment: by 31627

> *The respondent describes a control flow in the process with corresponding tasks/events/decision points*

8:80 - het melden van bugs en wensen van klanten aan de product owners en d…… (7:1 [7:468]) - D 8: Respons PS [redacted]

- het melden van bugs en wensen van klanten aan de product owners en development teams. ACTIES: melding --> bug / wens checken (is het echt een probleem?) --> zoeken naar een (tijdelijke) workaround --> bespreken met de product owner --> indien nodig ticket aanmaken --> wachten tot het ticket wordt opgepakt --> oplossing terugkoppelen aan klant. BETROKKEN: product specialisten (customer management), product owners, development teams en klanten

1 Codes:

○ **Business actors**

Comment: by 31627

> *The respondent describes the business actors involved in the process.*

8:81 het bijwonen van de tweewekelijkse releasemeeting, waarin de releasede…… (7:471 [7:931]) - D 8: Respons PS [redacted]

het bijwonen van de tweewekelijkse releasemeeting, waarin de releasedetails onder de development teams worden besproken. Hieropvolgend deel ik deze informatie met de klanten. ACTIES: meeting bijwonen --> belangrijke ontwikkelingen noteren --> vragen naar eventuele nadelen voor klanten --> releasenotes per ontwikkelteam verzamelen en controleren --> releasenotes opsturen naar klanten.

BETROKKEN: development teams, product specialist, klanten

1 Codes:

○ **Business actors**

Comment: by 31627

> *The respondent describes the business actors involved in the process.*

8:82 schakelen met sales wanneer ik mogelijkheden zie bij bestaande of nieu…… (7:934 [7:1127]) - D 8: Respons PS [redacted]

schakelen met sales wanneer ik mogelijkheden zie bij bestaande of nieuwe klanten.

ACTIES: salesmogelijkheid zien --> info delen met adviseur --> klantcontact BETROKKEN: klanten, klantteam

1 Codes:

○ **Business actors**

Comment: by 31627
The respondent describes the business actors involved in the process.

8:83 assisteren en instrueren van klanten bij het gebruik van Puur functio…… (7:1130 [7:1383]) - D 8: Respons PS [redacted]

assisteren en instrueren van klanten bij het gebruik van Puur functionaliteiten. ACTIES: melding ontvangen --> meekijken bij klant --> how to uitleggen aan klanten --> vraag of ze het proces begrijpen BETROKKEN: klanten, customer management.

1 Codes:

○ **Business actors**

Comment: by 31627
The respondent describes the business actors involved in the process.

8:84 het opmerken van klantbehoeften, en aanvoelen waar het kennisgebrek zi…… (7:1386 [7:1661]) - D 8: Respons PS [redacted]

het opmerken van klantbehoeften, en aanvoelen waar het kennisgebrek zit (of waar een opfrissing nodig is). ACTIES: opmerken --> mogelijkheden bekijken --> communiceren binnen klantteam --> (niet) tot actie overgaan. BETROKKEN: customer support, klanten, klantteam -

1 Codes:

○ **Business actors**

Comment: by 31627
The respondent describes the business actors involved in the process.

8:85 bij klanten waarvan ik de product specialist ben heb ik geregeld conta…… (7:1663 [7:2005]) - D 8: Respons PS [redacted]

bij klanten waarvan ik de product specialist ben heb ik geregeld contact, om knelpunten/bugs/wensen te bespreken, of slechts een gesprek hoe het gaat. ACTIES: bezoek --> bespreken van lopende zaken --> aanvullende punten bespreken --> ter plekke oplossen of later intern bespreken. BETROKKEN: klanten, product specialist, klantteam

1 Codes:

- **Business actors**

Comment: by 31627

> *The respondent describes the business actors involved in the process.*

8:86 belangrijke informatie wat betreft klanten delen binnen je klantteam…… (7:2007 [7:2267]) - D 8: Respons PS [redacted]

belangrijke informatie wat betreft klanten delen binnen je klantteam (of Ecare-breed wanneer nodig) ACTIES: informatie van klantbezoeken noteren in je bezoekverslag --> delen binnen het team en op de wiki plaatsen. BETROKKEN: product specialist, klantteam

1 Codes:

- **Business actors**

Comment: by 31627

> *The respondent describes the business actors involved in the process.*

8:87 - wel of niet oplossen van bugs / wensen (7:2389 [7:2428]) - D 8: Respons PS [redacted]

- wel of niet oplossen van bugs / wensen

1 Codes:

- **Join/split**

Comment: by 31627

> *The respondent is talking about a join/split point in the process.*

8:88 wel of niet doorgaan van releases (7:2432 [7:2465]) - D 8: Respons PS [redacted]

wel of niet doorgaan van releases

1 Codes:

- **Join/split**

Comment: by 31627

> *The respondent is talking about a join/split point in the process.*

8:89 wel of niet delen van informatie (7:2468 [7:2499]) - D 8: Respons PS [redacted]

wel of niet delen van informatie

1 Codes:

- **Join/split**

Comment: by 31627

The respondent is talking about a join/split point in the process.

8:90 informatie over het probleem, met wanneer nodig aanvullende info (scre…… (7:2613 [7:2712]) - D 8: Respons PS [redacted]

informatie over het probleem, met wanneer nodig aanvullende info (screenshots, documenten, video's)

1 Codes:

- **Information**

Comment: by 31627

The respondent is talking about information either used or produced by the process.

8:91 informatie over releasefunctionaliteiten, en eventuele nadelen daarva…… (7:2716 [7:2786]) - D 8: Respons PS [redacted]

informatie over releasefunctionaliteiten, en eventuele nadelen daarvan

1 Codes:

- **Information**

Comment: by 31627

The respondent is talking about information either used or produced by the process.

8:92 informatie over de klant en wat er op gebied van sales kan worden toeg…… (7:2789 [7:2866]) - D 8: Respons PS [redacted]

informatie over de klant en wat er op gebied van sales kan worden toegevoegd

1 Codes:

- **Information**

Comment: by 31627

The respondent is talking about information either used or produced by the process.

8:93 informatie over het huidige kennisniveau van de klant (7:2869 [7:2923]) - D 8: Respons PS [redacted]

informatie over het huidige kennisniveau van de klant

1 Codes:

- **Information**

Comment: by 31627

The respondent is talking about information either used or produced by the process.

8:94 nformatie over wat er speelt bij klanten (7:2927 [7:2966]) - D 8: Respons PS [redacted]

nformatie over wat er speelt bij klanten

1 Codes:

- **Information**

Comment: by 31627

> *The respondent is talking about information either used or produced by the process.*

8:95 informatie over de juiste functionaliteiten binnen Puur (7:2970 [7:3024]) - D 8: Respons PS [redacted]

informatie over de juiste functionaliteiten binnen Puur

1 Codes:

- **Information**

Comment: by 31627

> *The respondent is talking about information either used or produced by the process.*

8:96 nformatie vanuit support (bugs/wensen) voor ontwikkelteams (7:3154 [7:3212]) - D 8: Respons PS [redacted]

nformatie vanuit support (bugs/wensen) voor ontwikkelteams

2 Codes:

- **Business actors**

Comment: by 31627

> *The respondent describes the business actors involved in the process.*

- **Information**

Comment: by 31627

> *The respondent is talking about information either used or produced by the process.*

8:97 informatie vanuit klantbezoeken (huidige stand van zaken, knelpunten e…… (7:3215 [7:3317]) - D 8: Respons PS [redacted]

informatie vanuit klantbezoeken (huidige stand van zaken, knelpunten en mogelijkheden) voor klantteams

2 Codes:

- **Business actors**

Comment: by 31627

> *The respondent describes the business actors involved in the process.*

- **Information**

  Comment: by 31627
  > *The respondent is talking about information either used or produced by the process.*

8:98 informatie vanuit het ontwikkelteam (wat wordt er ontwikkeld) voor kla…… (7:3321 [7:3407]) - D 8: Respons PS [redacted]

informatie vanuit het ontwikkelteam (wat wordt er ontwikkeld) voor klanten en klantteam

2 Codes:

- **Business actors**

  Comment: by 31627
  > *The respondent describes the business actors involved in the process.*

- **Information**

  Comment: by 31627
  > *The respondent is talking about information either used or produced by the process.*

8:99 het melden van bugs en wensen van klanten aan de product owners en dev…… (8:3 [8:139]) - D 8: Respons PS [redacted]

het melden van bugs en wensen van klanten aan de product owners en development teams.
BEGIN: bij de klant, of bij een fout/storing in Puu

1 Codes:

- **Start event**

  Comment: by 31627
  > *The respondent is describing a start event in the process*

8:100 het bijwonen van de tweewekelijkse releasemeeting, waarin de released…… (8:143 [8:385]) - D 8: Respons PS [redacted]

het bijwonen van de tweewekelijkse releasemeeting, waarin de releasedetails onder de development teams worden besproken. Hieropvolgend deel ik deze informatie met de klanten.
BEGIN: bij de ontwikkelteams, bij de start van een nieuwe release

2 Codes:

- **Business actors**

  Comment: by 31627
  > *The respondent describes the business actors involved in the process.*

- **Start event**

  Comment: by 31627
  > *The respondent is describing a start event in the process*

8:101 schakelen met sales wanneer ik mogelijkheden zie bij bestaande of nie…… (8:389 [8:498]) - D 8: Respons PS [redacted]

schakelen met sales wanneer ik mogelijkheden zie bij bestaande of nieuwe klanten. BEGIN: bij een klantgesprek

1 Codes:

○ **Start event**

Comment: by 31627
The respondent is describing a start event in the process

8:102 assisteren en instrueren van klanten bij het gebruik van Puur function…… (8:502 [8:636]) - D 8: Respons PS [redacted]

assisteren en instrueren van klanten bij het gebruik van Puur functionaliteiten. BEGIN: wanneer een klant belt, of tijdens trainingen

1 Codes:

○ **Start event**

Comment: by 31627
The respondent is describing a start event in the process

8:103 het opmerken van klantbehoeften, en aanvoelen waar het kennisgebrek zi…… (8:639 [8:820]) - D 8: Respons PS [redacted]

het opmerken van klantbehoeften, en aanvoelen waar het kennisgebrek zit (of waar een opfrissing nodig is). BEGIN: wanneer een klant belt, tijdens een bezoek, of tijdens een training

1 Codes:

○ **Start event**

Comment: by 31627
The respondent is describing a start event in the process

8:104 bij klanten waarvan ik de product specialist ben heb ik geregeld conta…… (8:824 [8:1004]) - D 8: Respons PS [redacted]

bij klanten waarvan ik de product specialist ben heb ik geregeld contact, om knelpunten/bugs/wensen te bespreken, of slechts een gesprek hoe het gaat. BEGIN: als het gesprek begint

1 Codes:

○ **Start event**

Comment: by 31627
The respondent is describing a start event in the process

8:105 belangrijke informatie wat betreft klanten delen binnen je klantteam…… (8:1008 [8:1133]) - D 8: Respons PS [redacted]

belangrijke informatie wat betreft klanten delen binnen je klantteam (of Ecare-breed wanneer nodig) BEGIN: na een klantbezoek

1 Codes:

○ **Start event**

Comment: by 31627
> *The respondent is describing a start event in the process*

Report for Query: Feedback BPMN models

Scope: Advisors Puur
(39) quotations

2:4 Dat lijkt te kloppen. (2:570 [2:592]) - D 2: Respons A [redacted]

Dat lijkt te kloppen.

1 Codes:

○ **Confirm model**

Comment: by 31627
> *The respondent confirms the model is correct and complete. No changes are needed.*

2:6 Ik merk dat het wat onoverzichtelijk is, terwijl het denk ik juist ove…… (3:56 [3:338]) - D 2: Respons A [redacted]

Ik merk dat het wat onoverzichtelijk is, terwijl het denk ik juist overzichtelijk moet zijn. Mijn ervaring bij het uitschrijven van dergelijke processen is dat het oog ook wat wil. Dat wil zeggen dat er best wel gelikt uit mag zien, ondanks dat het om een procesbeschrijving gaat.

2 Codes:

○ **Negative feedback**

Comment: by 31627
> *The respondent has remarks/complaints regarding something.*

○ **Suggestions for improvement**

Comment: by 31627
> *Suggestions for improvement within the questionnaire are given.*

2:7 Deze processtromen zien er overigens wel overzichtelijk uit (3:2504 [3:2562]) - D 2: Respons A [redacted]

Deze processtromen zien er overigens wel overzichtelijk uit

1 Codes:

- **Positive feedback**

  Comment: by 31627
  > *General positive feedback about the model/questionnaire.*

2:9 ja (4:1 [4:2]) - D 2: Respons A [redacted]

ja

1 Codes:

- **Confirm task**

  Comment: by 31627
  > *The denoted task is correct, no need for adjsutments*

2:10 ja (4:97 [4:98]) - D 2: Respons A [redacted]

ja

1 Codes:

- **Confirm artefact**

  Comment: by 31627
  > *Modelled artefact is correct, no changes needed*

2:11 ja (4:219 [4:220]) - D 2: Respons A [redacted]

ja

1 Codes:

- **Confirm control flow**

  Comment: by 31627
  > *The depicted control flow is correct, no changes are needed.*

2:12 ja (4:283 [4:284]) - D 2: Respons A [redacted]

ja

1 Codes:

- **Confirm interaction**

  Comment: by 31627
  > *The message flow displayed in the model is correct. There is no need for changes.*

2:13 ja (4:386 [4:387]) - D 2: Respons A [redacted]

ja

1 Codes:

- **Confirm joint/split**

  Comment: by 31627
  > *Split/join modelled is correct, no changes are needed.*

2:14 ja (4:520 [4:521]) - D 2: Respons A [redacted]

ja

1 Codes:

- **Confirm event**

  Comment: by 31627
  > *The modelled element is correct, no changes are needed here.*

2:15 Bij upsales weet ik eigenlijk niet of er een definitief einde is. Je z…… (5:73 [5:258]) - D 2: Respons A [redacted]

Bij upsales weet ik eigenlijk niet of er een definitief einde is. Je zou ook kunnen zeggen dat dat altijd iets is wat doorgaat, omdat er altijd nieuwe dingen bij komen in de software.

1 Codes:

- **Missing event**

  Comment: by 31627
  > *An event in the process is missing. Description of the event and its control flow are eventually given.*

2:16 Nee (5:332 [5:334]) - D 2: Respons A [redacted]

Nee

1 Codes:

- **No missing events**

  Comment: by 31627
  > *The events modelled are complete, no addition of any other event elements is required.*

2:17 Nee (5:486 [5:488]) - D 2: Respons A [redacted]

Nee

1 Codes:

- **No missing tasks**

  Comment: by 31627
  > *The tasks depicted in the model are complete, addition of tasks is not required.*

2:18 Nee (5:591 [5:593]) - D 2: Respons A [redacted]

Nee

1 Codes:

- **No missing join/split**

  Comment: by 31627
  > *The join/split nodes depicted in the model are correct and complete. No additions are needed.*

2:19 Volgens mij niet (5:760 [5:775]) - D 2: Respons A [redacted]

Volgens mij niet

1 Codes:

- **No missing artefacts**

  Comment: by 31627
  > *The artefacts depicted in the model are correct and complete, additions are not required.*

2:20 Nee (6:1 [6:3]) - D 2: Respons A [redacted]

Nee

1 Codes:

- **No missing business actors**

  Comment: by 31627
  > *The business actors (lanes) depicted in the model are correcta and complete. No additions are required.*

2:21 Nee, ik denk mooie beschrijvingen per proces op deze manier (6:69 [6:127]) - D 2: Respons A [redacted]

Nee, ik denk mooie beschrijvingen per proces op deze manier

1 Codes:

- **Positive feedback**

  Comment: by 31627

General positive feedback about the model/questionnaire.

2:23 Het zou mooi zijn als je het specifiek per rol kan maken. Nu ligt de v…… (11:1225 [11:1432]) - D 2: Respons A [redacted]

Het zou mooi zijn als je het specifiek per rol kan maken. Nu ligt de verantwoordelijkheid bij degene die hem invult dat hij invult wat bij zijn rol hoort. Zou mooi zijn als de vragenlijst per rol apart is.

1 Codes:

○ **Suggestions for improvement**

Comment: by 31627
Suggestions for improvement within the questionnaire are given.

2:24 nee (12:1 [12:3]) - D 2: Respons A [redacted]

nee

1 Codes:

○ **Blank**

Comment: by 31627
No comments given.

10:4 Ja het model klopt volgens mij grotendeels! (2:581 [2:623]) - D 10: Report A [redacted]

Ja het model klopt volgens mij grotendeels!

1 Codes:

○ **Confirm model**

Comment: by 31627
The respondent confirms the model is correct and complete. No changes are needed.

10:7 Nee ziet er prima uit! (3:56 [3:79]) - D 10: Report A [redacted]

Nee ziet er prima uit!

1 Codes:

○ **Positive feedback**

Comment: by 31627
General positive feedback about the model/questionnaire.

10:8 Ik zie geen zaken die anders zouden moeten gaan (3:2020 [3:2066]) - D 10: Report A [redacted]

Ik zie geen zaken die anders zouden moeten gaan

1 Codes:

- **Confirm event**

Comment: by 31627

> *The modelled element is correct, no changes are needed here.*

10:9 Speel ontvangen dossier door naar Productowner Bedoel je met dossiers…… (4:147 [4:407]) - D 10: Report A [redacted]

Speel ontvangen dossier door naar Productowner Bedoel je met dossiers misschien specificaties?, dan zou het model correct zijn. Alhoewel die technische afstemming ook vaak met een technische medewerker aan de kant van de organisatie die de koppeling levert.

1 Codes:

- **Incorrect task**

Comment: by 31627

> *The depicted taks in the model is incorrect. Desription of changes to be applied to the task are eventually given.*

10:10 Ik twijfel over deze serie blokken. 1 Informeer product owner over kop…… (4:1 [4:143]) - D 10: Report A [redacted]

Ik twijfel over deze serie blokken. 1 Informeer product owner over koppelingen 2 Vraag dossiers op bij klant (wat bedoel je hier precies mee?)

1 Codes:

- **Unclear modelling**

Comment: by 31627

> *The partecipant doesn't understand a particular modelled aspect. This misunderstaning is either expressed by the respons or assumptions/assertions are made incorrectly about a modelled aspect.*

10:11 Ja (4:500 [4:501]) - D 10: Report A [redacted]

Ja

1 Codes:

- **Confirm artefact**

Comment: by 31627

> *Modelled artefact is correct, no changes needed*

10:12 Ja (4:622 [4:623]) - D 10: Report A [redacted]

Ja

1 Codes:

○ **Confirm control flow**

Comment: by 31627

> *The depicted control flow is correct, no changes are needed.*

10:13 Ja (4:686 [4:687]) - D 10: Report A [redacted]

Ja

1 Codes:

○ **Confirm interaction**

Comment: by 31627

> *The message flow displayed in the model is correct. There is no need for changes.*

10:14 Ja (4:789 [4:790]) - D 10: Report A [redacted]

[redacted]

1 Codes:

○ **Confirm joint/split**

Comment: by 31627

> *Split/join modelled is correct, no changes are needed.*

10:15 Ja (4:923 [4:924]) - D 10: Report A [redacted]

Ja

1 Codes:

○ **Confirm event**

Comment: by 31627

> *The modelled element is correct, no changes are needed here.*

10:16 Nee (5:73 [5:75]) - D 10: Report A [redacted]

Nee

1 Codes:

○ **No missing events**

Comment: by 31627

> *The events modelled are complete, no addition of any other event elements is required.*

10:17 Nee (5:151 [5:153]) - D 10: Report A [redacted]

Nee

1 Codes:

- **No missing events**

Comment: by 31627

> *The events modelled are complete, no addition of any other event elements is required.*

10:18 Nee (5:305 [5:307]) - D 10: Report A [redacted]

Nee

1 Codes:

- **No missing tasks**

Comment: by 31627

> *The tasks depicted in the model are complete, addition of tasks is not required.*

10:19 Nee (5:410 [5:412]) - D 10: Report A [redacted]

Nee

1 Codes:

- **No missing join/split**

Comment: by 31627

> *The join/split nodes depicted in the model are correct and complete. No additions are needed.*

10:20 Nee (5:579 [5:581]) - D 10: Report A [redacted]

Nee

1 Codes:

- **No missing artefacts**

Comment: by 31627

> *The artefacts depicted in the model are correct and complete, additions are not required.*

10:21 Nee (6:1 [6:3]) - D 10: Report A [redacted]

Nee

1 Codes:

- **No missing business actors**

  Comment: by 31627
  > *The business actors (lanes) depicted in the model are correcta and complete. No additions are required.*

10:22 Nee (6:69 [6:71]) - D 10: Report A [redacted]

Nee

1 Codes:

- **Blank**

  Comment: by 31627
  > *No comments given.*

10:23 Nee (11:1022 [11:1024]) - D 10: Report A [redacted]

Nee

1 Codes:

- **Blank**

  Comment: by 31627
  > *No comments given.*

10:25 Het is een heel uitgebreid dossier geworden waarin je heel structureel…… (11:1152 [11:1267]) - D 10: Report A [redacted]

Het is een heel uitgebreid dossier geworden waarin je heel structureel uitvraagt wat de juiste processen moeten zijn

1 Codes:

- **Other**

10:26 Het ziet er heel erg compleet uit (12:1 [12:33]) - D 10: Report A [redacted]

Het ziet er heel erg compleet uit

1 Codes:

- **Positive feedback**

  Comment: by 31627
  > *General positive feedback about the model/questionnaire.*

10:28 Hopelijk kun jij verder bouwen op basis van alle input! (12:107 [12:164]) - D 10: Report A [redacted]

Hopelijk kun jij verder bouwen op basis van alle input!

1 Codes:

○ **Other**

Report for Query: Feedback BPMN models

Scope: Productspecialists Puur
(67) quotations

3:11 (verwerk wens van klant) : ja (3:1996 [3:2024]) - D 3: Respons PS [redacted]

(verwerk wens van klant) : ja

1 Codes:

○ **Confirm event**

Comment: by 31627
> *The modelled element is correct, no changes are needed here.*

3:12 Bespreek vraag met klantenteams: Nee, de PS moet altijd de vraag beant…… (3:2026 [3:2185]) - D 3: Respons PS [redacted]

Bespreek vraag met klantenteams: Nee, de PS moet altijd de vraag beantwoorden, ook al is het antwoord dat een adviseur of iemand anders contact met ze opneemt.

