

***A study on sustainable employability  
of employees at 'Company X'***



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**Organization**

'Company X', Enschede

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## **Preface and acknowledgements**

This thesis is the final result of the master Human Resource Management within the faculty Management and Governance of the University of Twente. The research is performed in the organization 'Company X' in Enschede.

About four years ago I decided to study Business Administration. Now that the study is almost completed, terms like, 'joy', 'relief', 'achievement' and 'a plan for the future' express my feelings.

I want to take this opportunity to thank a number of people. The first supervisor, Dr. A.A.M. Wognum, for the time she took to answer questions, read documents, creating overview of information and giving valuable advices. The second supervisor, Prof. Dr. J.C. Looise, for reading the thesis and giving valuable points of improvement. Further, different employees of 'Company X', who will not be mentioned because of the anonymity of the report. Because this thesis means the end of the study and time at the University, I want to thank some extra people. My friends for listening to my stories and giving advices. Mom, Dad and Loes, thank you for dealing with my sometimes grumpy behavior during exams, listening to my stories and giving advices.

During the research I learned a lot. The organization experienced a reorganization and I experienced the effects on the organization and its employees from a distance. The colleagues in my department were always open and involved me in their functions. They allowed me to obtain a clear understanding of working in an HR function which is valuable for my future career choices.

Success in reading this thesis.

## Management summary

This research is performed in the organization 'Company X' in Enschede, an organization that fosters and supports health amongst employees and individuals. 'Company X' experienced a reorganization which affected the employees. Vitality days were organized after the greatest effect of the reorganization to get an insight in the impact on employees. Sustainable employability was a central topic. These days resulted in the awareness of 'practice what you preach'. Provided services are never applied to the organization itself. With this research, 'Company X' wants to get an insight in sustainable employability of employees and the current attention the organization pays regarding sustainable employability. The aim is to support and improve (where needed) sustainable employability of employees. The following research question is central: *"in what way can 'Company X', where needed, support and improve sustainable employability of its employees?"*

Literature research revealed what sustainable employability is. It appeared that work ability, employability and vitality are returning components. Insight in the meaning of these components is obtained by literature research. Sustainable employability is defined as follows in this research: *"the extent to which employees continuously dispose of actual realizable opportunities and conditions to remain and wanting to function in current and future work, while maintaining the physical, mental and social ability to work, the optimal use of competences and the feeling of being vital."*

Factors that support and improve sustainable employability are also studied in literature. Organizational factors have to do with 1) supporting and improving a good relationship between supervisor and employee, including an open culture where problems can be debated and support of the supervisor; 2) supporting and improving management regarding health, learning and development and the work situation. Health management involves adapting the physical and mental demands of work to capacities of employees and attention for health and lifestyle. Learning and development management involves different ways of formal and informal learning. Management on the work situation involves working conditions, the content of work, work relations and employment conditions; and 3) factors that support and improve integration of sustainable employability involves periodically measurement, integration in interviews and monitoring. In addition to organizational factors, individual factors influence sustainable employability. These have to do with having an open attitude, propagate needs, having motivation and willingness, living a 'healthy life' and possessing of self efficacy. Government and social partners have an indirect influence by means of regulations.

To answer the research question, two sub-questions are answered: 1) *"how is the situation regarding work ability, employability and vitality (sustainable employability) of employees at 'Company X' and is there a difference between the different groups?"* and 2) *"what organizational factors that support and improve sustainable employability are present at 'Company X' and to what factors the organization should pay more attention to?"* The first question is answered by means of a questionnaire that measured the current situation of work ability, employability and vitality of employees. This instrument exists of three instruments which proved to be reliable and valid in earlier studies. The second question is answered by means of a qualitative interview with the HR advisor and gives an insight in the current attention the organization pays regarding sustainable employability. This interview is based on factors that support and improve sustainable employability, according to literature. In addition to the interview, internal documents are used to answer the question.

Results show that in general, employees have good scores on the different components. The differences in scores between the groups in the organization are not significant. The score of work ability is good and almost excellent. Working conditions (autonomy, variety, work pace and work amount and physical load) are experienced to a different extent in functions. Employees score good on lifestyle, have a healthy weight and a good productivity. The scores on dimensions of employability are between fairly well and good. The score on vitality indicates that employees feel vital between once a week and a few times a week. The aim is maximum scores and therefore improvements are possible. Results of the interview and internal documents revealed that the organization pays attention to factors that support and improve sustainable employability. Some factors are present, some factors are partly present and some are not present at all. The attention the organization pays regarding employability thus can be increased. The current attention the organization pays regarding sustainable employability is compared with the ideal situation according to literature. On this basis is derived which improvements are needed to support and improve sustainable employability of employees. Herewith, the research question, *"in what way can 'Company X', where needed, support and improve sustainable employability of its employees?"* is answered.

It is advised that the organization pays attention to the following points: create an open culture where problems can be debated between supervisors and employees; make supervisors aware of the supporting role they should fulfill and the expectations, including creating opportunities for employees and motivate them in the realization of these; integrate management on health, learning and development and the work situation in interviews; increase opportunities regarding activities on health and lifestyle; discuss formal learning opportunities and increase informal learning opportunities; increase opportunities to adapt the work situation; integrate sustainable employability in the organization (periodically measurement, integration in interviews, monitoring and internal communication); create a sustainable employability page on Intranet; adjust the forms of interviews or create a sustainable employability interview; and propagate the role of employees.

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## **Chapter 1 – Introduction**

In this chapter, 'Company X' will be described briefly, the reason for the research will be given and sustainable employability will be introduced. The research question will be given and the research approach will be discussed. Further, the relevance of the research will be mentioned and the chapter will end with the structure of the research.

### **1.1 – The organization**

This research is performed in 'Company X', a holding consisting of four private organizations. The organization fosters and supports health amongst employees and individuals by providing various kinds of services. 'Subsidiary A' is engaged in work load and the growing market for curative and reintegration projects of individuals who receive unemployment benefits. 'Subsidiary B' provides corporate fitness. In addition, the subsidiary offers a full range of services that fosters health and rehabilitation of employees to prevent and reduce absenteeism. 'Subsidiary C' focuses on the maintenance of work ability, motivation and productivity of employees. At last, 'Subsidiary D' helps individuals to quit smoking ('Subsidiary D', 2013; 'Company X', 2013; 'Subsidiary A', 2013; 'Subsidiary B', 2013; Introductieboekje, 2013; 'Subsidiary C', 2013). The organization will be discussed in depth in chapter two, the context analysis.

### **1.2 – Reason for the research**

Like many other organizations 'Company X' deals with the economic crisis. About a year ago the organization employed 150 employees, but due to the crisis the organization had to cut back to seventy-five employees. This resulted in a reorganization of the workforce which affected a large number of employees. However, the organization wants to work with a positive attitude towards the future with their current team and keep them motivated and committed. After the reorganization, the vitality days were organized with the purpose to pay attention to employees and obtain an insight in the impact of the reorganization. Sustainable employability was the central topic during these days, explained on the basis of work ability, employability and vitality. These topics are integrated in services that the organization provides. Examples are performing health checks, vitality workshops, measuring work ability and internal fitness. However, such services are never applied to the organization itself. This awareness came after the vitality days where both employers and employees indicated that 'practice what you preach' might be good. Further, the vitality days showed that employees are still motivated and committed, however this is less than before. For these reasons the organization decided to pay more attention to employees. The aim is to go on with the current team and make them more active and committed. Employees should be sustainable employable, so that the organization can work towards a successful future. It is not the case that the organization finds that employees do not work properly and this research does not have consequences for employees. It is about obtaining an insight in sustainable employability of employees.

### **1.3 – Sustainable employability**

Reasons above indicate that sustainable employability is an interesting topic for the organization. This topic is briefly discussed during the vitality days. The definition that 'Company X' used is based on the Social Economic Council (SER) (2009), Van Vuuren (2011) and Van Vuuren, Caniëls & Semeijn (2011). In these publications sustainable employability is perceived as the extent to which employees can and will perform their current and future work. Other studies on sustainable employability are performed by Van der Klink, Burdorf, Schaufeli, Van der Wilt, Zijlstra, Brouwer & Bültman (2010;2011) and Bossink (2011). Van der Klink et al. (2010;2011) define sustainable employability as follows: "it means that employees, continually in their working lives, dispose of actually realizable possibilities and the needed conditions to continue functioning in current and future work, while maintaining health and well-being" (p. 8). Bossink (2011) defines it as "all physical and mental conditions and contextual conditions that determine the current and future position of employees in the labor market, so the ability to obtain and maintain work is optimized" (p. 20).

Based on these definitions a provisional definition is composed. Sustainable employability is: *“the extent to which employees continuously dispose of actual realizable opportunities and conditions to remain and wanting to function in current and future work.”*

#### **1.4 – Objective of the research and research question**

Notwithstanding the impact of the reorganization, the organization is positive regarding the future. The organization wants to foster health amongst a growing amount of organizations and individuals. The objective of this research is to support and improve (where needed) sustainable employability of employees at ‘Company X’. With sustainable employable employees the organization can work towards a successful future. In response to the objective of this research, the following research question is drawn up: *“in what way can ‘Company X’, where needed, support and improve sustainable employability of its employees?”*

#### **1.5 – Research approach**

The research is characterized as both explorative and descriptive. First is explored what sustainable employability is and what factors support and improve it. This leads to the development of the conceptual and research model. Elements of the research model are operationalized and a questionnaire and an interview are developed. The target group is formed by employees of the organization. With the questionnaire the current sustainable employability of employees is measured, respondents were asked to answer questions regarding their work ability, employability and vitality. Employees can best indicate the situation of their sustainable employability (e.g. indicate whether they can handle the physical and mental demands of work in the case of work ability). The interview with the HR advisor provides an indication of the current attention the organization pays regarding sustainable employability. The HR advisor was asked to answer questions about the presence of a good relationship between supervisor and employee, activities on sustainable employability and integration of sustainable employability. The HR advisor is the contact person when it comes to everything in the area of employees. This employee is therefore most suitable to ask questions about the current attention the organization pays regarding sustainable employability. In addition to the interview, internal documents (policy document personal & organization policy and introduction guide) are used to obtain information about the current attention regarding sustainable employability. Results of the questionnaires are analyzed and described and the obtained information from the interview and internal documents are described. On the basis of all results, an advice is given that can serve as manual to support and improve sustainable employability in the organization (where needed), as mentioned in the research question.

#### **1.6 – Relevance of the research**

##### *1.6.1 – Social relevance*

Employers are aware of the change in the grey pressure, the balance between the increasing aging population (aging) and the declining in birth rate (hazing). In addition the expected labor shortage in the near future (Buchholz & Blossfeld, 2012; Chambers, Foulon, Handfield-Jones, Hankin & Michales, 1998; Van Vuuren, 2011; Van Vuuren et al., 2011). The number of employees will decline in future years and no countervailing trend is noticed yet (Chambers et al., 1998). Both are matters of public interest. It is therefore important for employers to retain current employees and maintain their sustainable employability in order to perform work in a proper manner. With employees that are sustainable employable, the problems can be reduced or prevented for organizations. Employers and employees, and according to some authors government as well as social partners, have a shared responsibility regarding sustainable employability.

##### *1.6.2 – Practical relevance*

‘Company X’ experienced a turbulent period caused by the reorganization. The organization wants to obtain an insight in sustainable employability of employees. Recommendations of this research can serve as a manual to support and improve sustainable employability in the organization. This has a



valuable contribution to the functioning of the organization. With a team of sustainable employable employees the organization can work towards a positive future.

Many studies on sustainable employability state that different factors have an influence on it. However, in these studies only some of these factors are measured. In this research, different factors that influence sustainable employability are discussed and all factors are measured to gain a complete insight in sustainable employability.

This research and its recommendations are consistent with the current situation that many organizations deal with: the economic crisis. Many studies recommend providing training and education, performing health checks etcetera. However, budget is not always available in organization. This research also shows how organizations can support and improve sustainable employability of its employees without large budget.

#### *1.6.3 – Theoretical relevance*

This research expands the base of studies on sustainable employability. The results of this research can expand the knowledge base for factors that support and improve sustainable employability.

So far literature research has shown, an overall instrument of sustainable employability does not yet exist. Based on current research, the development of such an instrument might be possible in future research. In the discussion in chapter six this is elaborated.

### **1.7 – Structure of the research**

In this chapter the introduction is given. Chapter two concerns the context analysis, how does sustainable employability fits in the context of 'Company X'? In chapter three relevant literature is discussed which leads to the development of the conceptual and research model. Chapter four focuses on the methodology, the methods that are used in this research. In chapter five an analysis of the results is given. At last, chapter six presents conclusion, discussion and recommendations. The research question is answered in this final chapter.

## Chapter 2 – Context analysis

In this chapter, the organization and its subsidiaries will be discussed in depth. Further, this chapter will discuss why sustainable employability is important for 'Company X'.

### 2.1 – 'Company X'

'Company X' is a holding organization consisting of four subsidiaries: 'Subsidiary A', 'Subsidiary B', 'Subsidiary C' and 'Subsidiary D'. The organization fosters health, work ability and productivity amongst individuals. All four subsidiaries share a vision and mission. The *vision*: "many people move insufficient and have an unhealthy lifestyle. People with an active lifestyle are healthier, have a better work ability and are more productive. Exercise is the key to a healthy lifestyle. With the help of exercise, many gains can be achieved for people, organization and society. 'Company X!'". The *mission*: "we want to foster health, work ability and productivity of individuals. Our starting point is 'Company X!'". We use substantiated instruments that result in an advice and we perform the recommended approach with effective programs. 'Company X' has the ambition to reach and help more individuals annually with which we contribute to a healthier society" ('Company X', 2013).

The organization offers various services to organizations and individuals. 'Company X' organizes workshops in which organizations are introduced with 'Company X' or congresses for existing and/or potential clients ('Company X', 2013; Introduction guide, 2013). Further, each subsidiary provides different services which will be discussed in the following paragraphs. Primary clients of the organization are communities, the Institute for Employee Insurances (UWV) and various employers. Other clients include health and income companies, indemnity companies, occupational health services and reintegration companies.

'Company X' employs 79 employees (including the two directors). The headquarter where the staff operates is located in Enschede. Other employees are working across the country because of the spread of customers. In figure 2.1 the organizational chart is displayed, based on the situation after the reorganization. This is followed by discussing the different subsidiaries.

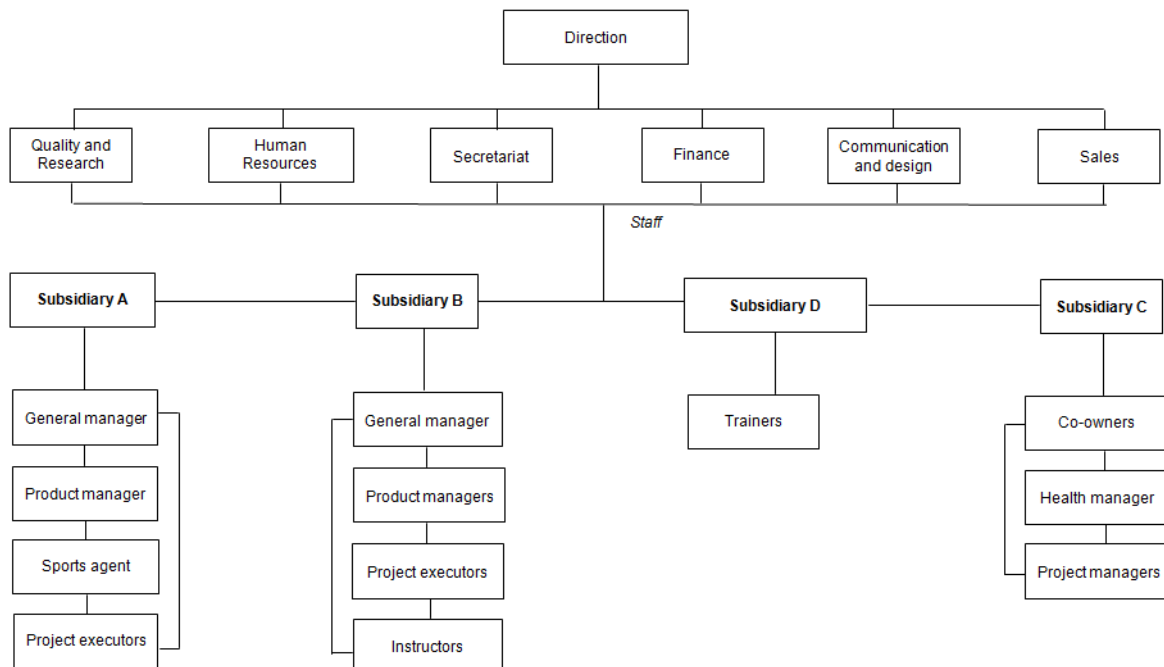


Figure 2.1: Organizational chart 'Company X'

## **2.2 – Staff**

Before describing the four subsidiaries separately, the staff that operates for all subsidiaries is described. The staff holds thirteen employees. The sales department employs three employees who sell the services of 'Company X' throughout the country. The finance department employs two employees who are responsible for the financial affairs, one is employed as controller and one is working on financial administration. In addition a trainee is employed. The HR department holds two employees who are taking care of all personnel matters. One is employed as HR advisor and the other is working on personnel administration. On quality and research one employee is maintaining the quality of the services and investigates where improvements are possible. One employee at the secretariat is responsible for amongst other communicational matters. Finally, one employee is working on communication and design. The two directors are also mentioned as staff because they perform work for all four subsidiaries. In addition to the position of director, one is working on sales and one is working on internal processes.

## **2.3 – 'Subsidiary A'**

This subsidiary is engaged in work load and the market for curative and reintegration projects of people who receive unemployment benefits. Exercise programs are central in this subsidiary. 'Service A' is an important program. This is a reactivation program for individuals with unemployment benefits. It fosters exercising of participants with health barriers. Individuals work on a healthier lifestyle, improved fitness and individual skills, thereby improving health and employment opportunities or (social) participation. Another service is 'Service B'. Based on an evaluation of capacities or activities, an advice is given to participate in work, while considering body functions and structures, environmental factors and health status ('Subsidiary A', 2013; Introductieboekje, 2013).

'Subsidiary A' holds 21 employees. The general manager oversees everything in 'Subsidiary A'. This employee manages the executors of projects and has contact with (possible) clients. Further, one product manager is responsible for the quality and development of services, the occupation of projects and also performs different projects. A sport agent is responsible for the supply and demand of projects. Most employees (eighteen) perform projects, for instance 'Service A' programs. A dietician who gives advices regarding a healthy eating style is part of some projects.

## **2.4 – 'Subsidiary B'**

'Subsidiary B' provides fitness programs for organizations. This program starts with an intake conversation, a fitness test for participants and a personal coaching conversation. After that, organizations can choose different activities (e.g. individual training and group training). Adapted to the client needs, a specific health program is created. Furthermore, 'Subsidiary B' has projects regarding health management, performs health checks and organizes events (Introduction guide, 2013; 'Subsidiary B', 2013).

'Subsidiary B' holds 34 employees. The general manager oversees everything in 'Subsidiary B'. This employee manages the executors of projects and has contact with (possible) clients. Two product managers are responsible for the quality and development of services, the occupation of projects and also perform different projects. Three employees are performing health checks. Two employees work on health management on a consulting basis. Most employees (26 in total) in this subsidiary work as instructors and give guidance on fitness and perform group lessons, work as physiotherapist or as location manager. Eight of them are both location manager and instructor.

## **2.5 – 'Subsidiary C'**

This subsidiary is a research and consulting office that focuses on the maintenance of work ability, motivation and productivity of employees. It is for 50 percent owned by another organization called 'Company Y'. 'Subsidiary C' tries to increase work ability of employees and therewith sustainable employability. An example is 'Instrument A' that measures work ability of employees. This is a scientifically proven method that identifies the risk of absenteeism and improvements of work ability, productivity and employability of employees. In addition, the subsidiary offers other instruments such

as a quick scan on labor and workload and career guidance (Introductieboekje, 2013; 'Subsidiary C', 2013).

Because 'Subsidiary C' is for 50 percent owned by 'Company Y', the two perceive a distance between each other. 'Subsidiary C' was not affected by the reorganization and did not participate in the vitality days. 'Subsidiary C' was allowed to participate, however both parties experience a separation. They find a commitment in this area not needed because of this perceived distance.

'Subsidiary C' holds six employees (the two directors of 'Company X' excluded). The two co-owners of 'Company Y' fulfill the position of director. In addition to the position of director, one is responsible for the daily business and is a senior advisor in certain projects and one is concerned with internal matters (e.g. sales and marketing) and additional research. A health manager, who supervises projects, gives advice to customers and develops services and products. Further three project managers are working for 'Subsidiary C', two of them are involved in guiding projects and are team leaders of projects, the latter also guides projects and is responsible for communicational matters.

## **2.6 – 'Subsidiary D'**

This subsidiary helps individuals to quit smoking. The method of 'Subsidiary D' is offered worldwide and fifty thousand individuals quit smoking with this program per year. 'Company X' has obtained a license for this service. The method includes one training session which lasts for six hours. The training does not address (health) reasons, but gives an answer to the reason why volunteers smoke. It is a no-nonsense methodology that uses principles based on cognitive behavioral therapy (Introductieboekje, 2013; 'Subsidiary D', 2013).

'Subsidiary D' holds five employees, one permanent employee and four freelancers. The permanent employee and one of the freelancers fulfill the role of trainer. The other three freelancers attend a course to become a trainer.

## **2.7 – Cooperation between the subsidiaries**

The four subsidiaries work together under one holding, 'Company X'. The staff is working for the entire holding and the other employees for the subsidiary they are part of. Collaboration in a way that employees exchange between the different subsidiaries is not common. For instance, the general manager of 'Subsidiary A' cannot fulfill the function of general manager of 'Subsidiary B'. In general the subsidiaries barely have contact with each other. Collaboration is not needed because each subsidiary has its own work and tasks to fulfill. When an employee is absent and a substitute in the own subsidiary cannot be found, an employee of another subsidiary might offer a solution (on the condition that the required knowledge is present). The cooperation between 'Subsidiary C' and the other subsidiaries is explained in paragraph 2.5.

## **2.8 – Reason for sustainable employability**

Why does sustainable employability fit in the context of 'Company X'? The reason for the research and sustainable employability is briefly mentioned in paragraph 1.2. The reorganization affected employees, some of them were discharged and some went backwards in hours. The overhead, i.e. the staff was most affected, all employees went backwards in hours. In 'Subsidiary A', the function of region manager disappeared. This is the layer between the general manager and the executive employees. This resulted in more responsibility for the general manager and the executive employees. In addition, a few other employees went backwards in hours. The impact on 'Subsidiary A' was less than on the overhead (in terms of hours). In 'Subsidiary B' the reorganization did not have any impact. For this reason, the organization wonders whether the different groups (staff, 'Subsidiary A', 'Subsidiary B', 'Subsidiary C' and 'Subsidiary D') differ regarding their sustainable employability.

During the reorganization less attention was paid to the needs of employees. After the reorganization the organization was in need of obtaining an insight in the needs of employees and their opinion about their work. Therefore, the vitality days were organized. The meaning of work was central during these days. Employees had to fill in a questionnaire about vitality and on this basis was examined how vital employees were. Work ability was discussed using the so-called 'house of work

ability' (Gould, Ilmarinen, Järvisalo & Koskinen, 2008; Ilmarinen, Tuomi & Seitsamo, 2005). This house reflects elements that are part of work ability. Employees had to discuss with each other how they were related to the various elements. In addition, employees had to participate in physical challenges and team building activities. As a result of the vitality days it appeared that employees are still vital, that they do find sense in their work and that they are willing to do the best they can. However, this is diminished when comparing it with the situation before. Employees still experience job insecurity, because the situation remains precarious due to the crisis. Employees are therefore less committed to the organization.

