



MASTER THESIS

# A study on the factors of Business Incubation

University of Twente, Enschede, The Netherlands  
Faculty of Management & Governance  
NIKOS



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Author  
Lars Kolkman

Supervisors  
T.F. Ratinho Antunes de Oliveira MSc  
PD Dr. R. Harms

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## Abstract

Although that Business Incubators are present worldwide in relatively large numbers, academic papers provide us with contradictory outcomes of the effect and performance of Business Incubators. This study's purpose was to identify causes for these contradictory outcomes through identifying factors that influence Business Incubation. Twelve factors have been identified in which six are considered as structural factors (mission, funders and stakeholders, incubator expertise, infrastructure, selection and graduation) and six factors in the process of Business Incubation (business network, financial network, tenant network, short term coaching, long term coaching and trainings). The effects of these factors have been analyzed on a Macedonian Business Incubator through the use of a single case study combining viewpoints of both the Business Incubator as eight tenants through the use of qualitative methods. The tenants considered had to be longer than six months in the Business Incubator, but despite this threshold most companies were small and not growing. This study concludes, within the limitations of the single case study, that a lack of stakeholder support in combination with an underdeveloped implementation of process activities can be pivotal factors for a lack of performance of Business Incubators. Stakeholder support thereby influences the implementation of factors, such as graduation and infrastructure.

## Acknowledgements

A little later than originally planned, but this is the final product of my career as a student. It is safe to say that during the process from cradle to grave I learned many life lessons, but in the end it has undoubtedly worth it. I became familiar with the phenomenon of Business Incubation, which, in combination with the country of Macedonia, taught me many things about today's society and entrepreneurship.

My journey towards achieving the degree 'Master of Science' in Business Administration started a long time ago and without the ongoing support of some people I would have never been able to come this far. Therefore I especially thank my parents who have supported me through all this years, no matter what happened. Next to that, I would like to thank my girl Caroline for her support since we two met. She gave me the opportunity and freedom to go abroad twice, which I am grateful for. Especially the last 6 months were hard, but have made us much stronger.

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# 1. Introduction

## 1.1 Background

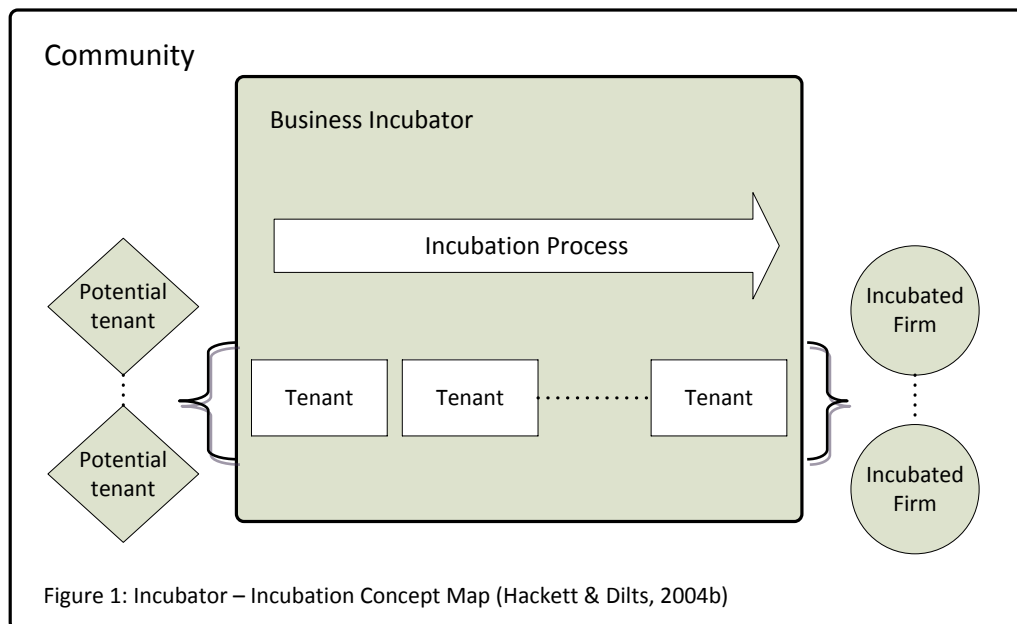
Entrepreneurship is one of the drivers of every economy and thus the global economy EC (2009). The European Commission (2009) claims that more than 99% of all European businesses are small and medium enterprises (SMEs). They provide two out of three of the private sector jobs (about 65 million people) and contribute to more than half of the total value-added by businesses in the EU (EC, 2009). The European Commission sees SMEs as a backbone of the European economy, contributing to wealth and economic growth, next to their role in innovation and R&D. Issues of SMEs are the considerably high failure rates; around 50% of all start-ups fail within the first 5 years (EC, 2009).

In order to decrease the failure rate of new companies different concepts have been developed. Start-up Centers, Venture Labs, Venture Capitalists and Business Incubation (Incubation) are concepts that assist young firms in the first years. This report comprises one concept, namely the concept of Business Incubation, which is designed to improve newly founded businesses. In 2002 the number of Incubators active in the US was estimated around 900 (Lewis, 2005). Throughout the West-European continent there are nowadays approximately 900 Incubators that create 40,000 jobs per annum (EC, 2009). Although this number appears promising, the impact of Business Incubation in Europe is rather small, considering annual overall job creation in SMEs. The following definition of the (EC, 2002) serves to create an understanding of the concept of Incubation:

‘Business incubation is a dynamic process of business enterprise development. Incubators nurture young firms, helping them to survive and grow during the start-up period when they are most vulnerable. Incubators provide hands-on management assistance, access to financing and orchestrated exposure to critical business or technical support services. They also offer entrepreneurial firms shared office services, access to equipment, flexible leases and expandable space — all under one roof’ (EC, 2002, page 5).

## 1.2 Research Question

A proper understanding of the Incubation concept is necessary to seize the research question. The Incubation concept as defined by Hackett and Dilts (2004b) is a sequential and chronological representation of the activities in any Incubator. Hackett and Dilts (2004b) define the concept in three parts (figure 1); 1) selection of start-up companies in the Incubator, 2) the Incubation process and 3) graduation of companies in the Incubator (tenants). First, in selection, there is the choice which entrepreneurs to select. In an Incubator physical space is limited and the demand of potential entrepreneurs for facilities might be larger than the Incubator can supply. Second, the Incubation Process aims to develop the tenants’ resource bases. Third, graduation is when the Incubator decides that the tenant has improved its capabilities and is ready to leave the Incubator.



The contribution of Incubation to local and regional economies and stated tenant survival rates of 80% are reported by NBIA in Hackett and Dilts (2008). However, there are authors that criticize the outcomes and the functioning of Incubation. Some previously written conclusions: The survival rates of off-incubate firms are similar to postgraduate firms (Schwartz, 2009), four underperforming Incubators in a sample of eight (Rice, 2002), no distinct successes of Incubation recognizable (Peña, 2004), a few positive Incubator exceptions, but no conclusive proof of value added (Roper, 1999; Ratinho and Henriques, 2010), Incubators are of unequal quality (Aernoudt, 2004), Incubation has little or no effect (Tamasy, 2007; Reitan, 1997). Furthermore, Westhead and Birley (1995) and Robson and Bennett (2001) state that external government support to business does not have significant effects on SMEs. The latter argues that Incubators are used as support for firms in difficulties, but are not encouraging dynamic growth.

These conflicting results on the outcomes of Incubation create an interest in the exact factors that determine the degree of success. This study aims to identify these factors and seek their role within Incubation. Research on Incubation so far has identified factors of influence next to the factors in figure 1, but has not incorporated it in a structural manner. For example, Hackett and Dilts (2004b) mention that Incubators can have financial stress, but do not seek to find the root cause for the distress. This paper attempts to create an improved understanding through combining loosely coupled findings in previous Incubation literature into an integral model. This leads to following main research question:

What factors enable Business Incubation support to function and how do these relate to each other?

### 1.3 Context

Out of the number of incubators mentioned, this report's focus is on one incubator. This incubator is situated in Skopje, Macedonia and is named YES Foundation. Incubation literature on Incubators located in the Balkans or even transition countries hardly present. The project of YES started in 2005



by the initiative of Sintef, a Norwegian NGO that amongst other activities has its policy aimed to enhance the Macedonian societal welfare. The start of YES Foundation was troublesome, due to problems finding a suitable location. After a lot of delays the Incubator opened on June 1<sup>st</sup>, 2007. YES is an abbreviation of 'Youth Entrepreneurial Service'. The foundation's mission is to strengthen the local innovation system in Macedonia by stimulating to practical entrepreneurship among the youth by offering complementary activities that will ease the start-up of new ventures (YES, 2010). The mission statement is closely related to the earlier mentioned BI definition. Next, this raises questions on how YES Foundation tries to accomplish all this.

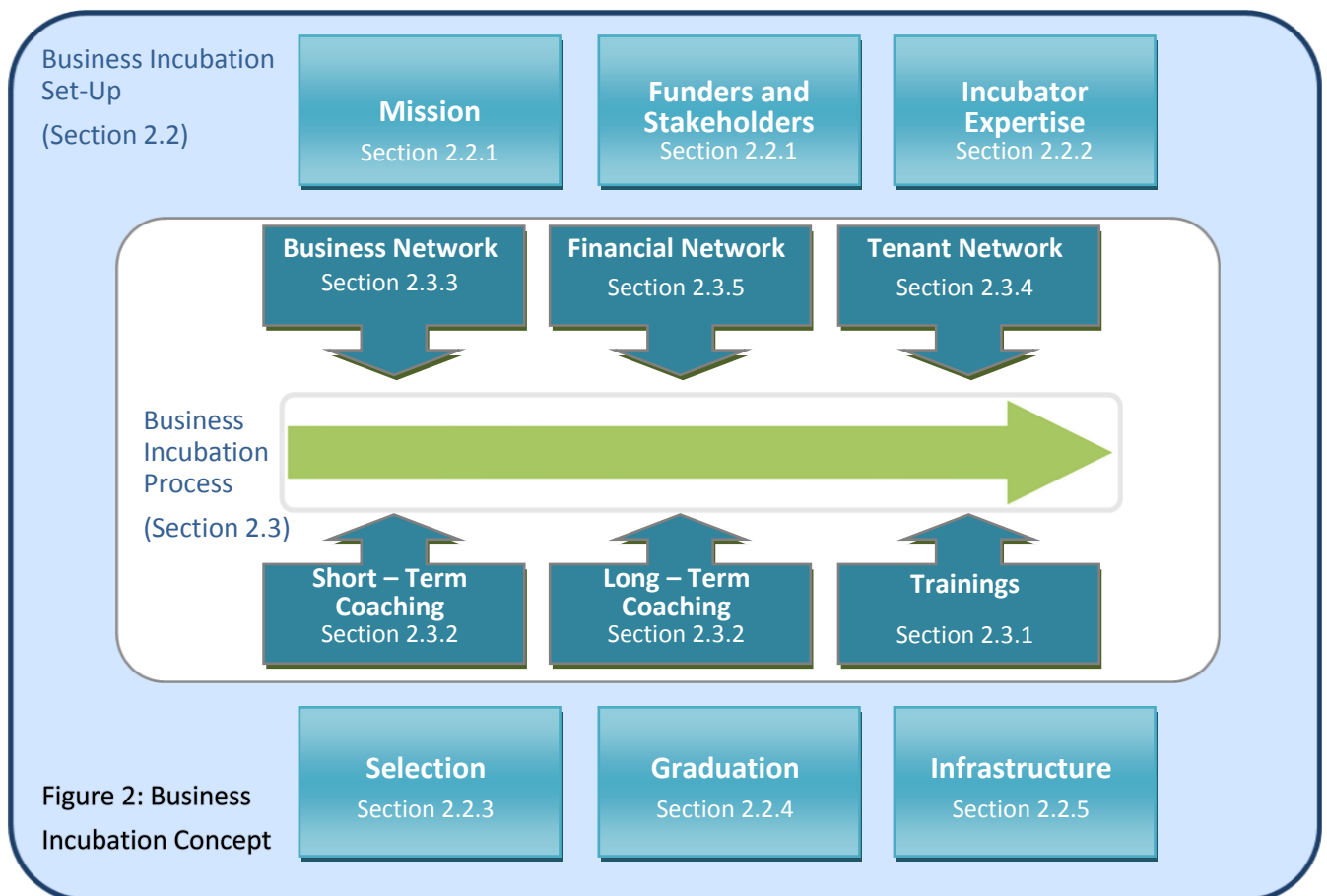
## 2. Literature Review

### 2.1 A Different Interpretation of the Incubation Concept

Studies on Incubation have differing viewpoints and stances, and this study includes a differing interpretation as well. Some papers interpret the Incubation model as a sequential phenomenon (Hackett and Dilts, 2004b; EC, 2002), have a preference for the Incubation process dimension (Bergek and Norrman, 2008; Smilor, 1987; Campbell et al, 1985; Peters, Rice and Sundararajan, 2004), or a preference for the set-up structures (Mian, 1997). However, there are no studies that make a distinction between structural set-up factors and process factors. The two review articles on Incubation the last years known to the author, Hackett and Dilts (2004b) and Bergek and Norrman (2008), consider Incubation as a sequential process. Here tenants are selected, then developed in the Incubation process and finally graduated. This study proposes that these 3 items (see figure 1 as well) can be identified in two different characteristics:

- *Set-up Factors*: The factors that do not directly contribute to the capabilities of tenants and have no continual interaction with the tenants but provide the conditions for the functioning of the Incubator and therefore have a catalyst function.
- *Process Factors*: The ongoing activities that are directly aimed at improving the capabilities of the tenants.