1 Codes:

○ **Incorrect control flow**

Comment: by 31627
> *The control flow displayed in the model is not correct: a description of the right control flow with eventually additional description of tasks/events/split/joins is given.*

3:13 Bijwonen releasemeeting: Ja (3:2187 [3:2213]) - D 3: Respons PS [redacted]

Bijwonen releasemeeting: Ja

1 Codes:

○ **Confirm event**

Comment: by 31627
> *The modelled element is correct, no changes are needed here.*

3:14 Informeer andere partijen: Ja (3:2215 [3:2244]) - D 3: Respons PS [redacted]

Informeer andere partijen: Ja

1 Codes:

○ **Confirm event**

Comment: by 31627

> *The modelled element is correct, no changes are needed here.*

3:15 Meld bug: Nee, het eindigt wanneer je daadwerkelijke terugkoppeling h…… (3:2245 [3:2345]) - D 3: Respons PS [redacted]

Meld bug: Nee, het eindigt wanneer je daadwerkelijke terugkoppeling hebt gegeven over de oplossing.

1 Codes:

○ **Incorrect event**

Comment: by 31627

> *An event displayed in the model is not correct. This includes the description of the right event, eventually together with additional description of control flow/tasks/joints/splits.*

3:16 Support: Ja (3:2424 [3:2435]) - D 3: Respons PS [redacted]

Support: Ja

1 Codes:

○ **Confirm event**

Comment: by 31627

> *The modelled element is correct, no changes are needed here.*

3:17 (verwerk wens van klant): Denk het niet. Het is niet alleen "Geef wens…… (4:1 [4:287]) - D 3: Respons PS [redacted]

(verwerk wens van klant): Denk het niet. Het is niet alleen "Geef wensen door aan PO" en dat de PO dan beslist of het gaat gebeuren, maar als PS heb je daar ook invloed op. Als je echt denk dat dit toegevoegd moet worden dan is het niet iets wat de PO zomaar naast zich neer kan leggen

3 Codes:

○ **Incorrect control flow**

Comment: by 31627

> *The control flow displayed in the model is not correct: a description of the right control flow with eventually additional description of tasks/events/split/joins is given.*

○ **Missing joint/split**

Comment: by 31627

> *A joint/split point representing a condition/decision point in the process is missing in the model. Description of the element together with its position in the control flow is given.*

- **Missing task**

Comment: by 31627

> *An important task is missing in the model. Description of the task together with its position in the control flow is given.*

3:18 Nee, een vraag die besproken wordt in de bredere context van het klant…… (4:321 [4:520]) - D 3: Respons PS [redacted]

Nee, een vraag die besproken wordt in de bredere context van het klantenteam heeft lang niet altijd te maken met vragen over training. Dit kan echt over alles wat binnen een organisatie speelt zijn

1 Codes:

- **Missing control flow**

Comment: by 31627

> *A flow pattern is missing. Description of the flow, including tasks/elements/joints/splits is eventually given.*

3:19 Bijwonen releasemeeting: Ik ga er vanuit dat de informatie over de rel…… (4:521 [4:887]) - D 3: Respons PS [redacted]

Bijwonen releasemeeting: Ik ga er vanuit dat de informatie over de release al besproken is met de PS behorende bij dat team. En dat als de klant al eerder ingelicht had moeten worden dit ook al gedaan is. Is dit niet het geval dan kan de PS tijdens de releasemeeting bespreken en besluiten dat een release niet door kan gaan omdat de klant niet op tijd is ingelicht

1 Codes:

- **Missing control flow**

Comment: by 31627

> *A flow pattern is missing. Description of the flow, including tasks/elements/joints/splits is eventually given.*

3:20 Informeer andere partijen: Nee, wanneer er voorkombare vagen zijn ove…… (4:889 [4:1075]) - D 3: Respons PS [redacted]

Informeer andere partijen: Nee, wanneer er voorkombare vagen zijn over software betekent het niet dat het aan de klant ligt, het kan ook dat er een aanpassing moet komen in de software.

1 Codes:

- **Missing control flow**

Comment: by 31627

> *A flow pattern is missing. Description of the flow, including tasks/elements/joints/splits is eventually given.*

3:21 aarnaast is 'documenteer bezoek' niet perse een gevolg van de acties d…… (4:1078 [4:1180]) - D 3: Respons PS [redacted]

aarnaast is 'documenteer bezoek' niet perse een gevolg van de acties die daarvoor hebben plaatsgevonden

1 Codes:

- **Remove task**

Comment: by 31627
> *Task is either incorrect or not important*

3:22 Meld bug: Nee, je moet zelf eerst nog onderzoeken of het echt een bug…… (4:1182 [4:1342]) - D 3: Respons PS [redacted]

Meld bug: Nee, je moet zelf eerst nog onderzoeken of het echt een bug is wat de klant meldt. En of je genoeg informatie hebt om het door te zetten naar de de PO

1 Codes:

- **Missing control flow**

Comment: by 31627
> *A flow pattern is missing. Description of the flow, including tasks/elements/joints/splits is eventually given.*

3:23 Het kan inderdaad ook later, wanneer het ontwikkelteam er naar heeft…… (4:1345 [4:1455]) - D 3: Respons PS [redacted]

Het kan inderdaad ook later, wanneer het ontwikkelteam er naar heeft gekeken, dat er meer informatie nodig is.

1 Codes:

- **Confirm task**

Comment: by 31627
> *The denoted task is correct, no need for adjsutments*

3:24 Support: Nee, wanneer een vraag voorkomen had kunnen worden is het ni…… (4:1457 [4:1597]) - D 3: Respons PS [redacted]

Support: Nee, wanneer een vraag voorkomen had kunnen worden is het niet perse iets wat bij de klant ligt maar dit kan ook in software liggen

1 Codes:

○ **Missing control flow**

Comment: by 31627

> *A flow pattern is missing. Description of the flow, including tasks/elements/joints/splits is eventually given.*

3:25 ja, wanneer de informatie die uiteindelijk van PS naar klant gaat niet…… (4:1719 [4:1863]) - D 3: Respons PS [redacted]

ja, wanneer de informatie die uiteindelijk van PS naar klant gaat niet in een data object gezet hoeft te worden Bespreek vraag met klantenteams:

1 Codes:

○ **Confirm artefact**

Comment: by 31627

> *Modelled artefact is correct, no changes needed*

3:26 Ja, als je dit data object breed mag opvatten wel (4:1864 [4:1913]) - D 3: Respons PS [redacted]

Ja, als je dit data object breed mag opvatten wel

1 Codes:

○ **Confirm artefact**

Comment: by 31627

> *Modelled artefact is correct, no changes needed*

3:27 Bijwonen releasemeeting: Ja (4:1914 [4:1941]) - D 3: Respons PS [redacted]

Bijwonen releasemeeting: Ja

1 Codes:

○ **Confirm artefact**

Comment: by 31627

> *Modelled artefact is correct, no changes needed*

3:28 Informeer andere partijen: Ja (4:1942 [4:1970]) - D 3: Respons PS [redacted]

Informeer andere partijen: Ja

1 Codes:

○ **Confirm artefact**

Comment: by 31627

> *Modelled artefact is correct, no changes needed*

3:29 Meld bug: Ja (4:1972 [4:1983]) - D 3: Respons PS [redacted]

Meld bug: Ja

1 Codes:

- **Confirm artefact**

Comment: by 31627

> *Modelled artefact is correct, no changes needed*

3:30 Support: Ja (4:1985 [4:1995]) - D 3: Respons PS [redacted]

Support: Ja

1 Codes:

- **Confirm artefact**

Comment: by 31627

> *Modelled artefact is correct, no changes needed*

3:31 (verwerk wens van klant) : Behalve dat ik mis dat er meer communicatie…… (4:2116 [4:2490]) - D 3: Respons PS [redacted]

(verwerk wens van klant) : Behalve dat ik mis dat er meer communicatie is tussen PS en PO wel. Zoals ik hierboven aangaf is het niet iets wat de PO na het krijgen van de informatie zelf moet beslissen, hier is juist de PS voor. Dit geldt ook voor het punt dat wanneer de informatie is teruggekoppeld aan de PS, dat de PS dit niet perse klakkeloos terugkoppelt aan de klant

2 Codes:

- **Incorrect control flow**

Comment: by 31627

> *The control flow displayed in the model is not correct: a description of the right control flow with eventually additional description of tasks/events/split/joins is given.*

- **Missing control flow**

Comment: by 31627

> *A flow pattern is missing. Description of the flow, including tasks/elements/joints/splits is eventually given.*

3:32 Bespreek vraag met klantenteams: Nee, een PS moet dus altijd de vraag…… (4:2491 [4:2574]) - D 3: Respons PS [redacted]

Bespreek vraag met klantenteams: Nee, een PS moet dus altijd de vraag beantwoorden.

2 Codes:

- **Incorrect control flow**

Comment: by 31627

> *The control flow displayed in the model is not correct: a description of the right control flow with eventually additional description of tasks/events/split/joins is given.*

- **Missing control flow**

Comment: by 31627

> *A flow pattern is missing. Description of the flow, including tasks/elements/joints/splits is eventually given.*

3:33 Daarnaast gaat het dus niet alleen maar over het feit of er een traini…… (4:2576 [4:2667]) - D 3: Respons PS [redacted]

Daarnaast gaat het dus niet alleen maar over het feit of er een training gegeven moet worden

2 Codes:

- **Incorrect control flow**

Comment: by 31627

> *The control flow displayed in the model is not correct: a description of the right control flow with eventually additional description of tasks/events/split/joins is given.*

- **Missing control flow**

Comment: by 31627

> *A flow pattern is missing. Description of the flow, including tasks/elements/joints/splits is eventually given.*

3:34 en dat er soms extra informatie nodig is van een klant om de vraag ach…… (4:2923 [4:3022]) - D 3: Respons PS [redacted]

en dat er soms extra informatie nodig is van een klant om de vraag achter de vraag beter te snappen

1 Codes:

- **Missing control flow**

Comment: by 31627

> *A flow pattern is missing. Description of the flow, including tasks/elements/joints/splits is eventually given.*

3:35 Bijwonen releasemeeting: In het meest gunstige scenario wel (4:3024 [4:3082]) - D 3: Respons PS [redacted]

Bijwonen releasemeeting: In het meest gunstige scenario wel

1 Codes:

- **Confirm control flow**

Comment: by 31627

> *The depicted control flow is correct, no changes are needed.*

3:36 Er missen wat kleine dingen omtrent het zelf uitzoeken van het problee…… (4:3179 [4:3331]) - D 3: Respons PS [redacted]

Er missen wat kleine dingen omtrent het zelf uitzoeken van het probleem, eventueel meer informatie vragen voordat je het doorzet naar het ontwikkelteam

1 Codes:

- **Missing control flow**

Comment: by 31627

> *A flow pattern is missing. Description of the flow, including tasks/elements/joints/splits is eventually given.*

3:37 upport: Hier komt alles samen van de vorige flows, dus alles wat daar…… (4:3333 [4:3437]) - D 3: Respons PS [redacted]

upport: Hier komt alles samen van de vorige flows, dus alles wat daar nog niet volledig is, mist hier ook

1 Codes:

- **Missing control flow**

Comment: by 31627

> *A flow pattern is missing. Description of the flow, including tasks/elements/joints/splits is eventually given.*

3:38 (verwerk wens van klant) : Ja (4:3500 [4:3528]) - D 3: Respons PS [redacted]

(verwerk wens van klant) : Ja

1 Codes:

- **Confirm interaction**

Comment: by 31627

> *The message flow displayed in the model is correct. There is no need for changes.*

3:39 Ik snap alleen de message flow van de klant naar ''Verantwoordelijke m…… (4:3563 [4:3758]) - D 3: Respons PS [redacted]

Ik snap alleen de message flow van de klant naar ''Verantwoordelijke maakt afspraak met klant'' niet. Het lijkt mij dat dat een actie vanuit het klantteam naar de klant is en niet vanuit de klant

1 Codes:

- **Incorrect interaction**

Comment: by 31627

> *The depicted message flow in the model is not correct. Description of how the interaction should be modelled is eventually given.*

3:40 Bijwonen releasemeeting: Ja (4:3760 [4:3786]) - D 3: Respons PS [redacted]

Bijwonen releasemeeting: Ja

1 Codes:

- **Confirm interaction**

Comment: by 31627

> *The message flow displayed in the model is correct. There is no need for changes.*

3:41 Informeer andere partijen: Ja (4:3788 [4:3818]) - D 3: Respons PS [redacted]

Informeer andere partijen: Ja

1 Codes:

- **Confirm interaction**

Comment: by 31627

> *The message flow displayed in the model is correct. There is no need for changes.*

3:42 Meld bug: ja (4:3819 [4:3830]) - D 3: Respons PS [redacted]

Meld bug: ja

1 Codes:

- **Confirm interaction**

Comment: by 31627

> *The message flow displayed in the model is correct. There is no need for changes.*

3:43 Support: ja (4:3832 [4:3842]) - D 3: Respons PS [redacted]

Support: ja

1 Codes:

- **Confirm interaction**

Comment: by 31627

> *The message flow displayed in the model is correct. There is no need for changes.*

3:44 (verwerk wens van klant) : Ik mis dus het knooppunt dat wanneer een PO…… (4:3944 [4:4180]) - D 3: Respons PS [redacted]

(verwerk wens van klant) : Ik mis dus het knooppunt dat wanneer een PO beslist het niet op te pakken terwijl een PS vanuit klanten de urgentie hoog heeft, dat dit niet perse betekent dat de PS de info van de PO terugkoppelt aan de klant

1 Codes:

- **Missing joint/split**

  Comment: by 31627
  > *A joint/split point representing a condition/decision point in the process is missing in the model. Description of the element together with its position in the control flow is given.*

3:45 Bespreek vraag met klantenteams: Nee, zie hierboven beschreven (4:4182 [4:4244]) - D 3: Respons PS [redacted]

Bespreek vraag met klantenteams: Nee, zie hierboven beschreven

1 Codes:

- **Missing joint/split**

  Comment: by 31627
  > *A joint/split point representing a condition/decision point in the process is missing in the model. Description of the element together with its position in the control flow is given.*

3:46 Bijwonen releasemeeting: niet aanwezig. (4:4246 [4:4284]) - D 3: Respons PS [redacted]

Bijwonen releasemeeting: niet aanwezig.

1 Codes:

- **Other**

3:47 Informeer andere partijen: Ja (4:4286 [4:4315]) - D 3: Respons PS [redacted]

Informeer andere partijen: Ja

1 Codes:

- **Confirm joint/split**

  Comment: by 31627
  > *Split/join modelled is correct, no changes are needed.*

3:48 Meld bug: ja (met uitzondering van de missende delen) (4:4316 [4:4368]) - D 3: Respons PS [redacted]

Meld bug: ja (met uitzondering van de missende delen)

2 Codes:

○ **Confirm joint/split**

Comment: by 31627
> *Split/join modelled is correct, no changes are needed.*

○ **Missing joint/split**

Comment: by 31627
> *A joint/split point representing a condition/decision point in the process is missing in the model. Description of the element together with its position in the control flow is given.*

3:49 Support: Ja (met uitzondering van de missende delen) (4:4370 [4:4422]) - D 3: Respons PS [redacted]

Support: Ja (met uitzondering van de missende delen)

2 Codes:

○ **Confirm joint/split**

Comment: by 31627
> *Split/join modelled is correct, no changes are needed.*

○ **Missing joint/split**

Comment: by 31627
> *A joint/split point representing a condition/decision point in the process is missing in the model. Description of the element together with its position in the control flow is given.*

3:50 verwerk wens van klant) : Ja (5:2 [5:29]) - D 3: Respons PS [redacted]

verwerk wens van klant) : Ja

1 Codes:

○ **Confirm event**

Comment: by 31627
> *The modelled element is correct, no changes are needed here.*

3:51 Bespreek vraag met klantenteams: Ja (5:31 [5:66]) - D 3: Respons PS [redacted]

Bespreek vraag met klantenteams: Ja

1 Codes:

○ **Confirm event**

Comment: by 31627
> *The modelled element is correct, no changes are needed here.*

3:52 Bijwonen releasemeeting: Ja (5:67 [5:93]) - D 3: Respons PS [redacted]

Bijwonen releasemeeting: Ja

1 Codes:

○ **Confirm event**

Comment: by 31627
> *The modelled element is correct, no changes are needed here.*

3:53 Informeer andere partijen: Nee. Ik denk niet dat de meeting met het k…… (5:94 [5:310]) - D 3: Respons PS [redacted]

Informeer andere partijen: Nee. Ik denk niet dat de meeting met het klantteam de trigger is om informatie te delen over een klant. Je signaleert natuurlijk al eerder dingen die je binnen het klantteam wil bespreken

1 Codes:

○ **Incorrect event**

Comment: by 31627
> *An event displayed in the model is not correct. This includes the description of the right event, eventually together with additional description of control flow/tasks/joints/splits.*

3:54 Support : Ja (5:312 [5:323]) - D 3: Respons PS [redacted]

Support : Ja

1 Codes:

○ **Confirm event**

Comment: by 31627
> *The modelled element is correct, no changes are needed here.*

3:55 Meld bug: ja (5:325 [5:336]) - D 3: Respons PS [redacted]

Meld bug: ja

1 Codes:

○ **Confirm event**

Comment: by 31627
> *The modelled element is correct, no changes are needed here.*

3:56 Ja, in sommige modellen mist de ontwikkelorganisatie (6:85 [6:136]) - D 3: Respons PS [redacted]

Ja, in sommige modellen mist de ontwikkelorganisatie

1 Codes:

○ **Missing business actor**

Comment: by 31627

> *A business actor is missing in the model (lane). Description of the actor and the process are eventually given.*

3:57 Als ik het model support zo zie, dan is een product specialist binnen…… (6:202 [6:387]) - D 3: Respons PS [redacted]

Als ik het model support zo zie, dan is een product specialist binnen een klantteam veel meer dan alleen support. De rol van een product specialist zit ook in een stuk accountmanagement

1 Codes:

○ **General feedback**

Comment: by 31627

> *General feedback on the model. Suggestions for improvement are eventually given.*

4:10 Het model is duidelijk en geeft de processen in zijn algemeenheid goed…… (3:56 [3:132]) - D 4: Respons PS [redacted]

Het model is duidelijk en geeft de processen in zijn algemeenheid goed weer.

1 Codes:

○ **Positive feedback**

Comment: by 31627

> *General positive feedback about the model/questionnaire.*

4:11 Misschien dat het onderdeel "PO informeert over nieuwe functionaliteit…… (3:2209 [3:2466]) - D 4: Respons PS [redacted]

Misschien dat het onderdeel "PO informeert over nieuwe functionaliteiten --> informeer klant --> stop" aangevuld kan worden met het informeren van het klantteam over belangrijke aanpassingen, maar ik weet niet of dat past binnen dit specifieke proces.

1 Codes:

○ **Missing task**

Comment: by 31627

> *An important task is missing in the model. Description of the task together with its position in the control flow is given.*

4:12 Verders klopt het! (3:2468 [3:2485]) - D 4: Respons PS [redacted]

Verders klopt het!

1 Codes:

○ **Confirm event**

Comment: by 31627

> *The modelled element is correct, no changes are needed here.*

4:13 Ja, de activiteiten kloppen zoals ze zijn weergegeven. (4:1 [4:56]) - D 4: Respons PS [redacted]

Ja, de activiteiten kloppen zoals ze zijn weergegeven.

1 Codes:

○ **Confirm task**

Comment: by 31627

> *The denoted task is correct, no need for adjsutments*

4:14 Misschien dat er een data object toegevoegd kan worden bij klantmeetin…… (4:149 [4:338]) - D 4: Respons [redacted]

Misschien dat er een data object toegevoegd kan worden bij klantmeetingen. Na elke meeting wordt er namelijk een verslag van gemaakt. Deze wordt met de klant en binnen het klantteam gedeeld

1 Codes:

○ **Missing artefact**

Comment: by 31627

> *An artefact in the form of data, information, documents etc. needs to be added to the model. Descritpion of the artefact and where to be positioned are eventually described.*

4:15 Dit geld ook voor de releasenotes, deze worden na een releasemeeting m…… (4:341 [4:442]) - D 4: Respons PS [redacted]

Dit geld ook voor de releasenotes, deze worden na een releasemeeting met de klant en intern gedeeld.

1 Codes:

○ **Missing artefact**

Comment: by 31627

> *An artefact in the form of data, information, documents etc. needs to be added to the model. Descritpion of the artefact and where to be positioned are eventually described.*

4:16 . Een aanvulling kan zijn dat bugs of wensen meestal ook besproken wor…… (4:607 [4:867]) - D 4: Respons PS [redacted]

. Een aanvulling kan zijn dat bugs of wensen meestal ook besproken worden met een product owner.

Omdat sommige bugs dan direct opgelost kunnen worden, of dat wensen eigenlijk bij de bron al worden 'afgekapt' omdat dit niet met de visie van Puur overeenkomt.

1 Codes:

- **Missing control flow**

Comment: by 31627

> *A flow pattern is missing. Description of the flow, including tasks/elements/joints/splits is eventually given.*

4:17 Bij een klantenmeeting kan er eventueel een message flow naar de klant…… (4:975 [4:1073]) - D 4: Respons PS [redacted]

Bij een klantenmeeting kan er eventueel een message flow naar de klant toe bij 'informeer partijen'

1 Codes:

- **Missing interaction**

Comment: by 31627

> *Message flows between business actors are missing in the model. Descriptions of the interactions and their positioning in the model are eventually given.*

4:18 De message flows zoals ze er in staan kloppen. (4:928 [4:974]) - D 4: Respons PS [redacted]

De message flows zoals ze er in staan kloppen.

1 Codes:

- **Confirm interaction**

Comment: by 31627

> *The message flow displayed in the model is correct. There is no need for changes.*

4:19 De sequence flows zoals ze er in staan kloppen. (4:561 [4:608]) - D 4: Respons PS [redacted]

De sequence flows zoals ze er in staan kloppen.