The most important reason for this research is the need to 'practice what you preach'. How does the organization itself perform on areas in which they provide services? This awareness arose after the vitality days. Sustainable employability was the central topic during these days, explained on the basis of work ability, employability and vitality. These topics are integrated in services that the organization provides. Employees work with these topics in their functions. Examples are health management, (sustainable) employability, exercise, work ability, reintegration in the labor market, career and vitality. A logical thought is that an organization that offers such services also provides these in the organization itself or pay attention to these somehow. However, after the vitality days both employers and employees indicated that the organization falls short in this respect. In paragraph 2.9 the current situation regarding sustainable employability will be discussed.

## **2.9 – Current situation regarding sustainable employability**

'Company X' has an HR policy, including guidelines on personnel planning, inflow, competence management, outflow and personnel information and registration (Policy document Personal & Organization policy, 2013). This document and the introduction guide of the organization revealed that policy regarding sustainable employability is not present in the organization. These internal documents do however reveal policy that might be related to sustainable employability (e.g. a procedure of sickness and competence management including training, development and assessment).

This research aims to support and improve sustainable employability of employees where needed. Therefore, it is necessary to research to what extent employees are sustainable employable. In addition, the current attention that the organization pays regarding sustainable employability should be identified. To provide an insight in these two issues, literature research is needed to obtain an image of what sustainable employability is and what factors support and improve it.

In chapter one and two the organization, the reason for the research and sustainable employability are discussed. A number of things are kept in mind that are central in the research. To answer the research question "*in what way can 'Company X', where needed, support and improve sustainable employability of its employees?*" a literature research on sustainable employability is needed. What is sustainable employability and what factors support and improve it? Regarding the measurement of sustainable employability, two things are kept in mind. First is that the organization should be divided in different groups. These groups are: staff, 'Subsidiary A', 'Subsidiary B', 'Subsidiary C' and 'Subsidiary D'. The context analysis revealed that these groups are differently affected by the reorganization. The organization wants to know whether sustainable employability of employees differs in these groups, therefore differences between groups will be studied. In addition, elements in internal documents of 'Company X' should be kept in mind. Literature research will reveal whether these elements are elements regarding sustainable employability and reveal whether the organization already pays attention to sustainable employability. Regarding recommendations, the financial situation of the organization is important to consider. Organizations with little budget cannot easily implement recommendations that cost money. Creative recommendations that do not cost any money or little money are needed.

The information above is important to remember during the continuation of this research. This applies to the literature research in chapter three, the methodology in chapter four, the results in chapter five and to the concluding chapter.

## **Chapter 3 – Sustainable employability**

In this chapter, the importance of sustainable employability will be discussed first. The definition of sustainable employability is given and work ability, employability and vitality will be discussed. Further, factors that support and improve sustainable employability will be discussed. The role of government and social partners is described. Finally, the conceptual model and the research model will be presented and sub-questions will be given.

### **3.1 – Importance of sustainable employability**

The change in grey pressure and the expected labor shortage are mentioned in paragraph 1.6.1 where the social relevance of sustainable employability is discussed. Next to these factors, other factors play an important role regarding the importance of sustainable employability.

The situation on the labor market constantly changes, caused by for instance economic developments (e.g. economic crisis); technological opportunities (e.g. automation); and social trends (e.g. flexible working) (NEN, 2012). Due to these changes, organizations need employees that are little absent at work, productive, flexible and highly employable in order to adapt to the changing labor market. To support and improve such characteristics of employees, efforts towards sustainable employability is needed. Van Vuuren (2011) indicates three external trends in the labor market. The first one is the approach to personnel issues. External changes (e.g. the intensity of knowledge) caused that employees are more seen as an important asset to which attention should be paid. The second is the shift in thinking about work and health: from a negative to a positive angle. Employers should not only cure or prevent problems regarding sustainable employability, but should increase interventions that foster sustainable employability. The last trend is the change in Dutch legislation and organizations regarding attention for sustainable employability (Van Vuuren, 2011). These external changes indicate that organizations pay more attention to sustainable employability of their employees. However, for the first time in five years less collective agreements with arrangements on sustainable employability are made. Concrete agreements on for instance more training for employees decreased (Van den Hout, 2013). The economic crisis might be the cause.

This paragraph revealed the importance of sustainable employability. In the remainder of this chapter will be discussed what sustainable employability is and what factors support and improve it.

### **3.2 – Defining sustainable employability**

The SER (2009), Van Vuuren (2011) and Van Vuuren et al. (2011) perceive sustainable employability as the extent to which employees can and will perform their current and future work.

Van der Klink et al. (2010;2011) have another perception on sustainable employability. These authors define it as follows: "it means that employees, continually in their working lives, dispose of actually realizable possibilities and the needed conditions to continue functioning in current and future work, while maintaining health and well-being" (p. 8).

Bossink (2011) defines sustainable employability as all physical and mental conditions and contextual conditions that determine the current and future position of employees in the labor market, so the ability to obtain and maintain work is optimized (p. 20).

Forrier, Sels, De Witte, Van der Steene & Van Hootegem (2001) explain sustainable employability as the ability to maintain and to obtain work with the current or any other employer, both in the internal and external market.

Authors describe sustainable employability in a similar way, however in different words. After comparing the definitions it can be concluded that the core of sustainable employability is continuously disposing of actual realizable possibilities and conditions to remain and wanting to function in current and future work. The following definition of sustainable employability is composed:

*"the extent to which employees continuously dispose of actual realizable opportunities and conditions to remain and wanting to function in current and future work."*

This paragraph defined sustainable employability. In addition to the definitions authors gave, they explain sustainable employability in different ways. The SER (2009), Van Vuuren (2011) and Van Vuuren et al. (2011) describe sustainable employability by going into work ability (the physical, mental and social ability to work), employability (continuous fulfilling, acquiring or creating of work through the optimal use of competences) and vitality (feeling energetic, fit and strong, wanting to work, the ability to work for a long time and having mental resilience and perseverance). Van der Klink et al. (2010;2011) mention that employees should dispose of a good physical and mental health. In addition, vitality and well-being are important for employees. Physical and mental health, vitality and wellbeing are reflected in work ability and in vitality. Bossink (2011) mentions that physical and mental conditions of employees determine the position of employees in the labor market in part. Physical and mental conditions are reflected in work ability and vitality. In addition, Van Vuuren et al. (2011) argue that vitality and work ability refer to the physical and mental conditions to make employability sustainable. Work ability, employability and vitality appeared to be important important components. Therefore, these components will be discussed in depth in the following paragraph.

### **3.3 – Work ability, employability and vitality**

#### *3.3.1 – Work ability*

Burdorf, Van der Berg & Elders (2008), Gould et al. (2008), Ilmarinen et al. (2005), SER (2009), Van der Berg (2010), Van der Heijden (2011), Van der Klink et al. (2010), Van Vuuren (2011) and Van Vuuren et al. (2011) state that work ability is part of an individual's sustainable employability.

Gould et al. (2008) and Ilmarinen et al. (2005) explain work ability as the degree to which individuals are physically, mentally and socially able to work. It is the result of the interaction between the performance and characteristics of employees on the one hand and the characteristics of work on the other. The authors study work ability since the 80s and developed the so-called house of work ability. Herein, individual and organizational elements are given that are part of work ability. The ground floor is the basis and includes physical, mental and social functional abilities of employees and their health. The first floor represents the qualifications and competences. The second floor is about motivation, norms and values of employees. The third floor includes physical and mental demands of work, working conditions and the social environment (management and situational leadership). The house stands in an environment of family, friends, acquaintances and society, each of which are part of the ability to work. This environment is not really a part of work ability, but it can have an influence on it.

Van der Klink et al. (2011) explain work ability the same as Gould et al. (2008) and Ilmarinen et al. (2005). In addition, they state that the current work ability of employees can be predictive for the future ability to work. Anticipating on weak elements of an individual's work ability might reduce or even remove these weak elements in the future.

Van den Berg (2010) explains work ability as the extent to which employees, given their health, are physically and mentally able to meet the demands of work. This author states that health problems can lead to restrictions at work, but that health does not fully determines work ability. It depends on the demands of work and the capacities of employees. Depending on severity of the health problem and the load of the function, employees might still able to function properly.

Burdorf et al. (2008) explains work ability as the ability of employees, given their health, mental and physical capacities and knowledge and skills, to perform functions in a proper manner. A good work ability contributes to healthy and motivated employees and a productive employability.

#### *Work ability defined*

After comparing the conceptions it can be concluded that the core of work ability is the degree to which individuals are physically, mentally and socially able to work. The house of work ability (Gould et al., 2008; Ilmarinen et al., 2005) revealed different elements that are part of work ability. The elements are physical, mental and social functional abilities and health, qualifications and competences, motivation, norms and values, physical and mental demands, working conditions and the social

environment (management and situational leadership. Elements that other authors mention are reflected in these elements.

### 3.3.2 – *Employability*

Bossink (2011), De Vries, Gründemann & Van Vuuren (2001), De Vries, Gründemann, Van Vuuren & Willemsen (2000), Forrier et al. (2001), SER (2009), Van der Heijden (2011), Van der Heijden & Van der Heijde (2006), Van der Klink et al. (2010;2011), Van Vuuren (2011) and Van Vuuren et al. (2011) state that employability is part of an individual's sustainable employability.

Van der Heijden & Van der Heijde (2006) explain employability as the continuous fulfilling, acquiring or creating of work through the optimal use of competences. These authors mention balance, anticipation & optimization, corporate sense, personal flexibility and occupational expertise as dimensions that are part of an individual's employability. Balance means compromising between employers' interests and employees' own interests. Anticipation and optimization is about preparing for future work changes in a personal and creative manner in order to strive for the best possible job and career outcomes. Corporate sense is about participating as members of an integrated team and anticipating to the organizational culture. Personal flexibility has to do with adapting to changes occurring in the work and labor market environment. Occupational expertise concerns the extent to which employees are in possession of domain specific knowledge and skills. The authors state that employability is a critical requirement for enabling sustained competitive advantage at firm level and career success at individual level. This is a dual orientation for both employers and employees.

Several authors explain employability as the ability to maintain and obtain work with current and future employer (Baruch, 2004; Forrier & Sels, 2003; Forrier et al., 2001; Nauta, de Vroome, Cox, Korver & Kraan, 2005).

Fugate, Kinicki & Ashforth (2004) conceptualize employability as active adaptability that enables employees to identify and realize career opportunities in and between organizations. These authors see it as a psycho-social construct expressing individual characteristics that foster adaptive cognition, behavior and affect and enhance the individual-work interface. Employees need to acquire knowledge, skills, abilities and other characteristics (KSAOs) valued by current or future employer to maintain or obtain work. This (pro)active adaptability consists of three dimensions: career identity, personal adaptability and social and human capital. Career identity provides a representation of career experiences and aspirations. It resembles constructs like role, occupational and organizational identity in that they all refer to how employees define themselves in a work context ("who am I?" or "who I want to be?"). Personal adaptability is the willingness and ability of employees to change personal factors to meet the demands of the situation. This contributes to both organizational performance and career success because it enables employees to remain productive and attractive to employers in changing work domains. At last, individuals and organizations invest in social and human capital in anticipation of future returns in the workplace. Social capital is the goodwill inherent in social networks. Information and influence gives individuals access to career opportunities and it helps in achieving occupational aspirations. Human capital refers to different factors that influence an individual's career including education, work experience and job performance.

De Vries et al. (2001) explain employability as the ability to fulfill various tasks and functions adequately, now and in the future, both in the current or another organization or sector. The authors mention harmonization of available and demanded capacities. This means that employees make full use of their capacities and thereby achieve self-realization. With a wide range of competences and skills it is easier to switch to another position. Employers too have an interest, because employable employees are better educated and more flexible. Deployability and mobility are elements that are part of an individual's employability. The ease with which employees can be given different tasks and functions is called deployability. Mobility is the willingness to use the skills and competences, for instance the willingness to change from function.

According to De Grip, Van Loo & Sanders (2004) employability involves the capacity and the willingness of employees to remain attractive for the labor market (supply factors) by reacting and



anticipating on changes in tasks and work environment (demand factors) facilitated by HR development instruments offered to them (institutions) to effectuate their employability. The need to be employable depends on the presence of turbulence in the workplace where employees need to cope with. This depends on the intensity of various developments in the sector or industry and the characteristics of the markets in which the organization operates.

#### *Employability defined*

After comparing the conceptions it can be concluded that the core of employability is the continuous fulfilling, acquiring or creating of work through the optimal use of competences. When characteristics of employability are compared, it appears that all characteristics that authors mention are reflected in the five dimension balance, anticipation & optimization, corporate sense, personal flexibility and occupational expertise of Van der Heijde & Van der Heijden (2006).

#### *3.3.3 – Vitality*

The SER (2009), Van Vuuren (2011) and Van Vuuren et al. (2011) state that vitality is part of an individual's sustainable employability. Other visions on sustainable employability mention elements of vitality (Bossink, 2011; Bossink & Wognum, 2012; Van der Klink et al., 2010;2011). This might indicate that these authors also see vitality as part of sustainable employability.

According to Schaufeli & Bakker (2003;2007) vitality has different characteristics. It has to do with energy, employees should feel energetic at work. Feeling strong and fit is another characteristic. The willingness to work is needed, as well as the motivation to carry out the work. Furthermore, employees should be able to work long and tireless. A good mental resilience is important, being mentally able to perform at work. At last perseverance, if something unexpected happens of less pleasant tasks should be performed, employees should have the ability to persevere. In addition, Schaufeli & Bakker (2007) mention intrinsic motivation (inner motivation) as part of vitality. This concept is originated from Ryan & Deci (2000) and will be explained in depth below. Schaufeli & Bakker (2003;2007) see vitality as part of work engagement, together with dedication and absorption.

Nix, Ryan, Manly & Deci (1999) state that vitality has to do with feeling energetic. Employees can experience changes in the extent of possessing energy caused by physical and mental factors. Van Vuuren (2010) sees vitality as feeling alive, having a certain life spirit and a lust for live. It is a combination of energy and motivation of employees. Diehl, Stoffelsen & Wijlhuizen (2008) see it as a certain life spirit or a lust for life. Employees should use their abilities and qualities with positive energy. Vitality is not only the absence of diseases, but also the experience of success and happiness.

Ryan & Deci (2000) explain the earlier mentioned term intrinsic motivation as the inherent tendency to seek out novelty and challenges, use and expand capacities and explore and learn. It has to do with inherent growth tendencies and innate mental needs. Intrinsic motivation is essential to cognitive and social development and represents a principal part of enjoyment and vitality (Csikszentmihalyi & Rathunde, 1993; Ryan, 1995). It is about motivation behind choices without external influences, self-motivated and self-determined behavior. Initiating an activity because it is interesting and satisfying, as opposed to obtain an external goal (extrinsic motivation).

Ryan & Frederick (1997) state that feeling 'alive' is a familiar aspect of human experience. It concerns a specific mental experience of possessing enthusiasm and spirit referred to as vitality. The degree of vitality differs for employees, therefore the term subjective vitality is used. It is the conscious experience of possessing energy and aliveness in the control of an individual's self. The degree of being free of conflicts, unburdened by external controls and capable of effecting action.

Dorenbosch (2009) states that vital employees are characterized by the willingness to invest their energy in work and. Vital employees are proactive in improving work processes and their own career and development.

### *Vitality defined*

After comparing the conceptions it can be concluded that the core of vitality is found in the conception of Schaufeli & Bakker (2003;2007). These authors mention features of which one can deduce whether an employee is vital or not. The features are feeling energetic, feeling fit and strong, feeling like going to work, being able to work for a long time, having a great mental resilience and having perseverance. Elements that other authors mention are reflected in these elements.

### **3.4 – Sustainable employability and its components**

In paragraph 3.2 and 3.3 sustainable employability, work ability, employability and vitality are discussed. Each (sub)paragraph ended with a summary of the concept. Table 3.1 provides an overview of sustainable employability and its components.

**Table 3.1: Sustainable employability and its components**

<i>Sustainable employability</i> is the extent to which employees continuously dispose of actual realizable opportunities and conditions to remain and wanting to function in current and future work.	
<i>Work ability</i> is the degree to which individuals are physically, mentally and socially able to work.	<ul style="list-style-type: none"><li>• Physical, mental and social functional abilities and health</li><li>• Qualifications and competences</li><li>• Motivation, norms and values</li><li>• Physical and mental demands, working conditions and the social environment</li></ul>
<i>Employability</i> is the continuous fulfilling, acquiring or creating of work through the optimal use of competences.	<ul style="list-style-type: none"><li>• Balance</li><li>• Anticipation &amp; optimization</li><li>• Corporate sense</li><li>• Personal flexibility</li><li>• Occupational expertise</li></ul>
<i>Vitality</i> is feeling energetic, feeling fit and strong, feeling like going to work, being able to work for a long time, having a great mental resilience and having perseverance.	<ul style="list-style-type: none"><li>• Feeling energetic</li><li>• Feeling fit and strong</li><li>• Feeling like going to work.</li><li>• Being able to work for a long time</li><li>• Having a great mental resilience</li><li>• Having perseverance</li></ul>

Based on the importance of work ability, employability and vitality, a new definition definition is composed. Sustainable employability is:

*“the extent to which employees continuously dispose of actual realizable opportunities and conditions to remain and wanting to function in current and future work, while maintaining the physical, mental and social ability to work, the optimal use of competences and the feeling of being vital.”*

### **3.5 – Factors that support and improve sustainable employability**

Sustainable employability and its components work ability, employability and vitality are discussed in paragraph 3.2, 3.3 and 3.4. Table 3.1 provides an overview of sustainable employability and its components. Subsequently it is important to find out what factors support and improve sustainable employability. Studies that focus on factors that influence sustainable employability exist as well as studies that focus on work ability, employability and vitality. These factors will be discussed in the following sub-paragraphs.

#### *3.5.1 – Organizational and individual factors that support and improve sustainable employability*

Van Vuuren (2011) advocates that employers need to engage in fostering sustainable employability, instead of only preventing and curing. Employees of any ages should be involved, because each age has its own factors that affect the quality of a working life. The right content of policy is important. Not only HR measures such as training and mobility, but also health and safety measures. Interventions should be on individual, team and organizational level. A correct alignment with employee and situation important, with standard measures for all employees and customized measures for

employees with a specific situation. The right actors should be involved: employer, employee, social partners and government. Furthermore, the right approach is important. The content of interventions is of interest as well as how interventions are introduced and in which context they take place. At last, the right design of sustainable employability is important. Measures should be introduced on the basis of a substantiated plan so that it can be executed as well as possible.

Van Vuuren et al. (2011) states that participation in lifelong learning positively influences an individual's sustainable employability. Regarding work ability, the authors refer to the house of work ability of Gould et al. (2008) and Ilmarinen et al. (2005). The ground floor (an individual's health) can only carry the demands of work if proper qualifications and competences (first floor) are present. Lifelong learning is needed for employees to continuously dispose of the right professional and social knowledge and skills to adapt to changing demands at work. Regarding employability, Van Vuuren et al. (2011) refer to the theory of human capital. Herein is stated that participation in training and education increases employability (Becker, 1993; Berntson, Sverke & Marklund, 2006). Groot & Maassen Van Den Brink (2000) also found that training in the workplace increases employability. Regarding vitality, Van Vuuren et al. (2011) refer to the study of Fritz, Lamb & Spreitzer (2011). This study shows that learning something new at work is significantly associated with self-perceived vitality. Van Vuuren (2011) mentions that employees should have opportunities to continuously develop and improve knowledge and skills. Lifelong learning is possible by means of formal learning (training, education and courses) and informal learning (sharing responsibilities, knowledge and experiences in the workplace or via customers). Job enrichment, job enlargement, job rotation and horizontal and vertical flows in the organization are all development opportunities. These change the content of the function. Employees can perform more work and become more employable and mobile.

The SER (2009) focuses on health management, HRM policy and health and lifestyle. Regarding health management, organizations should have policy on health and safety (the environment and employees' functioning), reduce absenteeism, reintegrate (potential) chronically employees and 'manage' relevant actors (e.g. the government). In HRM policy and health is a threefold: (1) employability policy that improves knowledge, skills, competences and experiences, (2) labor-and-care policy that can affect health and employability (e.g. flexible working hours) and (3) age-aware personnel policy tailored to capacities and needs of employees in different age groups. Regarding HRM-policy, attention should be paid to career opportunities for employees in- and outside the organization (e.g. challenging task packages and job enrichment, job enlargement and job rotation). The SER (2009) states that attention for health should be structured and integrated. This assumes monitoring it, for instance measuring working conditions and health periodically or integrating it in interviews. In lifestyle policy a division is made in smoking and alcohol and nutrition and exercise. Employers can aim to reduce the use of cigarettes and alcohol and increase healthy nutrition and exercise. Employees are however autonomous, policy can only offer interventions which might (not) be used. Employees themselves should also live 'a healthy life' (e.g. eating healthy and exercise).

Van der Klink et al. (2010;2011) state that employees need to maintain (within capacities) knowledge and competences in width and keep options open for jobs. The employer should create a work context with conditions under which employees can develop and use competences (e.g. development opportunities and adapted working conditions). Employees should have the right attitude and motivation to utilize these possibilities. Van der Klink et al. (2011) mention the experience of work as an added value and the feeling to be of value as critical aspects. These aspects determine to what extent and at what cost employees want to deploy their labor potential. Van der Klink et al. (2010) mention the importance of anticipating on eventual weak elements of work ability so that these can be remedied in the future. A measurement on work ability of employees is therefore needed.

Bossink (2011) and Bossink & Wognum (2012) state that a good health is important. Absenteeism should be reduced and different factors that influence health should be taken into account. Physical and mental demand of work should be tailored to health and capacities of employees. Employees should have the right knowledge and skills to perform the work. Job rotation (informal learning) is a possibility to become broader employable and to possess over more knowledge and skills. Ortega (2001) mentions job rotation in relation with the employee motivation

theory and states that organizations should ensure that employees rotate to make them more interested in their work. Bossink (2011) and Bossink & Wognum (2012) further mention self-efficacy, a concept relating to the conviction of own abilities, as an important element to develop knowledge and skills of employees. Maurer, Weiss & Barteite (2003) see self-efficacy as a predictor of productivity. Research shows that the higher the self-efficacy, the more the focus on employability and the stronger the motivation to develop (Nauta, 2008; Hazelzet, Paagman & El Marini, 2008). Self-efficacy also plays an important role in an individual's career. The higher the self-efficacy, the broader the career opportunities and interest in these and the greater the eventual career success (Bandura, 1997). Renkema (2006) adds that support of the supervisor can positively influence the degree of self-efficacy and therewith the intention of employees to develop themselves. Bossink (2011) and Bossink & Wognum (2012), Forries & Sells (2003) and Nauta, Dessing & Kooiman (2008) also mention the role of the supervisor. Perceived support is important for the motivation to learn and develop. Proper compliance with the psychological contract is another important element that contributes to motivation regarding development (Bal, 2010; Bossink, 2011; Bossink & Wognum, 2012).