The components of the set-up and process factors are all derived from existing Incubation literature. For example, selection and graduation are set-up factors, since they are not ongoing activities, but mere structural in nature. The usefulness of visualizing Incubation this way is that it offers the possibility of a structural analysis of the influence various factors have on each other. Section 2.2 comprises the set-up factors and section 2.3 comprise the process factors. These factors are displayed in figure 2. This figure resembles a different interpretation of Incubation. It is expected that the process factors are causally dependent on the set-up factors. Furthermore, the factors are expected to be interdependent and consequently it is then to determine where the causalities are and which factors the dominant factors are in the Incubator. Section 2.2 distinguishes 6 set-up factors: 1) Incubator mission, 2) stakeholders, 3) Incubator experience, 4) selection, 5) graduation and 6) infrastructure. Section 2.3 considers 1) short term coaching, 2) long term coaching, 3) trainings, 4) business network, 5) financial network and 6) tenant network. Figure 2 displays all the factors, together with the sectional structure where the factors found are argued for. The structure used in section two is deployed in section three (methods) and four (data) as well.



## 2.2 The Business Incubation Set-Up

### 2.2.1 An Incubator's Mission and Stakeholders

The overall aim of an Incubator often is to contribute to regional or local development (Mian, 1997; Aernoudt, 2004; Peña, 2004; Aerts, Matthyssens and Vandenbempt, 2007), job creation (Hackett and Dilts, 2004b; Aerts et al., 2007). Incubator goals are often described as job creation and profitability of tenants (Aernoudt, 2004; Hackett and Dilts, 2004b; Rice, 2002). Terms as job creation prevail, since most Incubators are supported publically, whether from local or national government (Mian, 1997; Hackett and Dilts, 2004b; Aerts et al., 2007; Aabo, 2009; Ratinho and Henriques, 2010). In extension, Incubators can be founded by real estate developers as well (Ratinho and Henriques, 2010), and in Europe some Incubators are funded by the EU or other international organizations (Aerts et al, 2007). The latter observed as well that universities rarely fund Incubators, but instead provide other forms of support for Incubators. This support is worthwhile for these institutions, since market failures might block firm development and the perceived positive impact accelerating new firm growth has upon job and wealth, and therefore willing to provide support (Colombo and Delmastro, 2002; Warren, Patton and Bream, 2009).

Incubators can aim at specific technologies or bear a more general approach (Peters et al., 2004). They have the choice to focus on a specific group, since companies vary with respect to industry, start-up size and product (Peters et al., 2004). Aerts et al. (2007) point out that a specialized Incubator is more vulnerable, but yields better results. They even state governments should promote specialized Incubators and lessen the generalized. Hansen et al. (2000) state that specialized Incubators create more value, and that it is hard to create value in a diversified portfolio. Moreover,

specialization enhances the expertise of the Incubator and its personnel and consequently the Incubator's value to its tenants (Cordis, 2002). Likewise, Grimaldi and Grandi (2005) state that a specialized Incubation model might be the best strategy to pursue, instead of attracting various types of companies, since the latter requires adaptation of much more Incubator competencies. Schwartz and Hornyh (2010) on the other hand, claim that the high expectations of specialization strategies are not being fulfilled with respect to internal networking. They state that diversified Incubators are more likely to be better in internal networking, since these create complementarities. Schwartz and Hornyh (2010) therefore state that governments planning to open an Incubator should realistically assess the potential of the internal network.

An Incubator needs to present results that justify its existence, or otherwise it may not be able to continue operations (Rice, 2002). Whereas Aerts et al. (2007) found that 80% of European Incubators are self-sustainable, Hackett and Dilts (2004b) state that Incubators mostly depend on government funding, and funding is only likely to be sustained when supporting outcomes are presented. Moreover, Hackett and Dilts (2004b) state that Incubators often have to prove the success of their facility in order to sustain funding. This dependency has direct consequences for the mission of the incubator. Therefore, successes claimed by Incubators are likely to be presented as tenant graduation and job creation numbers (Rice, 2002).

### **2.2.2 Incubator Expertise**

The suitability of management is crucial for the success of an Incubator (Ratinho and Henriques, 2010). Incubators managers should be well qualified for the coaching job (Tötterman and Sten, 2005), since coaching is where an Incubator can achieve the best results (Rice, 2002; Scillitoe and Chakrabarti, 2010). However, these are not the only quality characteristics an Incubator must possess in order to reassure that its tenants receive the best assistance possible. For an Incubator to be able to fully benefit from the relationship with the university the Incubator has to gain legitimacy within the university (Aaboen, 2009). On the other hand, the expertise of an Incubator might be an important aspect in order to prove the righteousness of the Incubator. Since an Incubator often depends on government funding (Hackett and Dilts, 2004b), the Incubator role in this field is important as well. Reassuring sustainable funding is a task for the Incubator manager, but therefore requires knowledge and expertise from differing perspectives. From that perspective, Ratinho and Henriques (2010) stress the necessity for any Incubator manager to combine the profiles of a scientist, a politician and a businessman being able to communicate effectively and interact with several different actors of the local and regional system of innovation.

### **2.2.3 Selection of Tenants**

Successful Incubation starts with a quality 'pipeline', which is a steady flow of new business proposals (Patton et al., 2009). These new proposals have to be valued, in which it must be determined how these are valued and by whom. Aerts et al. (2007) state most Incubators (76%) have a selection committee for new tenant admission, whereas Warren et al. (2009) observe the use of a review panel, which consists of experts from the Incubator business network. An advisory board can serve as an Incubator ombudsperson, because the Incubator must make difficult tenant selection decisions. Thorough market and new venture formation processes understanding is a prerequisite for selection (Hackett and Dilts, 2004b). Moreover, an Incubator can rely upon political support from its advisory board in order to secure annual operating subsidies. In that perspective, the importance of a strategically constructed advisory board should not be understated (Hackett and Dilts, 2004b).

Aernoudt (2004) states that Incubators should hatch primarily fast-growing companies to ensure the most added values and jobs. The combination of promising and growth potential should be examined in a balanced screening. Aerts et al. (2007) researched the selection procedures in Incubators and found most Incubators applying market selection factors (61%), some the management team (27%) and just a few applied financials (6%). Furthermore, Aerts et al. (2007) saw only a small fragment (only 6%) using a balanced set of screening factors for acceptance of tenants; despite the latter has broad support in the literature (Hackett and Dilts, 2008; Lumpkin and Ireland, 1988).

#### 2.2.4 Graduation of Tenants

Graduation is the Incubator decision that a tenant should leave the Incubator (Peters et al., 2004), and the discontinuation of support (Schwartz, 2009). The methods for graduation can be divided in two different ways, namely those setting the graduation criterion as a fixed term (Peters et al., 2004), and those that graduate on case-by-case decisions (Rothaermal and Thursby, 2005), although both contain some issues. Business ideas do not all have the same potential, which depends upon structural characteristics such as market size, industrial sectors involved and phase of business development (Grimaldi and Grandi, 2005). Arguing that tenants should graduate when their resource base is large enough to continue alone (Aaboen, 2009) will contradict with a fixed-term graduation policy. In fixed-term graduation tenants are graduated when they reach the time deadline, for example 1 or 3 years (Peters et al., 2004). It is not likely that all tenants will reach a large enough resource base in the same time span (Aaboen, 2009). As a result, in fixed-term graduation tenants might exit the Incubator all with differing degrees of resource bases.

In case-based graduation decisions varying criteria are possible to determine when the Incubation period should come to an end. Peters et al. (2004) observed Incubators that graduated tenants based on the income level of their tenants. Furthermore, Hackett and Dilts (2004b) propose that tenants should be appraised by whether it is surviving and growing profitably. Profit however, might not be an accurate measure to capture venture growth, because entrepreneurs are willing to sacrifice profit initially to survive and grow (Peña, 2004). Rothaermal and Thursby (2005) observed an Incubator without a clear graduation policy, which instead decided on graduation case-by-case. Therefore, Rothaermal and Thursby (2005) tentatively recommend that graduation should consist of case-by-case studies.

Graduation might be influenced by political pressures that lead an Incubator from its original behavior into more politically desirable actions, such as graduating tenants when they are not ready for it (Hackett and Dilts, 2004b). However, Rothaermal and Thursby (2005) state that the first years in post Incubation are decisive for whether a business fails or succeeds and because of that argue that forced graduation might not be beneficial. Some authors consider graduation outcomes as a good measurement despite the possible conflicts mentioned. Hackett and Dilts (2004b) still advise practitioners to measure Incubator performance outcomes by measuring graduation rates, since these are relatively politically safe, but meaningful as well. This is supported by Peters et al. (2004) who observed some Incubators that did not count companies as graduates that just had 'done well' into their graduation results.

Non-performing firms are likely to be present as well in an Incubator and Incubators might even attract such companies (Peña, 2004). He therefore argues that non-performing firms, that are blocking potential tenants, should be removed. Therefore, the Incubator has to decide which tenants

are not performing, and consequently have to leave the Incubator to make room for new tenants with good potential. Furthermore, Patton et al. (2009) state their observed Incubator puts pressure on non-performing tenants by having review panels that judge on the performance of their tenants and had to 'weed out' tenants that did not perform. Consequently, Patton et al. (2009) observe non-performing tenants not looking forward to these meetings and are through this mechanism pushed a bit to leave the Incubator. The Incubators stated this was good, because they would be replaced by new business idea proposals that have a higher chance to succeed. Moreover, early removal of non-performing tenants has a social aspect as well, since it increases the probability that tenants can exit their business without suffering high costs (Hackett & Dilts, 2004b).

### 2.2.5 Infrastructure

Infrastructure encompasses the cost reducing services and the design of the building (Peters et al., 2004). Infrastructure is considered to have little impact in developing the tenant capabilities, although it supports tenant survival (Rice, 2002; Peña, 2004) and minimizes the challenges associated with the practical side of start-ups and makes the tenants focus quickly on their business (McAdam and McAdam, 2008). Moreover there are differing views on the exact content of infrastructure in Incubation literature. Commonly agreed is that infrastructural services contain rental breaks, administrative staff, conference room, lunch room, reception, internet, telephone and copier services all under the same roof (Mian, 1996; Rice, 2002; Peters et al., 2004; Chan and Lau, 2005; McAdam and McAdam, 2008). However, some authors consider R&D equipment as infrastructure (Rice, 2002; Peters et al., 2004), whereas others consider these as university related services (Mian, 1996; Chan and Lau, 2005).

This paper views infrastructure not as a process item opposed to other papers (Mian, 1996; Rice, 2002; Peters et al., 2004; Chan and Lau, 2005), but as part of the Incubation set-up. Since infrastructure does not directly develop a tenant's capabilities (Rice, 2002) it should not be part of the Incubation process, which directly aim at improving these tenant capabilities. For example, a shared receptionist provided by the Incubator does not actually improve a tenant's business. However, this service indirectly acts as a catalyst for a tenant and is therefore valuable, since it lowers the resource burden for a tenant. Furthermore, the design of a building does not directly improve a tenant's business. However, it indirectly acts as a catalyst, since its design can prosper interactions between tenants. On the other hand, R&D facilities do directly improve a tenant's business and directly enhance the capabilities of a tenant. However, these often are arranged through the university network and demand continual interaction and are therefore considered in this paper in the business network, which comprises university activities as well.

The infrastructure design has a role in determining the opportunities for tenants. Ratinho and Henriques (2010) mention flexible offices, so that companies of varying size can take place in the Incubator and grow. Moreover, Hackett and Dilts (2004b) recommend the average Incubator size of at least 3,500 m<sup>2</sup>, NBIA at least 3,000 m<sup>2</sup> and EC (2002) observed an average of 6,500 m<sup>2</sup>. These measures are in place to give tenants the opportunity to grow and for the Incubator to realize scale advantages. It should be noted that the overall size of an Incubator's infrastructure can be dependent on which industries are targeted, since these can differ in size (Aaboen, 2009). Furthermore, the design of the Incubator can also prosper tenant interactions when it has been designed well (Tötterman and Sten, 2005; Bøllingtoft and Ulhøi, 2005).

## 2.3 The Business Incubation Process

Business support is the most important aspect of an Incubator's activities (Bergek and Norrman, 2008) and centers on developing the tenant resource bases, through which an Incubator develops its own resource base as well (Aaboen, 2009). This section comprises trainings, short and long term coaching, business network, financial network and the tenant network as varying factors of the Incubation process.