1 Codes:

- **Confirm control flow**

Comment: by 31627

> *The depicted control flow is correct, no changes are needed.*

4:20 de knooppunten kloppen. (4:1176 [4:1198]) - D 4: Respons PS [redacted]

de knooppunten kloppen.

1 Codes:

○ **Confirm joint/split**

Comment: by 31627
> *Split/join modelled is correct, no changes are needed.*

4:21 een extra knooppunt kan eventueel toegevoegd worden bij het informeren…… (4:1199 [4:1441]) - D 4: Respons PS [redacted]

een extra knooppunt kan eventueel toegevoegd worden bij het informeren van klanten over nieuwe functionaliteiten. De overweging die hier wordt gemaakt is wat intern moet blijven, en wat extern mag worden uitgebracht wat informatie betreft.

1 Codes:

○ **Missing joint/split**

Comment: by 31627
> *A joint/split point representing a condition/decision point in the process is missing in the model. Description of the element together with its position in the control flow is given.*

4:22 De startevenementen kloppen (4:1572 [4:1598]) - D 4: Respons PS [redacted]

De startevenementen kloppen

1 Codes:

○ **Confirm event**

Comment: by 31627
> *The modelled element is correct, no changes are needed here.*

4:23 Een startevenement kan zijn dat er een storing is, in dat geval wordt…… (5:176 [5:490]) - D 4: Respons PS [redacted]

Een startevenement kan zijn dat er een storing is, in dat geval wordt dit door de klant gemeld, of opgemerkt door een medewerker van Ecare. Hier wordt zo snel mogelijk met het ontwikkelteam geschakeld om de storing te verhelpen. Met continue terugkoppeling van de status van de storing aan klanten en collega's.

1 Codes:

○ **Missing event**

Comment: by 31627
> *An event in the process is missing. Description of the event and its control flow are eventually given.*

4:24 Niet voor zover ik kan zien. (5:640 [5:669]) - D 4: Respons PS [redacted]

Niet voor zover ik kan zien.

1 Codes:

- **Confirm task**

Comment: by 31627

> *The denoted task is correct, no need for adjsutments*

4:25 Wat ik eerder al aangaf, het knooppunt wens/bug en de actie dat dit me…… (5:770 [5:888]) - D 4: Respons PS [redacted]

Wat ik eerder al aangaf, het knooppunt wens/bug en de actie dat dit met product owners/ontwikkelaars wordt besproken.

1 Codes:

- **Missing joint/split**

Comment: by 31627

> *A joint/split point representing a condition/decision point in the process is missing in the model. Description of the element together with its position in the control flow is given.*

4:26 Wat ik eerder al aangaf, de releasenotes na een releasemeeting, en een…… (5:1053 [5:1159]) - D 4: Respons PS [redacted]

Wat ik eerder al aangaf, de releasenotes na een releasemeeting, en een bezoekverslag na een klantmeeting.

1 Codes:

- **Missing artefact**

Comment: by 31627

> *An artefact in the form of data, information, documents etc. needs to be added to the model. Descritpion of the artefact and where to be positioned are eventually described.*

4:27 een toevoeging kan de lane 'klantteam' zijn, omdat er ook informatie o…… (6:1 [6:230]) - D 4: Respons PS [redacted]

een toevoeging kan de lane 'klantteam' zijn, omdat er ook informatie over klanten/bugs/wensen wordt gedeeld binnen het klantteam. Ik weet niet of dit echt een toevoeging is aan het bestaande model, maar dit schoot me te binnen.

1 Codes:

- **Missing business actor**

Comment: by 31627

> *A business actor is missing in the model (lane). Description of the actor and the process are eventually given.*

4:28 Ze geven een duidelijk overzicht van hoe de processen lopen, (11:1565 [11:1624]) - D 4: Respons PS [redacted]

Ze geven een duidelijk overzicht van hoe de processen lopen,

1 Codes:

○ **Positive feedback**

Comment: by 31627
> *General positive feedback about the model/questionnaire.*

4:31 Het model geeft goed en gedetailleerd weer hoe het proces binnen PUUR……. (2:580 [2:657]) - D 4: Respons PS [redacted]

Het model geeft goed en gedetailleerd weer hoe het proces binnen PUUR. werkt.

1 Codes:

○ **Positive feedback**

Comment: by 31627
> *General positive feedback about the model/questionnaire.*

Report for Query: Feedback BPMN models

Scope: Advisors Plein
(59) quotations

1:3 Het proces landschap Plein ziet er goed uit! Het klopt in mijn optiek…… (2:571 [2:669]) - D 1: Respons [redacted]

Het proces landschap Plein ziet er goed uit! Het klopt in mijn optiek ook goed met de werkelijkheid

1 Codes:

○ **Confirm model**

Comment: by 31627
> *The respondent confirms the model is correct and complete. No changes are needed.*

1:5 Het ziet er zeer netjes en goed uit! Knap gedaan! (3:56 [3:106]) - D 1: Respons [redacted]

Het ziet er zeer netjes en goed uit! Knap gedaan!

1 Codes:

○ **Positive feedback**

Comment: by 31627
> *General positive feedback about the model/questionnaire.*

1:6 Ja deze kloppen wel. (3:2047 [3:2066]) - D 1: Respons [redacted]

Ja deze kloppen wel.

1 Codes:

- **Confirm event**

  Comment: by 31627
  > *The modelled element is correct, no changes are needed here.*

1:7 Ik zie een aantal keren terug komen dat de applicaties worden overgeze…… (4:1 [4:445]) - D 1: Respons [redacted]

Ik zie een aantal keren terug komen dat de applicaties worden overgezet naar Google. Dit ligt ietsjes anders. De data en mail worden gemigreerd naar Google. Bij de applicaties wordt er gekeken of deze ook in de cloud(nieuwe omgeving) werken. Hierbij is het niet zo dat deze overgezet kan worden.

Mocht het voorkomen dat een applicatie niet in de cloud werkt zal daar een andere oplossing voor gevonden moeten worden. Het is een klein puntje.

2 Codes:

- **Incorrect task**

  Comment: by 31627
  > *The depicted taks in the model is incorrect. Desription of changes to be applied to the task are eventually given.*

- **Missing control flow**

  Comment: by 31627
  > *A flow pattern is missing. Description of the flow, including tasks/elements/joints/splits is eventually given.*

1:8 Alleen een opmerking bij Inrichting van Google. Los van de migratie va…… (4:568 [4:903]) - D 1: Respons [redacted]

Alleen een opmerking bij Inrichting van Google. Los van de migratie van de mail en data zijn er heel veel instellingen waar met de klant over gesproken wordt. Een klant kan zelf bepalen welke services en functies beschikbaar zijn voor gebruikers binnen de organisatie. Hier zou ik nog een extra data object aan het proces toevoegen.

1 Codes:

- **Missing artefact**

  Comment: by 31627
  > *An artefact in the form of data, information, documents etc. needs to be added to the model. Descritpion of the artefact and where to be positioned are eventually described.*

1:9 Ook daarbij alleen een opmerking bij Inrichting Google. Hierbij staat…… (4:1022 [4:1367]) - D 1: Respons [redacted]

Ook daarbij alleen een opmerking bij Inrichting Google. Hierbij staat dat dat de TC de formulieren voor de mail en data migratie opstuurt en ontvangt. Dit uitvragen is meer de rol van de adviseur. Het zou mooi zijn als de adviseur alle informatie ophaalt bij de klant en deze doorspeelt naar de TC zodat deze de inrichting verder kan afmaken.

2 Codes:

- **Incorrect business actor**

  Comment: by 31627
  > *The set of tasks modelled are performed by a different business actor than the one depicted in the model (lane). A description of who executes the tasks and who is additionally involved is eventually given.*

- **Incorrect control flow**

  Comment: by 31627
  > *The control flow displayed in the model is not correct: a description of the right control flow with eventually additional description of tasks/events/split/joins is given.*

1:10 Ja (4:1428 [4:1429]) - D 1: Respons [redacted]

Ja

1 Codes:

- **Confirm interaction**

  Comment: by 31627
  > *The message flow displayed in the model is correct. There is no need for changes.*

1:11 Ja (4:1531 [4:1532]) - D 1: Respons [redacted]

Ja

1 Codes:

- **Confirm joint/split**

  Comment: by 31627
  > *Split/join modelled is correct, no changes are needed.*

1:12 Inrichting van Google: Plein is dan nog niet gereed. Plein wordt gevul…… (4:1665 [4:1847]) - D 1: Respons [redacted]

Inrichting van Google: Plein is dan nog niet gereed. Plein wordt gevuld op basis van de inrichting in Google. Dus als startevenement bij de inrichting van Google zou ik die weghalen.

1 Codes:

○ **Incorrect event**

Comment: by 31627

> *An event displayed in the model is not correct. This includes the description of the right event, eventually together with additional description of control flow/tasks/joints/splits.*

1:13 Verder ziet alles er strak uit! (4:1849 [4:1879]) - D 1: Respons [redacted]

Verder ziet alles er strak uit!

1 Codes:

○ **Confirm event**

Comment: by 31627

> *The modelled element is correct, no changes are needed here.*

1:14 Verder ziet het er goed uit! (4:446 [4:474]) - D 1: Respons [redacted]

Verder ziet het er goed uit!

1 Codes:

○ **Confirm task**

Comment: by 31627

> *The denoted task is correct, no need for adjsutments*

1:15 Hardware uitgerold. Na de inventarisatie wordt alle hardware besteld e…… (5:73 [5:243]) - D 1: Respons [redacted]

Hardware uitgerold. Na de inventarisatie wordt alle hardware besteld en gereed gemaakt. Ik mis alleen een eindevenement dat alle hardware ook bij de juiste personen is.

1 Codes:

○ **Missing event**

Comment: by 31627

> *An event in the process is missing. Description of the event and its control flow are eventually given.*

1:16 Complementair aan het eindevenement zie ik ook geen startevenement dat…… (5:317 [5:416]) - D 1: Respons [redacted]

Complementair aan het eindevenement zie ik ook geen startevenement dat de hardware wordt uitgeleverd

1 Codes:

○ **Missing event**

Comment: by 31627

> *An event in the process is missing. Description of the event and its control flow are eventually given.*

1:17 Inrichting Mobile device management. Los van de inrichting van Google…… (5:569 [5:805]) - D 1: Respons [redacted]

Inrichting Mobile device management. Los van de inrichting van Google heb je ook nog de inrichting van het MDM. Zo kunnen de policies en rechten ingesteld worden op de nieuwe devices. Ook dit hangt nauw samen met de 2 punten hierboven.

2 Codes:

- **Missing control flow**

  Comment: by 31627

  > *A flow pattern is missing. Description of the flow, including tasks/elements/joints/splits is eventually given.*

- **Missing task**

  Comment: by 31627

  > *An important task is missing in the model. Description of the task together with its position in the control flow is given.*

1:18 Nee verder zie ik geen knooppunten die ontbreken (5:907 [5:954]) - D 1: Respons [redacted]

Nee verder zie ik geen knooppunten die ontbreken

1 Codes:

- **No missing join/split**

  Comment: by 31627

  > *The join/split nodes depicted in the model are correct and complete. No additions are needed.*

1:19 Informatie over de inrichting van Google (Instellingen, policies, rech…… (5:1121 [5:1242]) - D 1: Respons [redacted]

Informatie over de inrichting van Google (Instellingen, policies, rechten). Deze is los van de te migreren data en mail.

1 Codes:

- **Missing artefact**

  Comment: by 31627

  > *An artefact in the form of data, information, documents etc. needs to be added to the model. Descritpion of the artefact and where to be positioned are eventually described.*

1:20 Nee (6:1 [6:3]) - D 1: Respons [redacted]

[redacted]

1 Codes:

- **No missing business actors**

  Comment: by 31627
  > *The business actors (lanes) depicted in the model are correcta and complete. No additions are required.*

1:21 Verder geen aanvulling. Los van de punten hierboven. (6:69 [6:122]) - D 1: Respons [redacted]

Verder geen aanvulling. Los van de punten hierboven.

1 Codes:

- **Blank**

  Comment: by 31627
  > *No comments given.*

1:22 Zien er mooi en overzichtelijk uit. (11:1022 [11:1056]) - D 1: Respons [redacted]

Zien er mooi en overzichtelijk uit.

1 Codes:

- **Positive feedback**

  Comment: by 31627
  > *General positive feedback about the model/questionnaire.*

1:24 Nee (11:1311 [11:1313]) - D 1: Respons [redacted]

Nee

1 Codes:

- **Blank**

  Comment: by 31627
  > *No comments given.*

1:25 Nee (12:1 [12:3]) - D 1: Respons [redacted]

Nee

1 Codes:

○ **Blank**

Comment: by 31627
> *No comments given.*

7:5 Een input kan ook al Google zijn. Overgaan naar Google daarbij komen L…… (2:761 [2:914]) - D 7: Respons [redacted]

Een input kan ook al Google zijn. Overgaan naar Google daarbij komen Licenties kijken en daarnaast nog de hardware. Via beide ingangen kun je binnenkomen

1 Codes:

○ **Unclear modelling**

Comment: by 31627
> *The partecipant doesn't understand a particular modelled aspect. This misunderstaning is either expressed by the respons or assumptions/assertions are made incorrectly about a modelled aspect.*

7:6 Ja volgensmij klopt het wel (3:1996 [3:2022]) - D 7: Respons [redacted]

Ja volgensmij klopt het wel

1 Codes:

○ **Confirm event**

Comment: by 31627
> *The modelled element is correct, no changes are needed here.*

7:7 Klopt voor zover. (4:1 [4:19]) - D 7: Respons [redacted]

Klopt voor zover.

1 Codes:

○ **Confirm task**

Comment: by 31627
> *The denoted task is correct, no need for adjsutments*

7:8 Ja (4:112 [4:113]) - D 7: Respons [redacted]

Ja

1 Codes:

○ **Confirm artefact**

Comment: by 31627
> *Modelled artefact is correct, no changes needed*

7:9 Ja (4:234 [4:235]) - D 7: Respons [redacted]

Ja

1 Codes:

- **Confirm control flow**

Comment: by 31627

> *The depicted control flow is correct, no changes are needed.*

7:10 Ja kan niks aanvullen (4:298 [4:318]) - D 7: Respons [redacted]

Ja kan niks aanvullen

1 Codes:

- **Confirm interaction**

Comment: by 31627

> *The message flow displayed in the model is correct. There is no need for changes.*

7:11 Ja kan niks aanvullen (4:420 [4:440]) - D 7: Respons [redacted]

Ja kan niks aanvullen

1 Codes:

- **Confirm joint/split**

Comment: by 31627

> *Split/join modelled is correct, no changes are needed.*

7:12 Ja kan niks aanvullen (4:573 [4:593]) - D 7: Respons [redacted]

Ja kan niks aanvullen

1 Codes:

- **Confirm event**

Comment: by 31627

> *The modelled element is correct, no changes are needed here.*

7:13 Nee (5:73 [5:75]) - D 7: Respons [redacted]

Nee

1 Codes:

- **No missing events**

Comment: by 31627
> *The events modelled are complete, no addition of any other event elements is required.*

7:14 Nee, alleen bij Sales kan het zijn dat een klant al binnen is maar een…… (5:151 [5:248]) - D 7: Respons [redacted]

Nee, alleen bij Sales kan het zijn dat een klant al binnen is maar een extra dienst wil afnemen.

1 Codes:

- **Missing event**

Comment: by 31627
> *An event in the process is missing. Description of the event and its control flow are eventually given.*

7:15 nee (5:398 [5:400]) - D 7: Respons [redacted]

nee

1 Codes:

- **No missing tasks**

Comment: by 31627
> *The tasks depicted in the model are complete, addition of tasks is not required.*

7:16 Volgensmij zijn mijn onderdelen van de eerste enquete ronde wel verwer…… (5:503 [5:577]) - D 7: Respons [redacted]

Volgensmij zijn mijn onderdelen van de eerste enquete ronde wel verwerkt.

1 Codes:

- **No missing join/split**

Comment: by 31627
> *The join/split nodes depicted in the model are correct and complete. No additions are needed.*

7:17 Nee (5:742 [5:744]) - D 7: Respons [redacted]

Nee

1 Codes:

- **No missing artefacts**

Comment: by 31627
> *The artefacts depicted in the model are correct and complete, additions are not required.*

7:18 Nee (6:1 [6:3]) - D 7: Respons [redacted]

Nee

1 Codes:

- **No missing business actors**

Comment: by 31627

> *The business actors (lanes) depicted in the model are correcta and complete. No additions are required.*

7:19 Nee (6:69 [6:71]) - D 7: Respons [redacted]

Nee

1 Codes:

- **Blank**

Comment: by 31627

> *No comments given.*

7:20 Nee (11:1022 [11:1024]) - D 7: Respons [redacted]

Nee

1 Codes:

- **Blank**

Comment: by 31627

> *No comments given.*

7:21 Soms niet helemaal. (11:1090 [11:1108]) - D 7: Respons [redacted]

Soms niet helemaal.

1 Codes:

- **Unclear modelling**

Comment: by 31627

> *The partecipant doesn't understand a particular modelled aspect. This misunderstaning is either expressed by the respons or assumptions/assertions are made incorrectly about a modelled aspect.*

7:22 Ik vond de matrix wel erg duidelijk. Daarin kwamen wel alle onderdelen…… (11:1249 [11:1352]) - D 7: Respons [redacted]

Ik vond de matrix wel erg duidelijk. Daarin kwamen wel alle onderdelen van het proces/project naar voren

2 Codes:

- **Clear**

  Comment: by 31627
  > *The respondent had no unclarities concerining the questionnaire aspect.*

- **Positive feedback**

  Comment: by 31627
  > *General positive feedback about the model/questionnaire.*

7:23 Nee (12:1 [12:3]) - D 7: Respons [redacted]

Nee

1 Codes:

- **Blank**

  Comment: by 31627
  > *No comments given.*

9:1 I have a remark on this task: discuss IT transition with TC. This is n…… (122:508) - D 9: Script interview [redacted]

I have a remark on this task: discuss IT transition with TC. This is not always happening, as there might be cases where the customer doesn't need an IT migration; there are cases where the customer just needs new hardware and so there is no need for migration. This kind of information is something you have before the process starts, this is something that is already known by the SA.

2 Codes:

- **Missing control flow**

  Comment: by 31627
  > *A flow pattern is missing. Description of the flow, including tasks/elements/joints/splits is eventually given.*

- **Missing joint/split**

  Comment: by 31627
  > *A joint/split point representing a condition/decision point in the process is missing in the model. Description of the element together with its position in the control flow is given.*

9:2 Information is still gathered, so the advisor still meets with thee cu…… (560:833) - D 9: Script interview [redacted]

Information is still gathered, so the advisor still meets with thee customer, gathers data on which applications are in use and which ones need to be displayed, which SSOs need to be developed , which systems for the electronic patients dossiers need to be linked with Plein

1 Codes:

- **Missing control flow**

Comment: by 31627

> *A flow pattern is missing. Description of the flow, including tasks/elements/joints/splits is eventually given.*

9:3 The rest is correct (972:991) - D 9: Script interview [redacted]

The rest is correct

1 Codes:

- **Confirm model**

Comment: by 31627

> *The respondent confirms the model is correct and complete. No changes are needed.*

9:4 This is how the process currently is; I think in the coming year it mi…… (1254:1585) - D 9: Script interview [redacted]

This is how the process currently is; I think in the coming year it might look a bit different, as the product is very new right now. I think in the future that a developer will need less effort in specifically design Plein for a customer, as I expect the product to be more standardized by then. But this is how it currently goes.

1 Codes:

- **Confirm control flow**

Comment: by 31627

> *The depicted control flow is correct, no changes are needed.*

9:5 Yes, I think so. (1653:1668) - D 9: Script interview [redacted]

Yes, I think so.

1 Codes:

- **Confirm interaction**

Comment: by 31627

> *The message flow displayed in the model is correct. There is no need for changes.*

9:6 I think the tasks and interactions between the business actors are cor…… (1670:1743) - D 9: Script interview [redacted]

I think the tasks and interactions between the business actors are correct

2 Codes:

- **Confirm interaction**

  Comment: by 31627
  > *The message flow displayed in the model is correct. There is no need for changes.*

- **Confirm task**

  Comment: by 31627
  > *The denoted task is correct, no need for adjsutments*

9:7 One little correction to a task is: discuss with the advisor which Ple…… (1746:1962) - D 9: Script interview [redacted]

One little correction to a task is: discuss with the advisor which Pleins will be developed. I would change that in: discuss the design. So which identity management will be used and how to link that within the system

1 Codes:

- **Incorrect terminology**

  Comment: by 31627
  > *Terminology used in the model is incorrect. Description of the correct terminology is eventually given.*

9:8 And it should be PM instead of PO. (1964:1998) - D 9: Script interview [redacted]

And it should be PM instead of PO.

1 Codes:

- **Incorrect terminology**

  Comment: by 31627
  > *Terminology used in the model is incorrect. Description of the correct terminology is eventually given.*

9:9 Well the start event is not entirely correct: the trainings are given…… (2063:2302) - D 9: Script interview [redacted]

Well the start event is not entirely correct: the trainings are given after Google is ready for use. So how Google is organized should be clear before the training. What happens often, is that during the training the hardware is delivered.

1 Codes:

- **Incorrect event**

  Comment: by 31627

> *An event displayed in the model is not correct. This includes the description of the right event, eventually together with additional description of control flow/tasks/joints/splits.*

9:10 Yes, that's righ (2994:3009) - D 9: Script interview [redacted]

Yes, that's righ

1 Codes:

- **Incorrect business actor**

Comment: by 31627

> *The set of tasks modelled are performed by a different business actor than the one depicted in the model (lane). A description of who executes the tasks and who is additionally involved is eventually given.*

9:11 What happens is that the current IT organization of a customer is obse…… (3262:3701) - D 9: Script interview [redacted]

What happens is that the current IT organization of a customer is observed before they transit to Google, and then a plan is made in order to migrate these data to Google. This is done with a migration plan. What we do, is look critically at all the customer's data and give advice on how to migrate it to Google. So, a migration plan is written in collaboration with the customer. And this plan belongs to the process of designing Google.