Van der Heijden (2011) states that management should invest in employees and that employees should be willing and able to invest in development of expertise and employability. A good interaction between employer and employee is important. Individual preferences, abilities and goals should be aligned with organizational objectives. Thijssen (2010) also emphasizes the importance of expertise. The more expertise, the wider employable and more sustainable in different functions. Van der Heijden (2011) refers to a symposium by the Ministry of Social Affairs and Employment in 2010. Employers should enable employees to respond to developments in the internal and external labor market and enable them to align their career with own abilities and desires. This should be accompanied by offering space for good work-life balance. Policy on health, education and mobility (e.g. a check on health and work load, a personal training budget and plan, career mobility and career advice) is important. Interventions of employers should prevent absenteeism and increase labor productivity and employability.

Authors mention different factors that support and improve sustainable employability. Sometimes the same factors are mentioned, however described in other ways. Support of the supervisor is part of a good relationship between supervisor and employee. Policy on health and safety, attention for lifestyle, checks on health and work load, reducing absenteeism and adapting the physical and mental demands of work to capacities of employees are examples of health management. Lifelong learning, improving knowledge, skills, competences and expertise, education, training, career opportunities and advice, learning budget, mobility and job enrichment, job enlargement and job rotation are examples of learning and development management. Flexible working hours (employment conditions), adapting working conditions and changing the content of work are examples of management on the work situation. Monitoring sustainable employability, measuring health or working conditions periodically and integrating sustainable employability in interviews are examples of integration of sustainable employability. In addition to organizational factors, authors mention individual factors. The factors are having an open attitude, propagating needs, possessing of self-efficacy, having motivation and willingness and living 'a healthy life'.

### *3.5.2 – Organizational and individual factors that support and improve work ability*

Gould et al. (2008) and Ilmarinen et al. (2005) discuss different elements in the house of work ability. Health and functional capacities are most strongly associated with work ability and should be suitable for the function. If problems occur (e.g. mental overload), communicating this is essential so that employer and employee can find a solution. The needed qualifications (training) and competences for the function should match the profile of employees. If functions change, profiles should be re-determined and a plan should be made in becoming the needed qualifications and competences. If norms and values of employer and employee are not consistent, a dialogue is important. This also counts if the motivation is no longer optimal. Motivational sources can be identified and on this can be anticipated. Physical and mental demands and the working conditions should be tailored to capacities

of employees. According to the social environment at work, a good relationship between supervisor and employee and good working relations in the organization are important.

Van den Berg's (2010) research investigated the effects of individual and work related factors on the Work Ability Index (WAI). The WAI is a questionnaire based on the house of work ability (Gould et al., 2008; Ilmarinen et al., 2005). Little exercise, poor muscle capacity, older age, obesity, high physical and mental job demands and poor physical working conditions (e.g. little autonomy) are all associated with reduced work ability of employees. Interventions should be created to respond to these in order to improve work ability. Otten & Fransen (2011) state that health complaints mainly occur among employees with little control over work, indicating the importance of autonomy.

Burdorf et al. (2008) find that poor health undermines work ability: the worse the health, the more absenteeism, disability, unemployment, earlier retirement and less productivity. Not only a heavy physical load reduces productivity and work ability, but also psychosocial factors such as high work pressure, stress and lack of control options. Burdorf & Elders (2007) found earlier that diseases and working conditions have the greatest influence on work ability. Physical and mental demands of work should be in accordance with capacities of employees. Factors that negatively affect work ability should be determined and employer and employee should anticipate to this.

Authors mention different factors that support and improve work ability. Sometimes the same factors are mentioned, however described in other ways. An open culture where problems can be debated is part of a good relationship between supervisor and employee, what is also mentioned. Attention for health and functional capacities, adapting physical and mental demands of work to capacities of employees and attention for lifestyle are examples of health management. Possessing of the needed qualifications and competences or becoming these are examples of learning and development management. Adapting working conditions (e.g. autonomy and control options) to capacities of employees and good work relations are examples of management on the work situation. In addition to organizational factors, authors mention individual factors. The factors are having an open attitude, propagating needs, having motivation and willingness and living 'a healthy life'.

### *3.5.3 – Organizational and individual factors that support and improve employability*

Van der Heijde & Van der Heijden (2006) mention five dimensions that influence employability. If balance is disturbed, a dialogue between employer and employee should reveal the disturbance and a plan of approach should be made. Regarding problems in work-life balance, employment conditions can be adapted (e.g. flexible hours or working at home). If anticipation and optimization is insufficient, measures should be taken to develop employees (e.g. developing knowledge to better perform the function). Employees should anticipate on their market value and on possibilities on the labor market. To foster corporate sense, employees should share for instance responsibilities, knowledge, experiences, goals and failures. Employers should involve employees by informing them with organizational plans. The third one is personal flexibility. If personal flexibility is insufficient, employees should learn to adapt to changes and developments in and outside the organization (e.g. mobility). The supervisor should provide employees with support. If professional expertise is insufficient, a plan of approach should be made which can include formal and informal learning.

According to Forrier et al. (2001) employees should take responsibility for their professional training and career planning. This implies that employers should offer opportunities for that. Education, training, more variety and customized functions are options. Thijssen (2000) states that in addition to assistance from employer, employees should contribute by standing open for change and work on developing competences. De Grip et al. (2004) indicate that HRD policy and support of employers are important to maintain and enhance employability of employees. Employees on the other hand should have the capacity and willingness to participate in training and to be mobile.

Fugate et al. (2004) mention that proactive adaptability (including career identity, personal adaptability and social and human capital) is important for employability. Regarding career identity employees should consider what they want with their career and opportunities can be discussed with the employer. Personal adaptability is primarily determined by individual differences. Optimism,

propensity to learn, openness to change and new experiences, internal locus of control (believe that one can influence events around them) and self-efficacy are individual differences that support adaptability. Regarding social capital, networking can increase its power. Education and work experience are the strongest predictors for career progression and employability regarding human capital.

De Vries et al. (2001) mention deployability and mobility as elements of an individual's employability. Measures that enhance deployability include task expansion, task and function rotation, schooling and training and practical training in- and outside the organization. Mobility can be stimulated with the same tools and it can further encouraged by stimulating horizontal and vertical flows in the organization. Premature dropping also influences employability. Measures to reduce premature dropping out by overcharge include adapting working hours, the content of the function, tasks or the workplace. Workload can be tailored to capacities of employees in this way. Most employers take measures in the area of schooling and training and task expansion and enrichment.

Authors mention different factors that support and improve employability. Sometimes the same factors are mentioned, however described in other ways. An open culture where problems can be debated and support of the supervisor are part of a good relationship between supervisor and employee. Reducing premature dropping and adapting the work load to capacities of employees are examples of health management. Education, developing knowledge, schooling, training, variety, customized functions, task expansion, task and function rotation, mobility, deployability, share knowledge and experiences and horizontal and vertical flows are examples of learning and development management. Flexible hours, working at home (both employment conditions) and adapting the content of work are examples of management on the work situation. In addition to organizational factors, authors mention individual factors. The factors are having an open attitude, propagating needs, having motivation and willingness and possessing of self-efficacy.

#### *3.5.4 – Organizational and individual factors that support and improve vitality*

Dorenbosch (2009) states that three HR tools that foster lifelong learning are positively related with vitality of employees and the organization: an efficient internal oriented staffing, functional training and career development. Both employer and employee benefit from this and they have a shared responsibility in achieving vitality. Attractive employment and work-life policies are also mentioned as HR instruments that go along with vitality. Dorenbosch (2009) concludes that vitality especially increases in exchange for being better in performing the job and have better career prospects.

According to Schaufeli & Bakker (2003;2007) vitality is characterized by sparkling with energy, feeling strong and fit, feel like going to work, working long and tirelessly, having a great mental resilience and perseverance. Being energetic and feeling strong and fit can be related to different factors, examples are health (physical and mental) and lifestyle. If employees have health problems, this might influence the performance at work. Employees should like to go to work which requires a reason. This reason might differ for employees, a possibility is career development. Having a great mental resilience and perseverance can be related to motivation. This, in turn, can be related to the content of the job and working conditions. Important for vitality is that demands of the function are adapted to capacities of employees. If problems occur, this must be indicated to the supervisor and a solution should be found. A dialogue between employer and employee should reveal which characteristics lead to more vitality and on these should be anticipated.

Schaufeli & Bakker (2007) refer to the Job Demands-Resources model. Here, a distinction is made between two types of job characteristics: demands and resources. Physical, mental, social and organizational aspects of work that require effort are demands. If these aspects contribute to achieve work-related goals they are resources. Demands decrease work engagement (and vitality) and resources increase it. Work stressors such as working under time pressure and problems regarding work pace should be reduced. Energy sources such as social support, development opportunities, working conditions such as autonomy and variety in work, job complexity and challenge should be increased. A balance between demands and resources is important (Bakker, 2003).

Ryan and Deci (2000) mention intrinsic motivation together with three mental needs that motivates to initiate behavior that is essential for vitality. These needs are the need for competence, autonomy and mental relatedness. Both employer and employee are responsible for these. Schaufeli & Bakker (2007) mention that regarding intrinsic motivation, employer and employee should establish what motivates an employee in the function.

Ryan & Frederick (1997) mention factors associated with variations in subjective vitality. It is first expected to be related with an employees' experience of physical health. The better the health, the better the vitality. Mental health also plays a role. The possibility of growing, self-agency, self-actualization, self-esteem, self-motivation, personal well-being and the overall quality of mental health influence vitality. In order to ensure these factors, the employee should have a pro-active role and the employer a facilitating role.

Authors mention different factors that support and improve vitality. Sometimes the same factors are mentioned, however described in other ways. An open culture where problems can be debated and support of the supervisor are part of a good relationship between supervisor and employee. Attention for (physical and mental) health and lifestyle are examples of health management. The need of competence, (career) development, job complexity and challenge, growing and self-actualization are examples of learning and development management. Work-life policies (employment conditions), adapting working conditions (e.g. work pace and work amount, variety, autonomy and self-agency) and adapting the content of work are examples of management on the work situation. In addition to organizational factors, authors mention individual factors. The factors are having an open attitude, propagating needs and having motivation and willingness and self-motivation.

### **3.6 – Factors that support and improve sustainable employability summarized**

Paragraph 3.5 discussed factors that support and improve sustainable employability, work ability, employability and vitality. Each sub-paragraph ended with a summary of the different factors. It appeared that the factors are comparable for sustainable employability, work ability, employability and vitality. They had to do with a good relationship between supervisor and employee; management regarding health, learning and development and the work situation; and different individual factors. Factors associated with sustainable employability mentioned in addition that integrating sustainable employability in the organization is important. Factors associated with work ability focused on health management and factors associated with employability on learning and development management. Because work ability, employability and vitality are part of sustainable employability, the factors that influence these components will also influence sustainable employability.

Therefore, organizational factors that support and improve sustainable employability have to do with supporting and improving a good relationship between supervisor and employee, including an open culture where problems can be debated and support of the supervisor. Factors that support and improve management regarding health, learning and development and the work situation. Health management involves adapting the physical and mental demands of work to capacities of employees and attention for health and lifestyle. Learning and development management involves different ways of formal and informal learning. Management on the work situation involves working conditions, the content of work, work relations and employment conditions. Finally, factors that support and improve integration of sustainable employability involves periodically measurement, integration of sustainable employability in interviews and monitoring. In addition to organizational factors, individual factors have an influence on it. These have to do with having an open attitude, propagate needs, having motivation and willingness, living a 'healthy life' and possessing of self efficacy.

### **3.7 – Role of government and social partners as actors regarding sustainable employability**

Next to employers and employees, government and social partners are mentioned as actors that play a role in sustainable employability (Van Vuuren, 2011; Van der Heijden, 2011; Van der Klink et al., 2010;2011; SER, 2009). Government and social partners can play a role through laws and regulations, for instance by obliging employers to include certain policy in its collective bargaining. Van

Vuuren (2011) mentions the importance to involve social partners and government regarding policy for employers. Van der Klink et al. (2010;2011) and Schaufeli (2011) state that government should facilitate the development process of employees. According to Van der Heijden (2011), at the level of social partners collective agreements can be made to invest in employees. The government can help by laws and regulations that promote sustainable employability. The SER (2009) talks about the 'management' of relevant actors such as government and social partners like health and safety services (e.g. 'managing' regulations regarding ARBO). However, employers and employees are mentioned by many authors, government and social partners are mentioned occasionally. This might be caused by the fact that many authors give organizational guidelines. Individual employers cannot directly influence laws that the government makes regarding sustainable employability. This is often regulated by the government itself or via social partners. Regulations are mainly rules that employers should follow (e.g. ARBO regulations). Government and social partners can be seen as overarching bodies that influence employers and employees (via regulations) and therefore always plays a role.

### 3.8 – Developing the conceptual model

Chapter three discussed sustainable employability and factors support and improve it. A conceptual model is developed which is displayed in figure 3.1. On the right side sustainable employability with its components work ability, employability and vitality and its characteristics is displayed. This is based on paragraphs 3.2 and 3.3 and on table 3.1. On the left side factors that support and improve sustainable employability and the roles of organization, employee and government and social partners are displayed. This is based on paragraphs 3.5, 3.6 and 3.7.

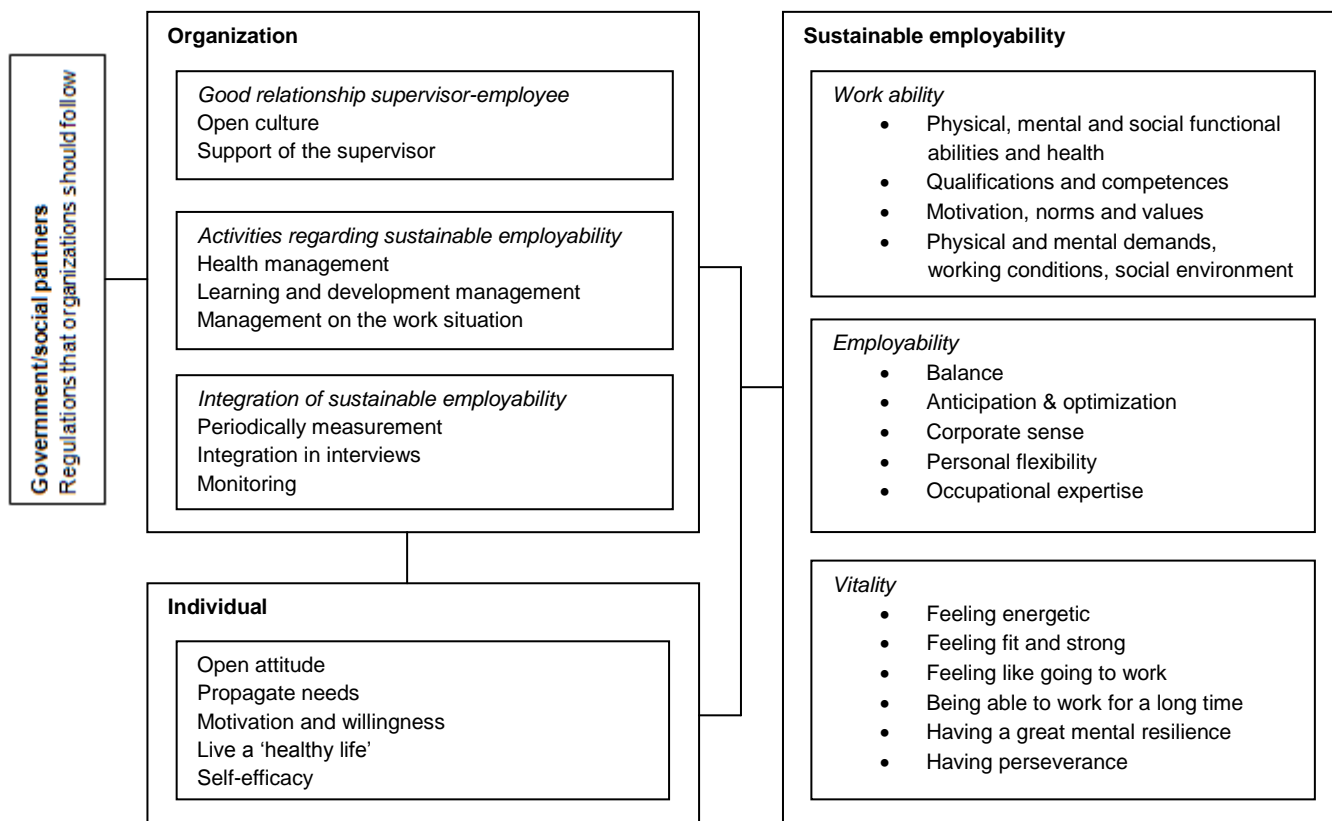


Figure 3.1: The conceptual model regarding sustainable employability and factors that support and improve it

### 3.9 – From conceptual model to research questions and research model

In chapter one the following research question is given: "in what way can 'Company X', where needed, support and improve sustainable employability of its employees?" To answer this question, this



chapter discussed literature on sustainable employability with which the conceptual model is developed. In order to answer the research question, the current sustainable employability of employees should be studied and the current attention that is paid regarding sustainable employability of employees should be identified. On this basis can be derived whether improvements regarding sustainable employability of employees are needed and what factors might contribute to achieve this.

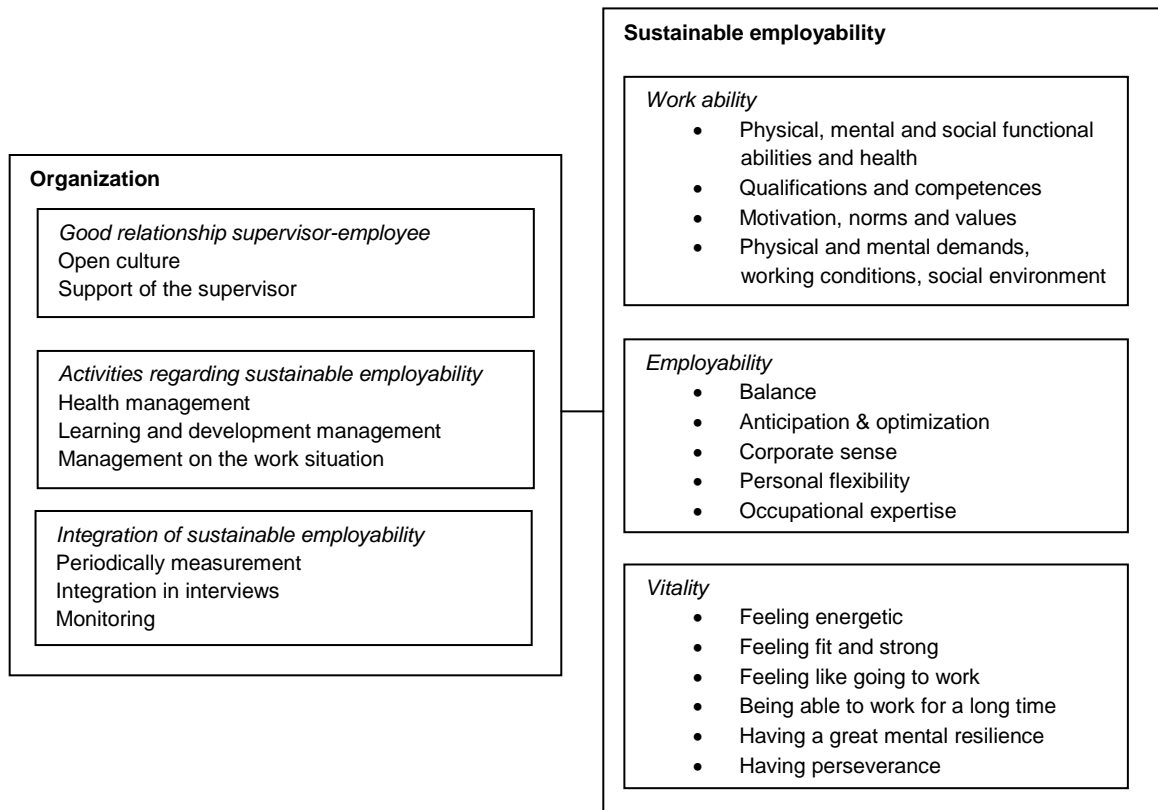
Based on the right side of the conceptual model, sustainable employability with its components work ability, employability and vitality, a questionnaire will be developed to measure the current sustainable employability of employees. The context analysis in chapter two described that the reorganization affected the groups in the organizations differently. Therefore, the organization wonders whether the different groups (staff, 'Subsidiary A', 'Subsidiary B', 'Subsidiary C' and 'Subsidiary D') differ regarding their sustainable employability. The following sub-question is drawn up: *"how is the situation regarding work ability, employability and vitality (sustainable employability) of employees at 'Company X' and is there a difference between the different groups?"*

Based on the left side of the conceptual model, factors that support and improve sustainable employability, an interview will be developed. The conceptual model revealed that employer, employees and government and social partners influence sustainable employability. However, this research aims to answer the research question *"in what way can 'Company X', where needed, support and improve sustainable employability of its employees?"* It is about what the employer can do, therefore individual factors will not be measured. Individual factors or input will however be included in the recommendations. It is important that the employer communicates this responsibility to employees. Government and social partners will also be disregarded. Individual employers cannot directly influence laws in the field of sustainable employability. This is often regulated by the government itself or via social partners. These parties can be seen as overarching bodies that influence organizations (via regulations that employers should follow). This has an indirect influence on employees. Like mentioned, it is about the contribution of the employer and the employer does not have a direct influence on regulations. Therefore, individual factors and the role that government and social partners have will not be included in the research model.

Based on the organizational factors that support and improve sustainable employability an interview will be developed. This interview will provide an indication of the current attention the organization pays regarding sustainable employability. In addition to the interview, internal documents are used. With this, an insight is obtained whether organizational factors that support and improve sustainable employability are present in the organization. The following sub-question is drawn up: *"what organizational factors that support and improve sustainable employability are present at 'Company X' and to what factors the organization should pay more attention to?"*

On the basis of these two questions can be derived whether improvements regarding sustainable employability of employees are needed and what factors might contribute to achieve this. With this insight, the research question can be answered.

Based on the assumptions regarding the way of measuring, a research model is developed which is displayed in figure 3.2.



**Figure 3.2: The research model regarding sustainable employability and factors that support and improve it**

This chapter revealed what sustainable employability is and what factors support and improve it. This information is used to develop a conceptual model. Certain assumptions regarding the way of measuring are made and based on these a research model is developed. To answer the research question, sub-questions are drawn up. Revealed is what should be investigated, how this is investigated is discussed in the following chapter

## **Chapter 4 – Methodology**

In this chapter, the type of research will be described first. The respondents will be discussed afterwards. Further, data gathering instruments will be discussed, followed by the process of data gathering and the data analysis. The chapter ends with discussing the reliability and validity.

### **4.1 – Type of research**

The research is characterized as both explorative and descriptive. In explorative studies, researchers gain familiarity with a topic and discover its main dimensions. In descriptive studies situations or events are observed and these observations are described (Babbie, 2010). In this research literature is studied which is used to explore and describe what sustainable employability is and what factors support and improve it. This leads to the development of the conceptual model and research model.

Elements of the research model are operationalized and instruments are selected or developed. Data are gathered by means of a questionnaire (quantitative) and an interview (qualitative). With the questionnaire the current sustainable employability of employees is measured, with questions regarding work ability, employability and vitality. The questionnaire is conducted among employees. Employees can best indicate the situation of their sustainable employability. For instance indicate whether they can handle the physical and mental demands of work (work ability), whether their knowledge is sufficient enough to perform the function (employability) and whether they feel like going to work when they wake up (vitality). The self-administered questionnaire fits well with measuring a large amount of variables among a relatively large group and ensures the respondents' anonymity (Baarda, De Goede & Kalmijn, 2000).