### 2.3.1 Trainings

Training is one of the elements that can be used to develop a tenant's capabilities, but there are contradicting views of their perceived effect. The various research results: Trainings are an important element of Incubation and empirical evidence suggests that trainings increase the number of graduates (Peters et al., 2004). Business courses had a positive influence on tenant employment growth (Peña, 2004). Trainings were generally considered as valuable, though time-consuming (Tötterman and Sten, 2005). Tenants had to find and identify on which topics they needed trainings, but these trainings were hardly attended, (Warren et al., 2009; Rice, 2002). The latter paper had evidence that a tenant share of only 10% visited trainings, which is a finding contrasted by Mian's (1996) evidence where 80% of tenants used training services. Wright, Birley and Mosey (2004) warn for the lack of specificity in trainings, since they recognize the heterogeneity of start-ups in terms of environment in which they emerge, the skills of the entrepreneurs and the resources they require. Wright et al. (2004) suggest that policy measures should be more sophisticated than 'one-size fits all support'. Further, Rice (2002) points out that there was no systematic approach in organizing trainings. In line with Rice's (2002) notion, Warren et al. (2009) suggest that training goals should be set and linked to the review process and taken up in milestones. Furthermore, they advice that trainings should be integrated in the various networks of the Incubator.

### 2.3.2 Short- and Long Term Coaching

It may be that the interaction among tenants and Incubator assists in shaping the tenant learning (Peters et al., 2004), and coaching can be distinguished in three types. The advantage from obtaining coaching services is generally considered as an important part of support for technology firms (Chan and Lau, 2005). For example, individual consulting assistance and monitoring services were positively related to employment growth, but not all business services were (Peña, 2004). Moreover, Chan and Lau (2005) observed half of the tenant share seek business advice for guiding operational and strategic purposes.

At the start of the Incubation period it is important to make start-up founders aware of potential weaknesses in their business proposal, and explain how the Incubation process can assist in taking the proposal forward (Patton et al., 2009). These authors claimed this was necessary, since they observed that tenant knowledge of the Incubation process at the start was marginal. As the Incubator invests time in the tenant at the Incubation start in discussions on the tenant's business, trust is likely to be generated between tenant and Incubator (Patton et al., 2009). A finding consistent with the evidence found by Rice (2002) where the best performing Incubator had built its relationship with tenants aiming to become quasi-partners. Patton et al. (2009) emphasized that the Incubator assisted in identifying the weaknesses, but that it was up to the tenant to pick that up and translate it into actions. On the other hand, providing business services to tenants that are targeted to their actual needs might be chief (Aaboen, 2009), and suggested by Ratinho and Henriques (2010) as well.



Rice (2002) distinguishes coaching activities in three different types. First, reactive coaching which occurs when the tenants ask the Incubator for assistance. Second, proactive coaching which is where the Incubator informally visits the tenants and finds out if assistance is needed. The subjects of these two types are the same in nature, since these are both aiming at the short term. Third, long term coaching which aims at development needs of the tenants. The latter is considered the most important type of coaching (Rice, 2002; Peña, 2004; Scillitoe and Chakrabarti, 2010). Patton et al. (2009) observed a twofold monitoring similar to Rice (2002), namely informal, regular interactions with the Incubator manager and through formal business review panels appointed by the Incubator manager aiming at the long term (Patton et al., 2009). Limited formal systems enabled founders to focus on business development, and only asked for assistance in case of perceived need (Patton et al., 2009). Review panels were disliked by those non-performing and might have been encouraged this way to leave the Incubator (Patton et al., 2009). The Incubation process aimed to develop business proposals into commercial entities and the review panels' role was to weed out firms that were not in a position to achieve that goal and to set milestones for those that were (Patton et al., 2009). These milestone plans track the development of a tenant through appraisal of goals set in the review panels (Warren et al., 2009), or possibly by the Incubator manager.

Incubators that spend more time on coaching were found most successful (Rice, 2002; Scillitoe and Chakrabarti, 2010). In extension, the best Incubator manager - tenant ratio is thought to be 1 - 3.2 (EC, 2002), which can be linked to an Incubator's span of control. The span of control is dependent on the total activities of an Incubator manager. Therefore the ratio itself is not leading, but mere the total amount of time for coaching / tenant. Therefore measurements implemented for coaching interactions are the frequency of interactions for every tenant (Rice, 2002; Scillitoe and Chakrabarti, 2010). In extension, Rice (2002) states that Incubators spending less time often stated that financial distress did not allow them to spend more time with their tenants. Bergek and Norrman (2008) emphasize two ideal types of the extent of business assistance can be recognized, namely 'strong intervention' on the one hand and 'laissez faire', where tenants are left alone, at the other. In complement, McAdam and McAdam (2008) emphasize that appreciation of Incubator services, networks and credibility declined the longer they were in the Incubator, just as the actual usage of these services. However, Warren et al. (2009) saw some tenants after two, three years as still very reliant on the Incubator network. These tenants were mostly the least performing.

### **2.3.3 Business Network**

The development of a business network is one of the business support activities of an Incubator covering multiple aspects, although not all Incubators succeed to develop such a network. In the initial stage of company, the ability to build contacts and developing networks is fundamental to acquire resources and have the reassurance that the idea will work (Birley, 1985). Although Incubators offering space and facilities is important, the focus should possibly be more on developing business networks, which might benefit the tenant more (Tötterman and Sten, 2005). An Incubator can assist in diminishing the practical side of establishing networks (McAdam and McAdam, 2008). The tenant is assisted much if the Incubator already has a developed network it can profit from (Tötterman and Sten, 2005). Warren et al. (2009) emphasize that their investigated Incubator has got a network of twenty professional service providers to its proposal. However, networking is often an Incubator shortcoming, often due to a lack of effort from the Incubator side (Hansen et al., 2000; Rice, 2002). Not all tenants will be convinced by the added value of the external network, since there is evidence that tenants are afraid their business ideas are stolen when they discuss these ideas with

consultants (Chan and Lau, 2005; Warren et al., 2009). Here the Incubator can act as a broker between firms (Colombo and Delmastro, 2002).

A business network consisting of technical knowledge can be important in high-technology Incubators. This is due to the notion that Incubators for technical knowledge often rely on the external network, since they are not likely to possess technical knowledge (Hansen et al., 2000; Scillitoe and Chakrabarti, 2010). However, most important for an Incubator to offer is business advices, since technology founders are usually keen to seek business advices as it is the area that they do not know (Chan and Lau, 2005; Warren et al., 2009). Tötterman and Sten (2005) state that the Incubator should assist in selecting the right individuals to network with, since networks often are complex. A networked Incubator can create value for a tenant through network connections that help to create partnerships, recruit people and obtain advice from outside experts (Hansen et al., 2000; Bøllingtoft and Ulhøi, 2005). Moreover, McAdam and McAdam (2008) observed that university involvement was helpful in gaining access to customers and suppliers. In this, Chan and Lau (2005) state universities providing R&D equipment for the tenants, which otherwise would have been hard to reach for these tenants.

#### **2.3.4 Tenant Network**

The internal tenant network forms an important part of Incubation (Tötterman and Sten, 2005), where the Incubator and its infrastructure can create value. The role of the Incubator is that the tenant network potential will be fulfilled (Peters et al., 2004; Tötterman and Sten, 2005; Schwartz and Hornych, 2010). Despite its potential, some authors did not observe a positive contribution of internal networking (Chan and Lau, 2005; Warren et al., 2009). Social capital among tenants develops when the ties among these firms are interactive and strategically important (Hughes, 2007). This strategic importance is concerned with which tenants are suitable to cooperate with each other. Tenants that differ from each other have the best results in tenant networking (Tötterman and Sten, 2005; Schwartz and Hornych, 2010). The latter conclude that a diversified Incubator yields the best tenant results, although Tötterman and Sten (2005) remark that too diverse tenants restrict the tenant network, a finding consistent with the tenants in Chan and Lau (2005) who stated that there were no complementarities between their businesses. Tötterman and Sten (2005) propose that an Incubator functions most optimal if tenants are in the same industry group, but not direct competitors. Tenants too closely related might even have a negative effect on the working climate in the Incubator (Schwartz and Hornych, 2010). The infrastructure design has a role in the tenant network, since the design should enhance a 'rendez vous' for tenants (Tötterman and Sten, 2005; Bøllingtoft and Ulhøi, 2005). These authors saw poorly designed Incubators diminishing the potential of their tenant network.

The creation of actual relationships among tenants is important, despite that researchers found Incubators to have limited ability realizing that (Peters et al., 2004; Schwartz and Hornych, 2010). Trust between tenants is a very important criterion for tenant networking (Bøllingtoft and Ulhøi, 2005; Schwartz and Hornych, 2010). The underlying motive is that Incubators can enhance trust in the relationship between tenants (Schwartz and Hornych, 2010). This is necessary, since tenants can limit their networking behavior because of undue fears (Hughes et al., 2007; Warren et al., 2009; Schwartz and Hornych, 2010). The latter state that undue fears in networking might be stronger in specialized Incubators, although they occur as well in diversified Incubators. Schwartz and Hornych (2010) argue that complementary skills enhance the businesses of the tenants when there is a basis



of trust between the tenants. Furthermore, Peters et al. (2004) argue that the tenant's original network is not rich enough. Therefore they propose that the Incubator should play a proactive role and act as a broker between the tenants, since there is potential to gain from the tenant network (Peters et al., 2004; Tötterman and Sten, 2005; Patton et al., 2009; Schwartz and Hornych, 2010).

### **2.3.5 Financial Network**

Debt financing is usually not applicable for start-ups, and therefore business angel investment is an outcome (Aernoudt, 2005). However, it might be that start-ups consider equity investors as a last resort (Aernoudt, 2005). Angels are wealthy individuals willing to invest in unsecure projects. Aernoudt (2005) identifies several problems. First, angel networks are often not developed. Second, entrepreneur investment readiness, since evidence suggests that entrepreneurs are unsecure about external finance. This can result in an investor-readiness gap. Third, projects are all too often presented poorly, thereby not convincing potential investors. It is likely that due to greater agency costs and larger information asymmetries, small firms have more difficulties in attracting finance (Michaelas et al., 1999; Cassar, 2004; Shane, 2002). Resolving these asymmetries is at the cost of many resources. However, equity finance is more likely when the start-up is large in size and has substantial tangible resources (Cassar, 2004). Moreover, Shane (2002) states that an entrepreneur's reputation is seen as an important variable in the investment decision.

Also in Incubation, finance is often the most important reason to doubt whether the tenant expects to succeed with the business or not (McAdam and McAdam, 2008) and in terms of growth ambitions tenants see securing venture capital as crucial (McAdam and McAdam, 2008). Grimaldi and Grandi (2005) found in their multi case study varying results among Incubators with respect to providing funding for its tenants. They observed Incubators that did not provide their tenants access to financing their business in any way. On the other hand, they also observed an Incubator that had a well organized network consisting of business angels and bank foundations. Tötterman and Sten's (2005) are similar, since All Incubators in their sample were partnering with local banks, and one Incubator had contact with a venture capitalist. Furthermore, most Incubators aim to assist tenants as well by trying to reach government funds (Tötterman and Sten, 2005; Chan and Lau, 2005). However, these might be too rigid for small businesses (Tötterman and Sten, 2005).

The Incubator can provide a flow of potentially interesting start-ups to invest in, about which the investors might not have heard about otherwise (Aaboen, 2009). Rothaermal and Thursby (2005) state that in their US based research two-thirds of the researched tenants were able to attract some external funding. In Europe, links between Incubators and start-up financing are underdeveloped (Aernoudt, 2004) and he therefore states that interactions should be developed as they can have a large influence on the entrepreneurial climate. However, with equity financing it is often difficult for founders to come to terms with the probability of sharing ownership and control with an investor (Aernoudt, 2004; Patton et al., 2009); although these authors emphasize that the most popular training was the investment-readiness training. Here the Incubator can assist, but on this topic the line between providing support and interference is thin (Patton et al., 2009). However, Incubator support in bringing together investor and tenant can be important. An Incubator might take away the information asymmetries between start-up and potential investor, since the Incubator is already familiar with and will continually monitor the tenant (Aaboen, 2009).

## 2.4 General Firm Challenges

In identifying life cycles of young firms Phelps, Adam and Bessant (2007) consider 6 tipping points. In typical start-up issues, Terpstra and Olson (1993) and Huang and Brown (1999) see obtaining external financing, internal financial management, sales/marketing, product development, production, general management, human resource management, economic environment, and regulatory environment as the main problems. Except for the latter two are all firm specific problems within the scope of influence. Life cycle theory seeks to find new venture challenges in different stages of growth (Phelps et al., 2007). In their life-cycle review, Phelps et al. (2007) noted that age is not a factor of influence in company life stages, nor do they see it as a predetermined, sequential process.