1 Codes:

- **Description of control flow**

Comment: by 31627

> *The respondent gives a description of the control flow within a particular process.*

9:12 his is how it works: a new customer comes. This customer has a lot of…… (3871:4591) - D 9: Script interview [redacted]

his is how it works: a new customer comes. This customer has a lot of redundant data, outdated systems etc. This needs to be optimized. What we first do, is investigate what the current situation is. For example, the customer works with an outdated Office system, we need to turn that off. This means we propose a general plan to the customer: they will transit from these old systems to Google, and a migration plan will be set in place; we tell the customer they need to get rid of their outdated stuff. In order to do so, the data within these old systems needs to be transferred. So what we do is first come up with a more general plan, and as we proceed within the implementation, a detailed migration plan is made.

1 Codes:

- **Description of control flow**

Comment: by 31627

> *The respondent gives a description of the control flow within a particular process.*

9:13 Yes, I have no further comments on this part (design of Google process…… (4866:4937) - D 9: Script interview [redacted]

Yes, I have no further comments on this part (design of Google process).

1 Codes:

- **Confirm model**

Comment: by 31627

> *The respondent confirms the model is correct and complete. No changes are needed.*

9:14 I'd change the name of the process to training Plein and Google. Of co…… (4939:5116) - D 9: Script interview [redacted]

I'd change the name of the process to training Plein and Google. Of course that depends on whether the customer has purchased Google or not but generally is a combination of both

1 Codes:

- **Incorrect terminology**

Comment: by 31627

> *Terminology used in the model is incorrect. Description of the correct terminology is eventually given.*

9:15 I think the model is complete. (5118:5149) - D 9: Script interview [redacted]

I think the model is complete.

1 Codes:

- **Confirm model**

Comment: by 31627

> *The respondent confirms the model is correct and complete. No changes are needed.*

9:16 see here the task: forward customer to advisor. We have a number of em…… (5207:5380) - D 9: Script interview [redacted]

see here the task: forward customer to advisor. We have a number of employees responsible for second line support, so the customer is not necessarily forwarded to the adviso

2 Codes:

- **Incorrect control flow**

Comment: by 31627

> *The control flow displayed in the model is not correct: a description of the right control flow with eventually additional description of tasks/events/split/joins is given.*

- **Missing business actor**

Comment: by 31627

> *A business actor is missing in the model (lane). Description of the actor and the process are eventually given.*

9:17 . But the process depicted here is correct… (5382:5424) - D 9: Script interview [redacted]

. But the process depicted here is correct…

1 Codes:

- **Confirm control flow**

Comment: by 31627

> *The depicted control flow is correct, no changes are needed.*

9:18 It depends on the stage of the project. If the customer is not yet imp…… (5519:5867) - D 9: Script interview [redacted]

It depends on the stage of the project. If the customer is not yet implemented on all locations, then he would be forwarded to the advisor. In general, if the question has to do with organization or processes then the customer is referred to the advisor. If it has to do with a technical feature, then the customer is helped by a support employee.

1 Codes:

- **Description of control flow**

Comment: by 31627

> *The respondent gives a description of the control flow within a particular process.*

9:19 Yes, apart from what are already mentioned they are. (6125:6176) - D 9: Script interview [redacted]

Yes, apart from what are already mentioned they are.

1 Codes:

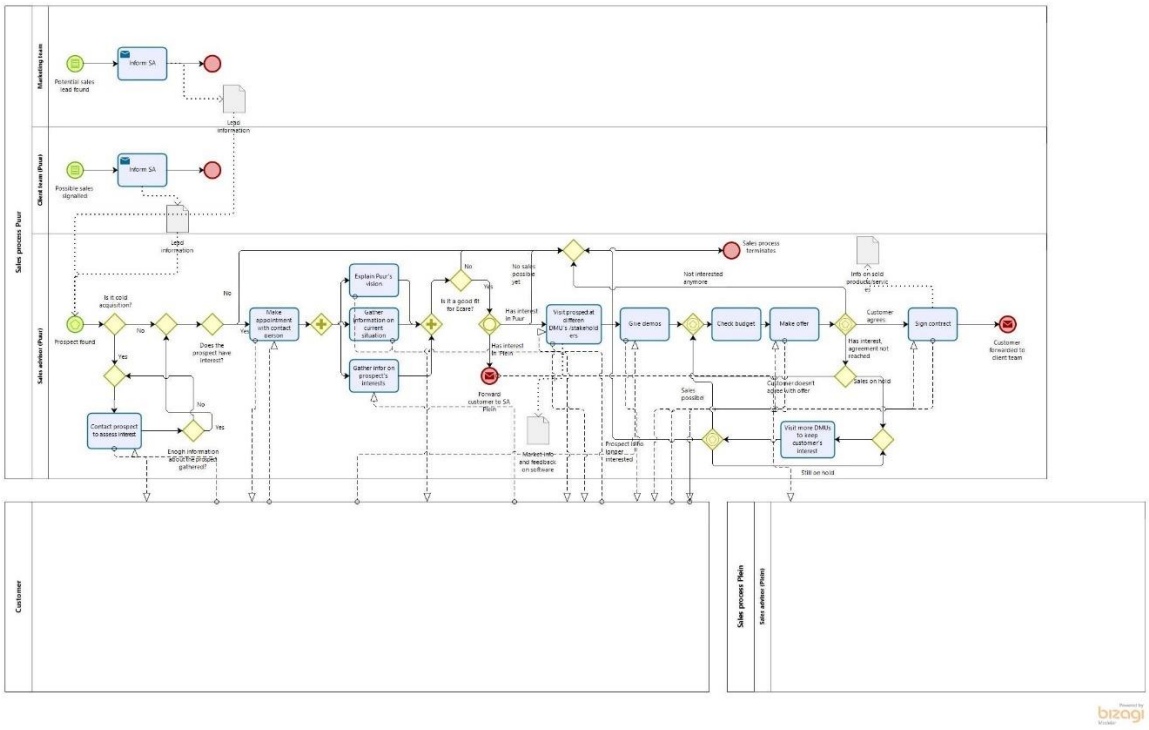
- **Confirm model**

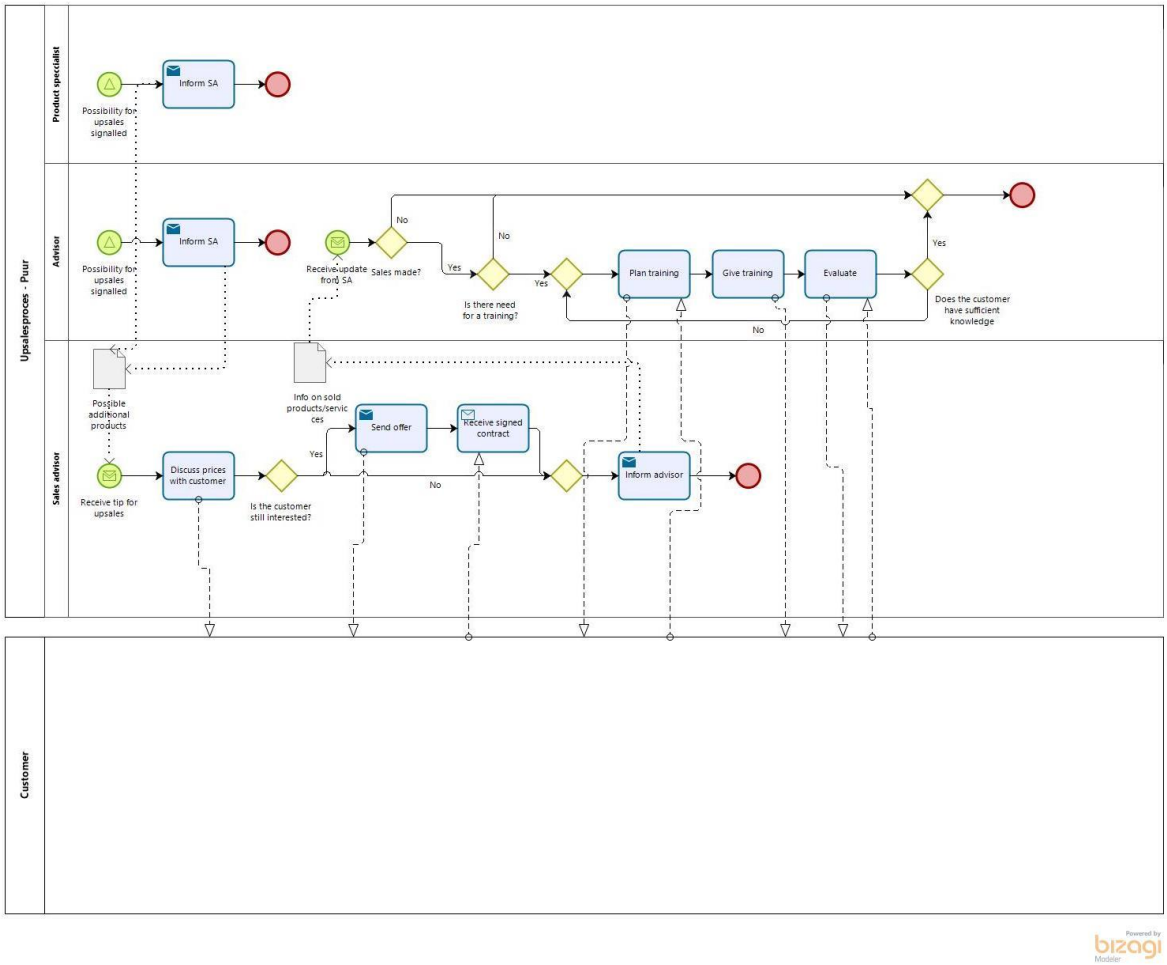
Comment: by 31627

> *The respondent confirms the model is correct and complete. No changes are needed.*

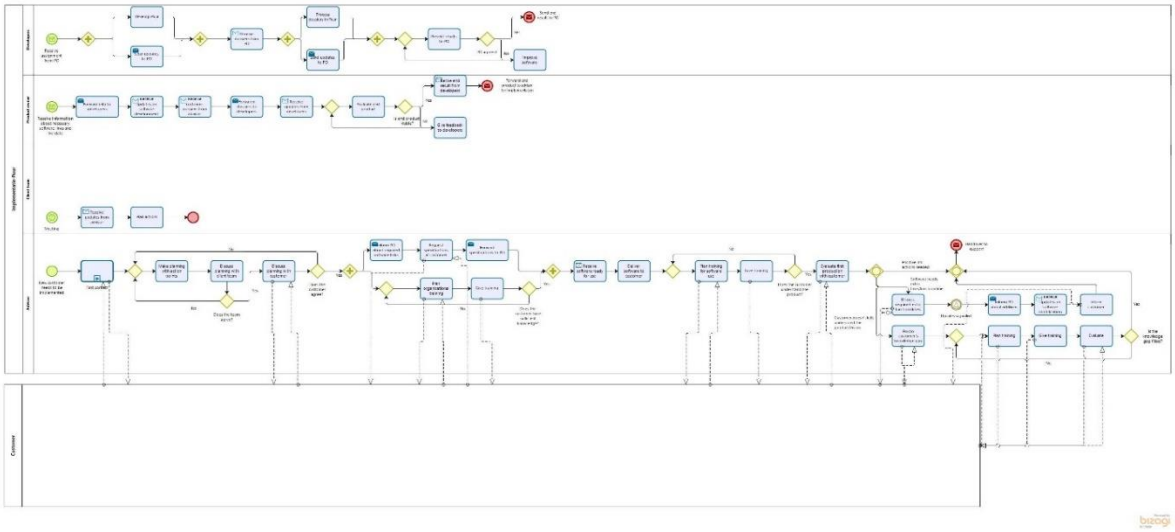
Appendix N: BPMN models third Delphi iteration