The interview with the HR advisor provides an indication of the current attention the organization pays regarding sustainable employability. With this, an insight is obtained in whether organizational factors that support and improve sustainable employability are present in the organization. The interview is conducted among the HR advisor. The HR advisor is the contact person when it comes to everything in the area of employees. This employee is therefore most suitable to ask questions about the current attention the organization pays regarding sustainable employability. The interview allowed the researcher to go deep into the current situation regarding sustainable employability, identify reasons for the current situation and opportunities and constraints regarding sustainable employability in the organization. In addition to the interview, internal documents are used to obtain information about the current attention regarding sustainable employability.

Results of the questionnaire and the interview and information in the internal documents are analyzed and described. On the basis of this can be derived whether improvements regarding sustainable employability of employees are needed and what factors might contribute to achieve this. An advice is given that can serve as manual to support and improve sustainable employability in 'Company X' (where needed), as mentioned in the research question.

### **4.2 – Respondents**

In this paragraph the target group, measures to increase response, the research groups and the non-response analyzes will be discussed.

#### *4.2.1 – Target group*

The intention was that all 79 employees in the organization would participate in the research. However, a few exceptions exist. In paragraph 2.5 is mentioned that 'Subsidiary C' is owned by 'Company Y' for 50 percent and that 'Company X' and 'Subsidiary C' perceive a distance between each other. 'Subsidiary C' was not affected by the reorganization and did not participate in the vitality days. They find a commitment in this area not needed because of this perceived distance. All employees of 'Subsidiary C' are therefore excluded. Paragraph 2.6 mentioned that three employees in 'Subsidiary D' are still in the training process, they are also excluded. At last, two employees of 'Subsidiary B' are excluded because they work on call and hardly worked recently. The two directors of 'Company X' are invited, as well as the internal supervisor and an intern on finance. A total group of 68 employees is approached. The employees are distributed as follows: thirteen employees of the

staff, 21 of 'Subsidiary A', 32 of 'Subsidiary B' and two employees of 'Subsidiary D'. Of these 68 employees, 36 employees responded which is a response of 53 percent.

#### 4.2.2 – Measures to increase response

Several actions are undertaken to increase response. Communication with employees was an important aspect. The relevance of the research for both organization and employee had to be emphasized. The invitation letter, the reminder and other response enhancing measures are discussed with the supervisor, directors and the advisor of 'Subsidiary C'. The researcher and the research are first introduced in the newsletter of May 2013. In June 2013 the employees were invited to participate in the research by means of an invitation letter that is send by e-mail. Next to the introduction in the newsletter and the invitation to participate, a reminder of the research is sent to all employees. When it appeared that a small percentage had participated after the reminder, additional measures were taken. In the newsletter of June 2013 a remembrance to participate is mentioned. Next to that, the location managers were asked if they wanted to remind their team members to participate. After these measures the directors of the organization send an e-mail with a remembrance. After these response measures, the response was still quite disappointing. As a last measure all invited employees were approached by phone.

#### 4.2.3 – Research group

Like mentioned earlier, 68 employees are invited to participate in the research. Of these 68 employees, 36 employees responded which is a response of 53 percent. The respondents are divided as follows: thirteen employees of the staff, twelve of 'Subsidiary A' and eleven of 'Subsidiary B'. None of the employees of 'Subsidiary D' participated.

Regarding the non-response, two employees have informed by means of e-mail or telephone that they would not participate for personal reasons (e.g. health reasons). The other non-response cannot be explained. Despite response enhancing measures the remainder of employees decided not to participate. Reasons might be that they did not read their e-mail or listen to their voicemail regularly, that they forgot to participate or that they did not want to participate for any reason.

The 36 returned questionnaires are checked on completeness and accuracy, six questionnaires are excluded. Some employees only completed one part of the questionnaire or forgot to give the participation number to connect the two parts of the questionnaire. The 30 remaining respondents are divided in the groups as follows: eleven employees of the staff, ten employees of 'Subsidiary A' and nine employees of 'Subsidiary B'. Table 4.1 provides an overview.

**Table 4.1: Distribution research group in 'Company X'**

	<b>N invited employees</b>	<b>N response</b>	<b>% response</b>
<i>Staff</i>	13	11	84.6
<i>'Subsidiary A'</i>	21	10	47.6
<i>'Subsidiary B'</i>	32	9	28.1
<i>'Subsidiary D'</i>	2	0	-
<i>Total (N)</i>	68	30	44.1

The research group consists of 30 employees. Regarding gender, 53.3 percent is woman and 46.7 percent is man. The average age is 38 years. Regarding education, 3.3 percent has secondary school, 3.3 percent secondary vocational education, 50 percent higher professional education and 23.3 percent scientific education. Employees are average 6.3 years in service and work on average 29 hours per week. 66.7 percent have a permanent employment, 13.3 percent has a temporary employment, 10 percent work on call and 10 percent has another employment type (e.g. director).

#### 4.2.4 – Non-response analyzes

The different groups in the organizations are unequal distributed in the research groups. If statements are made on organizational level, it should be taken into account that the distribution of the different groups in the organization is unequal. If statements are made on group-level, it should be taken into

account that only a part of the group participated. Non-response analysis offers a solution to check whether statements on organizational and group level can be made. Non-response analyzes are performed to see if the research group provides a good image of all employees in the organization. Employees are compared on a few general and work characteristics. The general characteristics are: gender, age and education, the work characteristics are: years of employment in the organization, working hours per week and type of employment.

Four analyzes are performed. In the first analysis the research group is compared with all employees in the organization. The other three compared the employees off the staff, 'Subsidiary A' and 'Subsidiary B' in the research group with the total amount of employees in these groups. The analyzes revealed differences regarding all mentioned characteristics, however these differences are minor. This means that the research group forms a good image of 'Company X'. The various groups in the research groups also form a good image of these groups in the organization. Statements that are made on organizational and group level can thus be generalized. However, it should be taken into account that the non-response analyzes are based on a few general and work characteristics of employees, not all characteristics. Because two employees (maybe more) indicate that they would not participate because of health reasons, results might not adequately reflect the sustainable employability of all employees in the organization. The analyzes are presented in appendix 8.

### **4.3 – Data gathering instruments**

In this paragraph the development of the questionnaire and interview will be discussed.

#### *4.3.1 – Questionnaire*

In the research model, sustainable employability with its components work ability, employability and vitality and its characteristics is displayed on the right side. The first sub-question *"how is the situation regarding work ability, employability and vitality (sustainable employability) of employees at 'Company X' and is there a difference between the different groups?"* will be answered with a questionnaire among employees. The questionnaire consists of three different measurement instruments: work ability, employability and vitality. These will be discussed below.

##### *4.3.1.1 – Measuring work ability*

In the research model, work ability is based on Gould et al. (2008) and Ilmarinen et al. (2005). These authors developed the WAI to measure work ability. 'Company X' has a service that performs research on work ability, the organization use the earlier mentioned 'Instrument A' for this. 'Instrument A' includes the WAI and in addition the constructs working conditions, lifestyle, Body Mass Index (BMI) and productivity. The extra constructs of 'Instrument A' have a scientifically proven influence on work ability ('Subsidiary C', 2013; Van der Berg, 2010). 'Instrument A' will be used to measure work ability. The internal supervisor obtained permission of 'Subsidiary C' to use 'Instrument A' as a measurement instrument.

The research model revealed that physical, mental and social functional abilities and health; qualifications and competences; motivation, norms and values; physical and mental demands, working conditions, social environment; and the direct environment are part of work ability. Health, physical and mental abilities and demands are measured with the WAI. Many elements are thus part of an individual's work ability. Ilmarinen, Tuomi, Jakhola, Katajarinne & Tulkki (1998) came up with a straightforward solution to measure work ability. It is based on the insight that only the worker himself could easily summarize the multifaceted contributing factors to his or her work ability. On the basis of large clinical assessments and statistical analyses, they have identified a short set of questions which finally result in a score indicating the employee's work ability, the WAI. The WAI covers the following seven items: 1) current work ability compared with lifetime best, 2) work ability in relation to physical and mental work demands, 3) diagnosed diseases, 4) limitations in work due to disease, 5) sick leave over the past twelve month, 6) work ability prognosis within two years and 7) mental resources. Because of the reasoning of Ilmarinen et al. (1998) in developing the WAI, the remaining elements in

the research model, social functional abilities, qualifications and competences, motivation, norms and values, working conditions and the social environment, are not measured with the WAI.

In addition to the seven items of the WAI, 'Instrument A' consists of four constructs that provide insight into the reasons for reduced work ability. The first construct is working conditions, measured with items on autonomy, variety, work pace and work amount and physical load. Lifestyle is the second constructs, measured with different lifestyle-items). BMI is the third one, this is a measurement for human body shape. The last construct is productivity, measured with an items that obtains an insight in the current productivity. In addition, 'Instrument A' consists of items based on general characteristics (e.g. education) and work characteristics (e.g. type of employment).

'Instrument A' has forty-seven questions and some contain sub-questions. It has five open questions, one selecting question, twelve multiple choice questions and 29 scale-questions. Because of privacy reasons, the questions will not be presented in detail.

Like mentioned above, the remaining elements in the research model, social functional abilities, qualifications and competences, motivation, norms and values, working conditions and the social environment, are not measured with the WAI. Although Ilmarinen et al. (1998) indicate that the WAI is a good indicator of an individual's work ability, attention will be given to these elements in this research. It is already clear that working conditions are measured with 'Instrument A', like discussed above. Qualifications and competences to perform the function are included in the measurement instrument of employability (the dimension occupational expertise). Norms and values of employees should be in accordance with those of the organization, this is also included in the instrument that measures employability (the dimension corporate sense). Employees should have motivation to go work and to perform their function. Motivation is included in the instrument that measures vitality. This means that the other elements that are part of work ability are partly measured with the measurement of employability and vitality.

Overall, the elements that say something about work ability, employability and vitality all eventually say something about sustainable employability. The elements qualifications and competences, norms, values and motivation are thus not excluded, they are only measured with instruments that measure the other components of sustainable employability. The remaining elements of work ability, social functional abilities and the social environment (management and situational leadership), will not be measured.

#### 4.3.1.2 – Measuring employability

In the research model, employability is based on Van der Heijde and Van der Heijden (2006). Corresponding this approach, the authors developed a questionnaire which is used in this research. This instrument is based on Van der Heijde and Van der Heijden's (2006) five-dimensional conceptualization of employability. 1) balance, 2) anticipation and optimization, 3) corporate sense, 4) personal flexibility and 5) occupational expertise. This instrument will be used to measure employability. Prof. dr. BIJM van der Heijden is contacted by means of e-mail and permission to use this instrument is obtained.

The dimension balance consists of items that measure the balance between employers' interests and employees' own interests. The second dimensions, anticipation and optimization, consists of items that measure whether employees prepare for future work changes (internal and external labor market) in a personal and creative manner in order to strive for the best possible job and career outcomes. The dimension corporate sense measures whether employees participate as members of an integrated team. Personal flexibility, the fourth dimension, consists of items that measure whether employees adapt to changes occurring in the work and labor market environment. The last dimension occupational expertise consists of items that measure whether employees are in possession of domain specific knowledge and skills to perform the job adequately.

The five dimensions are divided over 47 questions. The amount of questions per dimension range in length from seven to fifteen items. Questions are answered on the basis of a six-point rating

scale. Each scale has six options to answer the question, but the options differ for the questions. Because of privacy reasons, the questions will not be presented in detail.

#### 4.3.1.3 – Measuring vitality

In the research model, vitality is based on Schaufeli & Bakker (2004). The authors developed the 'Utrechtse Work Engagement Scale' (UWES). This questionnaire measures work engagement, including constructs that measure vitality, dedication and absorption. The UWES leads to scores on vitality, dedication, absorption and a total score on work engagement. The construct that measures vitality is relevant in this research and will be used to measure vitality. The UWES was allowed to be used for non-commercial and scientific purposes (Schaufeli & Bakker, 2003). However, Prof. dr. Arnold B. Bakker is contacted by means of e-mail and permission to use this instrument is obtained.

Vitality is characterized by feeling energetic, feeling fit and strong, feeling like going to work, being able to work for a long time, having a great mental resilience and having perseverance. Based on each of the six characteristics, a corresponding statement is developed. Of each statement can be derived to what extent employees possess of the different characteristics. Of the six statements together can be derived to what extent employees are vital.

The six questions can be answered on the basis of a seven-point rating scale. The statements are presented in Appendix 6 in detail.

#### 4.3.2 – The interview

In the research model, organizational factors that support and improve sustainable employability are displayed on the left side. The second sub-question "*what organizational factors that support and improve sustainable employability are present at 'Company X' and to what factors the organization should pay more attention to?*" will be answered with an interview with the HR-advisor. The factors are divided in three constructs: good relationship supervisor-employee, activities on sustainable employability and integration of sustainable employability. These will be discussed below.

The presence of good relationships between supervisors and employees is measured with questions regarding the presence of an open culture where issues are debatable and whether the employer supports employees. Activities regarding sustainable employability are measured with questions about the presence of health management, including the physical and mental health of employees and attention for health and lifestyle; the presence of learning and development management, including formal and informal learning; and the presence of the management on the work situation, including working conditions, the content of work, the content of work (the tasks), working relations and the conditions of employment. Integration of sustainable employability is measured with questions on whether sustainable employability is measured periodically, whether it is integrated in interviews and whether the organization monitors it.

Next to these factors, a number of other factors are important regarding sustainable employability in 'Company X'. The factors are not reflected in literature research, but are included in the interview because of organizational aspects. These aspects are the current attention that the organizations pays regarding sustainable employability and the spread of employees across the country, both will be discussed. The context analysis revealed that the organization does not pay a lot of attention to sustainable employability. If the organization wants to increase this attention, it is important that 'Company X' knows what it needs of employees and employees should be aware of these needs. Therefore, propagating needs is important. In addition, if the organization pays more attention to sustainable employability, opportunities of employees might increase. Employees are not yet aware of these opportunities and therefore the organization should propagate these. Employees have a supervisor by whom they are assessed and with whom they have regular contact. Needs and opportunities need to be transferred from organization to supervisor to employee. Finally, if the organization wants sustainable employability to become a standard and maintained part in the organization, it should be integrated. Because employees work across the country, they barely have contact with each other or are together at a certain moment. Internal communication via for instance Intranet, newsletters, conferences and meetings is a possibility to overcome this distance. Questions

that measure whether needs and opportunities are propagated among employees will be integrated in the construct good relationship supervisor-employee. Questions that measure whether internal communication is present in the organization will be integrated in the construct integration of sustainable employability.

The interview consists of sixteen open questions. Four questions regarding good relationship supervisor-employee, eight regarding activities on sustainable employability and four questions regarding integration of sustainable employability. The interview is presented in Appendix 7.

#### Internal documents

In addition to the interview, internal documents (policy document personal & organization policy and introduction guide) are used to obtain information about the current attention regarding sustainable employability. These documents were made available by the organization.

In paragraph 4.3 certain assumptions are made regarding the way of measuring sustainable employability. The research model presented in paragraph 3.9 is slightly changed because of this. Figure 4.1 displays the final research model.

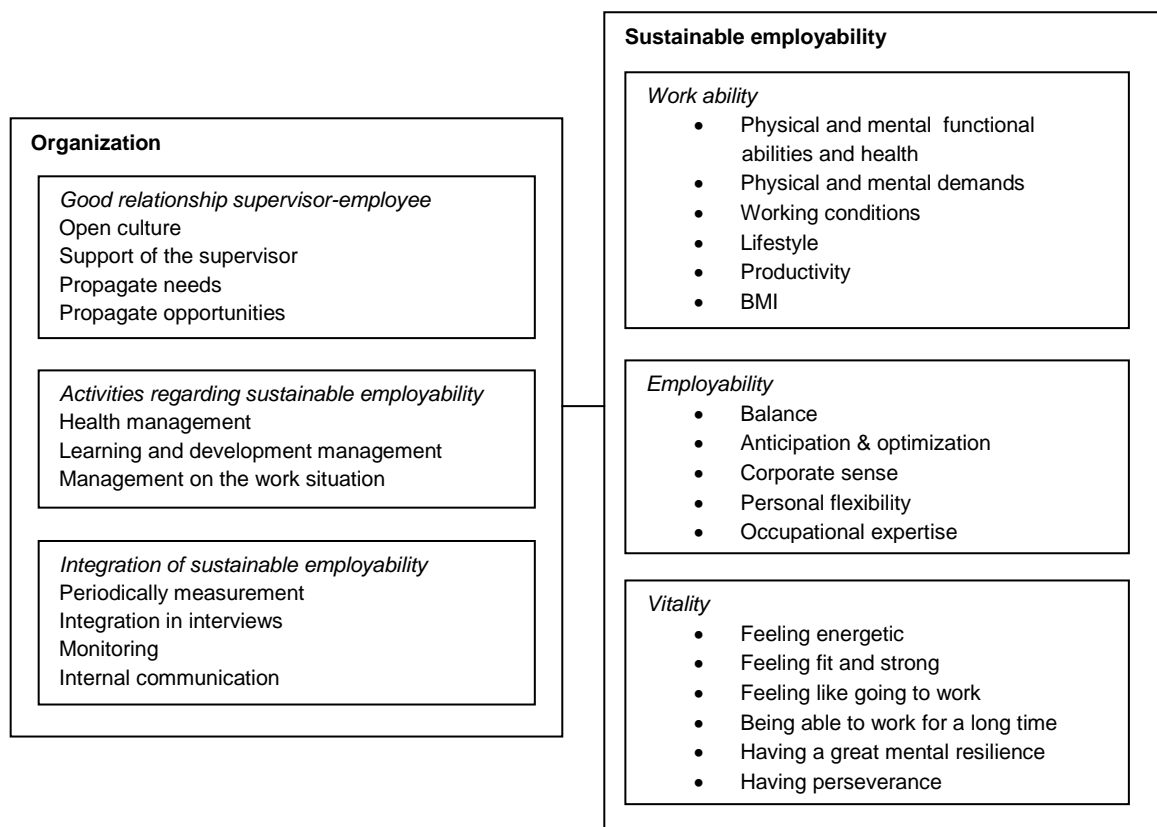


Figure 4.1: The adapted research model regarding sustainable employability and factors that support and improve it

#### 4.4 – Process of data gathering

Data is gathered by means of a questionnaire and interview. The process of both will be discussed.

Like mentioned, employees were asked to fill in a questionnaire. The questionnaire should be completed in two parts. The first part consists of 'Instrument A' and the second part consists the measurement instruments of employability and vitality. 'Instrument A' is an online questionnaire that is administered with help of 'Subsidiary C'. Respondents received a link to the website where the questionnaire could be filled in and each respondent received a personal login name and password. 'Subsidiary C' takes care of the collection of data and has its own program for obtaining and



processing the obtained data. 'Subsidiary C' could not add additional questions to the online questionnaire, the measurement instruments of employability and vitality could therefore not be included. The measurement instruments of employability and vitality are not available in an online form. Therefore, these instruments are incorporated into an online questionnaire via the website 'Enquête Maken'. Respondents received a link to the website where the questionnaire could be filled in.

To link the two questionnaires so that all the data per respondent can be assembled, each participant received a participation number. 'Subsidiary C' randomly linked a number to each participant and the participants were asked to fill in this number in the second part of questionnaire via 'Enquête Maken'. Anonymity is guaranteed in the research. In neither of the parts employees need to fill in names so that results cannot be linked to the employee in question. Results of 'Instrument A' are received in a file where only the researcher has access to. Results of employability and vitality are protected by a login system where only the researcher has access to (VDR WEB, 2013).

The interview with the HR-advisor is held at the headquarter. Prior to the interview, the questions were discussed. Internal documents were made available by the organization.

#### **4.5 – Data analysis**

Data is gathered by means of a questionnaire, interview and internal documents. The way this data is analyzed is discussed in this paragraph.

For the analysis of data from the questionnaire SPSS is used. To analyze the various questions, data is prepared in order to perform the right analysis. The questionnaire consists of two parts, the first part measures work ability and the second part measures employability and vitality. 'Instrument A' is conducted by 'Subsidiary C' which has its own program where results of 'Instrument A' are expressed in. These results are processed in SPSS. The results of the questions on employability and vitality are also processed in SPSS. One item in the construct on balance (employability) is reverse-scored. This is the item 'I feel stressed at work'. For all other questions, a score of one is the most negative and a score of five the most positive. A score of one on this item would be the most positive and a score of five on this item the most negative. Therefore, this item should be adjusted.

For work ability, employability and vitality, descriptive statistics are used to describe basic features of the data (Huizingh, 2008). Sample means and standard deviations are calculated in SPSS. The total scores of the different components are therefore calculated. For work ability, the total score forms a result of the instrument, this score was already made available by 'Subsidiary C'. For employability, the results of the instrument are total scores on each dimension. These scores are calculated in SPSS. A total score based on all five dimensions does not exist. The possibility of a total score on employability is discussed with Prof. dr. BIJM van der Heijden, one of the developers of the instrument to measure employability. The researcher created a total score based on the five dimensions with a Cronbach's alpha of .88. However, Prof. dr. BIJM van der Heijden mentioned that the instrument is not suitable for such a score. A Cronbach's alpha based on 47 items does not provide a good image of the internal consistency. In addition, discriminant validity studies provide an oblique factor structure which fits the multidimensional construct. Therefore, the total score on employability is not possible. For vitality, the total score forms a result of the instrument. The total score on the six statements is calculated in SPSS.

To assess the internal consistency, the Cronbach's alphas for each component or construct is measured with the reliability analysis (Huizingh, 2008). In paragraph 2.9 is mentioned that the reorganization had a different impact on the different groups. Therefore analyzes are done to test if the groups significantly differ. First the distribution of the different scores is checked with the test of normality. Depending on the distribution (normally or not normally), different tests are done to determine the level of significance. The tests revealed whether the differences are attributed to coincidence or if the different groups differ significantly (Moore & McCabe, 2005). Results of the analysis are used to interpret the results. For the analysis of the data, advice is obtained from the methodology store at the University of Twente (Universiteit Twente, 2013).

The analysis of the data of the interview and internal documents is different. In order to obtain a good overview of the data, the data are incorporated in a matrix (Babbie, 2007). On the left side of this matrix, organizational factors that support and improve sustainable employability are displayed, based on the research model. The matrix displays the data with the corresponding constructs. This gives the researcher the opportunity for further analysis of the data, identifying the extent to which organizational factors that support and improve sustainable employability are present in the organization.

#### *Interpretation of results*

'Instrument A' has different outcomes. It consists of a total score on work ability in a certain category. This score is composed of the seven WAI dimensions and is called the WAI-score. The score lies between seven and 49. A score between seven and 27 is categorized as poor, between 28 and 36 as moderate, between 37 and 43 as good and a score between 44 and 49 is categorized as an excellent work ability. These categories are designed to interpret the different scores. In addition to the WAI score, 'Instrument A' consists of scores on the constructs working conditions, lifestyle, BMI and productivity. Working conditions are expressed in percentages between 0 and 100. The percentage indicates the degree of presence of a certain working condition in functions (e.g. regarding autonomy, the extent to which control options are present). Lifestyle is also expressed in percentages between 0 and 100, based on the amount of employees that answered yes on the different items. High percentages on fruit(juice), vegetables, enough sleep and exercising indicate a good lifestyle. On the other hand, high percentages on alcohol and smoking (especially more than ten glasses a week and more than twenty cigarettes a day) indicate a less good lifestyle. BMI is a number based on an individual's height and weight, the numbers are associated with different categories. A score under 18.5 is categorized as underweight, between 18.5 and 24.9 as a healthy weight, between 25 and 29.9 as overweight, between 30 and 39.9 as obesitas and higher than 40 as extreme obesitas. The aim is that individuals have BMI's that are associated with a healthy weight (Stichting Voedingscentrum Nederland, 2013). At last, productivity is expressed in percentages between 0 and 100. The higher the percentage, the better the productivity. Employability is divided into five dimensions. Each construct has a score on a scale from one to six. The higher the score, the better the performance on the dimension (Van der Heijden & Van der Heijde, 2006). Vitality contains six items which form a total score on vitality. The total score is a score on a scale from one to six. The higher the total score, the better the vitality of employees (Schaufeli & Bakker, 2004). The interview and internal documents reveal whether organizational factors that support and improve sustainable employability are present in the organization.