Phelps et al. (2007) see a company's life cycle process as complex, path dependent and unique to each firm, though encounters are recognizable in 6 tipping points. The first, people management refers to human resource difficulties during growth, such as delegation of duties, training and compensation. Second, strategic orientation in small firms is mostly ad hoc and opportunity driven. However, Phelps et al. (2007) state a move away from opportunism and reactive working is the implication of growth. Third, formalized systems make it possible to grow more efficient due to well-organized allocation of resources. Fourth, market entry in terms of marketing and sales is seen as a crucial constraint (Cosh and Hughes, 2003), because these capabilities are often lacking. Fifth, obtaining finance also shows a clear positive relationship between firms with finance and growth and those without. Sixth, organisational improvement refers to the actual improvements in the operational performance, meaning efficiency gains.

The tipping points in life cycle theory can measure the areas in which the Incubator has an effect on the resource base of the Incubator. Some attempts with the use of life-cycle theory have been made in Incubation literature (McAdam and McAdam, 2008; Warren et al., 2009), but were not able to capture the Incubator influence on a tenant development. Section 2.3 outlined the possibilities of investigating this relationship, namely through life-cycle theory (Phelps et al., 2007). The major challenge in this is to connect the tipping points (Phelps et al., 2007) with the coaching components (Rice, 2002; EC, 2002; Bergek and Norrman, 2008, and Scillitoe and Chakrabarti, 2010) that can be connected with various stages of development and those companies will have different needs (Aaboen, 2009). Through investigating the development and problems encountered by tenants, and the coaching advices given by the Incubator, tenants should be better organized further on in their development and move up to the next level of tipping points (Phelps et al., 2007).

### 3. Methodology

This study's purpose is to identify the factors of influence in Business Incubation and how these relate to each other. Through researching the Incubation literature the factors were identified, that ultimately led to the factors as presented in figure 2 (page 5). Through the use of a single case-study, the Macedonian Incubator YES Foundation was researched on the factors applicable to Incubation. A case study is suitable; Yin (2009) states that cases study investigate a contemporary phenomenon in depth and within its real-life context. Case studies allow for research consisting of a wide variety of evidence and the benefit of extracting data from multiple actors (Yin, 2009). In that perspective, the Incubator manager and the tenants have been interviewed for this study. Through in-depth interviews data has been acquired from these actors. This single case study also analyses the concept of Incubation in a part of the world where this research has not been executed, which is expected to yield additional insights.

#### 3.1 Study Sample

In the period of May – August 2010 a total of one graduate, eight tenants and one Incubator manager have been interviewed and observations were made continuously. Not all tenants present in the Incubator were selected for this study, but those selected are presented in table 1.

Table 1: Interviewed Tenants				
Company	In Report	Business	Nr. of workers	In Incubator since
<b>T1 (names have been removed dt privacy)</b>	T1	Event planning agency	3	March 2008
<b>T2</b>	T2	Learning Software	1	January 2010
<b>T3</b>	T3	EU Projects Consultancy	2 (1)	October 2008
<b>T4</b>	T4	Graphics Design	2	March 2008
<b>T5</b>	T5	Online Shop	2	February 2009
<b>T6</b>	T6	Software Development	3	April 2009
<b>T7</b>	T7	Architecture	1	October 2008
<b>T8</b>	T8	Student exchange	2 (2)	October 2009

Not all tenants in the Incubator have been selected, since time will elapse before a tenant is assumed to understand the Incubator services offered, and to have an opinion on trainings and coaching. A similar approach was followed by Rice (2002). Therefore, only tenants longer than six months are taken into account in this investigation. In practice, this meant that from the possible data-set of sixteen tenants, ten fit this criterion. From this data-set two more companies were ruled out. Ice-labs and Brand Online operated only during late hours or the weekend. Therefore, they made no use of the services of the Incubator and neither experienced the networking capacity of the Incubator design. Further evidence was collected through documentation and observations during the researcher's three months presence in the Incubator.

The data in the interviews is primarily qualitative. The sample size is not ideal for quantitative analysis combined with the use of statistics. Therefore, the quantitative data is supported by qualitative data in order to enhance the explanatory power of this report. The in-depth interviews were supported with a questionnaire. The design of the interview was through closed questions, but an important part as well through open-ended questions. The interviews focused on the businesses

of the firms together with their development as well. This approach was selected, since it seeks to find evidence of how the Incubator dealt with the difficulties faced by the tenants.

### 3.2 Operationalisations

The Incubation set-up is the first operationalized concept in this section. These items are displayed in table 2 and 3. Through interviews with the Incubator manager and written documentation (such as Incubator website) the table 2 information has been gathered. Incubation literature differentiates between specialized and diversified Incubators, where specialized Incubators are favored mostly. Furthermore, literature hints to connections with internal networking (Schwartz and Horny, 2010) and with Incubator expertise (Cordis, 2002). To identify the characteristics of the Incubator mission, its mission is identified and measures were taken to reveal in what extent this mission aligns with the actual situation. Moreover, since Incubation literature describes potential issues in funding and its effect on the actual situation in the Incubator, the cooperation with funders is taken into account as well. The researched cooperation between Incubator and funder approaches this only from the side of the Incubator, since the funders were not part of the research design. Furthermore, the time frame did not allow for a longitudinal study as well to study the cooperation.

Table 2: Mission and Stakeholders		
Topics	Definition	Indicator
<i>Mission</i>		
Job Creation (Hackett and Dilts, 2004b)	The jobs that are created by the tenants during their stay in the Incubator.	- Size of start-up team
Incubator Mission (Peters et al., 2004)	The long term decision to aim at tenants with specific technologies or to bear a more general approach, and the extent to which tenants conform to this strategy decision	- Nr. of employees in the tenants - Mission of the Incubator - Nr of tenants that conform to the Incubator strategy,
<i>Funders and Stakeholders</i>		
Terms of Cooperation of Stakeholders (Hackett and Dilts, 2004b)	The extent to which the Incubator has to prove the value of its activities in order to sustain funding	- terms for securing funds
Incubator Funders and Stakeholders (Hackett and Dilts, 2004b)	Founding stakeholders of Incubators, that in most cases are public in nature, and stakeholders that support the Incubator operations.	- (local) government - Universities - Other
Strategically Composed Advisory Board (Hackett and Dilts, 2004b)	An advisory board composed by its major stakeholders in order to insure sound selection decisions and overall stakeholder support	- cooperation of advisory board in selection decisions
<i>Incubator Expertise</i>		
Incubator Expertise (Tötterman and Sten, 2005)	Whether or not the Incubator manager has had previous experience to guide tenants	- Previous start-up experience - Educational background

Incubator expertise is measured by the background of the Incubator, in order to find information that can be link those competences to assisting its tenants. It is expected that this will yield information that can later be coupled to results of the research where the notion that an Incubator must combine the roles of a politician, businessman and scientist (Ratinho and Henriques, 2010) is taken into account.

The factor 'selection' in table 3 is measured through observing the completeness of the selection procedure, with respect to management, market and financial criteria. Measurement of the 'quality pipeline' is indirect through the number of tenants that conform to the Incubator mission. Through

questions to the Incubator it will become clear whether there is a filled tenant pipeline. On selection criteria the ideal is a balanced screening (Aerts et al., 2007). The surrounding selection procedures and the members of the selection committee are described as well, where the latter is expected to be influenced by the integration degree of the Incubator's stakeholders.

Graduation policies can be distinguished in two main streams, namely fixed term policies and case by case decisions. Within these topic indicators there are more variants possible for Incubators to measure on. Furthermore, literature describes the possibility of politically affected behavior in graduation, such as graduating earlier than actually should be. When this is the case, the graduation policies will have been affected by other factors in the model. On the other hand Peters et al. (2004) see Incubators not counting graduating firms, since they only had 'done well'. Literature describes the existence of non-performing tenants, in which it states that these have to be removed to make place for more promising ideas. Through observations and questions regarding tenant performance it is researched whether there are non-performing tenants and found whether these are replaced.

Table 3: Selection, Graduation and Infrastructure		
Topics	Definition	Indicator
<i>Selection</i>		
Selection Committee (Aerts et al., 2007)	The committee for selecting tenants into the Incubator	- members of selection committee
Balanced Screening (Aerts et al., 2007)	The screening of potential tenants, thereby using market, management team and financial criteria	- market criteria - management criteria - financial criteria
<i>Graduation</i>		
Terms of Graduation	The criteria the Incubator uses decision for successful tenants to leave the Incubator facility	- Case-by-case decisions (Rothaermal and Thursby, 2005) - Fixed Term Graduation (Peters et al., 2004)
Exiting Non-Performing Firms (Peña, 2004)	The Incubator decision to remove non-performing tenants from the Incubator in order to welcome other potential tenants	- Tenants experiencing no growth, or other improvement
<i>Infrastructure</i>		
Basic Infrastructure Services (Rice, 2002)	Concerns the passive services that reduce the costs of tenants and facilitates a better functioning of the Incubator process	- receptionist, internet, phone - copier and fax machine - conference and meeting room
Incubator size (EC, 2002)	The total surface of an Incubator and its offices that ensure an effective stay in the Incubator for tenants	- Rental Breaks - M <sup>2</sup> of Incubator and Offices
Flexible Infrastructure (Ratinho and Henriques, 2010)	The possibilities for growing tenants to expand their business easily	- Office expanding possibilities
Incubator Design (Tötterman and Sten, 2005)	The physical design of the Incubator that determines the degree of facilitating Incubator related activities	- Physical Incubator Design

In infrastructure attention is given to the basic services, such as internet and a receptionist. However, it is expected that Incubator size, flexible infrastructure and Incubator design will have the greatest impact on other factors in the Incubation process and Incubation set-up. This expectation is based on literature that does not directly consider basic services having a contribution of to the firm capabilities. However, infrastructure might acts as a catalyst for the internal network (Tötterman and Sten, 2005).

The study on typical entrepreneurial issues (Terpstra and Olsen, 1993) in table 4 is used to provide an overview YES Foundation's tenants face. The indicators are measured through the use of a Likert scale (0 = no problems, 1 = small problems, 2 = problems and 3 = large problems). The tenants were asked to value the problems relative to each other and the ease they could deal with the issues. The purpose is to identify the issues as the tenants face them. The degree of issues and nature of these were not tested in this model; tenants had to fill it in based on their own argumentation. As a consequence, the degree of seriousness of problems can vary from tenant to tenant, though pinpointed with the same score. For the sake of this study it is not necessary to unravel the perceptions of the tenants, but suit the scores relatively to each other the purpose of this study fine. Moreover, the questionnaire provides the opportunity to zoom in on the largest issues the tenants face.

Table 4: Tenant Challenges		
Topics	Definition	Indicator
<i>Common Issues</i>		
Common New Firm Issues (Terpstra and Olsen, 1991)	The most commonly named start-up issues	Obtaining external finance, internal financial management, sales/marketing, product development, production, general management, HRM, economic environment and regulations
<i>Firm Challenges</i>		
Life Cycle Tipping Points (Phelps et al., 2007)	The process of growth identified as complex, path dependent and for each firm unique encounters that are recognizable in tipping points	
- Strategic Orientation	The challenges in identifying a firm strategy	- Assistance in business plans and long term planning
- People Management	The difficulties with human resources during growth	- Employment assistance and advice on team building
- Market Entry	The challenges and capabilities of entering identified markets	- Assistance on sales and marketing
- Obtaining Finance	The challenges and ability to acquire external finance	- Assistance with obtaining grants, debt financing, revolving loan funds and equity financing

Table 4 considers the life cycle tipping points (Phelps et al., 2007). The questionnaire to measure the indicators consisted of trainings, coaching and networking items, an approach similar to Rice (2002). The main reason for this approach is that Incubators can choose between each of these methods for improving their tenants' capabilities and still yield the same impact. For this topic the Likert scale was used as well, where 0 = little or no impact, 1 = some impact, 2 = impact and 3 = critical impact. In the end, the results from the three major process types are added up and these results are presented in section 4 of this study. The data the tenants filled in the questionnaire was also used to elaborate on, in order to complement the quantitative with qualitative data. Phelps et al. (2007) have identified 6 tipping points, but this study was able to measure 4 tipping points. Operational improvement proved hard to find or research in observations, and is therefore not included. Formalized systems were removed on beforehand, since formalized systems are not likely to occur in 2, 3 person companies.

The tipping points (Phelps et al., 2007) are subsequently used for analysis based on the interviews. Through the data provided by the tenants profiles are set, out of which an analysis will be made what

the challenges of the tenants are. The tenant analyses are placed in appendix B and presented in this report in section 4.6. The purpose of this analysis is to identify the needs of the tenants and match these with where the services and activities of the Incubator aimed at.

Trainings and coaching, indicators presented in table 5, are also investigated outside the influence of the tipping points. Both factors have varying views and differing stances. The necessity and justification for trainings is subject of discussion, on which this research will add another viewpoint. Coaching consists of various forms, but is in this report structured along short term and long term coaching. This acts as a frame where other variations of coaching fit in as well, through the use of qualitative data. In the tipping point questionnaire the two coaching types are brought together, for the ease of simplification of the research. Moreover, the differences in service between short and long term is measured through other variables, as expressed in table 4. This way, both data types are taken into account. Coaching itself has some conflicting views, especially on long term coaching with continual development (Rice, 2002; Scillitoe and Chakrabarti, 2010) and irregular review panels at the other (Patton et al., 2009). Moreover, the coaching activities are expected to be influenced by set-up factors, whether positively or negatively.