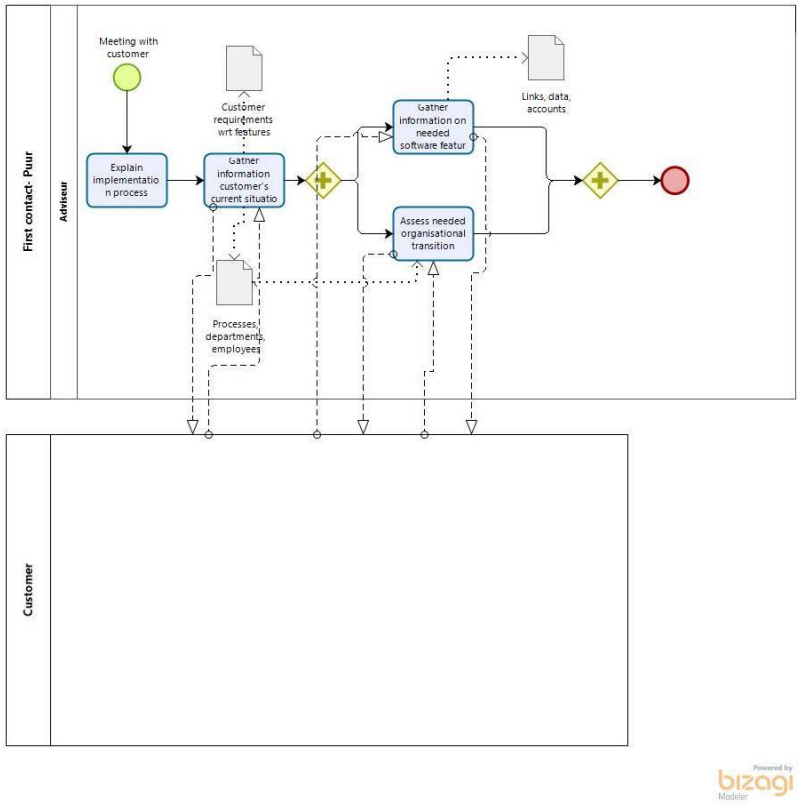
Sales Puur



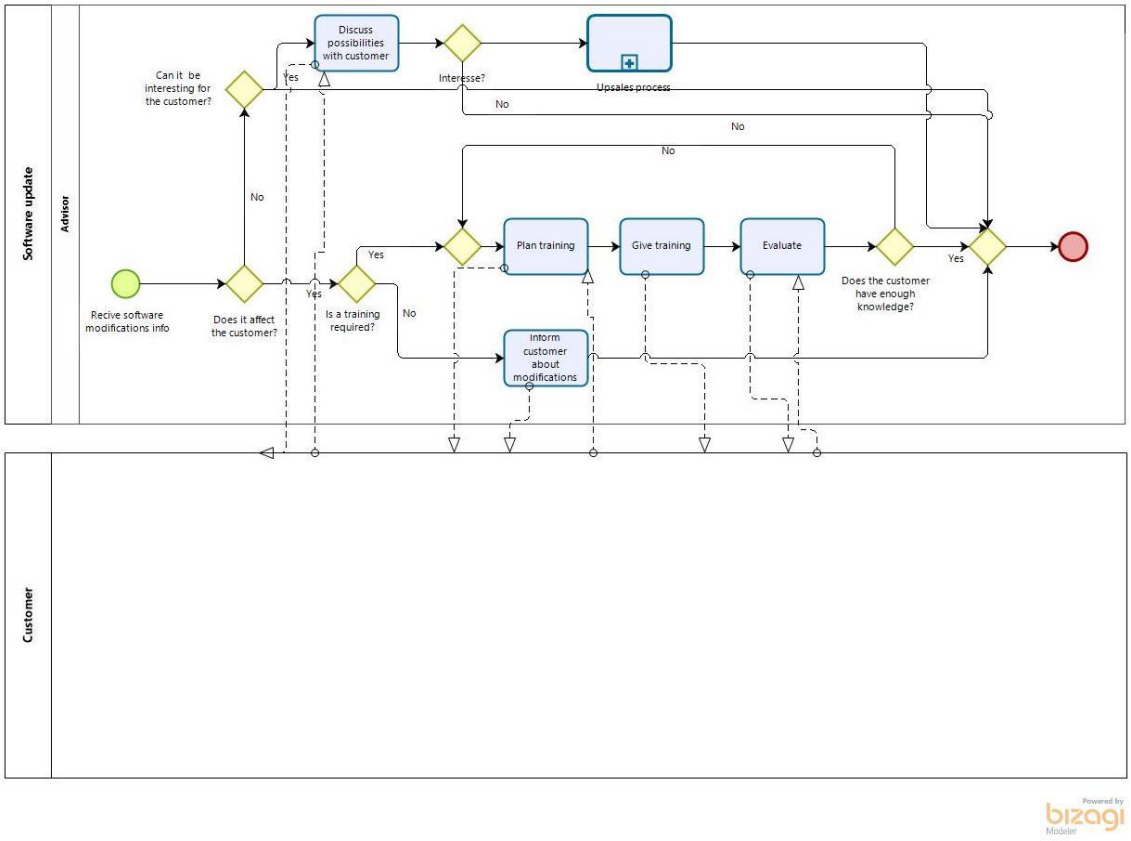


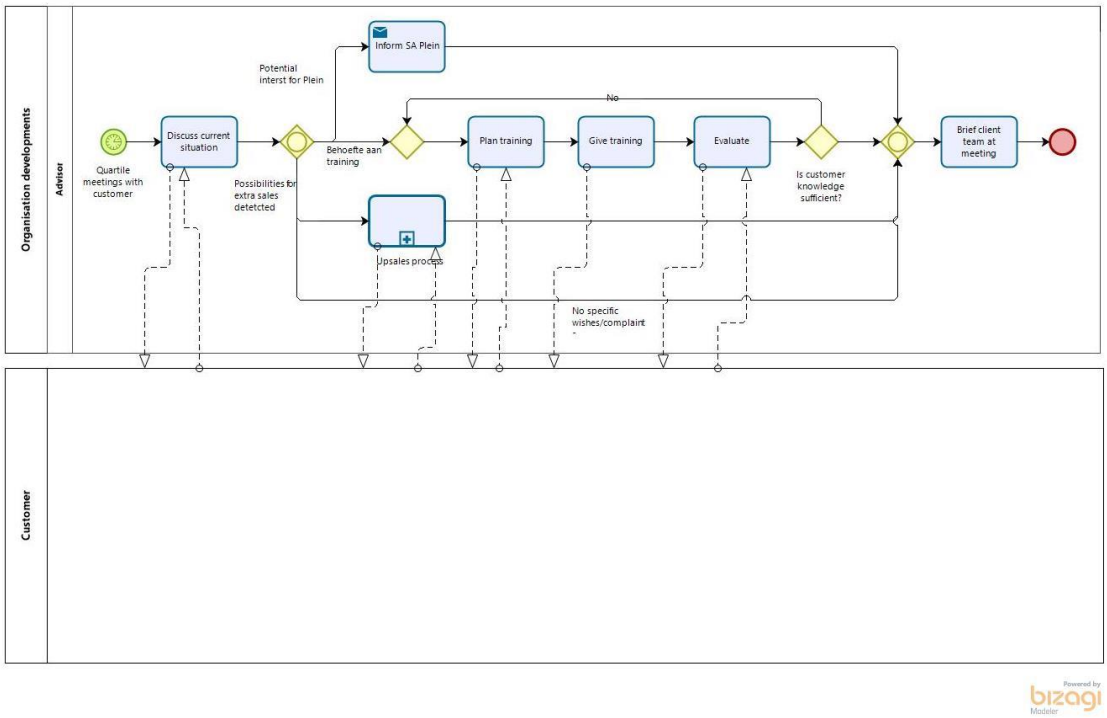
Implementation Puur

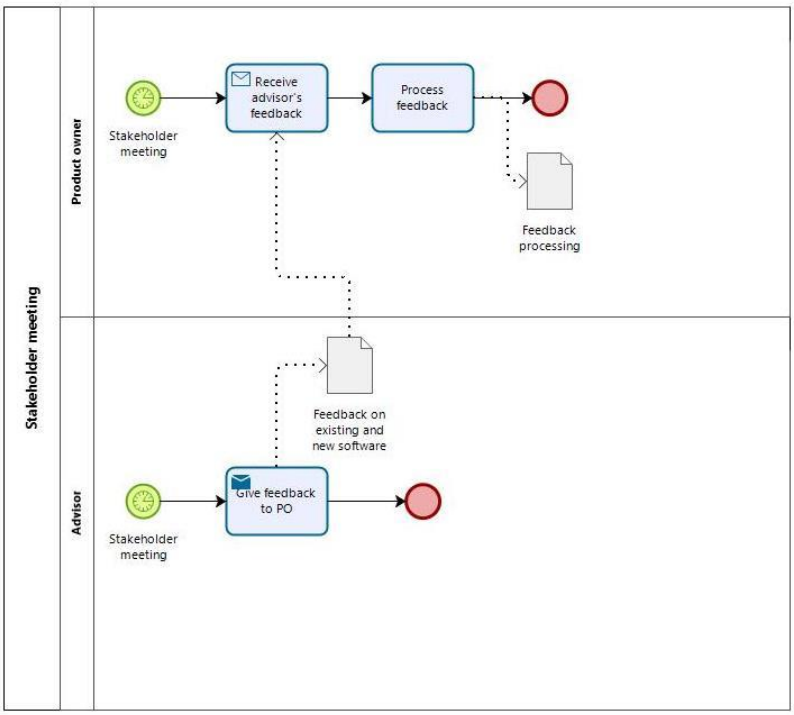




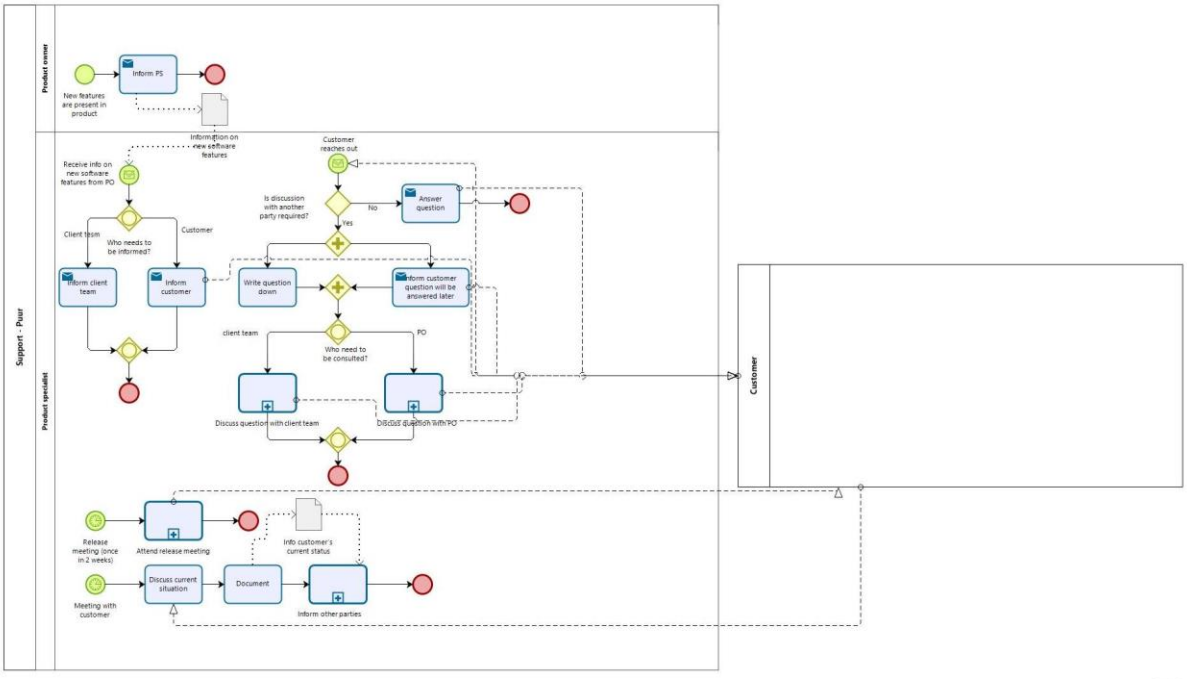
After-implementation Puur

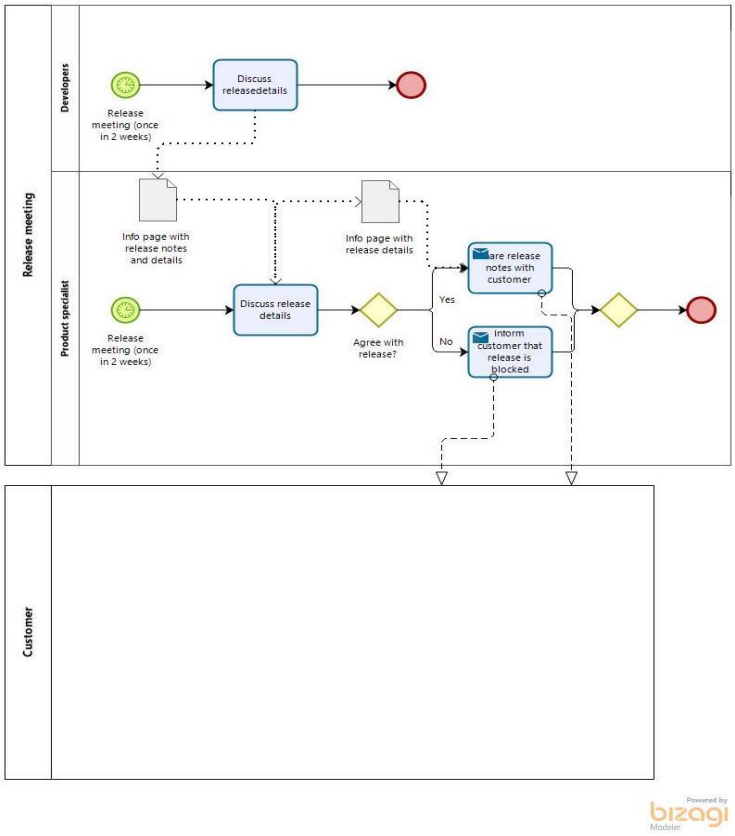


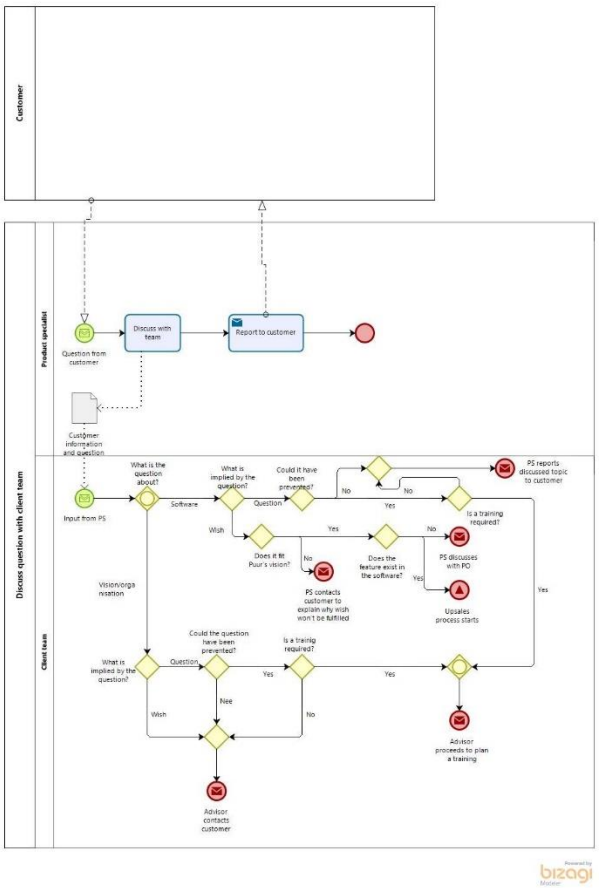


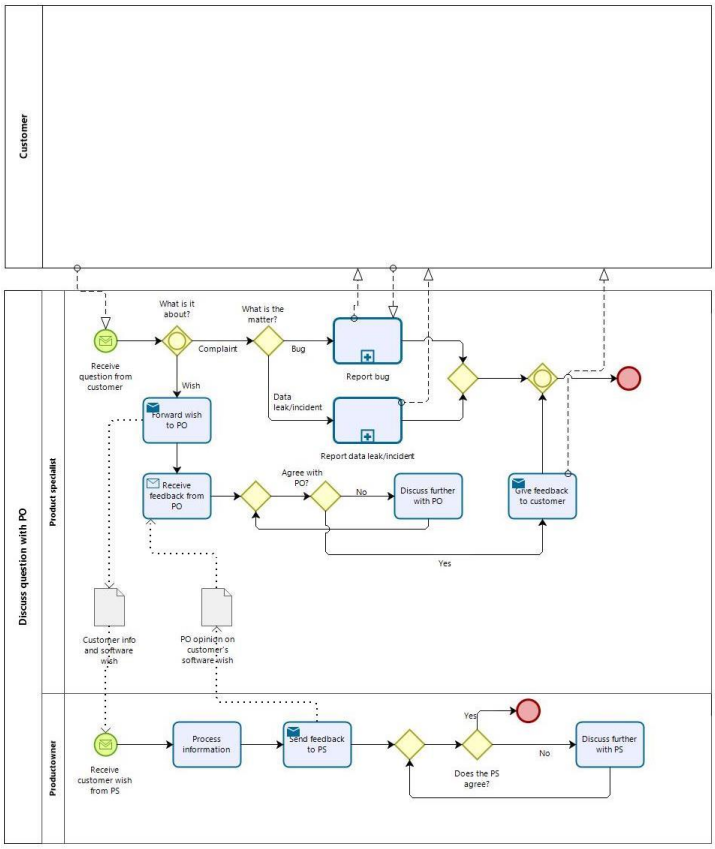


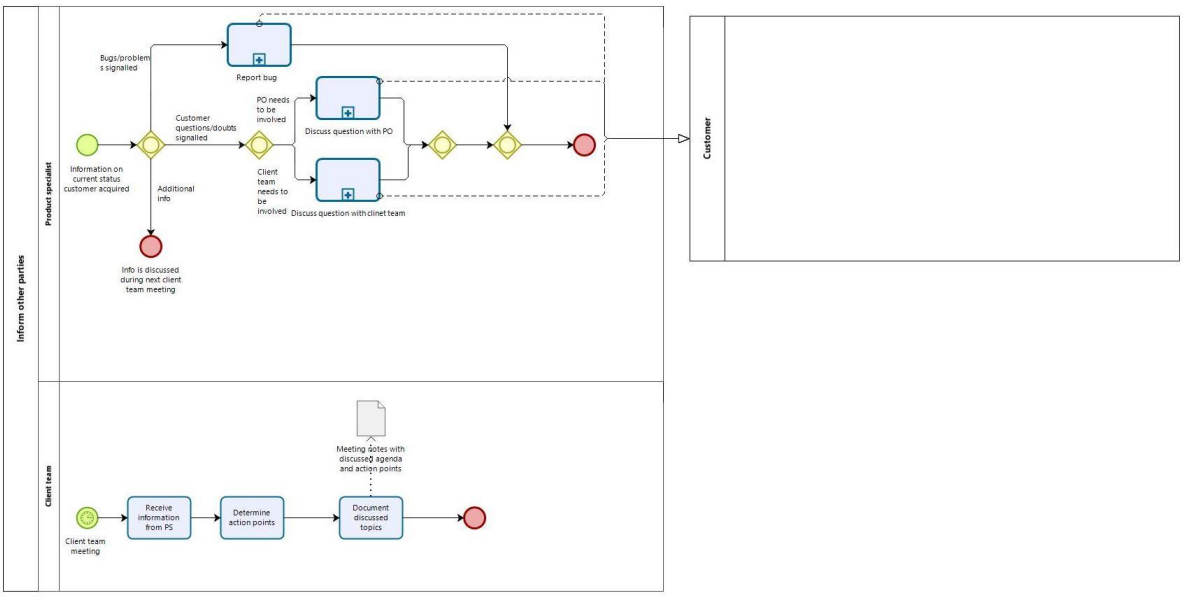
Support Puur

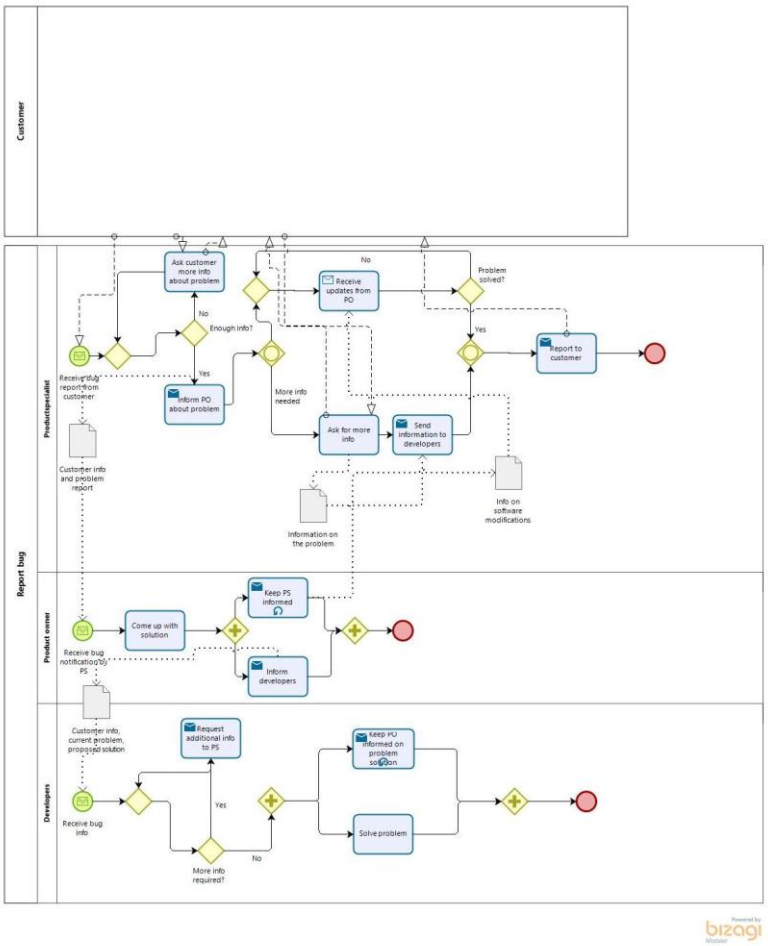


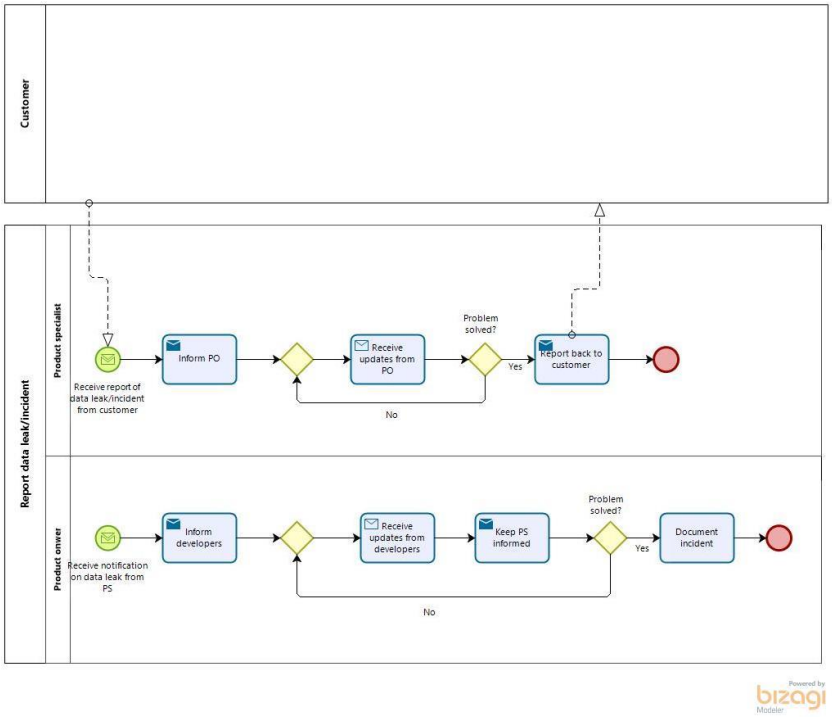

Release meeting
Developers
Discuss releasedetails
Release meeting (once in 2 weeks)
Product specialist
Info page with release notes and details
Info page with release details
Release meeting (once in 2 weeks)
Discuss release details
Agree with release?
Yes
No
are release notes with customer
Inform customer that release is blocked
Customer


Customer
Discuss question with client team
Product specialist
Client team
Question from customer
Discuss with team
Report to customer
Customer information and question
Input from PS
What is the question about?
Software
What is implied by the question?
Question
Could it have been prevented?
PS reports discussed topic to customer
Is a training required?
Wish
Does it fit Puur's vision?
Does the feature exist in the software?
PS discusses with PO
Upsales process starts
PS contacts customer to explain why wish won't be fulfilled
Vision/organisation
Could the question have been prevented?
Is a trainig required?
Advisor proceeds to plan a training
Advisor contacts customer

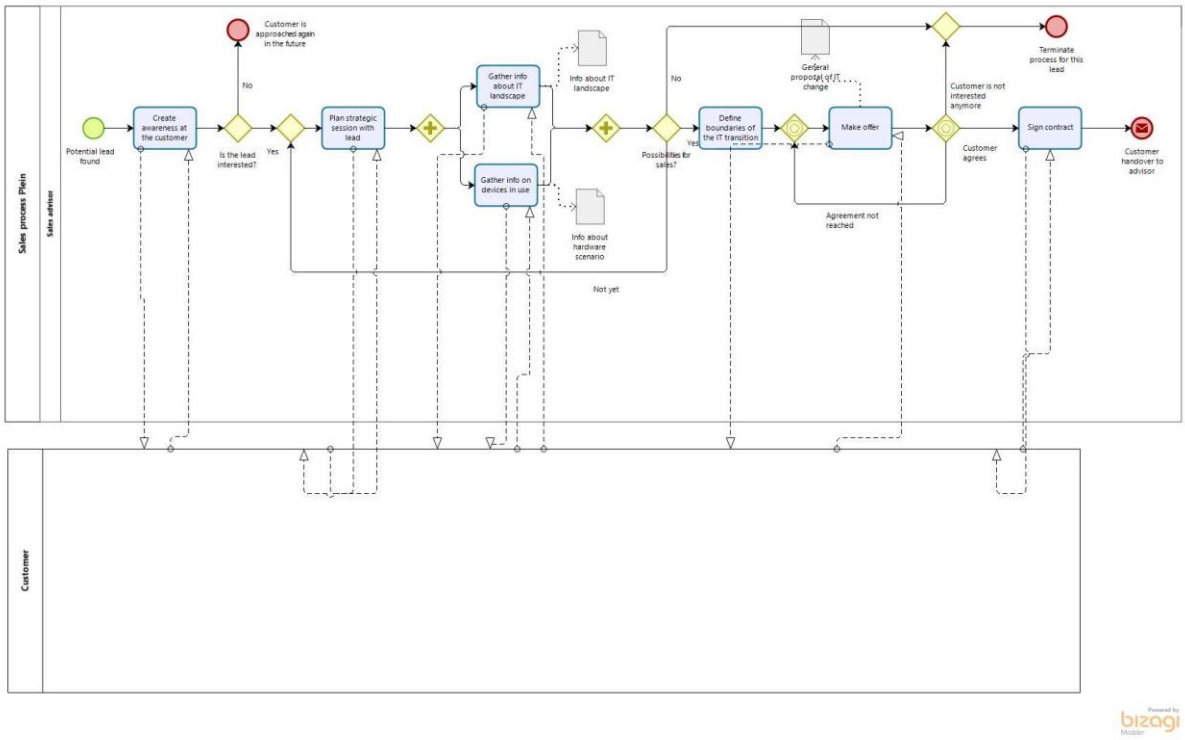

Customer
Discuss question with PO
Product specialist
Productowner
What is it about?
Complaint
What is the matter?
Bug
Report bug
Wish
Data leak/incident
Report data leak/incident
Receive question from customer
Forward wish to PO
Receive feedback from PO
Agree with PO?
No
Discuss further with PO
Give feedback to customer
Yes
Customer info and software wish
PO opinion on customer's software wish
Receive customer wish from PS
Process information
Send feedback to PS
Does the PS agree?
Yes
No
Discuss further with PS


Inform other parties
Product specialist
Client team
Customer
Bugs/problems signalled
Report bug
Customer questions/doubts signalled
PO needs to be involved
Discuss question with PO
Information on current status customer acquired
Additional info
Client team needs to be involved
Discuss question with clinet team
Info is discussed during next client team meeting
Meeting notes with discussed agenda and action points
Client team meeting
Receive information from PS
Determine action points
Document discussed topics

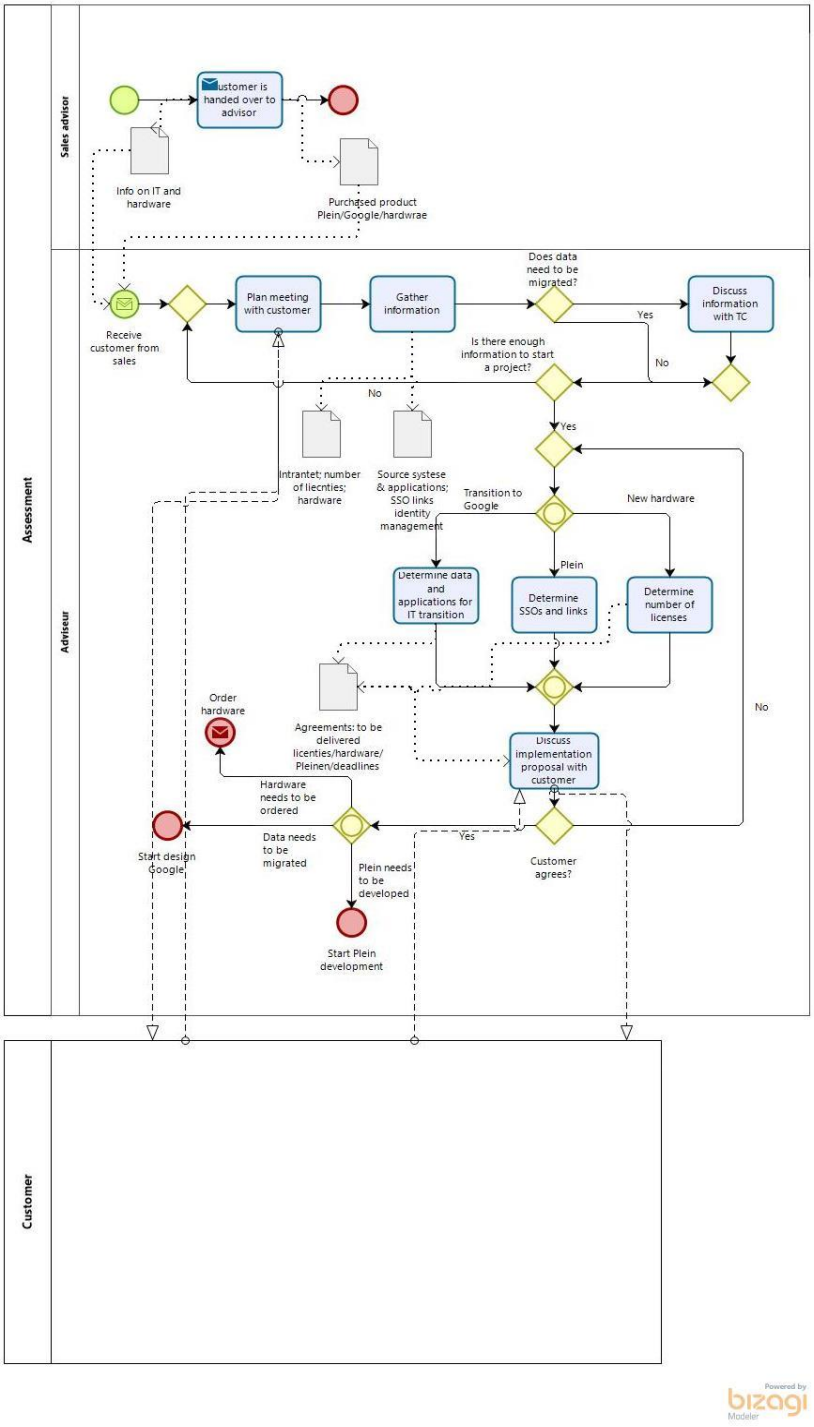

Customer
Report bug
Productspecialist
Product owner
Developers
Ask customer more info about problem
Receive updates from PO
Problem solved?
No
Enough info?
Yes
Report to customer
Receive bug report from customer
Inform PO about problem
More info needed
Ask for more info
Send information to developers
Customer info and problem report
Information on the problem
Info on software modifications
Keep PS informed
Come up with solution
Receive bug notification by PS
Inform developers
Customer info, current problem, proposed solution
Request additional info to PS
Keep PO informed on problem solution
Receive bug info
Yes
No
More info required?
Solve problem