#### **4.6 – Reliability and validity**

The research, the conceptual and research model and the questionnaire and interview were evaluated together with the supervisors of the University of Twente and 'Company X' to ensure validity. The questionnaires are evaluated to avoid ambiguities regarding the questions. In addition, the researcher filled in the questionnaire (and removed the results) to see if the online system worked.

All three instruments are existing instruments which proved to be reliable and valid in earlier studies. 'Instrument A' is a scientifically based and reliable instrument that is validated by the Erasmus Medical Center Rotterdam (Erasmus MC). The instrument has been widely used in research, both for scientific and organizational purposes ('Subsidiary C', 2013). The questionnaire on employability is widely used in scientific research and is a reliable and valid instrument (Van der Heijde & Van der Heijden, 2006). Vitality is measured with the vitality construct of the UWES, the UWES (including the different constructs) is a reliable and valid self-report instrument. It is proved more than sufficient and it is validated in different countries in recent years (Schaufeli & Bakker, 2003;2004). The original Cronbach's alpha's and the Cronbach's alpha's in this research of the different components and eventual constructs are presented in table 4.2.

Based on the norm of Nunnally & Bernstein (1994), Cronbach's alpha's should be .70 or higher. The Cronbach's alpha of anticipation & optimization is .67, if one item should be deleted it

increases to .71 or .72. The Cronbach's alpha of variety is .41, if one item should be deleted it increases to .54. Cronbach's alpha of physical load is .65, if one item should be deleted it increases to .68 or .72. At last, the Cronbach's alpha across the seven WAI dimensions in this research is .61, if one item should be deleted it increases to .71. It is decided to leave the constructs as they are instead of deleting certain items. This choice is made because the instruments proved reliability in many other studies; if certain items should be deleted, a less complete image is of for instance anticipation and optimization is obtained; and the increasement of the internal consistency of the different constructs is not that high if items are deleted. The other constructs have Cronbach's alpha's that are .70 or higher which indicate good internal consistency. For the working condition physical load, no original Cronbach's alpha was available (Robroek, Reeuwijk, Molenaar, van Haeff, Mooren & Burdorf, 2013). For lifestyle, BMI and productivity Cronbach's alpha's could not be established. Lifestyle has different items, but no overall size. Productivity and BMI only have one item.

**Table 4.2: Components and constructs with number of items and Cronbach's alpha's (original and in this research)**

Components or constructs	N items	Original Cronbach's alpha	Cronbach's alpha this research
<i>Work ability</i>			
The 7 WAI dimensions	23	.70	.61
Autonomy	5	.81	.85
Variety	3	.65	.41
Work pace and work amount	5	.86	.86
Physical load	8	Unknown	.65
<i>Employability</i>			
Balance	9	.78	.78
Anticipation & optimization	8	.81	.67
Corporate sense	7	.83	.85
Personal flexibility	8	.79	.70
Occupational expertise	15	.90	.85
<i>Vitality</i>	6	.83	.85

A questionnaire is used to measure the current sustainable employability of employees. Socially desirable answers can be an issue, even though privacy is guaranteed. The organization experienced a reorganization, so the tendency might be even greater because employees are still afraid of eventual consequences. Although the researcher communicated that the questionnaire has no negative consequences (e.g. losing the job) it can still be an issue. It might be possible that employees have answered questions differently than they had done when the reorganization did not happen. Examples are the questions on the dimensions of employability. These might be answered more positive, so that employees can show that they are still employable.

An interview with the HR advisor is used to provide an indication of the current attention the organization pays regarding sustainable employability. The interview reveals whether organizational factors that support and improve sustainable employability are present in the organization. The HR advisor might give certain answers based on a certain point of view. The HR advisor wants the best for employees in 'Company X'. It might be that HR advisor gives answers that are more negative, indicating a negative situation regarding the current attention the organization pays regarding sustainable employability. The aim might be to emphasize that improvements are really needed. However, this is not expected. The research is developed in the organization with the intention to improve sustainable employability of employees. Dishonest answers provide a wrong image of the current situation and lead to recommendations that are not adapted to the current situation.

Like mentioned in paragraph 4.2.4, non-response analyzes revealed that the research group is comparable with all employees in 'Company X'. In addition, the various groups in the research groups are comparable with these groups in the organization. Statements that are made on organizational and group level can thus be generalized. However, it should be taken into account that the non-response analyzes are based on a few general and work characteristics of employees, not all characteristics. Results of the non-response analysis are presented in appendix 8. Generalization to other similar organizations in the sector is more difficult. It is measured at a certain moment and

sustainable employability of employees can vary over time. In addition the research is conducted after a reorganization in the organization.

In this research, a questionnaire and an interview are used to obtain data. In addition, internal documents will be used. The questionnaire is used to measure the current sustainable employability of employees. The interview with the HR advisor is used to provide an indication of the current attention the organization pays regarding sustainable employability. In addition to the interview, internal documents are used to obtain information about the current attention regarding sustainable employability. With this, an insight is obtained whether organizational factors that support and improve sustainable employability are present in the organization. On the basis of this information can be derived whether improvements regarding sustainable employability of employees are needed and what factors might contribute to achieve this. With this insight, the research question can be answered. This research method thus provides a good way to perform the research.

This chapter discussed the methodology of the research. In what way are the research questions and sub-questions answered? The questionnaire and the interview are discussed. The results of the questionnaire and interview need to be analyzed to give conclusions and recommendations. Chapter five describes and analyzes the results.

## Chapter 5 – Results

In this chapter, the results of the research will be described in the form of an analysis per sub-question. First the results of work ability, employability and vitality will be discussed and the first sub-question will be answered. After that, information about the current attention that the organization pays regarding sustainable employability is discussed and the second sub-question will be answered.

The first sub-question, *“how is the situation regarding work ability, employability and vitality (sustainable employability) of employees at ‘Company X’ and is there a difference between the different groups?”*, is answered by means of a questionnaire among employees. The results of the components work ability employ ability and vitality will be discussed in paragraphs 5.1, 5.2 and 5.3.

### 5.1 – Work ability

Work ability is measured with ‘Instrument A’ which consists of different parts. The outcome of ‘Instrument A’ is the WAI-score in a certain category. In addition, the outcome consists of scores on working conditions, lifestyle, BMI and productivity. Work ability will be discussed for ‘Company X’ and the different groups, followed by a comparison of the different groups.

The WAI-score is a score that lies between seven and 49. A score between seven and 27 is categorized as poor, between 28 and 36 as moderate, between 37 and 43 as good and a score between 44 and 49 is categorized as an excellent work ability. These categories are designed to interpret the results. Table 5.1 presents the mean scores and standard deviations.

**Table 5.1: Means and standard deviations of the WAI-score of ‘Company X’ and the different groups**

	Mean*	Standard deviation	Category**
‘Company X’	43.67	3.57	Good
Staff	43.18	3.79	Good
‘Subsidiary A’	42.80	3.52	Good
‘Subsidiary B’	45.22	3.19	Excellent

\* on a scale of 7 (poor) to 49 (excellent)

\*\* 7 – 27 (poor); 28 – 36 (moderate); 37 – 43 (good); 44 – 49 (excellent)

Table 5.1 revealed that within ‘Company X’, the groups have different WAI-scores. To test if the differences are significant, the test of normality is performed in SPSS. The test for normality indicates a level of .00, this is lower than .05, so significant and not normally distributed. The Kruskal-Wallis test gives a significance level of .26 which indicates non-significance. This means that the differences in WAI-score between the groups are based on a coincidence.

The mean score of 43.67 in ‘Company X’ thus counts for the entire research group. A score of 43.67 is categorized as a good score and almost as an excellent score. This positive outcome might be related to the fact that employees in ‘Company X’ work with health and other related topics in their functions. Employees are probably more conscious of the importance of it. Health cannot always be influenced, however employees can do certain things to avoid eventual problems in work. For instance the alertness whether they can handle the physical and mental demands of work or that adjustments are needed in a function.

The other constructs of ‘Instrument A’ provide extra information. The scores on the working conditions autonomy, variety, work pace and work amount and physical load are expressed in percentages between 0 and 100. The percentage indicates the degree of presence of a certain working condition in functions (e.g. regarding autonomy, the extent to which control options are present). Table 5.2 presents the mean scores and standard deviations.

**Table 5.2: Mean scores in percentages and standard deviations of working conditions of 'Company X' and the different groups**

Working conditions	'Company X'		Staff		'Subsidiary A'		'Subsidiary B'	
	Mean*	SD	Mean*	SD	Mean*	SD	Mean*	SD
<i>Autonomy</i>	59.78	18.73	65.45	15.15	58.67	15.01	54.07	25.48
<i>Variety</i>	61.85	15.07	58.59	12.27	64.45	15.54	62.96	18.43
<i>Work pace and work amount</i>	34.89	17.83	39.39	12.09	36.67	17.28	27.41	23.20
<i>Physical load</i>	29.31	16.21	27.27	13.48	27.08	15.12	34.26	20.71

\* on a scale of 0 (not present in the function) to 100 (always present in the function)

Table 5.2 revealed that within 'Company X', the groups have different scores on the degree of presence of working conditions. To test if the differences are significant, the test of normality is performed in SPSS. For autonomy the test for normality indicates a level of .04, this is lower than .05, so significant and not normally distributed. The Kruskal-Wallis test indicates a significance level of .43, this is larger than .05 which indicates non-significance. For variety the test for normality indicates a level of .01, this is lower than .05, so significant and not normally distributed. The Kruskal-Wallis test indicates a significance level of .68, this is larger than .05 which indicates non-significance. For work pace and work amount the test for normality indicates a level of .00, this is lower than .05, so significant and not normally distributed. The Kruskal-Wallis test indicates a significance level of .14, this is larger than .05 which indicates non-significance. For physical load the test for normality indicates a level of .20, this is larger than .05, so not significant and normally distributed. The univariate test indicates a significance level of .57, this is larger than .05 which indicates non-significance. This means that the differences in scores between the groups are based on a coincidence.

The mean scores on the different constructs in 'Company X' thus counts for the entire research group. Regarding autonomy, employees experience the ability to function independently and experience control options in their functions for 59.78 percent. Regarding variety, employees experience variation in their functions for 61.85 percent. Regarding work pace and work amount, employees experience that the work pace or work amount is too high or experience problems with the work pace of work amount for 34.89 percent in their functions. At last, regarding physical load, employees experience physical load in their functions for 29.31 percent. The standard deviations are between 15.07 and 18.73 which are high. These high standard deviations indicate that employees have different opinions regarding the presence of certain working conditions in the function. There might be a reason for this. A fitness instructor for instance, gives lessons at certain times, because of this control options are hardly possible. These lessons are in general the same, so variety is not that high. However, physical load is certainly present. An HR advisor on the other hand takes care of for instance salaries, inflow, contracts and outflow. Variety is present in this function, because of the series of tasks. This employee has the possibility to make a planning with the condition that deadlines are met, so control options are present. Physical load however, will be less present.

The scores on lifestyle are expressed in percentages between 0 and 100. The percentages indicate the amount of employees that answered yes on the different items (e.g. regarding alcohol, the first percentage indicates the amount of employees who drink alcohol, the second percentage indicates the percentage of employees that drinks alcohol, however drink more than ten glasses a week). High percentages on fruit(juice), vegetables, enough sleep and exercising indicate a good lifestyle. On the other hand, high percentages on alcohol and smoking (especially more than ten glasses a week and more than twenty cigarettes a day) indicate a less good lifestyle. Table 5.3 presents the mean scores.

**Table 5.3: Mean scores in percentages of lifestyle of 'Company X' and the different groups**

Lifestyle	'Company X'*	Staff*	'Subsidiary A'*	'Subsidiary B'*
<i>Fruit(juice) &gt; five times a week</i>	96.7	100.0	100.0	88.9
<i>Vegetables &gt; five times a week</i>	96.7	100.0	90.0	100.0
<i>Alcohol, &gt; ten glasses a week</i>	66.7, 16.0	54.5, 18.2	80.0, 10.0	66.7, 22.2
<i>Smoking, &gt; twenty cigarettes a day</i>	3.3, 0.0	0.0	0.0	11.1, 0.0
<i>Enough sleep</i>	86.7	81.8	100.0	77.8
<i>Exercising minimal thirty minutes a day</i>	83.3	72.2	100.0	77.8

\* on a scale of 0 (none of the employees answered yes) to 100 (all employees answered yes)

Table 5.3 revealed that within 'Company X', the groups have different scores on lifestyle. The significance of the differences could not be checked for lifestyle, because a measure for the different items does not exist.

The percentages on the consumption of enough fruit and vegetables are high. Regarding alcohol consumption, a rather high percentage drinks alcohol, however a low percentage drinks more than ten glasses a week. Only one employee smokes. At last, the percentages on enough sleep and exercise are high. Overall, employees score good on the items of lifestyle. This might be related to the fact that employees in 'Company X' work with health and other related topics in their functions. Employees are probably more conscious of the importance of it.

BMI is a number based on an individual's height and weight, this numbers is associated with different categories. A score under 18.5 is categorized as underweight, between 18.5 and 24.9 as a healthy weight, between 25 and 29.9 as overweight, between 30 and 39.9 as obesitas and higher than 40 as extreme obesitas. The aim is that individuals have BMI's that are associated with a healthy weight (Stichting Voedingscentrum Nederland, 2013). Table 5.4 presents the means, standard deviations and corresponding categories.

**Table 5.4: Mean scores and standard deviations of BMI and categories of 'Company X' and the different groups**

	Mean*	Standard deviation	Category
'Company X'	23.22	2.58	Healthy weight
Staff	23.33	2.90	Healthy weight
'Subsidiary A'	22.15	1.68	Healthy weight
'Subsidiary B'	24.43	2.71	Healthy weight

\* on a scale of < 18.5 (underweight) to > 40 (extreme obesitas)

Table 5.4 revealed that within 'Company X', the groups have different BMI's. To test if the differences are significant, the test of normality is performed in SPSS. The test for normality indicates a level of .20, this is larger than .05, so not significant and normally distributed. The univariate test indicates a significance level of .16, this is larger than .05 which indicates non-significance. This means that the differences in scores between the groups are based on a coincidence.

The mean score of 'Company X' thus counts for the entire research group. The mean BMI of employees is 23.22 which is categorized as a healthy weight. Employees have a healthy weight. This might be related to the fact that employees in 'Company X' work with health and other related topics in their functions. Employees are probably more conscious of the importance of it.

The scores on productivity are expressed in percentages between 0 and 100. The percentages indicate how much work employees have done during the last working day in their normal time, compared to a normal working day of 100 percent. The higher the percentage, the better the productivity. Table 5.5 presents the mean scores and standard deviations.

**Table 5.5: Mean scores in percentages and standard deviations of productivity of 'Company X' and the different groups**

	'Company X'		Staff		'Subsidiary A'		'Subsidiary B'	
	Mean*	SD	Mean*	SD	Mean*	SD	Mean*	SD
<i>Productivity</i>	88.7	1.50	87.3	1.74	90.0	1.16	88.9	1.69

\* on a scale of 0 (nothing) to 100 (the same as normal)

Table 5.5 revealed that within 'Company X', the groups have different scores on productivity. To test if the differences are significant, the test of normality is performed in SPSS. The test for normality indicates a level of .00, this is lower than .05 so significant and not normally distributed. The Kruskal-Wallis test indicates a significance level of .97, this is larger than .05 which indicates non-significance. This means that the differences in scores between the groups are based on a coincidence.

The mean score of 'Company X' thus counts for the entire research group. The percentage on the current productivity of employees is 88.70. This is somewhat lower than a normal working day of 100 percent.

## 5.2 – Employability

The instrument that measures employability is based on five dimensions: balance, anticipation & optimization, corporate sense, personal flexibility and occupational expertise. The different constructs of employability will be discussed for 'Company X' and the different groups, followed by a comparison of the different groups. Each dimension has a score on a scale of one to six. The higher the score, the better the performance on the dimension. Table 5.6 presents the mean scores and standard deviations.

**Table 5.6: Means and standard deviations of the different constructs of employability of 'Company X' and the different groups**

Employability	'Company X'		Staff		'Subsidiary A'		'Subsidiary B'	
	Mean*	SD	Mean*	SD	Mean*	SD	Mean*	SD
<i>Balance</i>	4.27	.52	4.08	.51	4.36	.57	4.42	.46
<i>Anticipation &amp; optimization</i>	4.15	.47	3.99	.50	4.26	.37	4.21	.54
<i>Corporate sense</i>	4.13	.75	4.09	.84	4.13	.85	4.19	.60
<i>Personal flexibility</i>	4.56	.45	4.63	.29	4.35	.60	4.71	.35
<i>Occupational expertise</i>	4.84	.38	4.75	.35	4.81	.47	4.99	.31

\* one a scale of 1 (very bad) to 6 (very good)

Table 5.6 revealed that the groups differ in scores on the dimensions of employability. To test if the differences are significant, the test of normality is performed in SPSS. This instrument consists of different constructs, so the distribution for each construct is checked. For balance the test for normality indicates a level of .20, this is larger than .05, so not significant and normally distributed. The univariate test indicates a significance level of .30, this is larger than .05 which indicates non-significance. For anticipation & optimization the test for normality indicates a level of .08, this is larger than .05, so not significant and normally distributed. The univariate test indicates a significance level of .39, this is larger than .05 which indicates non-significance. For corporate sense the test for normality indicates a level of .12, this is larger than .05, so not significant and normally distributed. The univariate test indicates a significance level of .96, this is larger than .05 which indicates non-significance. For personal flexibility the test for normality indicates a level of .09, this is larger than .05, so not significant and normally distributed. The univariate test indicates a significance level of .18, this is larger than .05 which indicates non-significance. For occupational expertise the test for normality indicates a level of .07, this is larger than .05, so not significant and normally distributed. The univariate test indicates a significance level of .40, this is larger than .05 which indicates non-significance. This means that differences in scores between the groups on the different constructs of employability are based on a coincidence.

The mean scores on the different constructs in 'Company X' thus counts for the entire research group. The score on balance is 4.27, on anticipation & optimization 4.15, on corporate sense 4.13, on personal flexibility 4.56 and on occupational expertise is 4.84. The score of 4.84 on occupational expertise is rather high, this means that employees in 'Company X' are to a great extent in possession of domain specific knowledge and skills to perform the job adequately. The score of 4.13 on corporate sense and the score of 4.15 on anticipation & optimization are, in comparison to



the other scores, somewhat low. Corporate sense is the extent whether employees participate as members of an integrated team. The score on corporate sense might be caused by the effect the reorganization had on employees, employees might be less involved in and committed with the organization. The standard deviation of corporate sense is higher than the other standard deviations. This means that some employees experience more corporate sense than others which might be caused by the different effects the reorganization had on employees. Anticipation and optimization is the extent employees prepare for future work changes (internal and external labor market) in a personal and creative manner in order to strive for the best possible job and career outcomes. A reason for this might be, because of the reorganization and the budget, employees did not have the possibility to develop themselves by means of formal or informal learning. However, employees themselves do also have a stake in this. It might be that employees are less interested in the extent of their anticipation & optimization. Although some scores are higher or lower in comparance to each other, each dimension has a score that is between four and five. The scores are positive scores which indicate that employees score between fairly well and good on the dimensions balance, anticipation & optimization, corporate sense, personal flexibility and occupational expertise.

### 5.3 – Vitality

The instrument that measures vitality consists of six different items. These items form a total score on vitality together. Vitality is discussed for ‘Company X’ and the different groups, followed by a comparison of the different groups. The total score on vitality is a score on a scale of one to six. The higher the total score, the better the vitality of employees. Table 5.7 presents the mean scores and standard deviations of vitality.

**Table 5.7: Means and standard deviations of vitality of ‘Company X’ and the different groups**

	Mean*	Standard deviation
‘Company X’	4.66	.77
Staff	4.42	.67
‘Subsidiary A’	4.65	1.03
‘Subsidiary B’	4.94	.46

\* on a scale of 0 (never) to 6 (always)

Table 5.7 revealed that the groups differ in their scores on vitality. To test if the differences are significant, the test of normality is performed in SPSS. The test for normality indicates a level of .02, this is lower than .05, so significant and not normally distributed. The Kruskal-Wallis test gives a significance level of .27 which indicates non-significance. This means that differences in scores on vitality between the groups are based on a coincidence.

The mean score of 4.66 in ‘Company X’ thus counts for the entire research group. A score of four means that employees feel vital once a week and a score of five means that employees feel vital a few times a week. A score of 4.66 is between four and five and tends more to a score of five. This means that employees within ‘Company X’ tend to feel energetic, feel fit and strong, feel like going to work, are able to work for a long time, have a great mental resilience and have perseverance a few times a week. The standard deviation of 0.77 is somewhat high, this means that some employees experience more vitality than others.

### 5.4 – Answering the first sub-question

With the results on work ability, employability and the vitality of employees, the first sub-question “*how is the situation regarding work ability, employability and vitality (sustainable employability) of employees at ‘Company X’ and is there a difference between the different groups?*” is answered.

‘Company X’ and the different groups have different scores on the three components. However, these differences are not significant and based on a coincidence. The scores of ‘Company X’ thus count for all employees in the organization. In general, employees have good scores on the different components. The score on work ability is good and almost excellent. This positive outcome indicates that employees are physically and mentally able to work to a good and almost excellent

extent. Work ability also includes extra constructs of 'Instrument A'. Regarding working conditions, autonomy and variation are more present in functions than work pressure and physical load. Within the functions of 'Company X', autonomy and variety are present for about 60 percent. In the other 40 percent of work, employees do not experience autonomy and variety. Employees experience that the work pace or work amount is too high or experience problems with it for about 35 percent in their functions, in the other 65 percent of work this is not the case. At last, employees experience physical load for about 30 percent in their functions, in the other 70 percent physical load is not present. Employees have good scores on lifestyle and have a healthy weight. The score good on productivity indicates that employees were less productive at work at that moment, in comparance with a normal working day. The scores on employability are all between fairly well and good. This is a positive outcome which indicates that employees possess over the competences or the will to become these to continue with working. In comparance, occupational expertise has the highest score and corporate sense and anticipation & optimization have the lowest scores. The score on vitality indicates that employees feel vital between once a week and a few times a week, with a tendency to the latter.

As stated earlier, employees have good scores on the different components of sustainable employability, this means that employees are doing well regarding sustainable employability. Employees scored slightly better on certain elements in comparance with others (e.g. the high score of occupational expertise), but that does not mean the other scores are low. However, the different scores do not reach the maximum. The aim is that employees have perfects scores sustainable employability and therefore improvements are possible.

The following paragraph indicates the current attention the organization pays regarding sustainable employability. On this basis can be discussed what the organization can do to support and improve sustainable employability of employees.

#### **5.5 – The current attention the organization pays regarding sustainable employability**

The second sub-question, *“what organizational factors that support and improve sustainable employability are present at ‘Company X’ and to what factors the organization should pay more attention to?”* is answered by means of an interview with the HR advisor and internal documents (policy document personal & organization policy and introduction guide). The interview and internal documents reveal whether organizational factors that support and improve sustainable employability are present in the organization. The results of the interview and the internal documents are integrated in the data matrix, presented in table 5.8. This table is followed by an analysis of the results.