Table 5: Coaching Characteristics		
Topics	Definition	Indicator
<i>Trainings</i>		
Valuable (Rice, 2002)	The extent to which tenants see trainings as a valuable instrument to improve their competences	- Tenant opinion on trainings
Variety (Peters et al., 2004)	The amount of entrepreneurial professions covered by the trainings	- Number of training types covered by the Incubator
Specificity (Wright et al., 2004)	The extent to which trainings address specific challenges of the tenants, or bear a more general approach	- Number of tenants that indicate whether the trainings address their needs
Attendance (Warren et al., 2004)	The extent to which tenants attend the trainings organized by the Incubator	- Number of tenants that visit Trainings
<i>Coaching</i>		
Reactive (Rice, 2002)	Coaching type where the tenant takes the initiative to acquire assistance from the Incubator	- Number of tenants that regularly take the initiative for coaching
Proactive (Rice, 2002)	Coaching type where the Incubator takes the initiative to provide assistance, primarily focused at resolving short term problems	- Number of tenants that receive Proactive coaching - Intervals between visits - The time spent / visit - Content discussed in coaching
Long Term (Rice, 2002)	Coaching type that is explicitly focused on acquiring competences and resources	- Long term orientation of tenants (Rice, 2002) - Use of milestone plans (Warren et al., 2009)

This report distinguishes three different types of networks. First the tenant network, which is an internal network. Furthermore, there are two external networks, namely the business network and the financial network. These will have overlap since financial networks entities such as investors might provide business assistance. However, finance is often seen as a potential blockade to the growth path of starting companies and is therefore considered as a separate network. Incubators have various possible financing opportunities to their disposal, which are taken into account in this



research. Furthermore, the attitude of tenants towards external financing is researched as well. In the business network the usage of consultants or experts is measured. Moreover, Incubation literature describes in the business and tenant network the fear of tenants that their ideas will be stolen. This is taken into account in this research through examples provided by tenants. No specific questions on this topic are asked, since qualitative questions on the usage of consultants and observations are expected to yield the best outcomes here.

Table 6: Incubator Networks		
Topics	Definition	Indicator
<i>Business Network</i>		
Business Network (Rice, 2002)	The use of consultants to provide tenants with specialist business knowledge in the Incubator	- Assistance provided for by Consultants or Experts
Fear of Conflict of Interest (Warren et al., 2009)	The fear of tenants that their ideas are stolen when they talk about it with others	- Usage of Consultants or Experts - Examples of Conflict of Interest
<i>Financial Network</i>		
Debt Finance (Rice, 2002)	The possibilities for tenants in financing their business created by the Incubator	- Debt Financing
Government Grants (Chan and Lau, 2005)	The grants that governments provide for high potential start-up ideas	- Revolving Loan Fund - Government Grant
Angel Investment (Aernoudt, 2005)	Wealthy individuals organized in a network that is willing to invest in unsecure projects	- Presence of angel network - Investor-readiness of tenants - Well presented projects
Attitude Towards Equity Finance (Patton et al., 2009)	The degree of tenant acceptance to give up part of their company share to an investor	- Acceptance of Equity Finance
<i>Tenant Network</i>		
Complementary Tenants (Tötterman and Sten, 2005)	The extent to which tenants are competing or can be considered complementary, since the latter provides better circumstances for mutual cooperation	- Number of joint initiatives of the Tenants
Incubator Stimulation (Hughes, 2007)	The extent to which the Incubator stimulates and enhances collaboration between the tenants	- Number of tenants that indicate assistance of Incubator in network

The tenant network comprises a range of various factors that are likely to influence the results obtained in tenant interactions. First, the Incubator mission and its degree of specialization are expected to have an influence on the functioning of the tenant network. Furthermore, the tenant network activities deployed by the Incubator have been emphasized in Incubation literature to have an effect on the degree of tenant interaction success. Furthermore, the design of the infrastructure may have an impact on the tenant network functioning. Moreover, literature provides examples of conflicts of interest and lack of trust between tenants, which will be researched as well.



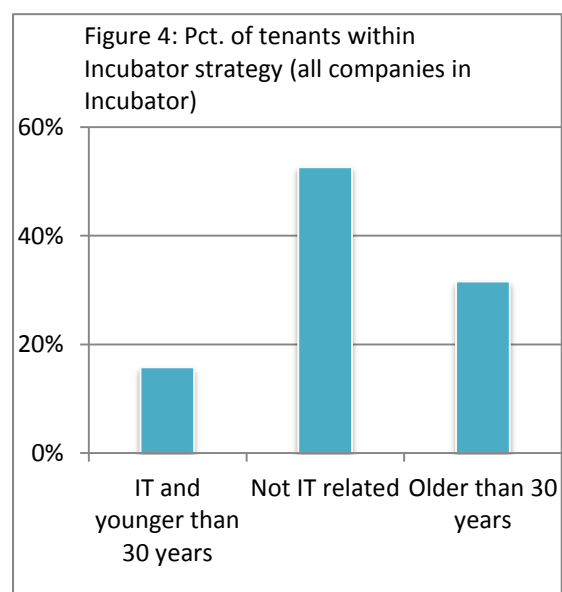
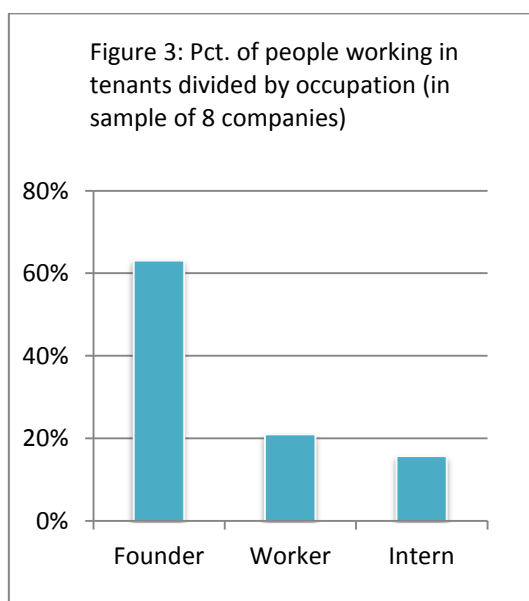
## 4. Data/ Results

### 4.1 Mission

The history of YES foundation began in 2005 when the Norwegian Ministry of Foreign Affairs assigned the Norwegian Non-Governmental Organization (NGO) Sintef to implement an Incubator in Macedonia. The overall goal was to create jobs among young people in Macedonia and thereby contribute to economical development (Sintef, 2006). The Incubator was developed from scratch; there were no physical presence, legal entity, formulated strategy nor tenants. Early 2006 YES Foundation was established as a legal entity. Meanwhile the search for a suitable location and the best strategy to persuade were initiated as well. The final YES Foundation mission statement: *'We urge to attract young ICT people, train them, increase their business knowledge, connect them to the right business partners, so they could compete on the global market and help ICT become a leading industry in Macedonia.'* The time frame of the mission was set to be five years from the project start, which means that in September 2010 the Sintef support is put to a hold. YES Foundation is then expected by its stakeholders to operate self-sustainable.

*'In our mission statement it is written that we should only attract youth up to 30 years. Next to that the segment we chose was IT. However, this proved to be an obstacle in filling the Incubator'*

The logic behind the strategic decisions are diverse. First, due to high growth rates in the Macedonian IT sector the decision was made to focus on this sector, since it was expected that high growth would attract many starting businesses. Moreover, only IT entrepreneurs under the age of 30 were to be accepted in the Incubator, which complies with the initial intention to focus on job creation among youth. High unemployment rates among Macedonian youngsters were the main reason for this focus. Second, increasing the business knowledge of tenants is the second aspect of the strategy, which implies that the Incubator has unfolded activities that aim at assisting tenants in acquiring additional skills. Furthermore, the Incubator's strategy comprises the creation of a business network where tenants can be connected to business partners, if possible internationally as well. The creation of jobs is likely to be an important measure within the Incubator. Therefore, it also promotes itself through claiming the creation of one-hundred jobs since the Incubator start.



Figures three and four respectively visualize the occupation of the people working in the sample and the number of tenants in the Incubator that align with the general Incubator mission. Moreover, the smallness of firms is grasped by Figure three. The total of people working in the eight companies is 19, or 2.5 per company on average. Therefore, the companies have one worker (full time or intern) employed. The analysis reveals that all start-ups are small and that the founders are the predominant working force in their companies. It must also be noted that these are the tenants that are already longer in the Incubator, meaning that they have stayed small ever since. Figure four visualizes the amount of firms complying with the strategy of the Incubator (aged < 30 and ICT). Only a minor part of the tenants is in the actual target group. Most of the companies (little over 50%) are not related to IT and about 30% aged older than 30 years. Most entrepreneurs (around 80%) do not match the target group and are small in size. The initial Incubator mission can be considered specialized, since it aims to accept only entrepreneurs active in the ICT branch and under the age of 30 years. However, most tenants do not fit the prescribed segment. According to the Incubator manager, the offices had to be occupied with tenants in order to collect office rents. Therefore, companies outside the scope of the mission were accepted in the Incubator. Therefore, the actual situation regarding its tenant portfolio can be considered as generalized.

## 4.2 The YES Foundation Stakeholders

The YES Foundation (funding) stakeholders were the drivers behind the creation of the Incubator's mission and activities, although the Incubator criticizes their involvement. Most stakeholders have already been mentioned, but they are of Norwegian Sintef, the Skopje municipality Gazi Baba (the Incubator is located here), the Macedonian Ministry of Economics and St. Kyrill University. Sintef is the initiating and funding organization and the University has been supportive in promoting the facility. Integration of stakeholders is formally arranged for, since they chair the advisory board. The reason to have an advisory board was to guarantee support and feedback from its most important stakeholders. Despite the strategic composition, the Incubator did not feel sufficient support from its stakeholders. Moreover, it was the intention from the start that the advisory board would participate in the selection procedure, but this has never happened.

YES Foundation is not self sustainable and the funding of the Incubator is predominantly provided by Sintef. The Incubator manager claims the most important reason for not being self sustainable is the size of the Incubator and therefore it needs funding from its stakeholders. In the funding process there are two issues the Incubator faces. First, the Incubator needs to justify its existence on an annual basis by showing results, such as graduation and job creation results. Moreover, for the same purpose Sintef has given the Incubator milestone plans so that it can track the progress and determination to succeed of the tenants. However, the Incubator states that milestone plans are hardly used and when, only for acquiring the Sintef funding. Second, the Sintef funds are transferred via the Macedonian government. The latter is then supposed to transfer these funds to YES Foundation. However, the Incubator manager claims that the government does not transfer all the funds and that it holds a portion of funds back. As a consequence, the Incubator states that they experience financial distress due to lack of funds. The Incubator manager states that the financial distress leaves little time for assisting the tenants.

*'The Sintef funds do not directly flow to the Incubator, but are first transferred to the Macedonian Ministry of Economic affairs. They have to transfer the funds to us, but in practice this does not happen'*

In order to overcome the financial issues the Incubator tries to maximize its tenant occupancy rate, but it also developed additional activities in order to sustain funding. These activities center on executing projects for the European Commission, such as leading a large scale investigation on the origins of corruption in the Balkans, researching the entrepreneurial willingness for external finance options (including angel investment) in a study named 'bridging the gap', and a project on the city's old bazaar. These activities, including applying and executing take a large part of the Incubator's human resources. It not only requires a major effort from the Incubator manager, but YES Foundation has also employed 3 workers fulltime to fulfill projects. Most projects are not related to the Incubator strategy, such as the corruption research. Some projects are indirectly related, such as the study 'bridging the gap', since start-up financing is an aspect of Incubation in general. However, overall most projects do not aim at fulfilling the Incubator mission, despite that most human resources are devoted to execute these projects. Having in mind the time and effort spent to projects these can be considered as the core business of YES Foundation.

### 4.3 Infrastructure

Obtaining the infrastructure to start the Business Incubator proved to be hard. The Incubator stated: Finally, after more than one year the Incubator was appointed a building with some assistance from a government acquainted. The building was of poor quality and had to be rebuilt. Two years after the project start, the Incubator began construction in autumn 2006 and on June 1<sup>st</sup> 2007 the Incubator opened. At the time the Incubator opened it had just three years from the initial five years left to transform into a self sustainable Incubator.