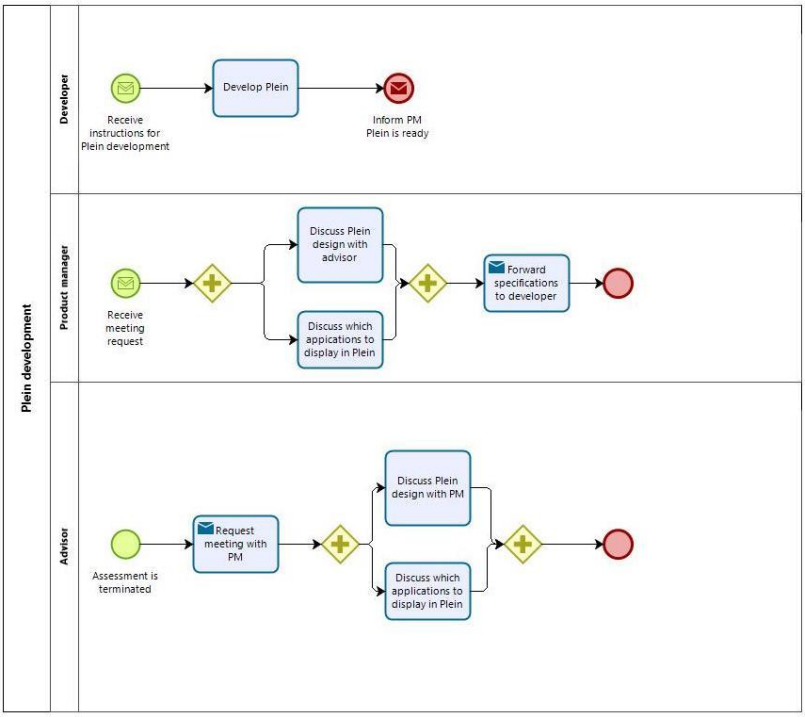

Customer
Report data leak/incident
Product specialist
Product onwer
Receive report of data leak/incident from customer
Inform PO
Receive updates from PO
Problem solved?
Yes
No
Report back to customer
Receive notification on data leak from PS
Inform developers
Receive updates from developers
Keep PS informed
Problem solved?
Yes
No
Document incident

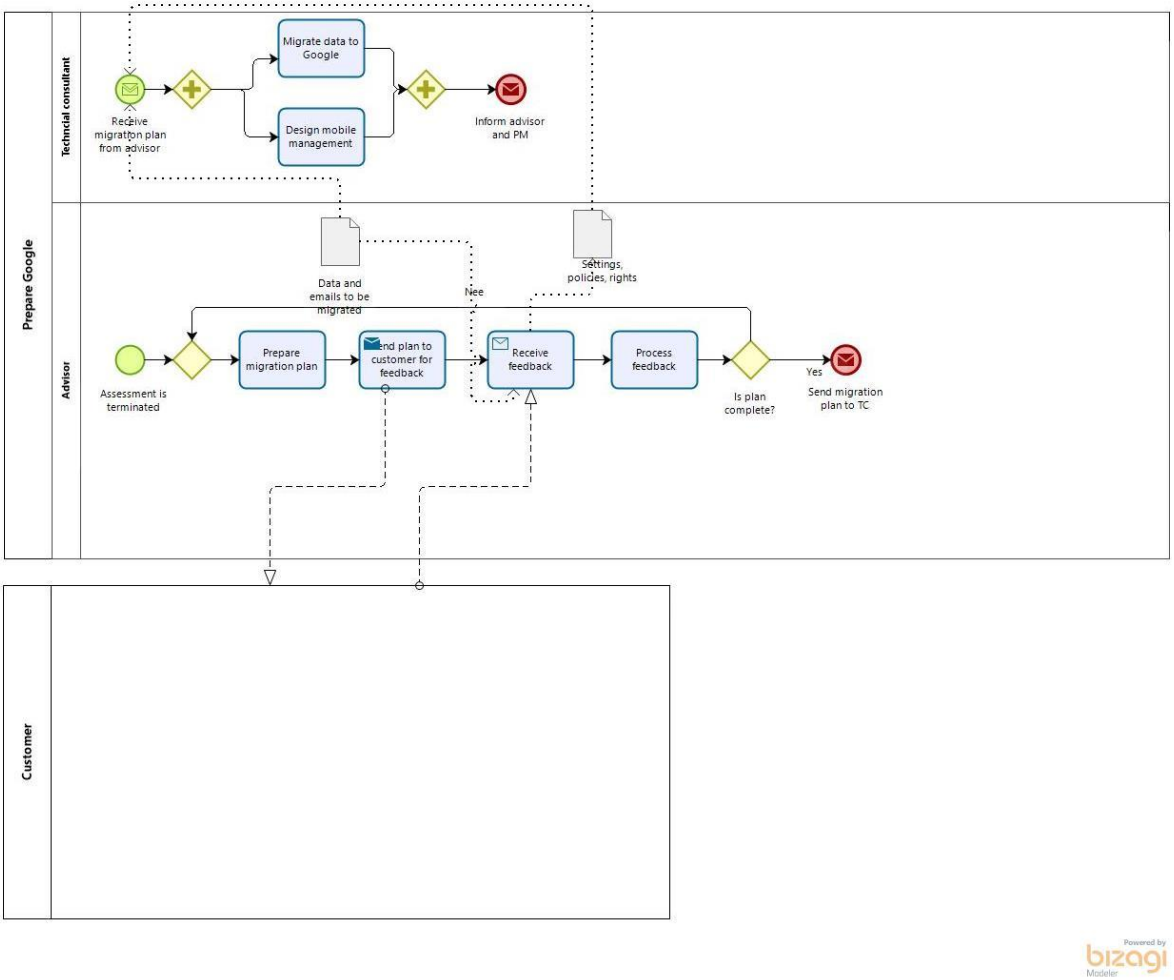
Sales Plein

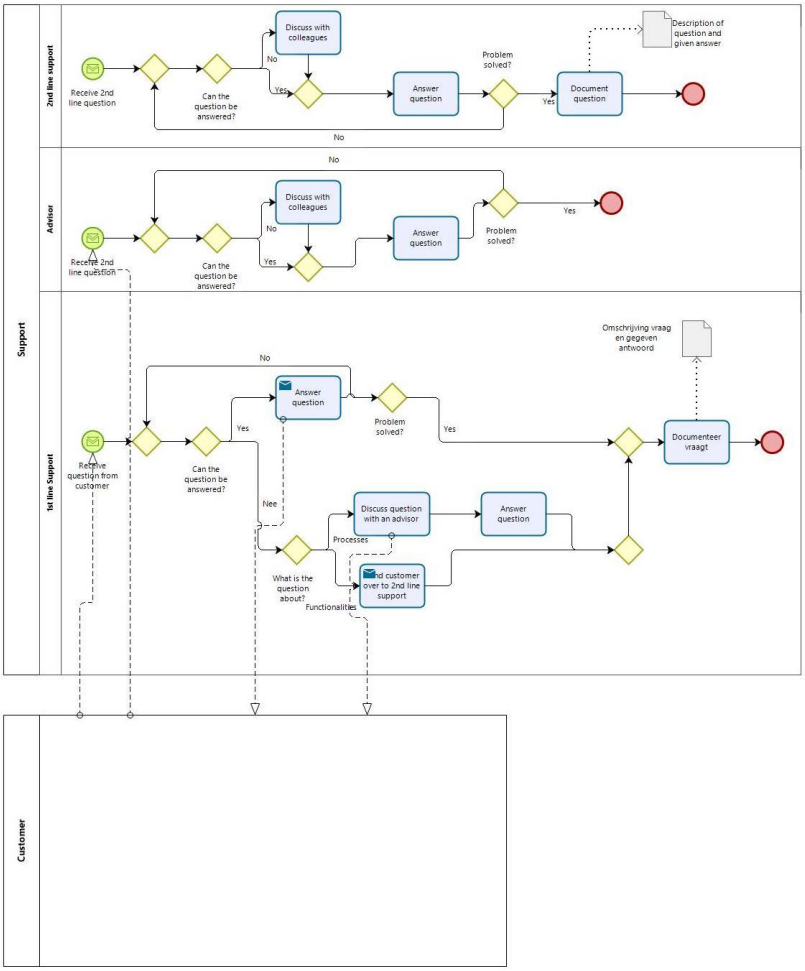

Sales process Plein
Sales adviser
Customer is approached again in the future
No
Potential lead found
Create awareness at the customer
Is the lead interested?
Yes
Plan strategic session with lead
Gather info about IT landscape
Info about IT landscape
Gather info on devices in use
Info about hardware scenario
Not yet
No
Possibilities for sales?
Yes
Define boundaries of the IT transition
General proposal of IT change
Make offer
Agreement not reached
Customer is not interested anymore
Terminate process for this lead
Customer agrees
Sign contract
Customer handover to advisor
Customer

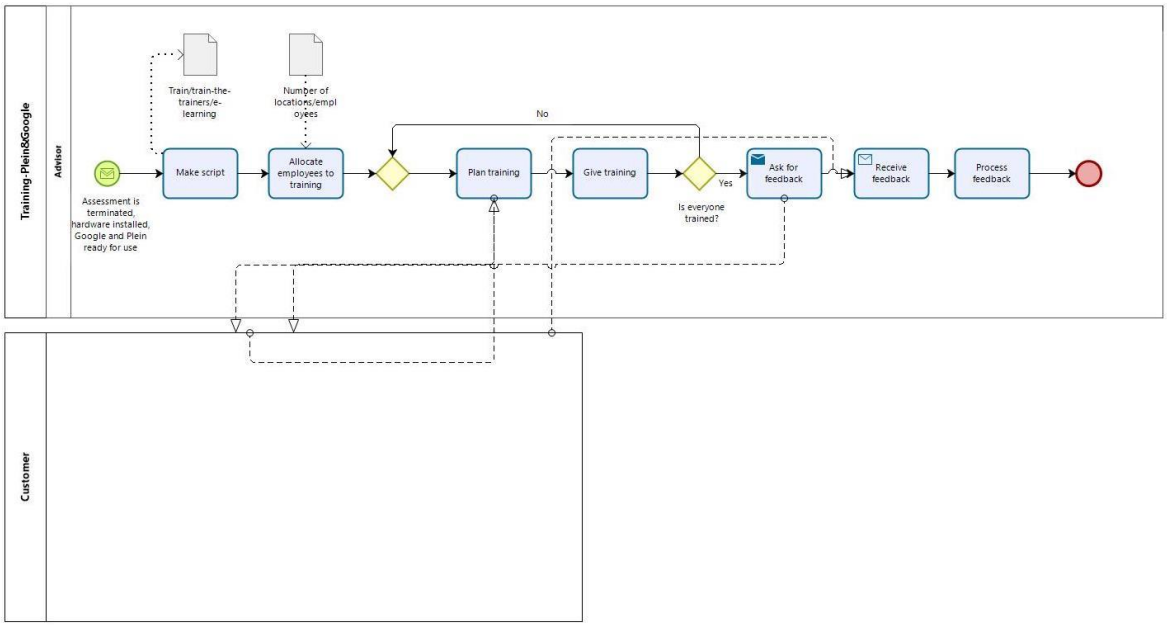
Implementation & support Plein




Plein development
Developer
Develop Plein
Receive instructions for Plein development
Inform PM Plein is ready
Product manager
Discuss Plein design with advisor
Receive meeting request
Discuss which appications to display in Plein
Forward specifications to developer
Advisor
Assessment is terminated
Request meeting with PM
Discuss Plein design with PM
Discuss which applications to display in Plein


Prepare Google
Technical consultant
Migrate data to Google
Receive migration plan from advisor
Design mobile management
Inform advisor and PM
Advisor
Data and emails to be migrated
Settings, policies, rights
Assessment is terminated
Prepare migration plan
Send plan to customer for feedback
Receive feedback
Process feedback
Is plan complete?
Yes
Send migration plan to TC
Customer


Support
2nd line support
Receive 2nd line question
Can the question be answered?
Discuss with colleagues
No
Yes
Answer question
Problem solved?
Yes
Document question
Description of question and given answer
No
Advisor
Receive 2nd line question
Can the question be answered?
Discuss with colleagues
No
Yes
Answer question
Problem solved?
Yes
No
1st line Support
Receive question from customer
Can the question be answered?
Yes
Nee
Answer question
No
Problem solved?
Yes
Omschrijving vraag en gegeven antwoord
Documenteer vraagt
Discuss question with an advisor
Answer question
Processes
What is the question about?
Functionalities
nd customer over to 2nd line support
Customer


Training-Plein&Google
Advisor
Train/train-the-trainers/e-learning
Number of locations/employees
Assessment is terminated, hardware installed, Google and Plein ready for use
Make script
Allocate employees to training
No
Plan training
Give training
Is everyone trained?
Yes
Ask for feedback
Receive feedback
Process feedback
Customer

Appendix O: Questionnaire third Delphi iteration

Delphi study Ecare round 3

Start of Block: Introduction

Beste deelnemer,

De ontvangen feedback van de afgelopen ronde is inmiddels verwerkt in de modellen die je te zien hebt gekregen. Het doel van deze ronde is verifiëren of de modellen (na aanpassing) nu wel correct en compleet zijn. Daarnaast zijn er een aantal taken (ronde vierhoeken) in sommige modellen toegevoegd. Hiervoor wordt gevraagd om toe te lichten wie er bij uitvoering van de taken betrokken zijn (RASCI matrices). Ten slotte worden een aantal gesloten vragen gesteld over de mate van samenwerking tussen Puur en Plein.

De questionnaire is dus zo ingedeeld:
Deel 1: vragen over BPMN modellen
Deel 2: vragen over RASCI
Deel 3: vragen over de samenwerking Puur-Plein

Het wordt je aangeraden om dit questionnaire op jouw laptop in te vullen.
Het questionnaire is aangepast om ervoor te zorgen dat het niet evenveel tijd van je in beslag zal nemen als de afgelopen ronde. De tijdschatting voor het invullen van deze vragenlijst is: **30 - 45 minuten**

Zoals afgelopen ronde, wordt er bij ieder onderdeel aangegeven over welk model de vragen gaan.
De modellen zijn via deze link te
vinden: **https://wiki.ecare.nl/display/SEA/Verbeterde+modellen+R3**

Mocht de link niet werken, kun je deze alsnog op de Wiki vinden, op de pagina: **Stage en afstuderen -> Verbeterde modellen R3**

Mocht je vragen/opmerkingen hebben, ben ik altijd bereikbaar via Slack of via mail.

Nogmaals, enorme dank voor jouw waardevolle tijd, inzichten en samenwerking.

Q1 Ik ben betrokken bij:

- ○ Puur (1)
- ○ Plein (2)
- ○ Beide (3)

Q2 Team:

_____

Q3 Functie:

_____

End of Block: Introduction

Start of Block: BPMN models

In dit gedeelte wordt jouw gevraagd om feedback op BPMN modellen. Voor uitleg over de elementen van een BPMN model kun je het bestand **Uitleg BPMN modellen** raadplegen, te vinden op de Wiki op de pagina: **Stage en afstuderen -> Onderzoeksbestanden Vittorio Minghetti.**

Om de modellen overzichtelijk te houden, zijn de bovengenoemde hoofdprocessen afgebeeld in verschillende losse modellen, ieder met een specifiek onderdeel van het proces. De specifieke onderdelen worden tussen haakjes genoemd na de naam van het model (bv: Sales Puur (Upsales)). Hieronder wordt er duidelijk gemaakt voor welke modellen je gevraagd wordt om de vragen te beantwoorden. Het is de bedoeling dat je de vragen beantwoordt voor ieder onderdeel (tussen haakjes) van het aan jouw toegwezen model.

De modellen zijn aangepast met de feedback van de afgelopen ronde. Vul de komende vragen in voor deze modellen:

- Sales Plein als je bij Plein betrokken bent en jouw functie Productmanager is.
- Implementatie + support Plein als je bij Plein betrokken bent en jouw functie Adviseur OF Productmanager is
- Sales Puur als je bij Puur betrokken bent en jouw functie Salesadviseur is OF als je bij beide betrokken bent en jouw functie Adviseur is.

- Implementatie Puur als je bij Puur betrokken bent en jouw functie Adviseur is OF als je bij Puur betrokken bent en jouw functie Coach Klantenteams is.
- After-implementatie Puur als je bij Puur betrokken bent en jouw functie Adviseur is OF als je bij Puur betrokken bent en jouw functie Coach Klantenteams is.
- Support Puur als je bij Puur betrokken bent an jouw functie Productspecialist is.

Q4 Hoe beoordeel je de weergegeven modellen?

- ○ De gemodelleerde aspecten zijn correct en het model geeft een totaal beeld van het proces weer (1)
- ○ De gemodelleerde aspecten zijn correct maar er ontbreken een aantal onderdelen (2)
- ○ De gemodelleerde aspecten zijn niet geheel correct maar de weergave van het proces is compleet (3)
- ○ De gemodelleerde aspecten zijn niet geheel correct en de weergave van het proces is niet compleet (4)

Q5 (Indien de gemodelleerde aspecten niet geheel correct zijn). Feedback (per onderdeel van het proces):

- ○ Het ging om het onderdeel: (1) _____
- ○ Dit klopt niet: (2) _____
- ○ Zo moet het: (3) _____
- ○ Het ging om het onderdeel (2): (4) _____
- ○ Dit klopt niet (2): (5) _____
- ○ Zo moet het (2): (6) _____
- ○ Het ging om het onderdeel(3): (7) _____
- ○ Dit klopt niet (3): (8) _____
- ○ Zo moet het (3): (9) _____
- ○ Het ging om het onderdeel(4): (10) _____
- ○ Dit klopt niet (4): (11) _____
- ○ Zo moet het (4): (12) _____

Q6 (Indien er onderdelen in het model ontbreken). Feedback:

- ○ Er ontbreekt iets in dit model: (1) _____
- ○ Dit zou ik toevoegen: (2) _____
- ○ Er ontbreekt iets in dit model: (3) _____
- ○ Dit zou ik toevoegen: (4) _____
- ○ Er ontbreekt iets in dit model: (5) _____
- ○ Dit zou ik toevoegen: (6) _____
- ○ Er ontbreekt iets in dit model: (7) _____
- ○ Dit zou ik toevoegen: (8) _____
- ○ Er ontbreekt iets in dit model: (9) _____
- ○ Dit zou ik toevoegen: (10) _____
- ○ Er ontbreekt iets in dit model: (11) _____
- ○ Dit zou ik toevoegen: (12) _____

Q7 Heb jij verder aanvullingen en/of feedback over de modellen?

- ○ Nee (1)
- ○ Ja, namelijk (2) _____

End of Block: BPMN models

Start of Block: RASCI

Verantwoordelijkheden bij uitvoering van de processen
Voor dit gedeelte wordt jou gevraagd om een matrix in te vullen.

Dit is dezelfde matrix die je afgelopen keer hebt ingevuld; dit keer gaat het alleen om onderdelen die t.o.v. de afgelopen keer toegevoegd zijn, dus het zal niet even uitgebreid zijn.

Deze matrix geeft weer wie verantwoordelijk is voor welke actie. In de rijen, staan acties die bij een bepaald proces horen; deze zijn dezelfde als de afgebeelde acties in het model. In de kolommen, staan een aantal rollen die een bepaald type verantwoordelijkheid beschrijven.

Voor het invullen van de matrix wordt aangeraden om de business process modellen waar de afgelopen vragen over gingen erbij te houden; dit geeft context en maakt het invullen van de matrix eenvoudiger. Om onderscheid te maken tussen acties die in verschillende onderdelen (tussen haakjes) van een model zijn afgebeeld, wordt er na de actie tussen haakjes aangegeven in welk onderdeel de actie weergegeven wordt.

Er zijn 5 types verantwoordelijkheid:

Responsible (R): diegene die daadwerkelijk de actie uitvoert
Accountable (A): persoon die het werk van de responsible moet keuren en daar eindverantwoordelijk voor is
Consulted (C): persoon wiens advies/inzicht/opinie wordt gebruikt bij het uitvoeren van de actie
Informed (I): persoon die op de hoogte gesteld moet worden tijdens en na uitvoering van de actie
Support (S): persoon die actief meehelpt bij uitvoering van de actie. Verschil met consulted is dat deze rol ook daadwerkelijk de actie uitvoert samen met responsible.

Er wordt jou gevraagd om per rij (dus actie) in te vullen wie welk type verantwoordelijkheid heeft voor die actie. Voor iedere actie hoeven niet per se alle rollen gevuld te worden; wel moet er minimaal iemand zijn met de rol responsible en een met de rol accountable. Er kunnen ook meer personen aan een rol gekoppeld worden. Mocht er een actie zijn waarvan je eerder in het questionnaire aangegeven hebt niet te kloppen/foutief te zijn gemodelleerd, kun je de bijbehorende rij overslaan.