**Table 5.8: Presence of factors that support and improve sustainable employability in 'Company X'**

<b>Construct</b>	<b>Presence in organization*</b>
<b>Relationship</b>	
Open culture	Employees can and do address questions or problems to supervisors. However, it occurs that the relationship between certain supervisors and employees is less good in periods.
Support employees	The supervisor has particular a role during interviews and if problems arise. Further, employees work independently and daily support is not required. Employees are in general supported, however the way of supporting depends on supervisor and managing style.
Propagate needs	When the organization has needs of employees (e.g. extra tasks in a function), it is propagated.
Propagate opportunities	When the organization has opportunities for employees (e.g. budget for education), it is propagated.
<b>Activities</b>	
<b>Health</b>	
Physical and mental health	In job interviews is discussed whether demands of work and health of employees are in accordance. During the selection procedure for management functions a psychological test or assessment center methods might be used. A standard procedure of sickness exists. Temporary and minor problems are discussed with the supervisor and HR and if employees are longer than ten days sick or the problem is greater, the medical officer is contacted. Together with the HR advisor a plan of approach will be made. The numbers of sickness are presented on Intranet and in the newsletter monthly.
Lifestyle	A bicycle plan to stimulate exercise exists. If employees smoke, the employer offers to follow a stop smoking training, this is a sort of silent possibility.
<b>Learning and development</b>	
Formal learning	Fitness instructors, location managers and 'Service A' teachers follow first aid courses. Fitness instructors of 'Subsidiary B' have a budget for education, €150,- per 1 FTE per employee. Education is a topic in interviews, needs and wishes regarding education and training are discussed. Career expectations are also discussed (e.g. other function and tasks), which might involve formal learning.
Informal learning	Career expectations are discussed in interviews, which might involve informal learning. An example is that fitness instructors learn tasks from the location manager to also fulfill that function. Internal candidates are first approached for a vacancy. An example is an HR employee who also works on secretariat. The HR employee learned tasks of the employee on secretariat. 'Subsidiary B' has special newsletters (one per quarter), employees share for instance new learning methods. 'Subsidiary B' and 'Subsidiary A' have internal training days (one per year), new work procedures are discussed for instance.
<b>Work situation</b>	
Working conditions	Options to adapt autonomy, variety, work pace and work amount and physical load exists. Within 'Subsidiary A', some 'Service A' teachers got more autonomy to run multiple projects in one region. Variety in functions can be increased, examples are mentioned (e.g. an employee on HR and secretariat). Work pace and work amount can be adapted. The HR advisor has different tasks, it is possible to make a planning for the different tasks. A fitness instructor can create variety in the content of the lessons. Physical load can be adapted, 'Subsidiary B' deal most with this. If employees have physical problems (e.g. a back injury), they perform guidance for clients instead of group lessons to ensure little physical exertion.
Content of work	The content of work (variety in work) is adapted when a certain situation occurs. Forms of formal and informal learning and adapting working conditions might change the content of the function.
Work relations	Like mentioned, the relationship between supervisors and employees are good and problems or questions can be debated. However, it also occurs that the relationship is less good in periods. The relationship between colleagues is good. Problems regarding the atmosphere at work can be debated.
Employment conditions	Adjusting work hours or days is possible (e.g. when tasks in functions increase and more time is needed). Working at home is possible in the organization.
<b>Integration</b>	
Periodically measurement	Sustainable employability is not periodically measured.
Integration in interviews	Appraisal and progress interview take place each year. In the appraisal interview the functioning on core and job-specific competences and the development of employees regarding these competences are discussed and an eventual development plan is made. In progress interviews is discussed to what extent employees have realized the objectives. Only some elements of sustainable employability are integrated.
Monitoring	First aid courses need to take place, this is monitored. Agreements made in the appraisal interview are monitored in the progress interview. Further, HR monitors whether interviews find place.
Internal communication	Examples are mentioned (presented numbers of sickness, special newsletter and training days). Employees share experiences on Intranet which might have to do with sustainable employability. Sustainable employability is sometimes a topic during meetings of events (e.g. vitality days).

\* more information about the presence of the constructs in the organization is presented in appendix 7

Based on table 5.8, the following can be said. A good relationship between supervisor and employee is not always optimal in the organization. Employees are in general supported by their supervisor. Further, the organization does propagate needs and opportunities. Regarding health management, the organization only discusses whether health of employees and demands of the functions are in accordance (this happens at job interviews). Further, health is discussed when problems arise. Advices regarding lifestyle are not given. Regarding learning and development management, formal learning happens when it is necessary to perform the function (e.g. first aid courses). Within 'Company X' only 'Subsidiary B' has a learning budget for its employees. Education is a topic during interviews, together with employees' needs and wishes regarding the career. However, supervisors and employees do not pro-actively seek for opportunities to learn and develop. Different forms of informal learning are present in the organization. Learning from colleagues happens when this is needed, for instance to take over a certain function. Further, employees learn in an informal way by means of special newsletters and internal training days. Newsletters and training days are however not frequent and not for all employees. Management on the work situation is divided into working conditions, the content of work, work relations and conditions of employment. In all cases, adapting working conditions happens when a certain situation occurs. Supervisors and employees do not pro-actively seek for opportunities to increase autonomy and variety in functions or check the workload or physical load to see how this can be reduced in a preventive matter. The extent to which working conditions are present or can be adapted in functions also depends on the opportunities within the function. An example is that planning of work (autonomy) is not possible in the function of a fitness instructor, this function has a tight planning with lessons at certain times. Changing the content of the functions happens sometimes, like mentioned. Regarding work relations, the relationship between supervisors and employees is not always optimal, like mentioned. Further, the atmosphere at work is good. Regarding employment conditions, adjusting working hours and days is possible, just like working at home. With these measures, the organization pays attention to work-life policies. Regarding integration, the organization does not periodically measure sustainable employability and only a part of sustainable employability is integrated in interviews. The organization monitors the first aid courses and the appraisal and progress interviews. Different forms of internal communication are present in the organization, however not in a great extent.

### **5.6 – Answering the second sub-question**

Paragraph 5.5 revealed the results for the current attention regarding sustainable employability in the organization and table 5.8 provided an overview. To answer the second sub-question, "*what organizational factors that support and improve sustainable employability are present at 'Company X' and to what factors the organization should pay more attention to?*", the current attention the organization pays regarding sustainable employability is compared with the ideal situation according to literature. Table 5.9 provides an indication of the extent to which 'Company X' meets this ideal situation. This is followed with points of improvements for the organization, according to literature. Therewith, the second sub-question can be answered. Regarding the answer on this question, the factors that are present in the organization will not be repeated again. The focus will be on the factors that need attention.

**Table 5.9: The ideal situation, according to literature, of factors that support and improve sustainable employability and the extent of presence of this ideal situation within 'Company X'**

Construct	According to literature	'Company X'
<b>Relationship</b>		
Open culture	Organizations should have an open culture where problems can be debated.	+/-
Support employees	Supervisors should play a supporting role. This is even more important when the organization increases attention regarding sustainable employability. Supervisors should be informed of their role and expectations.	+/-
Propagate needs	Needs of the organization should be propagated. This becomes more important when the organization increases attention regarding sustainable employability.	+
Propagate opportunities	Opportunities in the organization should be propagated. This becomes more important when the organization increases attention regarding sustainable employability.	+
<b>Activities</b>		
<b>Health</b>		
Physical and mental health	Organizations should pay attention to health. Safety of work is important, checks on health and work load, reducing absenteeism or premature dropping out and adapting the physical and mental demands of work to capacities of employees are examples.	+/-
Lifestyle	Organization should pay attention to lifestyle and give advices in this area. For instance on the use of alcohol, smoking behavior, healthy nutrition and exercising	+/-
<b>Learning and development</b>		
	Employees should possess over opportunities to learn and to develop at work. Lifelong learning, improving knowledge, skills, competences and expertise. Career advice, variety, customized functions, job complexity and challenge, mobility, job enrichment, job enlargement, job or task rotation and horizontal and vertical flows. These options are possible with the help of formal and informal learning.	
Formal learning	Different formal learning opportunities should be available. For instance training, schooling, education, courses and a learning budget.	-
Informal learning	Different opportunities regarding informal learning should be available. For instance learning from colleagues and customers and sharing knowledge and experiences.	+/-
<b>Work situation</b>		
Working conditions	Autonomy and variety and functions are important. To avoid a too high work pace and work amount or problems with it or to avoid a too high physical load, capacities of employees and the demands of the functions should be in accordance.	+/-
Content of work	The content of work should be adapted when changes in the function occur. Further, variation of work is important. This is possible by learning and development opportunities and adapting working conditions.	+/-
Work relations	Good work relations are important. A good relationship between supervisor and employee as well as a good relationship between colleagues.	+/-
Employment conditions	Adjusting working hours and days (flexible), working at home and work-life policies are important.	+
<b>Integration</b>		
Periodically measurement	Periodically measurement of sustainable employability (or elements of it) is important.	-
Integration in interviews	Integrating sustainable employability (or elements of it) is important.	+/-
Monitoring	Monitoring is important when sustainable employability is going to play an increasing role in the organization. It can help to ensure that it stays a standard and maintained part in the organization. The organization should check whether activities are performed or whether agreements regarding sustainable employability are met.	-
Internal communication	Internal communication is important for the organization. In this way, sustainable employability becomes and stays a debatable topic in the organization.	+/-

Table 5.9 revealed that some factors that support and improve sustainable employability are present, some factors are partly present and some are not present at all. Based on table 5.9, the following can be said. Regarding the good relationship between supervisor and employee, this can be improved in certain cases. If the supporting role of the supervisor increases, supervisors should be informed about their role and expectations. Regarding health management, the organization should pay more attention to activities regarding health in a preventive and pro-active manner and should pay more attention to lifestyle. Regarding learning and development management, the organization should increase existing forms of informal learning and increase new forms of formal and informal learning. Regarding management on the work situation, the organization should create opportunities to increase autonomy and variety in functions and should ensure that capacities of employees and demands of the functions are in accordance to avoid problems regarding work pressure and physical load.

Regarding the content of work, the organization should create opportunities for variety in work, for instance by means of formal and informal learning and adapting working conditions. Regarding work relations, the relationship between supervisor and employee might be improved in certain cases. Overall, the organization should be pro-actively with management regarding health, learning and development and the work situation. The organization should seek for opportunities that support and improve sustainable employability of employees (e.g. better accordance the demands of the function and capacities of employees regarding health, learning and development opportunities or opportunities to increase autonomy and variety in functions). Regarding integration of sustainable employability, the organization should measure sustainable employability periodically and should fully integrate sustainable employability in interviews. Monitoring becomes important when sustainable employability becomes a part of the organization. The organization should check whether activities are performed or whether agreements regarding sustainable employability are met. At last, the organization should increase current forms of internal communication and increase new forms of internal communication.

In general, the organization does pay attention to sustainable employability. However, improvements are clearly possible. Paragraph 5.1, 5.2, 5.3 and 5.4 discussed the current sustainable employability of employees. Improvements are possible regarding their situation. To support and improve sustainable employability of employees, the organization thus has an important role and should apply certain factors or pay more attention to certain factors in the organization.

Sustainable employability of employees is discussed in paragraphs 5.2, 5.3, 5.4 and the first sub-question is answered in paragraph 5.5. The current attention the organization pays regarding sustainable employability is discussed in paragraph 5.6 and the second sub-question is answered in paragraph 5.7. Herewith, the two sub-questions of the research are answered. The following chapter includes the conclusion, discussion and recommendations. The recommendations form the answer on the research question: *“in what way can ‘Company X’, where needed, support and improve sustainable employability of its employees?”*

## Chapter 6 – Conclusion, discussion and recommendations

In this chapter, the conclusion of the research is presented first. The discussion is a critical reflection on the measurement process and results, it consists of limitations of the research, followed by directions for further research. Finally, recommendations will be given.

### 6.1 – Conclusion

The change in grey pressure, the expected labor shortage and the economic crisis indicate that sustainable employability is an important topic in the current labor market. Next to these general reasons, 'Company X' has additional reasons for this research. The organization experienced a reorganization which affected a large number of employees. After the reorganization, the vitality days were organized with the purpose to pay attention to employees and obtain an insight in the affection of the reorganization. Sustainable employability was the central topic, explained on the basis of work ability, employability and vitality. These topics are integrated in services that the organization provides. However, such services are never applied to the organization itself. This awareness of 'practice what you preach' came after the vitality days. The organization does not pay attention to sustainable employability in the way that it would like to see it. The aim of this research is therefore to support and improve (where needed) sustainable employability of employees at 'Company X'.

Literature research revealed what sustainable employability is and what factors support and improve it. This leads to the development of the conceptual model. Certain assumptions regarding the way of measuring are made and based on these a research model is developed.

Based on the conception of work ability, employability and vitality in the research model, a questionnaire is developed that measures sustainable employability of employees. With this information, the first sub-question is answered: *"how is the situation regarding work ability, employability and vitality (sustainable employability) of employees at 'Company X' and is there a difference between the different groups?"* In general, employees have good scores on the different components. The differences in scores between the groups in the organization are not significant. The score on work ability is good and almost excellent. Regarding working conditions, autonomy and variation are more present in functions than work pressure and physical load. Employees score good on lifestyle, have a healthy weight and score good on productivity. The scores on employability are all between fairly well and good, where occupational expertise has the highest score and corporate sense and anticipation & optimization have the lowest scores in comparison. The score on vitality indicates that employees feel vital between once a week and a few times a week.

Based on the organizational factors that support and improve sustainable employability in the research model, an interview is created. With this interview, and in addition internal documents, the second sub-question is answered: *"what organizational factors that support and improve sustainable employability are present at 'Company X' and to what factors the organization should pay more attention to?"* Regarding the answer on this question, the factors that are present in the organization will not be repeated again. The focus will be on the factors that need attention. The relationship between supervisor and employee can be improved in certain cases. If the supporting role of supervisors increases, supervisors should be informed about their role and expectations. Regarding health management, the organization should pay more attention to activities regarding health in a preventive and pro-active manner and should pay more attention to lifestyle. Regarding learning and development management, the organization should increase existing forms of informal learning and increase new forms of formal and informal learning. Regarding management on the work situation, the organization should create opportunities to increase autonomy and variety in functions and should ensure that capacities of employees and demands of the functions are in accordance to avoid problems regarding work pressure and physical load. Regarding the content of work, the organization should create opportunities for variety in work, for instance by means of formal and informal learning and adapting working conditions. Regarding work relations, relationships between supervisor and employee might be improved in certain cases. Overall, the organization should be pro-actively with management regarding health, learning and development and the work situation. Regarding integration of sustainable employability, the organization should measure sustainable employability

periodically and should fully integrate sustainable employability in interviews. Monitoring becomes important for the organization when sustainable employability becomes a part of the organization. The organization should check whether activities are performed or whether agreements regarding sustainable employability are met. At last, the organization should increase current forms of internal communication and increase new forms of internal communication.

Employees have good scores on the different components of sustainable employability, this means that employees are doing well regarding sustainable employability. However, the different scores do not reach the maximum. The aim is that employees have perfect scores sustainable employability and therefore improvements are possible. The organization pays attention to sustainable employability. However, improvements are clearly possible. To support and improve sustainable employability of employees, the organization thus has an important role and should apply certain factors or pay more attention to certain factors in the organization.

The research revealed that sustainable employability of employees can be improved and that the organization should pay more attention to sustainable employability. The research question "*in what way can 'Company X', where needed, support and improve sustainable employability of its employees?*" is answered in paragraph 6.5. On the basis of the conclusion above, concrete recommendations will be given. Next to the employer, the employee plays a role. This role is not measured in the research, because the research involves what the organization itself can do. The role of employees is however included in the recommendations. In this way, the organization can convey the role that employees should play regarding sustainable employability. Before recommendations will be given, the discussion is presented in the following paragraph.

## **6.2 – Discussion**

### *6.2.1 – Critical reflection on the measurement process and results*

This paragraph discusses the critical reflection on the measurement process and the results. Limitations will be given, followed by directions for future research.

#### *Research conducted at one time*

Because of the fact that the research is conducted at one time, the results depend on the circumstances at that moment. Although sustainable employability is a lifelong process, longitudinal research was not possible in this research. This would mean that employees should be followed for a longer time or during their whole career. Therefore, assumptions are made about what sustainable employability is and what factors support and improve it, based on literature. The current situation on sustainable employability in the organization and the ideal situation according to literature are compared and on this basis recommendations are given to support and improve sustainable employability. Because employability should be 'sustainable', recommendations include how sustainable employability can be integrated in the organization. In this way an attempt is made to give meaning to the sustainable part.

Future research should be carried out on longitudinal basis. Research during the whole career has a long duration, however a shorter period is also optional. When more measurements are done over a longer period, certain patterns or developments can become visible. This might reveal what factors really influence an individual's sustainable employability.

#### *Response*

The response of 53 percent was quite disappointing after many response enhancing measures. Convincing employees to participate was difficult, because employees work across the country. This means that the researcher could not meet or speak all employees personally. Almost all employees of the staff that are employable at the headquarter (where the research is performed) participated. This might indicate that personal involvement with employees influences participation. This was almost impossible for the other employees. In many workplaces (e.g. an internal fitness location) employees perform lessons at a certain moment and are not present at the same moment. Furthermore, the questionnaire is sent by means of e-mail. Employees might not read their e-mail frequently, however



the rule is answering e-mails within 24 hours. When employees were called personally, 70 percent of employees did not answer. Employees might not listen to their voicemail regularly.

Response might increase by sending questionnaires via post, this might increase the tendency to participate. When employees are at home and have an eventual quiet moment, they might be more inclined to participate. If employees are confronted with the questionnaire in their work e-mail, deadlines or other tasks might get priority. Another option is to obligate employees somehow to participate in the research. It might also increase if employees should fill in the questionnaire as part of a meeting, such as the vitality days.

#### *The questionnaire among employees*

The questionnaire is self-perceived, where employees could assess their own sustainable employability. A first limitation is that some employees are familiar with a part of the questionnaire. The tendency of employees to give socially desirable (positive) answers in the questionnaire might be greater, because they know how the questionnaire works. In addition, the organization experienced a reorganization, so the tendency might be even greater because employees are still afraid of eventual consequences. Although employees are informed about the privacy of the questionnaire and that the questionnaire has no negative consequences (e.g. losing the job), it can still be an issue. It might be possible that employees have answered questions differently than they had done if the reorganization did not happen. An example is the part of the questionnaire that measures the different dimensions of employability. These questions might be answered more positive, so that employees can show that they are still employable in the organization. A second limitation is that a questionnaire might not give a complete picture of or a deep insight in the situation of employees. The questionnaire consists of questions with standardized answer possibilities. Employees cannot give reasons behind answers on certain questions and they cannot give more attention to certain elements in the questionnaire or to elements that are not included in the questionnaire.

Socially desirable answers of employees are always a difficult limitation to overcome. In future research should be clearly stated full honesty regarding answers is preferred. In addition, the organization can emphasize that the questionnaire has no negative consequences for employees. Another option is to clarify that with honest answers a better image of the situation is obtained. Recommendations are better consistent with the situation in that way. Regarding the complete picture of the situation regarding sustainable employability of employees, a possibility is to use interviews with open questions instead of questionnaires. With this, employees might give a deeper insight in their situation and they might be more inclined to tell reasons behind answers or indicate certain problems.

#### *Interview with the HR advisor*

In the interview with the HR advisor, certain answers might be given based on the background and point of view. The HR advisor wants the best for employees in 'Company X'. It might be that the HR advisor indicates a negative situation regarding the current attention the organization pays regarding sustainable employability to emphasize that improvements are really needed. However, this is not expected. The research is developed in the organization with the intention to improve sustainable employability of employees. Dishonest answers provide a wrong image of the current situation and lead to recommendations that are not adapted to the current situation. Another limitation of the interview is that it might not give a complete image of the current attention regarding sustainable employability in the organization. In the interview, intended policy is discussed, things that should be done in the organization. An example is that, within appraisal and progress interviews, supervisor and employee should discuss needs and wishes of employees regarding education or regarding their career. HR monitors whether these interviews are taken and has insight in the documentation of these interviews, but cannot assess whether such things are really discussed in interviews. In addition, the current situation on for instance the relationship between supervisor and employee is discussed in the interview with the HR advisor. The HR advisor indicates that, overall, the relationships are good, but in certain cases improvements are possible. However, this is an indication of the HR advisor, this employee does not have a direct insight in the different relationships.

In addition to the intended policy of the organization, it is also interesting to research whether intended policy is also implemented in the organization. An idea for future research is to examine the extent to which intended policy is actually implemented policy in the organization. An example is to research whether wishes and needs regarding education or regarding the career are really discussed in appraisal and progress interviews. Another example is that in addition to the current situation of certain factors (e.g. relationship supervisor-employee) according to the HR advisor, research the current situation of such factors among employees. Employees can provide a better image on for instance the quality of the relationship with the supervisor. Another idea is to examine what employees prefer regarding sustainable employability, for instance whether they need more support of the supervisor, prefer more forms of informal learning or prefer autonomy or variety in their function.

#### *Future research on other topics*

Based on the results of this research, the organization might consider to perform research on other topics. According to the HR advisor, the relationship between supervisor and employee can be improved in certain cases. Research on the relationship between supervisor and employee can provide a solution to get an insight in the different relationships. Reasons for problems can be detected and solutions should be found to ensure good relationships throughout the organization.

Further, the organization should wonder whether sustainable employability is the only topic that deserves attention after the reorganization. An issue that has emerged after the vitality days was commitment of employees. As a results of the vitality days it appeared that employees are still committed to the organization, however this is less than the period before the reorganization. This also has to do with trust in the organization, due to the reorganization and the insecure future caused by the economic crisis. Research on organizational commitment of employees can provide a solution to get an insight in the situation of organizational commitment. Points of improvement can be detected to restore or increase commitment of employees. In line with commitment of employees, it appeared that employees are less satisfied with the organization than the period before the organization. Another research possibility is therefore employee satisfaction. With this, an overall picture regarding satisfactory is obtained. Problems can be detected and solutions should be found to overcome these.

Another effect of the reorganization is that some employees went backwards in terms of hours, however the amount of work did not change. A possibility is to research the content of functions and tasks that employees should fulfill. The organization should identify the amount of work and make a realistic estimate of the amount of hours that are required to perform the work. This might lead to redesigning certain functions or assigning additional hours to certain employees.

#### *6.2.2 – Discussion of an overall measurement for sustainable employability*

So far literature research has shown, an overall measurement for sustainable employability does not yet exist. In this research, sustainable employability is measured with instruments that measure work ability, employability and vitality. To create an overall measurement, a total score on all three components should be available. Regarding work ability, the WAI-score is a good indication. Although this research uses 'Instrument A', the WAI provides a good image of work ability and is a good predictor of the future work ability (Burdorf & Elders, 2007; Burdorf et al., 2008; Gould et al., 2008; Ilmarinen et al., 2005; Van den Berg, 2010). Regarding vitality, a total score is already available, based on the UWES. Employability has five scores on the different dimensions. A total score based on the five dimensions is created in SPSS which has a Cronbach's alpha of .88. Based on the three total scores an attempt is done to develop one construct of sustainable employability. Appendix 9 presents the development of this overall measurement. This construct has a Cronbach's Alpha of .66. Nunnally & Bernstein (1994) mention that the internal consistency for new developed measurement instruments should be .60 or higher. However, after discussing the possibility of one score on employability with Prof. dr. BIJM van der Heijden, one of the developers of the instrument, it became clear that the instrument is not suitable for a total score based on the five dimensions, like mentioned in paragraph 4.5. The author mentioned that a Cronbach's alpha based on 47 items does not provide a good image of the internal consistency. In addition, discriminant validity studies provide an oblique factor structure

which fits the multidimensional construct. Therefore, future research should look for other instruments that measure employability and reliability analysis should reveal the internal consistency of this instrument together with instruments that measure work ability and vitality.