*'We had 100 meetings with local representatives and ministerial head of departments, but we could not find suitable infrastructure. They did not understand the concept of Incubation and were reluctant to assist.'*

The infrastructure consists of three barracks that are connected. The basic services delivered are the free use of a copy printer, internet, meeting room, computer lab and a small kitchen. It also consists of a patio and table tennis, which together with the kitchen are the main inter networking facilities in the Incubator. Of the twenty offices, two are occupied by the Incubator management. Most offices are 16 m<sup>2</sup> without flexible walls and the total Incubator surface is 600 m<sup>2</sup>. The design of the offices does not allow for larger start-ups, but is only suitable for small scaled start-ups. Growth is also hard to realize for the same reason. However, there were two tenants that occupied two offices, namely Innovation (a graduated tenant) and T6. The middle barrack consisted of the meeting places, such as a conference room and lunch room. The left and right barrack consisted of the tenant offices. It was noted that the tenants from one barrack were in general less or hardly familiar with the tenants from the other barrack.

The Incubator had special office rates for starting companies. Tenants that had just entered had a low rent, but the rent increased every six months. The idea behind that was that at the start tenants will have less business and at the end more. The increasing office rents were not meant to discourage less performing tenants, and no evidence has been found of tenants leaving the Incubator being discouraged by the increasing rents. Most tenants experienced the prices for office rents in the Incubator as low. However, some stated that they could have got a cheaper apartment elsewhere. The conducive working environment stopped them from relocating, since this was awarded by all tenants.

#### 4.4 Selection

The initial tenant selection format has been developed in Norway by Sintef. It takes into account financials, market and management team. These are further specified into characteristics per item. Based on the interviews and the format there is a scoreboard where the idea/start-up is assessed. However, the Incubator states that most important are not the scores, but whether or not there is consensus between the assessors on a potential tenant. The Incubator manager is specifically interested in companies that 'have a smell of innovation and can bring added value to the Macedonian economy'. However, he states that most of the ideas are relatively easy to understand and 'known to the world'.

The YES Foundation selection procedure has been designed to address different factors in a balanced screening, but in practice the selection structure is not leading. Much emphasis on the entrepreneur and whether or not there is a business idea that does not need further developing. The potential tenant must be able to do business within a short period of time. Questions regarding the selection process to newly appointed tenants reveal that most indeed had a one hour meeting and were within a few days accepted in the Incubator. The Incubator cannot afford to have tenants that still have to develop their initial ideas, since the Incubator must present results as well and has to have tenants that are able to immediately pay office rents. Besides that, developing ideas not ready for business are likely to cost the Incubator funds as well and it is not in the position to afford that. Furthermore, the selection procedure timeline is deliberately small. Tenants are granted or rejected access in just a few days.

*'The selection format we're working with is developed in Norway and we're more or less working with the same documentation'*

The 'quality pipeline' of new business proposals is problematic within YES Foundation. The Incubators states that when looking at the management team most entrepreneurs are one-man shows, and strictly speaking should not be allowed in the Incubator. Since its start the Incubator experienced much pressure to fill the Incubator and had to achieve a full occupancy rate within one year, since necessity of rents and justification of its existence. The choice to focus on companies founded by youngsters in the ICT sector was not the best choice, says the Incubator manager. Since it was obvious that we could not fill the Incubator with the target group the decision to focus on other businesses was made. The Incubator claims that when there was enough budget to promote the Incubator more aggressively, it would be easier to attract ICT related tenants. However, only a small budget is available. Still, the Incubator manager states that most tenants have a technical background and have limited knowledge of management, or entrepreneurship in general.

#### 4.5 Graduation

Since the Incubator did not have much time before Sintef would stop funding, a fixed two year graduation period was decided as most suitable for YES Foundation, although the Incubator had a preference for a case-by-case approach. This fixed graduation period would allow the Incubator to present results of the program within a relatively short time span. The Incubator states that what is best for the tenant was not part of this decision and claims it was a politically inflicted decision. The two year period might seem short, but the Incubator is only searching for business plans that are ready to start business and not for tenants that have to develop their product ideas further. The

Incubator has got a preference for a flexible, case-by-case graduation period. He states that it is likely that some companies need more support while others grow faster.

After 3 years in operation YES Foundation has got three graduates. Since in total 14 companies have left the incubator this is about 20% of the companies that have left the premises of the Incubator. These companies are Innovation, G1 and Link Solutions. The first has created about ten jobs, G1 three jobs and Link Solutions four jobs. Innovation recently has closed a large contract and is therefore likely to sustain business on the longer term as well. Surprisingly, all three graduates were older than 30 years when they entered the Incubator. Three more companies have survived, but these are not counted as graduates, most likely because they did not realize a sustainable business. Furthermore, eight post-tenants saw their businesses fail.

*'We chose the two year graduation period, since we thought it would work and we had just a few years till the end of the project to show quick results'*

During the three months available for observations, there were no tenants that were removed from the Incubator because of non-performance. T4 and T1 left the Incubator by July, but the companies were already over their fixed-term of two years. However, these tenants were not performing and the Incubator was a bit disappointed with how they approached their business. However, these were not removed from the Incubator during their stay in the Incubator. The two mentioned companies did not perform well, but were not removed from the Incubator. Moreover, out of the eight tenants in the sample, five had major difficulties to bring in their revenues, although they were all tenants already in the Incubator for a longer time period. It is not sure whether these tenants are underperforming, but there are no assessments during these two years to prove otherwise, although the structures are there since the Incubator has the possession of a milestone plan format.

#### 4.6 Incubator Expertise

The Incubator manager within YES Foundation is the YES Foundation project leader. He is the executer of the project and also the responsible. The manager worked a number of years as a banker on the business department providing loans to firms that wanted to grow. First as a loan officer, then as a manager of the department and this working experience corresponds with the activities in the Incubator. After working at the bank, the Incubator manager worked as an NGO associate, of which most of the years guiding the peace process of Kosovo as participant in projects of the European Commission.

*'My work in the bank learned me how to judge entrepreneurs, since I analyzed numerous cases for the bank'*

Thereafter the Incubator manager got the opportunity to set up the Incubator in Macedonia. The Incubator manager's educational experience is predominantly the Bachelor in economics, which is in progress. Start-up experience is not present, although within the Incubator manager's family there are a number of entrepreneurs, and the years within YES Foundation have increased knowledge about starting companies as well. Sintef support was marginal in the route to become acquainted with Incubation. A week in Norway thereby having a few half-hour meetings with Norwegian Incubators. Further little support was provided.

The activities that had the focus of the Incubator during the stay in the Incubator were diverse, although solving the financial distress issues was the most important. Many meetings were scheduled with the funders and stakeholders during the time of the research. Furthermore, the Incubator had networking activities with other Balkan Incubators in for example Croatia. The creation of an angel investment fund did occupy the Incubator as well and perhaps the most time consuming activities were the EC projects. Furthermore, the Incubator also actively visited at least most of the tenants in order to see whether they needed anything.

#### 4.7 Issues and Challenges of the Firms

The issues of the firm are presented in figure 7, which consist of the areas that the YES Foundation tenants pointed out as the business areas where most issues occur. In extension, figure 8 presents the main challenges as identified during the interviews. Whereas figure 7 presents the quantitative data, in figure 8 these interviews were interpreted and the issues of tenants were structured. The analyses allow to create understanding of the businesses of the YES Foundation tenants and an extended analysis is placed in appendix B. Figure 7 reveals that the tenants experience most difficulties with sales and the economic environment. Furthermore, issues with respect to general management and the regulatory environment are strong as well. However, one would expect external finance to be seen as problematic as well, but the tenants do not consider it that way. Since the Incubator only wants to allow companies in the Incubator that have a product that already has been developed, it is not unusual to find that the tenants face little issues in product development and production. They already went through this state.

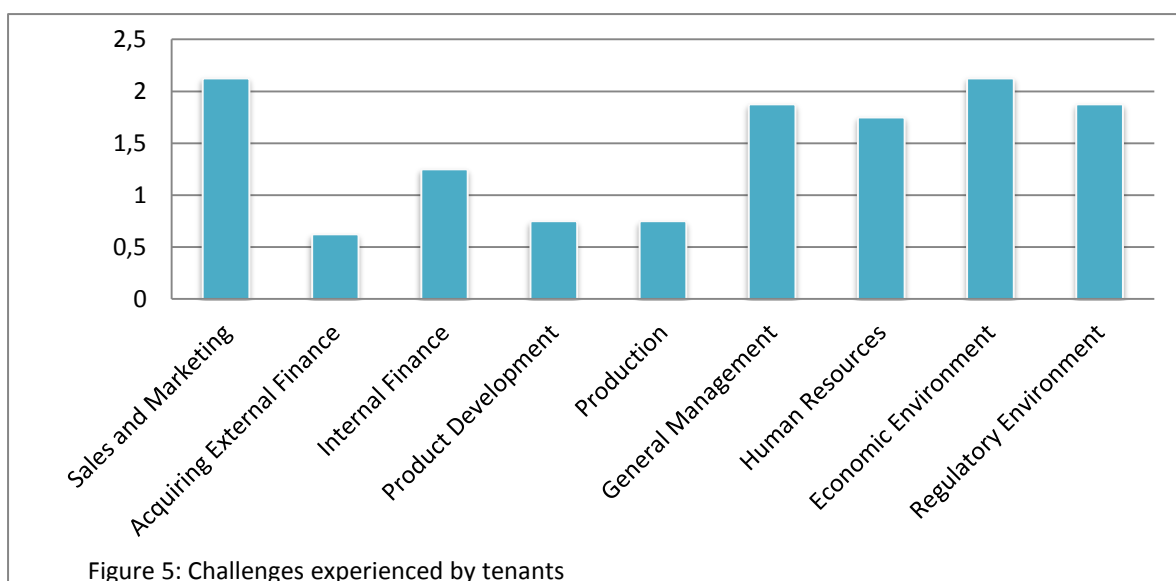
Most tenants have issues with strategic orientation. The analysis results are consistent with the figure 7 quantitative data. T5 was the only company that stated to have no issues with its strategic orientation. However, this company is reconsidering better ways to introduce e-commerce to the market through changing its business concept. In e-commerce all respective tenants (37%) have difficulties with market acceptance. All involved tenants state that e-commerce in Macedonia is not accepted yet. Analysis also reveals that most tenants' strategy is still in flux (75%), which is primarily caused by less sales revenues than expected. Only T7 and T2 are not reconsidering their value proposition. T2 is fully trying to enter its market and T7 is not actively occupied with its strategy.

Market entry is pointed out by the tenants as the largest issue in the questionnaire (figure 7), which is supported by the qualitative analysis in figure 8. In the analysis all tenants showed to have issues with selling their offerings. A tenant share of 25%, namely T5 and T7, stated that they faced only minor issues in market entry. However, analysis showed that the first was not profitable and that the company is considering alternative sales channels to improve revenues. T7 has one major client, which makes his company profitable. However, he is not able to find more clients. This despite he wants his company to grow and despite several attempts. This analysis is confirmed by the Incubator manager as well.

*'I don't know. We're now busy for two years and I think the next years we will do the Macedonian market and maybe then we're going to Germany or so'. T4*

*'We want to get special expertise in every field; in banking, automotive, promoting fairs. Every one of us will specialize.' T1*

*'If the e-commerce market does not work, then we'll try to find markets outside Macedonia. At this moment we already have a customer in the USA' T6*



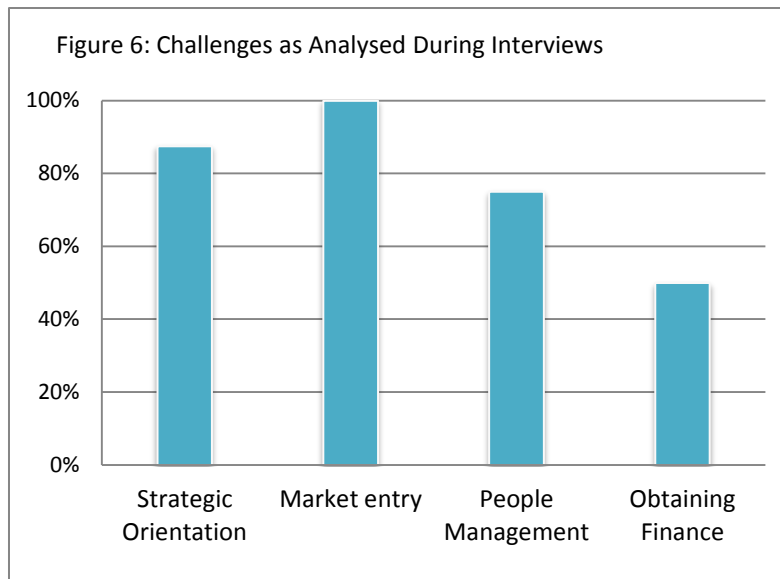
Within market entry there are two findings that need to be highlighted, namely the sales provided by the Incubator and tenants that sell their offerings abroad. Some of the tenants get business through the projects that the Incubator uses as additional activities. In the interviews 37% of the tenants noted that they received business from the Incubator. Especially T1 and T3 stated that most of their revenues came from Incubator assignments. Moreover T8 stated as well to have received some projects, which can be interpreted as a direct form of support from the Incubator to its tenants. Tenants having business abroad is another finding of interest, since 50% of the tenants receive income from abroad. T8 receives it for banners and grants from international NGOs, but the other 3 have found private business partners. T2 has a client in Germany, T7 a client in Switzerland that contributes for 80% of its sales and T6 has one client in America which contributes for the largest part of its sales. Except for T8's clients, these are all Macedonians living abroad. T6 states that there might even live more Macedonians outside Macedonia, than inside Macedonia.