Voor het invullen van de matrix zijn er een aantal opties:

SA (Puur): salesadviseur van Puur
A (Puur): adviseur van Puur
PS (Puur): productspecialist van Puur
PO (Puur): productowner van Puur
Developers (Puur): developers van Puur
KT: Klantenteam (dus gezamelijk alle leden van het team)

CK: coach klantenteam
SA (Plein): salesadviseur van Plein
A (Plein): adviseur van Plein
TC (Plein): technisch consultant van Plein
PM: productmanager van Plein
SM: supportmedewerker van Plein
Developers (Plein): developers van Plein
n.v.t.: niet van toepassing
?: weet ik niet
Anders: hier zelf een persoon toevoegen

Q8 *Vul deze matrix in als je **betrokken bij Puur** bent en met de **functie Salesdviseur** OF als je **bij beide betrokken** bent met de **functie Adviseur.***

Responsible (R): diegene die daadwerkelijk de actie uitvoert
Accountable (A): persoon die het werk van de responsible moet keuren en daar eindverantwoordelijk voor is
Consulted (C): persoon wiens advies/inzicht/opinie wordt gebruikt bij het uitvoeren van de actie
Informed (I): persoon die op de hoogte gesteld moet worden tijdens en na uitvoering van de actie
Support (S): persoon die actief meehelpt bij uitvoering van de actie. Verschil met consulted is dat deze rol ook daadwerkelijk de actie uitvoert samen met responsible.

SA (Puur): salesadviseur van Puur
A (Puur): adviseur van Puur
PS (Puur): productspecialist van Puur
PO (Puur): productowner van Puur
Developers (Puur): developers van Puur
KT: Klantenteam (dus gezamelijk alle leden van het team)
CK: coach klantenteam
SA (Plein): salesadviseur van Plein
A (Plein): adviseur van Plein
TC (Plein): technisch consultant van Plein
PM: productmanager van Plein
SM: supportmedewerker van Plein
Developers (Plein): developers van Plein
n.v.t.: niet van toepassing
?: weet ik niet
Anders: hier zelf een persoon toevoegen

	Responsible (R)	Accountable (A)	Support (S)	Consulted (C)	Informed (I)
Bepaal of klant bij visie van Ecare past (Salesproces)					
Geef demo (Salesproces)					
Check budget (Salesproces)					

Q9
*Vul deze matrix in als je **betrokken bij Puur** bent en met de **functie Productspecialist***

Responsible (R): diegene die daadwerkelijk de actie uitvoert
Accountable (A): persoon die het werk van de responsible moet keuren en daar eindverantwoordelijk voor is
Consulted (C): persoon wiens advies/inzicht/opinie wordt gebruikt bij het uitvoeren van de actie
Informed (I): persoon die op de hoogte gesteld moet worden tijdens en na uitvoering van de actie
Support (S): persoon die actief meehelpt bij uitvoering van de actie. Verschil met consulted is dat deze rol ook daadwerkelijk de actie uitvoert samen met responsible.

SA (Puur): salesadviseur van Puur
A (Puur): adviseur van Puur
PS (Puur): productspecialist van Puur
PO (Puur): productowner van Puur
Developers (Puur): developers van Puur
KT: Klantenteam (dus gezamelijk alle leden van het team)
CK: coach klantenteam
SA (Plein): salesadviseur van Plein
A (Plein): adviseur van Plein
TC (Plein): technisch consultant van Plein
PM: productmanager van Plein
SM: supportmedewerker van Plein
Developers (Plein): developers van Plein
n.v.t.: niet van toepassing
?: weet ik niet
Anders: hier zelf een persoon toevoegen

Proces: Support (Puur)

	Responsible (R)	Accountable (A)	Support (S)	Consulted (C)	Informed (I)
Koppel overleg terug naar klant (Bespreek vraag met klantenteam)					

Koppel informatie terug naar klant (Bespreek vraag met PO)					
Informeer PO (Melding datalek/incident)					
Ontvang updates van PO (Melding datalek/incident)					
Koppel terug naar klant (Melding datalek/incident)					
Informeer ontwikkelaars (Melding datalek/incident)					
Ontvang updates van ontwikkelaars (Melding datalek/incident)					
Hou PS op de hoogte (Melding datalek/incident)					
Beantwoord vraag (Support)					
Noteer vraag (Support)					
Informeer klant dat hierop teruggekomen wordt (Support)					

Q10
*Vul deze matrix in als je **betrokken bij Plein** bent en met de **functie Productmanager***

Responsible (R): diegene die daadwerkelijk de actie uitvoert
Accountable (A): persoon die het werk van de responsible moet keuren en daar eindverantwoordelijk voor is
Consulted (C): persoon wiens advies/inzicht/opinie wordt gebruikt bij het uitvoeren van de actie
Informed (I): persoon die op de hoogte gesteld moet worden tijdens en na uitvoering van de actie
Support (S): persoon die actief meehelpt bij uitvoering van de actie. Verschil met consulted is dat deze rol ook daadwerkelijk de actie uitvoert samen met responsible.

SA (Puur): salesadviseur van Puur
A (Puur): adviseur van Puur
PS (Puur): productspecialist van Puur
PO (Puur): productowner van Puur
Developers (Puur): developers van Puur
KT: Klantenteam (dus gezamelijk alle leden van het team)
CK: coach klantenteam
SA (Plein): salesadviseur van Plein
A (Plein): adviseur van Plein
TC (Plein): technisch consultant van Plein

PM: productmanager van Plein
SM: supportmedewerker van Plein
Developers (Plein): developers van Plein
n.v.t.: niet van toepassing
?: weet ik niet
Anders: hier zelf een persoon toevoegen

Proces: Sales (Plein)

	Responsible (R)	Accountable (A)	Support (S)	Consulted (C)	Informed (I)
Plan strategisch gesprek met klant					
Verzamel informatie over huidig IT landschap					
Verzamel informatie over hardware in gebruik					
Denfinieer omvang van de IT transitie					
Maak offerte					
Laat klant contract tekenen					

Q11
*Vul deze matrix in als je **betrokken bij Plein** bent en met de **functie Adviseur***

Responsible (R): diegene die daadwerkelijk de actie uitvoert
Accountable (A): persoon die het werk van de responsible moet keuren en daar eindverantwoordelijk voor is
Consulted (C): persoon wiens advies/inzicht/opinie wordt gebruikt bij het uitvoeren van de actie
Informed (I): persoon die op de hoogte gesteld moet worden tijdens en na uitvoering van de actie
Support (S): persoon die actief meehelpt bij uitvoering van de actie. Verschil met consulted is dat deze rol ook daadwerkelijk de actie uitvoert samen met responsible.

SA (Puur): salesadviseur van Puur
A (Puur): adviseur van Puur
PS (Puur): productspecialist van Puur
PO (Puur): productowner van Puur
Developers (Puur): developers van Puur
KT: Klantenteam (dus gezamelijk alle leden van het team)
CK: coach klantenteam
SA (Plein): salesadviseur van Plein
A (Plein): adviseur van Plein
TC (Plein): technisch consultant van Plein
PM: productmanager van Plein
SM: supportmedewerker van Plein

Developers (Plein): developers van Plein
n.v.t.: niet van toepassing
?: weet ik niet
Anders: hier zelf een persoon toevoegen

Proces: Implementatie + support Plein

	Responsible (R)	Accountable (A)	Support (S)	Consulted (C)	Informed (I)
Migreer data naar Google (Inrichting van Google)					
Richt Mobile device management in (Inrichting van Google)					
Bestel hardware (Inventarisatie)					

End of Block: RASCI

Start of Block: Samenwerking Puur - Plein

Q12 Er volgen een aantal vragen over de mate van samenwerking tussen Plein en Puur.
Hierbij ligt de nadruk bij de gecombineerde propositie, dus de mate waarmee er samengewerkt wordt bij gemeenschappelijk klanten.
Probeer deze zo objectief mogelijk te beantwoorden met oog op de **huidige situatie.**

Q13 Binnen de processen waarbij ik betrokken ben, wordt er vaak met collega's van Puur/Plein gecommuniceerd

- Helemaal mee oneens (1)
- Oneens (2)
- Deels oneens (3)
- Geen mening (4)
- Deels eens (5)
- Eens (6)
- Helemaal mee eens (7)

Q14 Binnen de processen waarbij ik betrokken ben, is communicatie met collega's van Puur/Plein belangrijk

- Helemaal mee oneens (1)
- Oneens (2)
- Deels oneens (3)
- Geen mening (4)
- Deels eens (5)
- Eens (6)
- Helemaal mee eens (7)

Q15 Ik geef de huidige communicatie tussen Puur en Plein dit cijfer:

	0 1 2 3 4 5 6 7 8 9 10
Communicatie Puur/Plein ()	

Q16 Binnen de processen waarbij ik betrokken ben, wordt er vaak gecoördineerd samengewerkt met collega's van Puur/Plein

- ○ Helemaal mee oneens (1)
- ○ Oneens (2)
- ○ Deels oneens (3)
- ○ Geen mening (4)
- ○ Deels eens (5)
- ○ Eens (6)
- ○ Helemaal mee eens (7)

Q17 Binnen de processen waarbij ik betrokken ben, is coördinatie met Puur/Plein belangrijk

- ○ Helemaal mee oneens (1)
- ○ Oneens (2)
- ○ Deels oneens (3)
- ○ Geen mening (4)
- ○ Deels eens (5)
- ○ Eens (6)
- ○ Helemaal mee eens (7)

Q18 Ik geef de huidige coördinatie tussen Puur en Plein dit cijfer:

	0 1 2 3 4 5 6 7 8 9 10
Coördinatie Puur/Plein ()	

Q19 Ik ben goed op de hoogte van de processen bij Puur/Plein en wie daarbij betrokken is

- Helemaal mee oneens (1)
- Oneens (2)
- Deels oneens (3)
- Geen mening (4)
- Deels eens (5)
- Eens (6)
- Helemaal mee eens (7)

Q20 Voor de processen waarbij ik betrokken ben, is het belangrijk om te weten hoe de processen bij Puur/Plein verlopen en wie daarbij betrokken is

- Helemaal mee oneens (1)
- Oneens (2)
- Deels oneens (3)
- Geen mening (4)
- Deels eens (5)
- Eens (6)
- Helemaal mee eens (7)

Q21 Ik geef (mijn) huidige kennis van de processen en business actors bij Puur/Plein dit cijfer:

0 1 2 3 4 5 6 7 8 9 10

Kennis processen en business actors ()	

Q22 Binnen de processen waarbij ik betrokken ben, wordt er vaak informatie uitgewisseld met Puur/Plein

- Helemaal mee oneens (1)
- Oneens (2)
- Deels oneens (3)
- Geen mening (4)
- Deels eens (5)
- Eens (6)
- Helemaal mee eens (7)

Q23 Binnen de processen waarbij ik betrokken ben, is informatie-uitwisseling tussen Puur en Plein belangrijk

- Helemaal mee oneens (1)
- Oneens (2)
- Deels oneens (3)
- Geen mening (4)
- Deels eens (5)
- Eens (6)
- Helemaal mee eens (7)

Q24 Ik geef de huidige informatie-uitwisseling tussen Puur en Plein dit cijfer:

	0 1 2 3 4 5 6 7 8 9 10
Puur/Plein informatie-uitwisseling ()	

Q25 Over het algemeen, vind ik dat er meer samengewerkt kan worden tussen Puur en Plein

- Helemaal mee oneens (1)
- Oneens (2)
- Deels oneens (3)
- Geen mening (4)
- Deels eens (5)
- Eens (6)
- Helemaal mee eens (7)

Q26 Over het algemeen, geef ik de huidige mate van samenwerking tussen Puur en Plein dit cijfer:

	0 1 2 3 4 5 6 7 8 9 10
Click to write Choice 1 ()	

End of Block: Samenwerking Puur - Plein

Start of Block: Algemeen

Q27 Heb je nog feedback over dit questionnaire?

- Nee (1)
- Ja, namelijk (2) _____

Q32 Heb je nog vragen/opmerkingen/suggesties voor mij of voor dit onderzoek?

- ○ Nee (1)
- ○ Ja, namelijk (2) _____

End of Block: Algemeen

Appendix P: Codes overview qualitative analysis third Delphi iteration

Code Report

All (20) codes

○ **Add business actor**

Comment: by 31627

> *A business actor is missing in the model. The respondent describes which actor needs to be added.*

1 Groups:

Missing elements

○ **Add control flow**

Comment: by 31627

> *A control flow is missing in the model. The respondent describes the flow with corresponding nodes.*

1 Groups:

Missing elements

○ **Add interaction**

Comment: by 31627

> *An interaction is missing in the model. The respondent gives a description of the interaction.*

1 Groups:

Missing elements

○ **Add option to join/split**

Comment: by 31627

> *A join/split misses an option. A description of the option to be added is given.*

1 Groups:

Missing elements

○ **Add task**

Comment: by 31627

> *A task is missing in the model. The respondent gives a description of how the task is executed.*

1 Groups:

Missing elements

○ **Department**

Comment: by 31627

> *Department the respondent is active in.*

1 Groups:

Organisational position

○ **Doubt**

Comment: by 31627

> *The respondent is not sure of a particular aspect of the process.*

3 Groups:

Feedback / Incorrect modelling / Missing elements

○ **Function**

Comment: by 31627

> *The respondent's function.*

1 Groups:

Organisational position

○ **Incorrect business actor**

Comment: by 31627

> *The business actor performing a set of certain tasks in the model is incorrect. The respondent describes who should execute these tasks.*

1 Groups:

Incorrect modelling

○ **Incorrect control flow**

Comment: by 31627

> *The described control flow is incorrect; the respondent explains what is wrong and eventually how the cf should look like.*

1 Groups:

Incorrect modelling

○ **Positive feedback on the models**

Comment: by 31627

> *The respondent is positive about the models*

1 Groups:

Feedback

○ **Process model incomplete**

Comment: by 31627

> *The respondent indicates which part of the model is incomplete.*

1 Groups:

Missing elements

○ **Process modelled incorrect**

Comment: by 31627

> *The respondent indicates which particular part of the model is incorrect.*

1 Groups:

Incorrect modelling

○ **Remove task**

Comment: by 31627

> *The modelled task doesn't belong to the process; the respondent thinks therefore it needs to be removed.*

1 Groups:

Incorrect modelling

○ **Team**

Comment: by 31627

> *The team the respondent is active in.*

1 Groups:

Organisational position

○ **The model(s) is/are complete**

Comment: by 31627

> *The respondent thinks the given models represent the depicted processes in a complete way.*

1 Groups:

Confirm modes

○ **The model(s) is/are not (entirely) correct**

Comment: by 31627

> *The respondent thinks some aspects presented in the modell are not correct/represented in the correct way.*

1 Groups:

Incorrect modelling

○ **The model/s is/are correct**

Comment: by 31627

> *The repondent thinks the aspects present in the model are represented in the right way.*

1 Groups:

Confirm modes

○ **The model/s is/are not complete**

Comment: by 31627

> *The respondent thinks some important parts are missing within the model for a complete process overview.*

1 Groups:

Missing elements

○ **The models are complete**

Comment: by 31627

> *The respondent thinks the models give an exausthive overview of the process.*

1 Groups:

Confirm modes

Appendix Q: Quotations report third Delphi iteration

Report for Query: Missing elements | Incorrect modelling

Scope: SA Puur

(6) quotations

2:4 De gemodelleerde aspecten zijn niet geheel correct maar de weergave va…… (2:351 [2:539]) - D 2: Response SA team Zuid

De gemodelleerde aspecten zijn niet geheel correct maar de weergave van het proces is compleet
De gemodelleerde aspecten zijn niet geheel correct maar de weergave van het proces is compleet

2 Codes:

○ **The model(s) is/are complete**

Comment: by 31627

The respondent thinks the given models represent the depicted processes in a complete way.

○ **The model(s) is/are not (entirely) correct**

Comment: by 31627

The respondent thinks some aspects presented in the modell are not correct/represented in the correct way.

2:5 De demo wordt in het proces weergeven als tweede afspraak waarbij tijd…… (2:1846 [2:2017]) - D 2: Response SA team Zuid

De demo wordt in het proces weergeven als tweede afspraak waarbij tijdens een eerste afspraak enkel interesse vd prospect wordt getoetst en visie van ecare wordt besproken

1 Codes:

○ **Process modelled incorrect**

Comment: by 31627

The respondent indicates which particular part of the model is incorrect.

2:6 De demo is vrijwel altijd onderdeel van de eerste afspraak. In deze af…… (2:2047 [2:2190]) - D 2: Response SA team Zuid

De demo is vrijwel altijd onderdeel van de eerste afspraak. In deze afspraak worden visie, interesse/wensen vd prospect en de demo besproken.

1 Codes:

○ **Add task**

Comment: by 31627

A task is missing in the model. The respondent gives a description of how the task is executed.

3:4 Salesproces Plein Dit klopt niet: Dit klopt niet: Proces begint bij:…… (2:1802 [2:2012]) - D 3: Response SA

Salesproces Plein Dit klopt niet: Dit klopt niet: Proces begint bij: "potentiële klant gevonden" en geen onderscheid aangebracht in nieuwe klanten en bestaande Ecare klanten waar nog geen Plein is verkocht.

1 Codes:

○ **Process modelled incorrect**

Comment: by 31627

The respondent indicates which particular part of the model is incorrect.

3:5 . Conform Salesproces "Puur", rol marketing toevoegen (2:2041 [2:2094]) - D 3: Response SA

. Conform Salesproces "Puur", rol marketing toevoegen

1 Codes:

○ **Add business actor**

Comment: by 31627

A business actor is missing in the model. The respondent describes which actor needs to be added.

3:6 Geen onderscheid in salesproces bij bestaande Ecare klanten. Enigszin…… (2:2098 [2:2216]) - D 3: Response SA

Geen onderscheid in salesproces bij bestaande Ecare klanten. Enigszins vergelijkbaar met "upselll proces Puur klanten"

1 Codes:

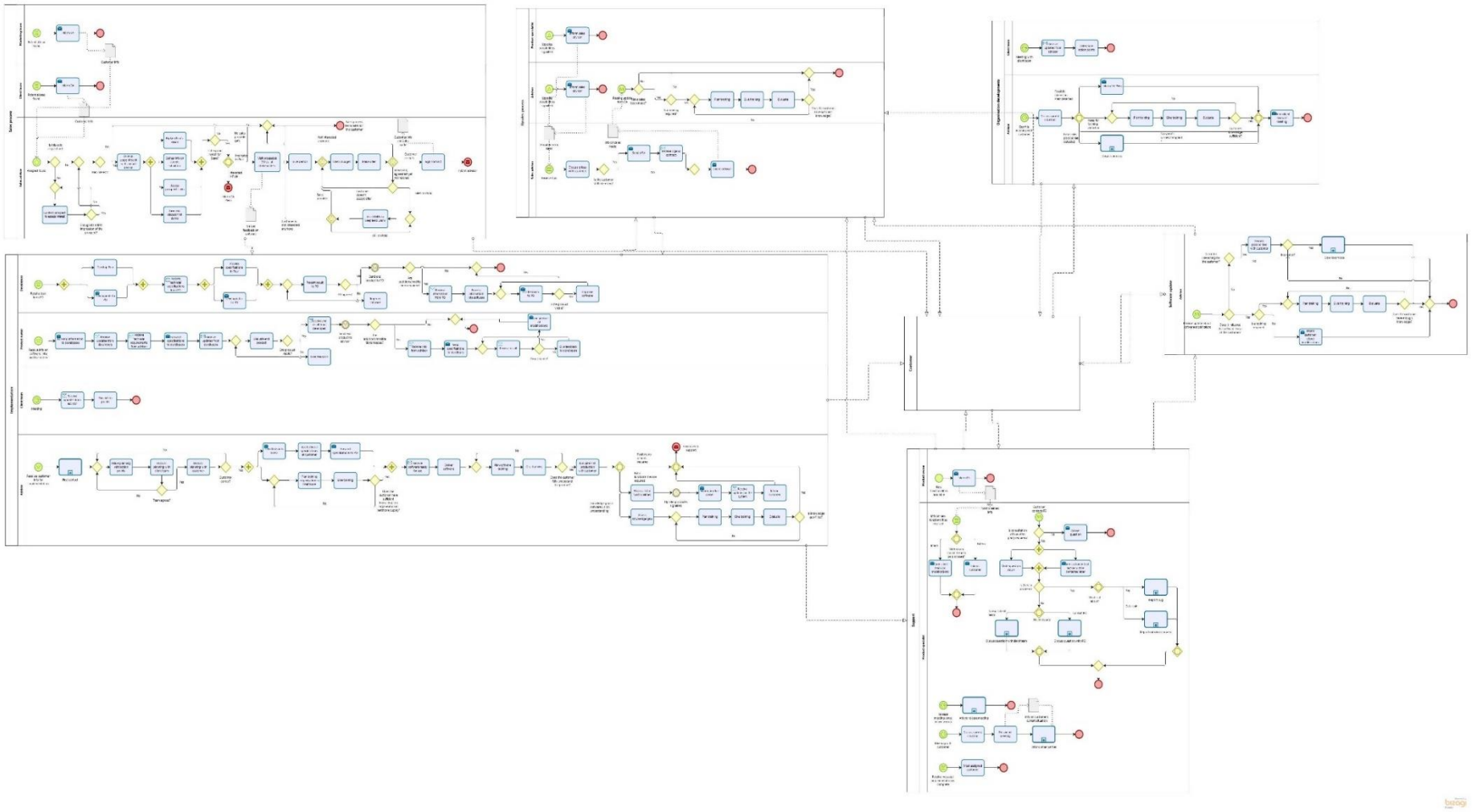
○ **Add control flow**

Comment: by 31627

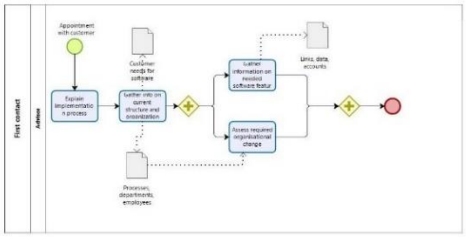
A control flow is missing in the model. The respondent describes the flow with corresponding nodes.