Future research on the development of one construct could also lead to other instruments to measure work ability and vitality. Studies measure sustainable employability in different ways. Van Vuuren et al. (2011) measure it on the basis of work ability, employability and vitality. Work ability is measured with the WAI. Employability is measured with an instrument of Gasperz & Ott (1996) which items are based on willingness to be mobile, perceived opportunities in the labor market and realized mobility over the last two years (this measurement provides a score on employability). Vitality is measured with a part of the UWES. Van Vuuren et al. (2011) measures vitality the same as in this research and work ability is measured with the WAI (which is included in 'Instrument A' in this research). However, a different instrument for employability is used. Gasperz & Ott (1996) measure some elements in a different way than the employability instrument in this research, however similarities are also present. Bossink (2011) measures sustainable employability with three components: health, employability and development. Health is divided in physical and mental health. Physical health is measured with guidelines of Kuiper, Heerkens, Balm, Bieleman & Nauta (2005) and mental health with a scale of the UBOS (Schaufeli & Van Dierendonck, 1995). Employability is measured with the 'career mirror' of Thijssen (2010), items are based on recent learning experiences, development opportunities, investment in actual learning possibilities and relevant expertise in the work field. The questions on development are based on two other parts of the 'career mirror' of Thijssen (2010): compliance with the psychological contract and career expectations. It is further measured with self-efficacy (Warr & Birdi, 1998) and job rotation (Breukers, 2010). Bossink (2011) measures sustainable employability in a different way. Physical and mental health are incorporated in 'Instrument A' that is used in this research to measure work ability, however measured differently, similarities and differences are present. Employability is measured with the 'career mirror' of Thijssen (2010). This author has a different conception of employability, some elements are measured different and some in the same way than/as in this research. The same counts for the development construct.

Next to these examples, other ways to measure sustainable employability exist. The mentioned instruments include components that this research does not include and reversed. Future research should study sustainable employability to establish what the concept consists of and how it should be measured. Different instruments that measure parts of it can be selected and reliability analyzes should reveal whether one construct of sustainable employability is possible.

### **6.3 – Recommendations**

Before the recommendations will be presented, a few notes should be made. Like mentioned, the organization is in a difficult financial situation, therefore it is important to cut back on cost wherever it is possible. To make valuable recommendations, they are tailored to the situation, recommendations that cost as little as possible but are yet effective. Further, employees of the staff, 'Subsidiary A' and 'Subsidiary B' are part of the study. However, recommendations might also count for 'Subsidiary D' and 'Subsidiary C'. The recommendations form the answer on the research question: *"in what way can 'Company X', where needed, support and improve sustainable employability of its employees?"*

#### *Provide employees with results of the research*

When employees got the invitation to participate in the research, it is mentioned that they will receive feedback of the results. A first advice is therefore that the researcher sends all employees an e-mail with results of the research and an eventual plan of the organization. Another option is to present the results in the newsletter, on Intranet or during a meeting of 'Company X'.

#### *A good relationship between supervisor and employee*

First it is advised to create an open culture in the organization where problems can be debated. If this is not the case in all supervisor-employee relationships, a dialogue between the two should take place. This dialogue should reveal eventual issues and solutions should be found to overcome these.

In addition to an open culture, supervisors should fulfill a supporting role for employees. If employees need advice or need to be motivated to develop themselves, they should know that they can count on assistance of the supervisor. Supervisors should be made aware of the supporting style of managing they should fulfill and the expectations. Currently, supervisors and employees do not proactively seek for opportunities that might support and improve sustainable employability of employees (e.g. better accordance of health and the demands of the function, learning and development opportunities in functions or opportunities to increase autonomy and variety in functions). This becomes an additional task for supervisors and employees.

Needs of employees or opportunities for employees are already propagated by the organization of by the supervisor. Advised is that these needs and opportunities are consistently propagated when new needs or opportunities arise in the future.

#### *Health management*

It is advised that the organization should pay more attention to health (physical and mental) in a preventive matter. Health as a topic should be integrated in interviews. The organization should periodically determine whether physical and mental demands of work are still in accordance with capacities of employees. If this balance is disturbed, a solution should be found (e.g. adapting the function). Other examples of activities are checks on health and work-load of employees.

The organization should also pay attention to lifestyle. This can be done by means of attention for the use of alcohol, smoking behavior, healthy nutrition and exercising. For instance information on Intranet, information in (special) newsletters or during training days. Other options are offering employees to attend a stop-smoking training or providing them to fitness at a lower tariff. Lifestyle is a part of health management and should also be integrated in interviews.

#### *Learning and development management*

The organization is advised to pay more attention to learning and development. Learning and development should be further integrated in interviews, where supervisor and employee should discuss concrete opportunities. These can be in the form of job enrichment, job enlargement or job rotation. Another option is to become more or other knowledge to better perform the function. Supervisors thus get an extra role in learning and development of employees, together with employees. Opportunities within the function should be created and a plan of approach should be made on how to realize these. This should fit with capacities and wishes of employees and possibilities in the function and organization. An option for supervisors is creating a matrix with certain knowledge that is preferred in the different functions.

'Subsidiary B' is the only subsidiary that has an education budget for its employees. The organization should pay attention to the possibility of such a budget for all other employees in the organization. If this is not possible, the necessity of this budget for 'Subsidiary B' should be discussed. Knowledge of employees can become insufficient to perform the function. If formal learning (e.g. education, training and courses) is necessary, the organization should seek for alternatives where no or little budget is needed.\* Informal learning might provide a solution.

Informal learning is something the organization should pay more attention to. First it is advised to increase current forms of informal learning. 'Subsidiary B' has special newsletters with for instance information about new learning methods. These letters are sent once per quarter and should be sent more frequent. In addition, they should be developed for 'Subsidiary A' and 'Subsidiary D'. Creating them for the staff and 'Subsidiary C' is more difficult, while employees are employable in many different functions. Once per year 'Subsidiary B' and 'Subsidiary A' organize training days separately. These should be organized more frequent. In addition, they should be developed for the staff, 'Subsidiary C' and 'Subsidiary D'. Learning from colleagues is another opportunity. This already happens (e.g. fitness instructors that learn tasks from the location manager to also fulfill the function), however options should be increased. It is important that these options are possible and needed. It is for instance not necessary if enough employees already can perform certain tasks.

In addition to increasing current forms of informal learning, more opportunities should be developed to learn in an informal way. Learning things from customers is an option. Next to the services that 'Company X' provides to their clients, clients might pay attention to sustainable employability in other ways. During congresses or meetings, the organization can get an inside in these and parts might be integrated. Another option is sharing information and experiences, this can be done for instance by means of Intranet. An advice for the organization is creating a sustainable employability page on Intranet, where employees can share information regarding sustainable employability. This is discussed in depth below.

#### *Management on the work situation*

Advised in that the organization should create more opportunities to adapt the work situation. The work situation as a topic should be integrated in interviews, where supervisor and employee should discuss opportunities regarding adapting working conditions, the content of work, work. Supervisors thus get an extra role, together with the employee opportunities regarding the work situation should be created and a plan of approach should be made on how to realize these. Opportunities should fit with capacities and wishes of employees and possibilities in the function and organization.

Regarding working conditions, autonomy can be increased by giving employees more influence on the planning of work, work pace and the way that work is performed. For some employees this is difficult because they perform lessons (e.g. within internal fitness or 'Service A' programs) at a certain time. To increase variety, functions should require creativity, tasks should be varied and employees should do an account on their skills and capacities. However, variety in functions should be possible and needed. It is always possible for fitness instructors to come up with creative ways to perform lessons. However, if they want to learn the function of location manager, it should be needed in the organization. Otherwise it only costs money (because these functions change in salary). More autonomy and variety in functions lead to job enrichment, job enlargement and job rotation. Regarding work pace and work amount, demands of the function should be in accordance with capacities of employees. The organization should make sure that the amount of work and available hours to perform work is in balance in all the functions. Regarding physical load it is also important that demands of the functions are in accordance with capacities of employees.

Regarding the content of work, the organization should create opportunities for variety in work. Learning and development opportunities and adapting working conditions might contribute to this.

The importance of a good relationship between supervisors and employees is already mentioned, but it is also important regarding work relations between colleagues.

Regarding employment conditions, within 'Company X' it is possible to adjust working hours and days when a specific situation occurs and working at home is possible. With these measures, the organization pays attention to work-life policies. This should be consistently possible.

#### *Integration of sustainable employability*

It is advised that sustainable employability should be measured periodically (e.g. once per year). An option is a questionnaire among employees that is used in this research. However, the organization can also create a versified version of the questionnaire. Vitality can be measured the same as in this research, for work ability the WAI can be used and for employability another questionnaire can be found (because of the large amount of questions).

Another way of integration is that the organization should integrate the different elements in the appraisal and progress interviews that take place each year in the organization. It is already partly integrated, however not fully. The organization can also choose to leave the two interviews as they are and to discuss sustainable employability in a developed 'sustainable employability interview'. The creation of a sustainable employability interview is discussed in depth below.

Another advice is monitoring whether sustainable employability becomes a part of the organization. An option is to check whether certain activities are performed (e.g. increasing forms of informal learning). Another option is to ask supervisors how they think about the attention regarding sustainable employability and how employees react on it. It is also important for the organization to

check whether agreements regarding sustainable employability are met. For instance, if sustainable employability is integrated in interviews or if a sustainable interview is developed, it is important to check whether supervisors and employees actually discuss the topic during interviews. Another possibility is checking whether employees look at Intranet and share information. Overall, the organization should determine whether the attention regarding sustainable employability is increased.

A last advice regarding integration is to increase internal communication about sustainable employability. The creation of a sustainable employability page on Intranet is discussed below. Further, internal communication can be increased to discuss sustainable employability during meetings in the organization where employees are present or in (special) newsletters.

#### *Sustainable employability page on Intranet*

An advice for the organization is to create a sustainable employability page on Intranet, named for instance 'sustainable employability in practice'. On this page employees can share information regarding sustainable employability. Examples are success stories with clients regarding certain teaching methods, new learning methods and articles, websites, magazines and books regarding sustainable employability. Information to increase a healthy lifestyle can be provided. Trainers of 'Subsidiary D' could share information about stop smoking. The dietician can create a standard diet or certain healthy meals. Fitness instructors can provide information about exercising. Another example is sharing information about (free or paid) courses, trainings or meetings regarding sustainable employability. If employees are aware of a certain course, information can be shared on Intranet. Employees can decide whether to go or not. Afterwards, a short report of it can be made and shared. This sustainable employability page might be combined with an alert by means of e-mail if new information is added. This because of the fact that employees might not look at Intranet frequently. Internally should be discussed who is going to take care of this.

#### *Adjust the formats of interviews*

Sustainable employability should be further integrated in appraisal and progress interviews. Health, learning and development and the work situation should be integrated in interviews, like mentioned above. Regarding health, supervisor and employee should determine whether physical and mental health of employees is still in accordance with the demands of the function. Regarding learning and development and the work situation, opportunities within functions should be discussed and a plan of approach should be made. The components above should be added to the regular interview formats.

#### *Create a sustainable employability interview*

This interview is introduced above. It is a good way for supervisors to inform employees about the way the organization is going to deal with sustainable employability. In this interview both the role of the supervisor and employee are mentioned. The role of the supervisor becomes more important, creating opportunities and adapting this to the function and employee in question. The responsibilities of employees should also be addressed. These will be discussed in depth below. The content of this interview should exist of the sustainable employability topics that already are present in the current interviews. It is further enhanced with questions regarding health, learning and development and the work situation. Prior to the interview, supervisors and employees both should receive some information to prepare the interview. Aim of this interview is to make employees aware to think about their sustainable employability by discussing the different elements in this interview. Based on this discussion, a plan of approach should be made regarding things that employees will implement in the function (e.g. in the form of a personal development plan). It is also possible that employees do not directly have a plan of approach as outcome. Employees might not prefer any changes or the function might not be suitable for any changes. The interview is however also important for the awareness of employees to think about their sustainable employability. Wishes of employees or the suitability of the function for changes might change in the future.

Like mentioned, the organization can integrate the different elements of the sustainable employability interview in the appraisal and progress interviews so that the topic stays debatable.

However, the organization can also choose to leave the two interviews as they are and add the sustainable employability interview to the yearly interviews.

#### *Propagate the role of employees*

The organization should propagate certain responsibilities that employees have regarding their sustainable employability. The first one is that employees should have an open attitude and should indicate eventual issues (regarding sustainable employability). A good relationship between supervisors and employees should exist. Like earlier mentioned, if this is not the case, a dialogue should take place where eventual issues are revealed and solutions are found to overcome these.

Employees should propagate needs or wishes regarding sustainable employability and together with the supervisor opportunities should be discussed. Examples are if employees find the mental demands too high and prefer a change in the content of the function, if employees need more expertise or knowledge to fulfill and/or better perform the function or if employees prefer more autonomy within the function. Employees might also have a proactive attitude regarding options, for instance indicating suitable trainings or a possible solution to a certain problem. In addition to propagating needs and wishes, supervisors and employees should proactively seek for opportunities that might support and improve sustainable employability of employees (e.g. better accordance of health and the demands of the function, learning and development opportunities in functions or opportunities to increase autonomy and variety in functions).

The motivation and willingness to work on sustainable employability should be present. Employees should want to do something about sustainable employability and should be motivated to do this. Another example is that they should be willing to invest in it with private facilities if that is needed. If employees want to follow a certain training which is only partially essential for the organization, employer and employee can facilitate both. Another example is self-study of employees, for instance attending trainings, reading certain books, magazines or articles.

Further employees should live a 'healthy life'. They should pay attention to their health and lifestyle, because this influences their sustainable employability at work. Examples are paying attention to and being attentive to their health. Regarding lifestyle, eating healthy, exercising and paying attention to alcohol consumption and smoking behavior are important. The employee is however autonomous. The organization can propagate this, but cannot force anything.

At last, employees should have self-efficacy, the conviction of their own abilities. This will increase the focus on employability, the motivation to develop, career opportunities and interest in these and the eventual career success.

#### *Recommendations in short*

- Create an open culture where problems can be debated between supervisors and employees.
- Make supervisors aware of the supporting role they should fulfill and the expectations, including creating opportunities for employees and motivate them in the realization of these.
- Integrate health management in interviews and increase opportunities regarding activities on health and lifestyle.
- Integrate learning and development management in interviews, discuss formal learning opportunities and increase informal learning opportunities.
- Integrate management on the work situation in interviews and increase opportunities to adapt the work situation.
- Integrate sustainable employability in the organization.
- Create a sustainable employability page on Intranet.
- Adjust the forms of interviews.
- Create a sustainable employability interview.
- Propagate the role of employees.

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## Appendices

### Appendix 1 – Introduction of the researcher in the newsletter of May

#### Even voorstellen

Een nieuwe (tijdelijke) werknemer bij 'Bedrijf X!' En wel als afstudeerder/stagiaire. Bij deze wil ik me graag voorstellen.

Ik ben Marleen Schoppers, 21 jaar jong en woonachtig in Enschede. Ik ben momenteel bezig met het laatste jaar van mijn studie Bedrijfskunde aan de Universiteit Twente. Om deze opleiding af te sluiten, moet er een scriptie worden geschreven naar aanleiding van een onderzoek. Daar zal ik me bij jullie bedrijf mee bezig houden. De afstudeerperiode is deze maand begonnen en zal ongeveer zes maanden lang duren. In het vierde jaar van mijn opleiding is het de bedoeling dat studenten een specialisatie-track kiezen, ik heb voor Human Resource Management gekozen. Voorwaarde daarbij is dat het onderzoek valt binnen de perken van dit vakgebied, vandaar dat ik ben terechtgekomen op de afdeling P&O.

Waar gaat mijn onderzoek over en hoe is deze ontstaan? Vorig jaar juli en september hebben jullie deelgenomen aan de vitaliteitsdagen. De naam zegt het al, vitaliteit was een van de onderwerpen van deze dag, met als thema 'zin'. Met behulp van een filmpje over zingeving ('I love Mondays'), fysieke uitdagingen, teambuilding, 'stickeren' in het Huis van Werkvermogen, vragenlijsten in te vullen, discussies over onderwerpen en aangeven wat goed en minder goed gaat, werd er invulling gegeven aan deze dag.

Het bedrijf heeft de vitale dagen als zinvol gezien en geeft het volgende aan: "nadenken over de toekomst (reflecteren), alleen of met collega's, is belangrijk om te ontdekken waar de ZIN in het werk vandaan komt. Om vervolgens zelf de verantwoordelijkheid te nemen om kansen te grijpen." Het bedrijf heeft, ondanks de informatie die reeds is verkregen tijdens deze dagen, behoefte aan meer inzicht in de situatie van werknemers, met als doel hier daadwerkelijk mee aan de slag te gaan.

Naast vitaliteit, kwamen ook de begrippen werkvermogen en employability aan de orde. Deze drie begrippen dragen samen bij aan duurzame inzetbaarheid en dat is het onderwerp van mijn onderzoek. Duurzame inzetbaarheid is een begrip dat steeds belangrijker wordt voor bedrijven met het oog op de toekomst. Van Vuuren (2011), een bekende auteur op het gebied van vitaliteitsmanagement, omschrijft duurzame inzetbaarheid als "gezond en productief aan het werk zijn en plezier in het werken houden, dat een werknemer zijn of haar huidig en toekomstig werk kan en wil blijven uitvoeren". Met het behulp van een literatuurstudie en vragenlijsten wordt er informatie verschaft over de situatie wat betreft duurzame inzetbaarheid binnen het bedrijf en met behulp van een soort actieplan wordt er bekeken hoe de situatie, waar nodig, verbeterd kan worden. Sommige van jullie werken zelf met het begrip duurzame inzetbaarheid, dus het is ook een beetje 'practice what you preach'.

Ik heb veel zin in het onderzoek en hoop op jullie medewerking!

## Appendix 2 – Invitation to participate in the research

Beste medewerker,

Ik ben Marleen Schoppers en in het kader van mijn opleiding Bedrijfskunde aan de Universiteit Twente voer ik bij 'Bedrijf X' mijn afstudeeronderzoek uit. Het onderwerp van mijn afstudeeronderzoek is duurzame inzetbaarheid, misschien heb je het al gelezen in de nieuwsbrief van mei. Vorig jaar juli en september hebben jullie deelgenomen aan de vitaliteitsdagen, met allerlei activiteiten werd er invulling gegeven aan deze dagen. Deze dag is door het hele bedrijf als erg zinvol ervaren, dit omdat de medewerkers met zijn allen een dag bij elkaar waren, en gediscussieerd hebben over allerlei onderwerpen, zoals de sterke en minder sterke punten van de organisatie en de toekomstdoelen van de organisatie. Naast vitaliteit, kwamen ook de begrippen werkvermogen en employability aan de orde. Deze drie begrippen dragen samen bij aan duurzame inzetbaarheid.

Ondanks de informatie die reeds is verkregen tijdens deze dagen, heeft het bedrijf behoefte aan meer inzicht in de situatie van de werknemers, met als doel hier daadwerkelijk mee aan de slag te gaan. Voor jou heeft het invullen van de vragenlijsten ook voordelen. Bij de vragenlijst over werkvermogen krijg je directe feedback op de door jou gegeven resultaten, zo krijg je inzicht in jouw productiviteit, inzetbaarheid, gezondheid en algehele werkvermogen. Bij de andere vragenlijst, met de onderwerpen vitaliteit en employability, krijg je geen directe feedback, maar ontvang je op een later tijdstip feedback op organisatieniveau.

Het doel van mijn onderzoek is om inzicht te verkrijgen in de duurzame inzetbaarheid van de werknemers van 'Bedrijf X', en waar nodig, een advies te geven op welke manier deze situatie verbeterd kan worden. Om het onderzoek uit te kunnen voeren, heb ik jouw medewerking nodig en vraag ik je om een tweetal vragenlijsten in te vullen.

### **'Instrument A'**

De eerste vragenlijst is 'Instrument A' en zal betrekking hebben op je werkvermogen. Werkvermogen is de mate waarin iemand zowel lichamelijk als geestelijk (psychisch) in staat is om te werken. Via de onderstaande inloggegevens kun je de vragenlijst invullen.

De link naar de eerste vragenlijst: (vertrouwelijk)

Loginnaam: .....

Wachtwoord: .....

Let op: het wachtwoord is hoofdlettergevoelig.

### **Werkbeleving en Employability**

De tweede vragenlijst heeft betrekking op de onderwerpen werkbeleving en employability. Employability is het vermogen om productief en belonend werk te vinden. Vitaliteit heeft betrekking gezondheid/energie en motivatie. Vitaliteit wordt ondergebracht in het begrip werkbeleving, wat ook toewijding en absorptie omvat. Via onderstaande link kun je de vragenlijst invullen.

De link naar de tweede vragenlijst: <http://www.enquetemaken.be/toonenquete.php?id=151196>

**Iedere werknemer krijgt een eigen deelnamenummer, zou je deze willen invullen als daar om gevraagd wordt in de vragenlijst?**

**Je deelnamenummer: .....**

### *Privacy*

Je hoeft nergens in de vragenlijsten je naam in te vullen. De resultaten van de eerste vragenlijst (werkvermogen) zijn anoniem en alleen bekend bij 'Werkmaatschappij C'. Van 'Werkmaatschappij C'

ontvang ik een geanonimiseerd resultatenbestand die ik gebruik voor het verwerken en analyseren van de gegevens. De resultaten van de vragenlijst over vitaliteit en employability, via Enquête Maken, zijn wederom anoniem en ontvang ik in een geanonimiseerd resultatenbestand die ik gebruik voor het verwerken en analyseren van de gegevens. Enquête Maken gebruikt deze data zelf niet. Op deze manier blijft jouw privacy gewaarborgd.

Het invullen van de vragenlijsten zal 20 tot 25 minuten in beslag nemen. In het kader van dataverzameling en data-analyses is het van belang dat je beide vragenlijsten invult. Mocht je nog vragen hebben omtrent het invullen van de vragenlijsten, dan kun je altijd contact met mij opnemen.

Na afronding van het onderzoek zal er verslag worden uitgebracht naar alle medewerkers wat betreft de resultaten. Succes met het invullen van de vragenlijsten. Alvast bedankt voor je medewerking!

Met vriendelijke groet,  
Marleen Schoppers

## Appendix 3 – Reminder – invitation to participate in the research

### Herinnering onderzoek duurzame inzetbaarheid.

Twee weken geleden (maandag 3 juni) heb je een e-mail ontvangen met een uitnodiging om een tweetal vragenlijsten in te vullen voor het onderzoek over duurzame inzetbaarheid. Mocht je reeds deelgenomen hebben aan beide vragenlijsten dan mag je deze mail als niet verzonden beschouwen.