A small share of tenants does not face challenges with respect to people management. Mladi-Info uses only volunteers for its business, which is not problematic. Furthermore, T5 does not need additional employees for their business and due to its business model is not likely to need employees in the near future. However, 75% of the tenants do have challenges to overcome. Three tenants or 37% have difficulties with delegating duties. T2 still has not hired an employee for tasks that she wants to give away. Further T3 has hired interns and is now teaching its first employee more complex tasks. T7 was not able to delegate duties and the contract with the employee was stopped. The company indicated that he was afraid that the employee might run off after two months, whilst he would have invested much time and effort in the employee. Next to delegation were the financial risks associated with hiring specialists an issue for companies (37%). For example, T3 does not want to hire specialists due to the high costs this involves. Another reason of not hiring an employee was indicated by T4 who stated that the risk associated with extra business was a reason not to hire employees.

*'I'm afraid that after a few months of teaching the newly hired employee will go to another company. It's a risk that I'm afraid of' Cas-studio*

*'I saw that other companies in the Incubator work with interns and at some point you realize they will save you a lot of time without costing too much' T3*





Obtaining finance is not seen as a major issue, which is indicated as well by the tenants in figure 7 as in the analysis. However, the analysis did reveal that 50% of the companies were due to various reasons likely to need finance in the near future. For example T2 almost reached its financial possibilities, if T3 wants to grow it has to find funds to hire specialists and T5 is planning to open up a physical facility that complements its web shop. However, it is not certain that these investments will take place. All tenants were not keen on the risks associated with external finance and preferred to avoid adopting it if possible.

*'We can make it on our own, we don't need financing. If we have increased sales or our products then we'll have money for salary for additional employees.'* T6

## 4.8 Trainings, Coaching and Networking

This section comprises the YES Foundation Incubation process results. The structure of this section is somewhat different from the others, since networking, coaching and trainings are intertwined. This is displayed in table seven where the tenants and Incubator manager posed the perceived impact of the Incubator activities.

### 4.8.1 Overview of Incubation Process activities

The Incubator offers training and coaching activities on various topics that aim to improve the tenant businesses. The Incubator considers trainings valuable and as an important part of its activities. Trainings on various topics exist. Despite this presence and variety, trainings are hardly visited by the tenants (table eight). The trainings predominantly focus on sales techniques, but topics on finance, ISO standards and EC subsidies are covered as well. Most of the trainings are outsourced and executed by parties, such as Cisco. At the start, tenants were not charged, but since a year ten EUR are charged due to no-shows. In coaching, the Incubator prefers an 'open door' culture where tenants can come in at any time for answers on their questions. Moreover, the Incubator offers proactive coaching. The style of coaching is informal; no appointments are made. Coaching takes place by visiting the tenants whenever the Incubator manager agenda allows for. Long term coaching is not provided for, although the Incubator has got milestone plans to its disposal to track the development of its tenants. However, these milestone plans are only used, since they are required by Sintef. They also developed the milestone plan, and are therefore copies of those used in Norwegian



Incubators. The plan comprises product and service, market, sales, economy and finance, staff and competence and networking. These milestone plans have to be filled by the tenants every 6 months based on expectations in the mentioned fields.

The Incubator network comprises the financial, the business and the tenant network. There are contacts with technical faculties, but these are only used for promotional activities, and not for technical assistance. Financial services are diverse, such as a revolving loan fund of 1,500 EUR. This is available to every tenant if the criterion of having at least two customers is fulfilled. Furthermore, a beneficial debt financing possibility is offered through the Incubator. Since the Incubator has closed a deal with a commercial bank, promising tenants can take up a loan of 15,000 EUR at a rate of 7.5%. Moreover, the Incubator has started a project in order to form a business angel network, since no such network exists in Macedonia. Attempts to create one in Macedonia have failed so far, but instead a Bulgarian angel network has been approached. As a result, one company has filed an application for angel investment. The business network consists of some consultants that assist in strategic orientation, employment and market entry issues. The tenants can use these when they ask for. These consultants are free of charge for the tenants for a number of hours/month. The tenant network is not promoted, but through the design of the infrastructure, the Incubator sees that there is mingling of tenants.

#### 4.8.2 Incubation Process Analysis

Table seven presents the perceived Incubation process impact and includes differences between Incubator and tenants. Table 8 includes characteristics that provide an overall view of the Incubation process complementary to the Incubation process impact table. The results in table seven indicate a connection between the largest perceived issues of the tenants (figure seven) and the impact scores in table seven. Here the strategic issues and market entry are the most dominant items. The aim of tables seven and eight is to identify the perceived impact and combine these with the issues that the tenants face.

Table 7: Incubation process characteristics (0 = no impact; 1 = little impact; 2 = impact; 3 = strong impact)								
	Total Incubation Process		Coaching		Networking		Trainings	
	Incubator	Tenants	Incubator	Tenants	Incubator	Tenants	Incubator	Tenants
Strategic Orientation	3	1,75	3	1,25	3	0,875	2	0,875
Market Entry	3	1,625	3	1,125	3	0,875	3	0,875
People Management	3	1,125	1	1,125	3	0	1	0,5
Obtaining Finance	2	0,5	2	0,5	2	0,125	1	0

Table 8: Coaching Items				
Item	Incubator	Tenants		Description
	Yes/No	Yes	No	
Trainings - Valuable	Yes	0%	100%	Trainings are considered valuable, but priority is given to operational, daily activities
	Yes	87%	13%	
Reactive Coaching	Yes	63%	37%	Most tenants take the initiative for assistance
Proactive Coaching - length > 15 minut - More > 1 / week	Yes	87%	13%	Incubator states total coaching of 10 hours/week; tenant perspective this is total of 3 hours.
	Yes	13%	87%	
	Yes	63%	37%	
Long Term Coach - Milestone Plan	No	0%	100%	Is not provided for, although milestone plans exist. However, these are not actively used
	Yes	13%	87%	

The overall scores of the tenants, illustrated in table eight, indicate a smaller impact of the Incubator services, than those postulated by the Incubator. Of the twelve items that were measured in table seven, there is just one item where tenants observe a slightly higher impact, namely people management coaching. However, the other eleven items in table seven are significantly lower appreciated by the tenants in comparison with the Incubator statements. There is a consistency between the severity of issues perceived by the tenants and the appraisal of Incubator activities. Most impact of coaching is considered to be strategic orientation and market entry. In extension, the least impact was awarded on obtaining finance. There are two explanations for this consistency, namely that the Incubator addresses the right problems or that the tenants relatively consider the factors where they actually need assistance and appraise it accordingly.

*'The Incubator is our biggest client with over 60% of sales. They also brought in other clients' T3*

*Since I went in I haven't received any assistance by the incubator so far, except that they asked if I had the need for a consultant. T2*

There exist differences in perceived impact between tenants. When the two tenants that receive direct business from the Incubator (T1 and T3), are left out of the equation, the tenant perceived impact is much smaller. The total scores would then change to little impact with a score less than one. The analysis of the scores differences between Incubator and tenant reveal that these are significantly smaller, although the areas with the highest impact are similar to those described by the Incubator. Especially the impact of services on obtaining finance is seen as marginal, which is remarkable since the Incubator has deployed many services on this matter. An explanatory ground is data from figure 7 and 8 that shows that most tenants are not in need of financing their business. Combining this data with table 8 also indicates discrepancies in impact of coaching, networking and trainings. However, there are tenants that appreciate for example networking more than coaching. The tenant scores are not equal to each other; for example on market entry assistance some tenants stated no impact, whereas other tenants expressed a critical impact of the Incubator activities.

Tenants do not often visit trainings although some tenants did experience impact of some of the trainings which can be observed in table seven and eight. These were predominantly trainings that addressed strategic and market entry issues. Although most tenants consider trainings as valuable, they give priority to daily business operations. The trainings are therefore hardly attended. Further criticism of tenants on trainings reveals that the trainings are often scheduled during working hours and miss out on specificity. The quality of the trainings is addressed as well, since one tenant stated that for example advanced sales techniques presented by a twenty-two year old trainer is not convincing. The Incubator is aware of the attendance problems with trainings, though has no option to improve training occupancy rates of the trainings. However, the Incubator is planning to continue organizing trainings.

*'Some trainings have impact, but the standard training presentation do not have any impact.'*

*'The training of sales skills is a group training and it's not helpful.' T1*

Coaching activities were relatively most rewarded by the tenants opposite to trainings and networking. However, the Incubator only provided for reactive and proactive coaching. Table eight presents the characteristics of coaching. The results differed between reactive and proactive coaching. Reactive coaching is provided for by the Incubator through an open door policy. Five out of eight tenants did request for assistance, although three did not. These tenants claimed that they were not aware of this coaching activity. The Incubator provided for proactive coaching, which was confirmed by most tenants. However, the amount of time the Incubator claimed to spend was higher than what the tenants claimed. In fact, most tenants said it was predominantly small talk, motivational talk, but not on business.

Some tenants noted that the incubator focused on the necessity of hiring employees as well. These tenants said they had never thought of hiring employees, before they came to the Incubator. The Incubator convinced them it would be better for business if it was not run all alone. In most cases, tenants were reluctant to immediately hire a full time employee; therefore the Incubator mostly advises to hire an intern in the company first. This strategy has succeeded with the graduate G1 and with T3. Other tenants, T4, T5 and T7, had too little business or were worried to delegate duties. These three tenants hired an employee, but let them go after a few months. Furthermore, T8 noted assistance in hiring employees.

*'The Incubator helped me to understand that I needed employees in order to grow the business. It was a big step, but currently I have three employees' Global Net*

The Incubator does not provide for long term coaching, although some of the structures have been implemented. Structural meetings on the longer term development of tenants do not take place within the Incubator. However, milestone plans, adopted from Sintef, are in place. Sintef requires these milestone plans in order to track the progress of the tenants. Although milestone plans are present, it is not fully integrated in the Incubation process. Also the Incubator manager himself states that the milestone plan is not properly used. It should be used to monitor tenants, but its usage is primarily explained by the fact that Sintef demands written progress reports of the tenants. Sintef uses these milestone plans to decide whether or not the funding should be continued and on what level. Because of this, the tenants do not see it as a plan they should use in order to keep track of their progress, but merely a plan they have to fill so the Incubator keeps track of them. Some tenants think the milestone plans are only meant for the Incubator. The Incubator states that at this moment the milestone plans are only used, because Sintef requires to. The founder wants documentation to track the results of the Incubator tenants.

*'It would be better if we would receive long term coaching, because in that situation you are not on your own. Then you'll have other people think about your business and advice you. At the moment no one else knows enough about our business to do that' T6*

*'The Incubator manager is a great pusher with his proactive behavior. For that he's extra' T5*

*'Especially at the start the Incubator manager was very helpful, gave us motivation to start' T1*

*The Incubator manager comes around sometimes and asks general questions. How's it going, but nothing in depth. It is not personalized' T8*

The Incubator did not provide extra attention to tenants that entered the Incubator during the time that this study was performed, although some interviews suggests it used to be otherwise. The new tenants all claimed to not have received coaching after their initial selection conversation. Moreover, T2 that had entered the Incubator the last of all the tenants, claimed to not have received attention from the Incubator. However, G1 claimed that the Incubator made him realize that he needed some extra assistance if he would make the company work and still is grateful for that since the company is doing well nowadays. T1 also stated a lot of Incubation activity at the start of their period in the Incubator. However, T1 has unfortunately not been able to attract much business ever since.

The Incubator has rolled out multiple activities for tenant financing purposes, but most eye-catching is perhaps the development of the business angel network. However, literature advises caution in the deployment of these activities and to promote only the best tenant potential and to present the projects professionally. However, the contact with and the visit of the Bulgarian angel network was not presented this way. T1 has thought of a new product, named a Virtual Assistant and this idea was presented to the angel network. This was not a good decision since T1 is one of the least performing tenants. Besides, the idea itself has not got a sustainable resource base or competitive advantage. Next to T1, no other tenants had an interest in filing for angel investment. Moreover, the Incubator has provided revolving loan funds and bank loans, but most tenants do not make use of these services as well. In fact, most tenants do not make use of external funding provided through the Incubator at all. Some of the tenants already had a small loan, but said that they already had it before entering the Incubator.

*'So far I only used the 1,500 EUR grant that the Incubator provides' T6*

*'The relationship between the consultant and I was not a happy marriage. Now I have my own consultant again' T2*

*'The consultant said I should use a catalogue, which was a good advice' T7*

The incubator has a network of consultants and these are commonly used, but there are some critical notes as well with respect to these consultants. First, some tenants have clear examples of helpful consultant work, such as T7 that now keeps track of its debtors or G1 that sells its services not as product but as solutions. The consultants are helpful, and five out of eight tenants consider them valuable. Every tenant considers consultancy also as more valuable than trainings for instance. However, there are also critical notes, since T7 received contradictory advices from different consultants. One said that T7 should focus on the Macedonian market, though the other advised to go across borders. T1 had performed a SWOT analysis with the use of consultants to see on which market segments they had to focus and which competencies should be strengthened. Further there was one complaint of a potential conflict of interest was observed.