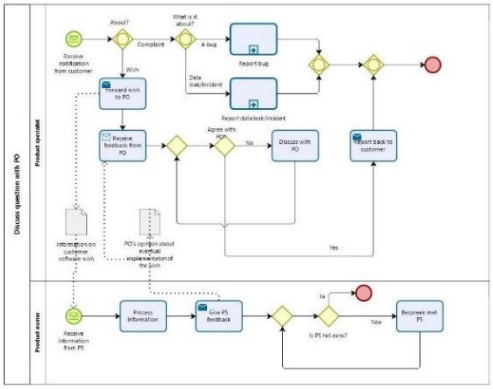
Appendix R: BPMN models fourth Delphi iteration

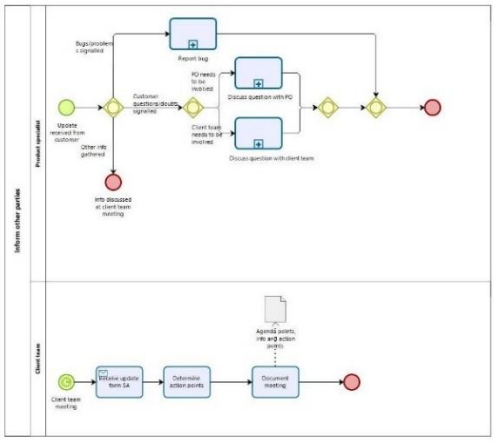
Puur

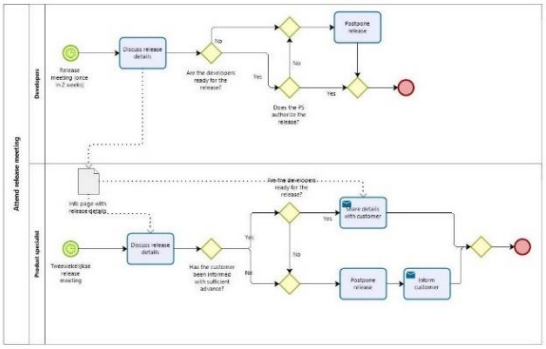


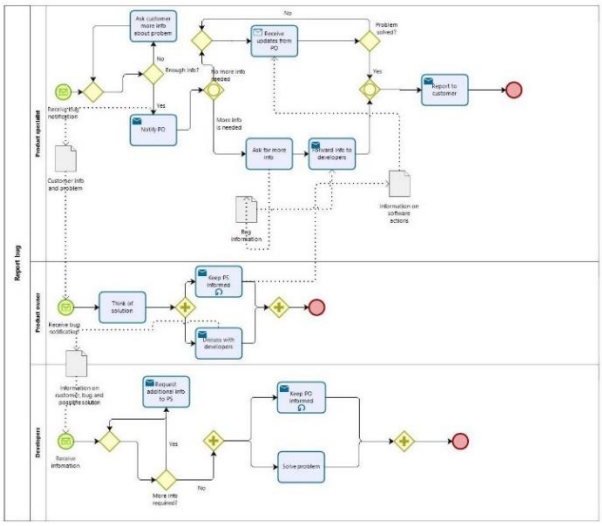
Subprocesses Puur

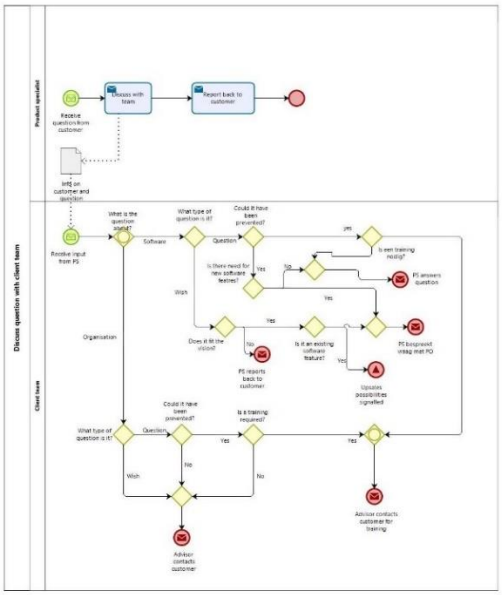


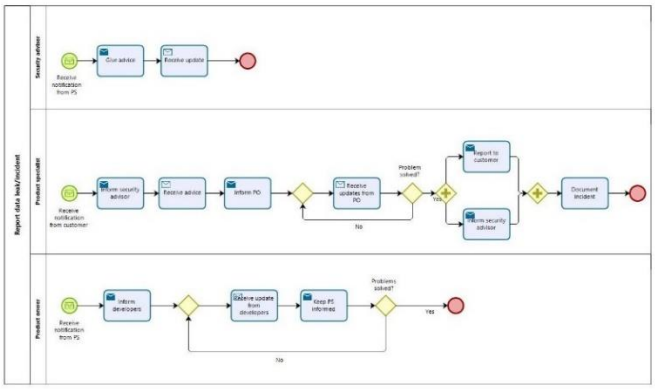




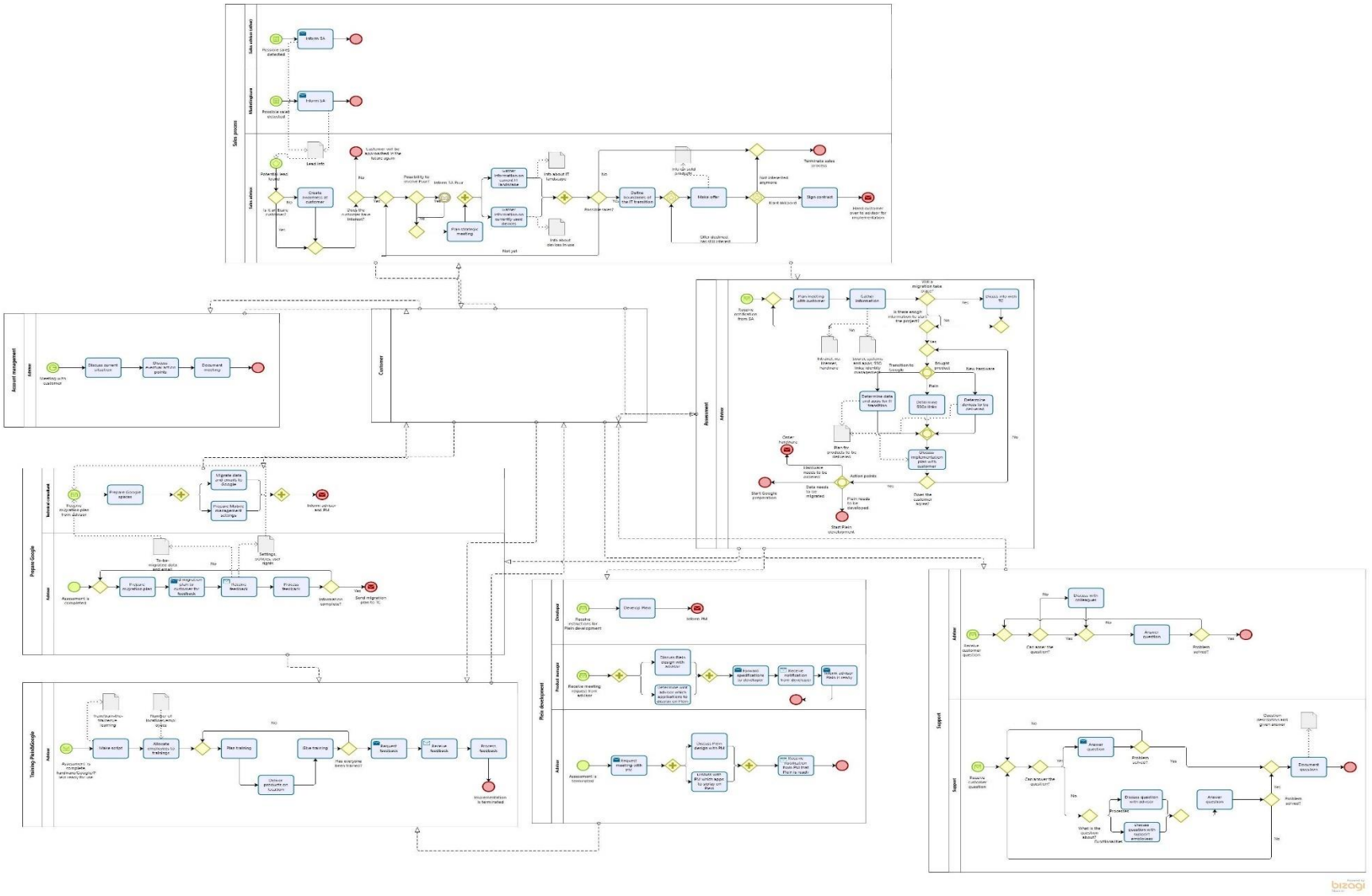








Plein



Appendix S: Questionnaire fourth Delphi iteration

Delphi study Ecare round 4

Start of Block: Introductie

Beste deelnemer,

Met behulp van jouw inzichten en kennis, heb ik een beeld kunnen krijgen van het verloop van de belangrijkste processen bij Puur en Plein.
Dank daarvoor!

Tijdens de afgelopen rondes, werd jou gevraagd om feedback te geven omtrent enkel processen waarbij jij direct betrokken bent. Deze heb ik in een model samengevoegd, om te laten zien hoe de processen zich tot elkaar en tot de klant verhouden.

De bedoeling van deze laatste ronde is om te verifiëren of deze verhoudingen kloppen, en een compleet beeld geven van de tot nu onderzochte werkzaamheden binnen jouw afdeling.

De bestanden die je nodig hebt om deze vragen te beantwoorden vindt je op deze wiki pagina:
wiki.ecare.nl/display/SEA/Eindmodellen+R4
Mocht je twijfelen over de mening van bepaalde elementen, kun je altijd het bestand **Uitleg BPMN modellen** op de pagina Onderzoeksbestanden Vittorio Minghetti raadplegen of mij direct een vraag stellen.

Voor het invullen van deze questionnaire zul je niet langer dan **30 minuten** nodig hebben.
Zoals gewoonlijk, verzoek ik je om het questionnaire **binnen 3 werkdagen na ontvangst** in te vullen.
Mocht het niet lukken, hoor ik dat graag.

Alvast dank!

Q1 Ik ben betrokken bij

- ○ Puur (1)
- ○ Plein (2)
- ○ Beide (3)

Q2 Team

_____

Q3 Functie:

_____

End of Block: Introductie

Start of Block: Questions Puur

Beantwoord dit blok vragen alleen als je bij Puur (of beide Puur en Plein) betrokken bent

Uitleg:
Voor de komende vragen, heb je deze modellen nodig: Integrated business processes (NL) Puur & Integrated business processes (NL) Puur subs
(te vinden op de pagina Stage en Afstuderen -> Eindmodellen R4 op de wiki)

In het model Integrated business processen Puur staat een overzicht van de belangrijkste processen die in dit onderzoek bestudeerd zijn.
Deze zijn:
Sales
Upsales
Implementatie
Organisatieontwikkelingen & update over software (behorend bij de after-implementatie fase)
Support

In het midden staat de klant afgebeeld. NB: de inrichting van de processen om de klant heen is NIET gerelateerd aan de volgorde waarop de processen per klant plaatsvinden.

De streepjes-lijnen tussen de processen geven communiactie tussen processen weer.

Binnen enkele processen zijn subprocessen afgebeeld (bv. Kennismaking binnen het implementatieproces).
Om het model nog enigzins overzichtelijk te houden, zijn alle subprocessen in detail afgebeeld in Integrated business processes (NL) subs.

Q4 Voor de processen waarbij ik persoonlijk betrokken ben, geldt:

- ○ De processen zijn in algemeenheid compleet en de weergegeven aspecten correct (1)
- ○ Er klopt nog iets niet, namelijk: (2)

_____

Q5 Voor de processen waarbij ik persoonlijk betrokken ben, geldt:

- ○ De verhouding met andere processen is correct afgebeeld (1)
- ○ De verhouding met andere processen in dit plaatje klopt niet. Namelijk: (2) _____

Q6 Over het algemeen, wat ik zie in dit model:

- ○ Klopt (1)
- ○ Klopt niet. Namelijk: (2) _____

End of Block: Questions Puur

Start of Block: Questions Plein

Beantwoord dit blok vragen alleen als je bij Plein (of beide Puur en Plein) betrokken bent

Uitleg:
Voor de komende vragen, heb je dit model nodig: Integrated business processes (NL) Plein
(te vinden op de pagina Stage en Afstuderen -> Eindmodellen R4 op de wiki)

In het model Integrated business processen Plein staat een overzicht van de belangrijkste processen die in dit onderzoek bestudeerd zijn.
Deze zijn:
Sales
Inventarisatie
Inrichting Plein
Inrichting Google
Training Plein&Google
Accountmanagement
Support

Sommige processen worden niet afgebeeld, omdat ze niet relevant zijn voor het doel van dit onderzoek.

In het midden staat de klant afgebeeld. NB: de inrichting van de processen om de klant heen is NIET gerelateerd aan de volgorde waarop de processen per klant plaatsvinden.

De streepjes-lijnen tussen de processen geven communiactie tussen processen weer.

Q7 Voor de processen waarbij ik betrokken ben, geldt:

- ○ De processen zijn in algemeenheid compleet en de weergegeven aspecten correct (1)
- ○ Er klopt nog iets niet, namelijk: (2) _____

Q8 Voor de processen waarbij ik betrokken ben, geldt:

- ○ De verhouding met andere processen is correct afgebeeld (1)
- ○ De verhouding met andere processen in dit plaatje klopt niet. Namelijk: (2) _____

Q9 Over het algemeen, wat ik zie in dit model:

- ○ Klopt (1)
- ○ Klopt niet. Namelijk: (2) _____

End of Block: Questions Plein

Start of Block: General

Q10 Heb je nog feedback/vragen/opmerkingen/suggesties voor dit onderzoek?

- ○ Nee (1)
- ○ Ja, namelijk: (2) _____

Erg bedankt voor jouw tijd en hulp!

End of Block: General

Appendix T: Quotations report fourth Delphi iteration

Report for Query: Feedback general | BPMN feedback

(4) quotations

1:4 Wat moet het een heidens karwei voor je zijn geweest om alle feedback…… (5:84 [5:319]) - D 1: Response A [redacted]

Wat moet het een heidens karwei voor je zijn geweest om alle feedback terug te brengen tot de modellen die ik nu heb doorgenomen. Hopelijk he je iets aan mijn feedback gehad! Succes met de voortzetting van deze opdracht! Gr Nicole

1 Codes:

- **Positive feedback**

Comment: by 31627

> *The respondent has some positive feedback*

2:3 Je hebt de feedback uit eerdere questionnaires goed verwerkt. Het mo…… (5:84 [5:310]) - D 2: Response A [redacted]

Je hebt de feedback uit eerdere questionnaires goed verwerkt. Het model ziet er in mijn optiek goed uit!

Succes nog met het afronden van de opdracht. Mocht je mijn hulp nog ergens bij kunnen gebruiken hoor ik het graag.

1 Codes:

- **Positive feedback**

Comment: by 31627

> *The respondent has some positive feedback*

5:4 Bespreek vraag met PO. De vraag die je binnen krijgt is niet per defin…… (2:227 [2:352]) - D 5: Response PS [redacted]

Bespreek vraag met PO. De vraag die je binnen krijgt is niet per definitie een wens of een klacht, het kan ook een vraag zijn

1 Codes:

- **Add control flow**

Comment: by 31627

> *A control flow is missing in the model; the particpiant describes what is missing/where it is ,missing.*

8:4 Complimenten Vittorio hoe je alle informatie hebt weten te vertalen n…… (5:84 [5:219]) - D 8: Response SA

Complimenten Vittorio hoe je alle informatie hebt weten te vertalen naar de modellen, dit ziet er herkenbaar uit voor het salesproces

1 Codes:

- **Positive feedback**

Comment: by 31627

> *The respondent has some positive feedback*

Appendix U: Evaluation questionnaire

Expert opinion survey

Start of Block: Default Question Block

Beste deelnemer,

Dankzij jouw hulp heb ik voldoende informatie kunnen verzamelen om alle relevante processen bij Puur en Plein in kaart te kunnen brengen. Met behulp van jouw antwoorden heb ik de processen kunnen bestuderen en ben ik tot een aantal inzichten gekomen.
Om de samenwerking tussen Puur en Plein te verbeteren, en dus meer naar een gezamelijke product propositie toe te werken, heb ik een aantal aanpassingen bedacht voor de bestudeerde processen.

Deze heb ik naar een nieuw model vertaald, een To-Be model, waarin ik een nieuw scenario voorstel.
Om te kunnen verifiëren of dit scenario daadwerkelijk een verbetering zou kunnen zijn t.o.v. de huidige situatie, heb ik dus jouw mening nodig.

Onderstaand vindt je 11 multiple-choice vragen over hoe jij denkt dat de samenwerking tussen Puur en Plein zou zijn in dit voorgestelde scenario. Daarbij heb je natuurlijk het model nodig: deze kun je vinden op de Wiki onder de pagina Stage en Afstuderen -> To-Be model.

Het model heb ik in de processen sales, implementatie, account management en support opgesplitst om deze beter leesbaar te maken.

Voor het invullen van de questionnaire heb je na schatting niet meer dan 15-20 minuten nodig.
Het liefst zou ik de antwoorden zo snel mogelijk terug willen hebben, uiterlijk **voor donderdag 9 juli.**

Mocht je het niet halen, dingen niet begrijpen of verder andere aanmerkingen hebben, neem gerust contact met mij op.

PS: de modellen zijn alvast naar hett Engels vertaald voor mijn thesis, dus sommige termen zullen wat anders zijn, maar ik ga ervanuit dat dat geen probleem is.

Ik ben betrokken bij:

- ○ Puur (1)
- ○ Plein (2)
- ○ Beide (3)

Functie:

_____

Team:

_____

Q1 Binnen de processen waarbij ik betrokken ben, zie ik in het voorgestelde scenario een verbetering in de frequentie van communicatie met collega's van Puur/Plein

- Helemaal mee oneens (1)
- Oneens (2)
- Deels oneens (3)
- Geen mening (4)
- Deels eens (5)
- Eens (6)
- Helemaal mee eens (7)

Q2 Ik geef de communicatie tussen Puur en Plein zoals afgebeeld in het To-Be model dit cijfer:

	0 1 2 3 4 5 6 7 8 9 10
Click to write Choice 1 ()	

Q3 Binnen de processen waarbij ik betrokken ben, zie ik in het voorgestelde scenario een verbetering in de coordinatie van werkzaamheden tussen Puur en Plein

- ○ Helemaal mee oneens (1)
- ○ Oneens (2)
- ○ Deels oneens (3)
- ○ Geen mening (4)
- ○ Deels eens (5)
- ○ Eens (6)
- ○ Helemaal mee eens (7)

Q4 Ik geef de coördinatie tussen Puur en Plein zoals afgebeeld in het To-Be model dit cijfer:

	0 1 2 3 4 5 6 7 8 9 10
Click to write Choice 1 ()	

Q5 Door dit model, ben ik beter op de hoogte van de processen bij Puur/Plein en wie daarbij betrokken is

- ○ Heelemaal mee oneens (1)
- ○ Oneens (2)
- ○ Deels oneens (3)
- ○ Geen mening (4)
- ○ Deels eens (5)
- ○ Eens (6)
- ○ Helemaal mee eens (7)

Q6 Ik geef mijn huidige kennis van de processen en business actors bij Puur/Plein dit cijfer

0 1 2 3 4 5 6 7 8 9 10

Click to write Choice 1 ()	

Q7 Binnen de processen waarbij ik betrokken ben, zie ik in het voorgestelde scenario een verbetering in de ferquentie van informatieuitwisseling tussen Puur en Plein

- Helemaal mee oneens (1)
- Oneens (2)
- Deels oneens (3)
- Geen mening (4)
- Deels eens (5)
- Eens (6)
- Helemaal mee eens (7)

Q8 Ik geeft de informatieuitwisseling tussen Puur en Plein in het To-Be model dit cijfer:

0 1 2 3 4 5 6 7 8 9 10

Click to write Choice 1 ()	

Q9 Over het algemeen, vind ik dat in het voorgesteld scenario een verbetering is in samenwerking tussen Puur en Plein

- ○ Helemaal mee oneens (1)
- ○ Oneens (2)
- ○ Deels oneens (3)
- ○ Geen mening (4)
- ○ Deels eens (5)
- ○ Eens (6)
- ○ Helemaal mee eens (7)

Q10 Ik geef de samenwerking tussen Puur en Plein zoals afgebeeld in het To-Be model, dit cijfer:

	0 1 2 3 4 5 6 7 8 9 10
Click to write Choice 1 ()	

Q11 Heb je aanvullend feedback?

- ○ Nee (1)
- ○ Ja, namelijk (2) _____

End of Block: Default Question Block

Appendix V: Evaluation interview with the management

Do you think the As-Is model is a good representation of the business processes at Puur and Plein?

Yes, well we have of course talked about that at the start of your research; I think indeed that this represents what I have told you at the time, so yes, that is correct.

Do you think the As-Is model helps identifying spots where collaboration improvements are possible?

Where we begin is, we sit now together in one building, and so is collaboration the most intuitive direction towards improvement: while (before the merge), Plein was in Hengelo and Puur here, these two worlds were also physically separated. So what you describe are two companies that were separate and therefore have inefficiencies. So yes, what you describe here is certainly right.

Do you think the proposed solutions within the To-Be model contribute to improve interdepartmental collaboration?

Yes, well this is linked to the questions I had on your presentation: as you mentioned, the solutions you propose are quite intuitive; which is not a bad thig, perhaps even positive and logic. The fact you have motivated your solution with theory and clear models sounds positive to me. I speak of personal experience, I have myself studied business and what I see is that you learn theories and models and that it is satisfying to see things in real life that fit to what you have learned. I had once a colleague, who always has been a self-made man. He became director by own ambition and then started with his MBA; and he told me: “I knew I was doing stuff, but now I know it all has a name”. So, I think that is very valuable. The question marks I still have is how can we match the soft side of management with the technical side you propose. So for example, I have myself studied at the social sciences faculty of business management; the focus there lies on behaviour of people and how do you influence behaviour. So my question is how do you match that field with the technical perspective you propose; however, I think these are two sides of the same coin, and you have filled very well your side.

At last I am curious to hear what you think in general of the research, did it match your expectations?

I think generally that, you struggled a bit at the start while searching the focus of the assignment, but then you found your way. Then, we lost a bit of contact, which is not a reproach but rather a fact. I’d like to have more detailed insight into the data, but for so far, I must say you have substantiated your research even further than I expected, which is a compliment to you.

Are there any other remarks you’d like to make on the models or in general?

No, I think I’ve said everything.