Nog even een korte herhaling. Naar aanleiding van de vitaliteitsdagen heeft het bedrijf behoefte aan meer inzicht in de situatie van de werknemers, met als doel hier daadwerkelijk mee aan de slag te gaan. Dit wordt gedaan door een onderzoek naar duurzame inzetbaarheid met de onderwerpen werkvermogen, employability en werkbeleving (vitaliteit). Voor jou als werknemer heeft het ook voordelen. Bij de vragenlijst over Werkvermogen krijg je een individuele terugkoppeling die inzicht geeft in jouw productiviteit, inzetbaarheid, gezondheid en algehele werkvermogen. Bij de vragenlijst over Employability en Werkbeleving draagt jouw deelname bij aan een anonieme terugkoppeling op organisatieniveau.

Om een betrouwbaar en realistisch beeld te kunnen vormen van de duurzame inzetbaarheid van de werknemers van 'Bedrijf X' heb ik jouw medewerking nodig. Hierbij is het van belang dat je beide vragenlijsten invult. Om deze reden is de invulperiode verlengd. Als je het onderzoek dus nog niet hebt ingevuld, of als je maar een van de twee vragenlijsten hebt ingevuld; zou je hier dan nog naar willen kijken? **Je kunt het onderzoek invullen tot 1 juli 2013.**

Hoe meer respondenten, hoe beter het inzicht dat wordt verkregen en hoe beter het bedrijf bepaalde aspecten (waar nodig) meer aandacht kan geven. Daarnaast zou je mij er enorm mee helpen, mijn onderzoek kan op deze manier beter worden uitgevoerd en daardoor waardevoller zijn voor het bedrijf en voor jullie als werknemers.

#### 'Instrument A'

De link naar 'Instrument A' is: (vertrouwelijk).

De inlogcodes zijn:

Loginnaam: .....

Wachtwoord: .....

Let op: het wachtwoord is hoofdlettergevoelig.

#### Werkbeleving en Employability

De link naar de vragenlijst over Werkbeleving en Employability is:  
<http://www.enquetemaken.be/toonenquete.php?id=151196>

Het deelnamenummer voor deze vragenlijst is:

#### Privacy

Je hoeft nergens in de vragenlijsten je naam in te vullen. De resultaten van de eerste vragenlijst (werkvermogen) zijn anoniem en alleen bekend bij 'Werkmaatschappij C'. Van 'Werkmaatschappij C' ontvang ik een geanonimiseerd resultatenbestand die ik gebruik voor het verwerken en analyseren van de gegevens. De resultaten van de vragenlijst over vitaliteit en employability, via Enquête Maken, zijn wederom anoniem en ontvang ik in een geanonimiseerd resultatenbestand die ik gebruik voor het verwerken en analyseren van de gegevens. Enquête Maken gebruikt deze data zelf niet. Op deze manier blijft jouw privacy gewaarborgd.

Mocht je nog vragen hebben omtrent het invullen van de vragenlijsten, dan kun je altijd contact met mij opnemen. Alvast bedankt!

Groetjes Marleen Schoppers



#### **Appendix 4 – Reminder in the newsletter of June 2013**

##### **Herinnering voor de medewerkers van ‘Werkmaatschappij A’, ‘Werkmaatschappij B’ en ‘Werkmaatschappij D’**

In de nieuwsbrief van de maand mei is gecommuniceerd dat er een (nieuwe) stagiaire werkzaam is op onze P&O afdeling. Haar onderzoek gaat over duurzame inzetbaarheid van medewerkers binnen ons bedrijf. Jullie zijn allemaal geattendeerd op dit onderzoek via jullie e-mail, denken jullie aan het invullen van de vragenlijsten?

## Appendix 5 – Last reminder of the direction

Beste collega's,

Jullie hebben de afgelopen maand verscheidene berichtgevingen gehad van onze stagiaire Marleen Schoppers met betrekking tot het onderzoek over duurzame inzetbaarheid. Hierin stonden verzoeken om deel te nemen aan dit onderzoek door midden van een tweetal vragenlijsten. Mocht je reeds deelgenomen hebben aan **beide** vragenlijsten dan mag je deze mail als niet verzonden beschouwen.

Naar aanleiding van de vitaliteitsdagen hebben wij behoefte aan meer inzicht in de situatie van de werknemers, met als doel hier daadwerkelijk mee aan de slag te gaan. Dit doen we door een onderzoek naar duurzame inzetbaarheid met de onderwerpen werkvermogen, employability en werkbeleving (vitaliteit). Voor jou als werknemer heeft het ook voordelen. Bij de vragenlijst over Werkvermogen krijg je een individuele terugkoppeling die inzicht geeft in jouw productiviteit, inzetbaarheid, gezondheid en algehele werkvermogen. Bij de vragenlijst over Employability en Werkbeleving draagt jouw deelname bij aan een anonieme terugkoppeling op organisatieniveau.

Om een betrouwbaar en realistisch beeld te kunnen vormen van de duurzame inzetbaarheid van de werknemers hebben we de medewerking van zoveel mogelijk werknemers nodig. Hierbij is het van belang dat je **beide** vragenlijsten invult. Op dit moment hebben nog onvoldoende mensen de vragenlijsten ingevuld om een betrouwbaar beeld te kunnen schetsen van de organisatie. Om deze reden is de invulperiode verlengd. Als je het onderzoek dus nog niet hebt ingevuld, of als je maar één van de twee vragenlijsten hebt ingevuld; zou je hier dan toch nog eens naar willen kijken? **Je kunt het onderzoek invullen tot 12 juli 2013.**

*Voor informatie omtrent het invullen van de twee vragenlijsten verwijzen we naar eerder verstuurd e-mails met betrekking tot het onderzoek. De links naar de vragenlijsten, de inlogcodes en deelnamenummers zijn te vinden in de e-mail van 3 juni 2013 of in de e-mail van 17 juni 2013.*

Mocht je nog vragen hebben omtrent het invullen van de vragenlijsten, dan kun je altijd contact met Marleen opnemen.

Met vriendelijke groeten,

Directie

## Vitaliteit

De volgende uitspraken hebben betrekking op de situatie van uw vitaliteit op het werk. Beantwoord u alstublieft deze vragen door de meest geschikte antwoordcategorie **rood** te maken.

0	Nooit		
1	Sporadisch	–	Een paar keer per jaar of minder
2	Af en toe	–	Eens per maand of minder
3	Regelmatig	–	Een paar keer per maand
4	Dikwijls	–	Eens per week
5	Zeer dikwijls	–	Een paar keer per week
6	Altijd	–	Dagelijks

Op mijn werk bruis ik van energie.	1	2	3	4	5	6
Als ik werk voel ik me fit en sterk.	1	2	3	4	5	6
Als ik 's morgens opsta heb ik zin om aan het werk te gaan.	1	2	3	4	5	6
Als ik aan het werk ben, dan kan ik heel lang doorgaan.	1	2	3	4	5	6
Op mijn werk beschik ik over een grote mentale (geestelijke) veerkracht.	1	2	3	4	5	6
Op mijn werk zet ik altijd door, ook als het tegenzit.	1	2	3	4	5	6

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## **Appendix 7 – Interview with the HR advisor including information of internal documents**

### **A good relationship between supervisor and employee**

1. Is there an open culture where issues regarding sustainable employability are debatable?

Overall, I do think that employees can address their problems or questions to their supervisor and that they also do this. However, I also hear different sounds in the organization about this. I think that this differs per supervisor or employee that you communicate with about the topic. The relationship between employee and supervisor is different for each employee. I would like to plead for an open culture where employees can be honest about everything (e.g. indicating issues regarding health and the need of certain knowledge). A culture where issues are debatable and where solutions for problems are found together. During the vitality days it became apparent that employees in 'Subsidiary B' sometimes find it hard to call in sick because of the tight planning at that moment. That the employees feel bad about it. I would like to plead for an open culture where employees can be honest, however I doubt if this is the case and whether this is really happening.

2. Are employees supported regarding their sustainable employability?

The supervisor has especially a role during appraisal interviews and progress interviews. In addition, if the functions for instance change or if problems arise regarding the function. Further, employees work quite independently and daily support of the supervisor is not required. I think that employees are supported by their supervisor regarding their functioning in the job. This however depends on the manager and its management style. I think that the organization has different types of supervisors and that everyone takes care of things in different ways. It might be good that if the organization pays more attention to sustainable employability, supervisors are informed about how they are expected to handle certain thing if their role increases.

3. Does the organization propagate needs regarding sustainable employability?

If a function changes, more education is needed, other working hours or things like that, the organizations communicates this. However, in the organization it is more searching for creative solutions, take care of things with the resources you have. For instance, the functions of the 'Service A' teachers changed in recent years. A layer of employees was removed with as result that the 'Service A' teachers got more responsibility and other tasks in addition. When this happens, the organization communicates this. It might be good that if the organization pays more attention to sustainable employability and something is needed from employees, this is propagated.

4. Does the organization propagate opportunities regarding sustainable employability?

The organization has a bicycle plan. Employees are informed about this in the introduction guide that employees receive when they are hired. Further, opportunities are discussed in appraisal interviews, asked is whether employees need something in terms of for instance training and tools. However, the organization is not actively engaged with these opportunities. Actual policy on sustainable employability or activities that are designed in terms of sustainable employability does not really exist. When this is the case, I am sure that employees are informed about this by the organization.

### **Activities regarding sustainable employability**

#### Health management

1. Is there attention for health (physically and mentally) of employees?

Health checks or such things do not happen in the organization. Only 'Instrument A', where you are working on currently. In job interviews, the demands of the function and health of employees are discussed so that a proper alignment of employee and function is assured. Further, two times per year interviews between supervisor and employee happen, however health is not a topic during these interviews. It is only discussed when something is the matter. If employees experience problems regarding health and the function, this is discussed with the supervisor. Eventual consequences for performing the function will be discussed and a plan of approach is made. In 'Subsidiary B' for

instance, employees can get a back injury or knee surgery which are very visible things. Employees with back problems will not perform group lessons for a while, but will perform guidance for clients to ensure temporarily little physical exertion. In this way, solutions are found. If employees have mental problems, this is also discussed. Solutions are for instance temporary decline of working hours or that colleagues will take over the hours.

For management functions a psychological test or assessment center methods can be used during the selection procedure. If there may be a psychological test or assessment will be announced at the start of the recruitment process for candidates. The suitability of the candidate for the position is investigated in this way.

Further, the organization has a procedure in case of sickness. If employees call in sick, this can happen. If employees are longer than 10 days sick, a conversation with the medical officer follows, this is a standard procedure. The medical officer gives advice about the reintegration of employees and a plan of approach is made together with employee, supervisor and the HR advisor. We also calculate the number of health, based on the amount of employees who calls in sick. This number is presented on the website and in the monthly newsletter. We do not have an official ARBO plan.

2. Is there attention for lifestyle of employees (e.g. exercising, smoking, alcohol, nutrition)?

The organization has a bicycle plan to stimulate exercise. Employees can buy a bicycle, tax free on the basis of their bruto salary to a certain maximum. I think, in general, that employees are not really interested in policy regarding lifestyle. It also happens in between sometimes. If employees in the organization smoke, the director offers these employees to follow a stop smoking training, a sort of silent possibility. Regarding lifestyle the organization provides different services (e.g. a sport schedule from the fitness instructors or a schedule for a healthy diet from the dietist). I think that because of employees work with it, they also adapt it in their own lives. I think that based on your research the organization should consider what it needs and respond to this.

#### Learning and development management.

1. Is there attention for formal learning via providing education, training and courses?

Structural formal learning are first aid courses for fitness instructors, location managers and 'Service A' teachers. Within 'Subsidiary B' employees have a budget for education. This budget is €150 per 1 FTE per employee.

Furthermore, education is a topic during interviews: which education is needed and which education do you wish? If employees have certain needs regarding training is also discussed. Employees can indicate something they need or the supervisor can observe it. At that moment is discussed whether possibilities exist. The discussed wishes and intentions in the appraisal interview are discussed again and are evaluated in the progress interview (if something is agreed). It is however important that education is really needed instead of that it is only something interesting or nice. Formal learning is not very common in the organization. A reason for this is the budget of the organization.

2. Is there attention for informal learning via colleagues and customers?

Learning from colleagues happens in the organization. 'Subsidiary B' has amongst other fitness instructors and office leaders, office leaders have the responsibility over a certain location. It is sometimes the case that more office leaders are needed and that fitness instructors also learn things from the current office leaders to perform that function. Another example is that a 'Service A' teacher also learns things from colleagues to perform as a lifestyle coach. These examples are forms of informal learning, I think a combination of job enrichment, job enlargement and job rotation.

Another form of informal learning to which more attention is paid lately are special newsletters of 'Subsidiary B'. Herein, employees share experiences, certain exercises that a certain employee likes to do with the clients, information about new learning methods etcetera. This is an accessible and free way to inform and teach other colleagues, small internal courses which employees can read during work. It is a form of informal learning.

The organization sometimes provides training days for all employees in 'Subsidiary B'. These days are in own time of the employees, because the absence of time during work days. 'Subsidiary A' has trainings which are mostly during work time.

Regarding recruitment, internal recruitment is important. In the context of job rotation, competence development or overcapacity, the organization looks whether internal candidates are available to fulfill the function. Vacancies will be published in the monthly newsletter.

Learning via colleagues is not happening in the organization in my opinion.

### Management on the work situation

1. Are there possibilities regarding adapting working conditions (autonomy, variety, work pace and work amount and physical load)?

Regarding autonomy, yes, this already happens in the organization. An example is the 'Service A' teacher. Some regions have multiple projects and some colleagues got more responsibility to run the different projects. However, more autonomy for employees is mostly the case when a certain situation occurs (e.g. a busy period with many projects). The organization should find a way so that the function remains fulfilled. Autonomy is also a topic during interview, employees can mention how they prefer it in their function or career. Important is whether the function suitable for more autonomy, if it is needed in the function and what are the wishes of employer and employee?

In adapting variety in the function, it is actually the same as autonomy. Is the function suitable for this, what is needed in the function and what are wishes of employees.

Regarding the work pace and work amount, the possibilities differ per function. The functions and time planning in 'Subsidiary B' is really tight. On certain times (e.g. 17:15 - 18:15, five times a week) fitness instructors perform lessons. The employees do not have an influence in when they can perform certain tasks. However, they have influence on how the function is performed. Employees can for instance develop a certain training as group lesson. In 'Subsidiary D' employees also have certain work times and a certain method that employees should follow in performing the stop-smoking training. In 'Subsidiary A', the 'Service A' teachers, it is a different case. On structural mornings the teachers perform the lessons, however they also have the administration (e.g. note how things are going with the clients). In addition, with the start-up and ending of a project, teachers are busier. Regarding the administration, the start and the ending of a project, employees have the possibility to make their own planning with the condition that certain deadlines are met. This also counts for the employees of the staff. The staff has different tasks in the different functions. Employees can plan which tasks are done at which moment, taking account of deadlines. In HR, the employees have a deadline for the salaries and in finance for paying bills.

Regarding physical load, especially employees of 'Subsidiary B' have to do with this. If employees have a certain physical problem like a back injury, they will not perform group lessons for a while. Instead they will perform guidance for clients to ensure temporarily little physical exertion.

2. Are there possibilities in changing the content of work (the tasks)?

It is done sometimes in the organization when it is needed. Examples of job enrichment, job enlargement and job rotation are already given in the information of formal and informal learning. In interviews is also discussed whether employees have expectations regarding their career (e.g. another function and other tasks).

3. Is there attention for work relations?

When we discussed the presence of an open culture in the organization, we also discussed the relationship with the supervisor. Like I said, I plead for an open culture where issues are debatable. Whether I cannot say if this is the case for every employee. Regarding the atmosphere at work and the relationship between colleagues, this is good in my opinion. I think that if problems regarding the atmosphere at work or with the supervisor are present, most employees will indicate this.

4. Is there attention for adapting the conditions of employment?

Adjusting work hours or days happens in the organization. An example is when functions change and more hours or days are needed to perform the job (e.g. as a result of the reorganization). Another example is when employees are absent for a longer time, hours and/or days are adapted to the situation in this way and other colleagues take over hours. When it is possible, employees can also switch working days. In 'Subsidiary B', 'Subsidiary A' & 'Subsidiary D' this is more difficult, while they have lessons on certain times. There can however be switched between employees.

Working at home is also a possibility in the organization. Employees in 'Subsidiary B' cannot work at home, because they work on location and perform lessons. The staff can work at home (login via webmail), however this need to be adapted with the other colleagues, so that an employee is available than can answer the telephone. In 'Subsidiary A' are also certain lessons. However, the start up and the ending of a project and the administration can be performed at home.

With these two forms, the organization also pays attention life work-life policies.

### **Integration of sustainable employability in the organization**

1. Is sustainable employability periodically measured?

No. We do not really 'measure' it like you do in the research.

2. Is sustainable employability integrated in interviews?

During interviews and interim conversations between supervisor and employee take place and employees can indicate problems or wishes. The things that are discussed in the appraisal interview are discussed again in the progress interview. However, only some parts of sustainable employability are discussed in these interviews. In these interviews is for instance discussed whether employees have expectations regarding their career (e.g. another function and other tasks). In addition is discussed whether employees have needs regarding guidance, training, tools etcetera. So the organization pays attention to learning and development and working conditions, however without discussing concrete opportunities. If more concrete opportunities are developed, I think integrating it is a good idea so that it stays a recurrent item. For instance, letting the employees know that a research on sustainable employability was performed, giving them results and tell them what the organizations itself will do with it and what is expected from the employees. If it is a recurrent item, employees will know that something seriously is done with the topic. Integration in the organization gives more structure.

3. Is the presence of sustainable employability monitored in the organization?

The first aid courses of the sport teachers are monitored in the organization. Further is monitored whether supervisors have interviews with employees. Agreements made in the appraisal interview are monitored in the progress interview. However, in the interview only a part of sustainable employability is integrated. When more activities are done, monitoring is important.

4. Is there internal communication about sustainable employability?

The numbers regarding sickness are presented in the newsletter and on Intranet. Further, the mentioned newsletters in 'Subsidiary B'. And sometimes employees share experiences on Intranet. I think that internal communication about it is important if the organization pays more attention to it.

## Appendix 8 – Non-response analyzes

**Table 1: Non-response analysis research group and employees at ‘Company X’**

Item	Characteristics	(N=30)	(N=68)
<i>General</i>			
Gender	Woman	53.3%	55.9%
	Man	46.7%	44.1%
Age	Average age	38	40
Education	Degree	0.0%	1.5%
	Secondary school	3.3%	1.5%
	Secondary vocational education	23.3%	25.0%
	Higher professional education	50.0%	61.7%
	Scientific education	23.3%	10.3%
<i>Work</i>			
Service years	Average years	6.3	5.5
Working hours	Average hours	29	28
Employment type	Permanent employment	66.7%	70.6%
	Temporary employment	13.3%	19.1%
	Worker on call	10.0%	5.9%
	Independent/freelancer/self employer	0.0%	1.5%
	Otherwise	10.0%	2.9%

**Table 2: Non-response analysis research group the staff and employees in the staff**

Item	Characteristics	(N=11)	(N=13)
<i>General</i>			
Gender	Woman	54.5%	53.8%
	Man	45.5%	46.2%
Age	Average age	34	39
Education	Secondary school	9.1%	7.7%
	Secondary vocational education	0.0%	15.4%
	Higher professional education	54.5%	46.2%
	Scientific education	36.4%	30.7%
<i>Work</i>			
Service years	Average years	7.4	7.2
Working hours	Average hours	30	31
Employment type	Permanent employment	45.5%	61.5%
	Temporary employment	27.3%	23.1%
	Worker on call	9.1%	0.0%
	Otherwise	18.2%	15.4%

**Table 3: Non-response analysis research group ‘Subsidiary A’ and employees in ‘Subsidiary A’**

Item	Characteristics	(N=10)	(N=21)
<i>General</i>			
Gender	Woman	50.0%	52.4%
	Man	50.0%	47.6%
Age	Average age	39	38
Education	Secondary vocational education	20.0%	9.5%
	Higher professional education	80.0%	85.7%
	Scientific education	0.0%	4.8%
<i>Work</i>			
Service years	Average years	6.7	5.3
Working hours	Average hours	32	25
Employment type	Permanent employment	100.0%	76.2%
	Temporary employment	0.0%	9.5%
	Worker on call	0.0%	14.3%



**Table 4: Non-response analysis research group 'Subsidiary B' and employees in 'Subsidiary B'**

<b>Item</b>	<b>Characteristics</b>	<b>(N=9)</b>	<b>(N=32)</b>
<i>General</i>			
Gender	Woman	55.6%	56.3%
	Man	44.4%	43.7%
Age	Average age	40	41
Education	Degree	0.0%	3.1%
	Secondary vocational education	55.6%	40.6%
	Higher professional education	11.1%	50.0%
	Scientific education	33.3%	26.3%
<i>Work</i>			
Service years	Average years	4.7	5.2
Working hours	Average hours	26	28
Employment type	Permanent employment	55.6%	71.9%
	Temporary employment	11.1%	25.0%
	Worker on call	22.2%	3.1%

## Appendix 9 – Development of an overall measurement for sustainable employability

Because an overall measure for sustainable employability does not yet exist, this study uses three different instruments. The total scores on work ability, employability and vitality say something about the total sustainable employability. However, an overall size for sustainable employability is developed that is based on the three different instruments. This is explained below.

The scores on work ability can vary from 7 to 49, the scores on employability from 1 to 6 and the scores on vitality from 0 to 6. First, all scores are converted to a zero-point. The scores on work ability are transformed to scores from 0 to 42, the scores on employability to scores from 0 to 5 and the scores on vitality stayed the same from 0 to 6. After that, all scores are converted to the maximum score on work ability, 42. Work ability was already 42. The maximum score on employability was 5, these scores are multiplied by 8.4 ( $5 * 8.4 = 42$ ). The maximum score on vitality was 6, these scores are multiplied by 7 ( $6 * 7 = 42$ ). In this way, the maximum scores of all components are 42. Third, the scores on work ability, employability and vitality are added. This score is the total score on sustainable employability. The maximum score on sustainable employability is 126 ( $3 * 42 = 126$ ), this is the case if employees score the maximum scores on all three. All the total scores on sustainable employability are divided by 126 and multiplied by 100. In this way, a percentage between 0 and 100 on sustainable employability is obtained. This percentage indicates how sustainable employable an employee is. Table 5 shows the development of the overall measure.

**Table 5: Development of an overall measure for sustainable employability**

Components	Original	Zero-point	Converted to the same maximum	Maximum score sustainable employability	% sustainable employability
<i>Work ability</i>	7 – 49	0 – 42	42	42	
<i>Employability</i>	1 – 6	0 – 5	$5 * 8.4 = 42$	42	
<i>Vitality</i>	0 – 6	0 – 6	$6 * 7 = 42$	42	
<i>Sustainable employability</i>	-	-	-	126	Score : 126 * 100%

In the development of this measure is assumed that work ability, employability and vitality all have the same extent of influence on sustainable employability. The highest possible score on all the three components is 42 and on sustainable employability 126. This assumption is made because literature did not reveal which component has more influence than the other. A limitation of this measurement is that if only the total score is given, the scores on the components cannot be distinguished. Suppose an employee has a total score of 78 percent on sustainable employability. It might be that work ability has a score of 96 percent, employability 60 percent and vitality 78 percent. This leads to a total score of 78 percent. In this score work ability is somewhat high, employability somewhat low and vitality somewhat average. This cannot be seen in the total score.

This construct is new and not yet validated. The construct has a Cronbach's Alpha of .66. If work ability should be deleted, it becomes .70. However, literature study showed that work ability is an important condition for sustainable employability. Nunnally & Bernstein (1994) mention that the internal consistency for new developed instruments should be .60 or higher. A Cronbach's alpha of .66 meets this criterion. However the Cronbach's alpha is sufficient, it should be kept in mind that the construct is new and that is has never been tested in other studies.