The Incubator contacts with the university are only used for promotional activities. At the start of the project when the infrastructure was not available yet, the university assisted in providing space for trainings. However, no contacts to provide tenants with technical expertise are used. One tenant, T4, had contact with its former university. The company used this for technical advice and the university had actually them a few customers as well. However, further there was no evidence of contact with the university for technical knowledge and the Incubator stated as well that contact with the university was purely for promotional and supporting activities.

*'I'm now trying to establish a cooperation with the new tenant, but further I only once sent a company through' Cas-studio*

The tenant network is not promoted for, but it functions to satisfaction of tenants and Incubator. Most tenants feel comfortable in the Incubator, since they have support from their neighbors. Further there is some evidence of cooperation of the tenants amongst each other, but observations indicate that much more results can be extracted from this Incubation item. Also, guidance of the Incubator in tenant cooperation is pivotal. The best example is the failed cooperation between T7 and T9 (new tenant). The latter had specialized in entering the German market and is complementary to T7, who was making architectural designs. Negotiations took long and failure was only due to lack of trust. Synergie wanted to protect the contacts, T7 the architectural designs. In this case, the Incubator could have played a role. Also, some evidence surfaced on tenants that had the chance to share information of interest for both parties, but did not. Also there were a few tenants that brought business cards of other tenants to their meetings. Most of the interactions however, were friend related and support with problems that might have been tackled by another tenant in an earlier stage.

## 5. Discussion

### 5.1 Analysis of Data and Incubation Literature

#### 5.1.1 The Inclusion of Stakeholders into the Incubator's Mission

This study is consistent with literature on the overall aim of Incubation, but varies with respect to the type of stakeholders. The most common overall aim of an Incubator is to contribute to regional or local development (Mian, 1997; Aernoudt, 2004; Peña, 2004; Aerts et al., 2007), or job creation (Hackett and Dilts, 2004b; Aerts et al., 2007). This is consistent with the findings found at YES Foundation where Sintef (2010) states that it aimed to contribute to regional development through job creation among young people. Literature states that job creation prevails since Incubators are commonly supported publically, whether from local or national government (Mian, 1997; Hackett and Dilts, 2004b; Aerts et al., 2007; Aaboen, 2009; Ratinho and Henriques, 2010), sometimes real estate developers (Ratinho and Henriques, 2010) and in Europe Incubators funded by the EU or international organizations (Aerts et al., 2007). YES Foundation's funding is only consistent with the finding of Aerts et al. (2007), since it is funded by the Norwegian NGO Sintef. A possible explanation that other authors did not notice this, might be that most authors do not take into account the Balkans in their research. On the other hand, Aerts et al. (2007) do not specify the exact location of NGO founded Incubators.

The Macedonian government, local and national, and the St. Kyrill University are stakeholders that do not contribute financially, but formally provide support to YES Foundation. For universities this construction is more described in literature (Colombo and Delmastro, 2002; Warren et al., 2009). However, the Macedonian government does not support YES Foundation financially, although governments are most described as initiators of Incubators (Hackett and Dilts, 2004b). Moreover, the Incubator manager complains about the lack of support from the side of the Macedonian government. The Incubator claims inactive stakeholder participation in the advisory board and not transferring the Sintef funds to the Incubator. Furthermore, the long search for infrastructure can be, at least partly, assigned to the stakeholders as well. The Incubator had much difficulty in finding a location and claimed to experience high resistance of government entities. The final result however, was a location too small. Here Sintef, that has much experience in the field of Incubation, should have seen that the facility was not likely to meet the standards. This, including little support for training the Incubator manager, makes it plausible, within the limitations of the study design, to question the involvement of the stakeholder Sintef as well.

A lack of stakeholder support can be caused by an Incubator's inability to provide results satisfactory to the stakeholders, but this research's findings suggest that a lack of support was already evident from the start of the Incubator's operations. Rice (2002) and Hackett and Dilts (2004b) state that Incubators have to justify their existence through results, which means that an Incubator may lose credibility after showing poor results. However, the Incubator states that a lack of support already begun before the Incubator started operations and can therefore not be the cause. Ratinho and Henriques (2010) state that an Incubator should be able to play the role of a scientist, businessman and politician. In this perspective the latter is the most important and its absence might be an explanation for the lack of government support. However, in a broader perspective another argument for stakeholder support is provided by OECD (2009), who states that most Incubators located in the Western Balkans are ad hoc initiatives that disappear once the funding does. From

this, OECD (2009) concludes that more national strategies for Incubators need to be established. Although the OECD (2009) does not include evidence in this statement that links to YES Foundation, it is likely that a lack of including YES Foundation in a national strategy is the best explanation for the lack of stakeholder support.

### 5.1.2 Issues in Attracting Target Companies

The Incubator is not self-sustainable and this one of the limitations of the current infrastructure. The Incubator manager states that YES Foundation is not self sustainable, which contradicts the finding of Aerts et al. (2007) that found 80% of European Incubators self sustainable. According to the Incubator manager this is due to the small Incubator size of approximately 600 m<sup>2</sup>. This is consistent with Incubation literature that states that Incubators should be at least 3,000 m<sup>2</sup> (NBIA, 2002; Hackett and Dilts, 2004b) Furthermore, the Incubator also does not have flexible offices, which Ratinho and Henriques (2010) mention as a possibility to grow tenants. The offices do not allow more than 4 people working, which might be disadvantageous to be attractive to potential companies, and might be one of the reasons why Peña (2004) suggests that Incubators attract less qualitative tenants. On the other hand, some tenants had two offices enabling them to grow. Unfortunately, these growth opportunities immediately affect the number of companies in the Incubator and might therefore as well block new business ideas.

The selection procedures should consist of topics regarding management team, market and financials (Lumpkin and Ireland, 1988; Hackett and Dilts, 2004b; Aerts et al., 2007). For its selection procedure the Incubator uses a format that comprises these three factors for selection, which is consistent with the analyses from Incubation literature. However, selection procedures at the Incubator were highly influenced by the issues to attract tenants to the Incubator. Patton et al. (2009) state that successful Incubation starts with a quality pipeline. This finding is at least partly consistent, since the Incubator states it is not able to attract those tenants that it likes to attract and that tenants are accepted for collecting office rents. Another possible cause for the lack of a quality pipeline is the inability of the Incubator to attract tenants in their target group. The Incubator states it does not have the funds available to promote the Incubator, which is a feasible explanation. Moreover, the funding issues aim at the Incubator's lack of being included in a regional development program. A final reason might be macro environmental issues, such as a lack of entrepreneurial spirit in Macedonia or a lack of ICT entrepreneurs due to high wages in the already existing firms. However, these last two possible reasons do not have solid ground and should be investigated further.

YES Foundation initially pursued a specialized strategy, although based on its tenant characteristics should be considered as generalized. Moreover, specialized versus a generalized Incubator is a much debated topic in Incubation literature. Those in favor of specialized Incubators state that specialized Incubators perform better (Aerts et al., 2007; Hansen et al., 2000) and enhance an Incubator's expertise (Cordis, 2002). However, it also increases an Incubator's vulnerability (Aerts et al., 2007) and is found to be less effective in internal networking (Schwartz and Hornych, 2010). This research observed YES Foundation to have difficulties in occupying the offices with young ICT entrepreneurs, which made it vulnerable due to a lack of incoming rents. It therefore diversified by accepting companies outside the initial mission, which is exemplified by the variety in tenant companies in this study's sample. The historical perspective of this study made it able to observe the change of accepting only ICT entrepreneurs to a diversified Incubator. From this perspective, questions can be raised why diversified Incubators choose this strategy.



The focus on youth entrepreneurs in order to reduce youth unemployment is a direct approach to solve this issue, but might not be the best approach. In the Incubator, the entrepreneurs that have hired most of the workers were older than 30 years. These are T6 and T3. Moreover, the youngest entrepreneurs had the most difficulties in growing their business in employees as well as in customers, such as T1 and T7. Finally all the three graduates were aged older than 30 years, but had hired youth to work for them. This is an indirect approach to reduce unemployment among youth, but might be even more effective than aiming directly for youth entrepreneurs.

The basic infrastructure services were valued by the tenants, since having free disposal over basic facilities such as internet and a copier machine made it easier for the tenants. This is consistent and confirmed by Incubation literature (Mian, 1996; Rice, 2002; Peters et al., 2004; Chan and Lau, 2005; McAdam and McAdam, 2008). These are considered to have little impact in developing tenant capabilities (Rice, 2002), but minimizes the challenges of the practical side (McAdam and McAdam, 2008). Literature also states that infrastructure supports tenant survival (Peña, 2004; Rice, 2002), which again is consistent with the data found in this report. Most tenants that were not growing and had little business were still able to survive and keep their businesses in the Incubator. From the services described in Incubation literature only a reception was lacking at YES Foundation. The manager stated that this was not possible due to the costs associated.

### **5.1.3 Business Support Activities**

Business support is the most important aspect of an Incubator's activities (Bergek and Norrman, 2008). However, the most important activities of YES Foundation were not related to the Incubation process and delivering business support, but related to executing EU funded projects. Some tenants received business from these activities, but this can be considered a latent effect. Moreover, it is doubtful whether these activities assist in preparing the tenants for the after graduation period. The dominant reason to focus on executing projects was to generate funds in order to sustain the Incubator. This was necessary, since a lack of sustainable funding had caused financial distress to the Incubator. Rice (2002) stated that financial distress in Incubators results in less time spent for tenant coaching. This finding is consistent, since the Incubator stated that because of the lack of funds its focus was not on the Incubation process. In effect, this finding strengthens the necessity to have reliable funding.

Improving the resource bases through the Incubator's business support activities does not only develop the tenants' resource base, but does also improve the resource base of the Incubator (Aaboen, 2009). The competencies of the Incubator were analyzed to be predominantly on financing options and the persuasiveness to make tenants employ workers. However, the research did not find other competencies that influenced the tenants, despite that there is potential. For example, the highest need expressed by the tenants was sales. The Incubator already gets some business for some tenants, but this might as well be a latent effect from its activities. Explicitly developing a resource base where tenants could benefit from in the area of market entry would build the expertise of the Incubator as well as the tenants.

Whereas the least performing Incubators spent little time on coaching (Rice, 2002), were the best performing Incubators those that spent most time on coaching (Rice, 2002; Scillitoe and Chakrabarti, 2010). In this perspective EC (2002) states that the best manager – tenant ratio is 1:3.2. These findings in literature are consistent with the evidence found at YES Foundation, where little time was



spend on coaching, in which the Incubator claims financial distress as the major cause. However, the findings in this report state that the Incubator did not comply with the manager – tenant ratio advised by EC (2002). The Incubator manager had to coach 17 tenants by himself, whilst it was not his most time consuming activity as well. Furthermore, on the assistance of consultants the Incubator claimed that these were hardly used. This also resembles the impact tenants awarded on process activities. They awarded coaching more than networking for instance. Here the discrepancy of perceived impact of process activities between Incubator and tenants stood out. This is likely due to different degrees of support of process activities to its tenants. For example, some tenants awarded market entry with the highest impact, while others did not notice any impact. Most time the Incubator spent was on execution of projects and arranging the finances. The financial situation had an impact on the Incubation process of YES Foundation, but the Incubator had staff available for coaching purposes.

Especially at the start the Incubator should spend most of the time with the tenant since this will enhance trust (Patton et al., 2009) and is the period where the tenant requires most of the advice (McAdam and McAdam, 2008). Moreover, literature describes the preference for assistance based on perceived tenant needs (Patton et al., 2009; Aaboen, 2009; Ratinho and Henriques, 2010) where Patton et al. (2009) state that the Incubator identifies those needs through investing much time at the beginning. Although that the Incubator provides consultants when the tenants ask for advice, there is no structural needs assessment. However, the Incubator convinced a number of tenants that they could not do everything by themselves and persuaded them to hire a trainee. This had let some tenants see the advantages of hiring employees for their business. This approach can be considered an indirect way where the Incubator uses its expertise to identify the actual needs of a tenant. However, this approach is not structured and does not develop the tenant to build a resource base once it has to survive outside the Incubator influence. However, this approach is to some extent consistent with Patton et al. (2009), since spending time with tenants will gain trust and the Incubator to understand the business of the tenant. However, it is not structured since it is not available to all tenants and raises questions on building a tenant's resource base.

Incubators can offer short term and long term coaching (Rice, 2002), where the inclusion of long term coaching was seen as yielding the best results (Rice, 2002; Peña, 2004; Scillitoe and Chakrabarti, 2010). Long term coaching can be institutionalized through review panels and milestone plans (Patton et al., 2009). YES Foundation has the possession of a milestone plan, but states that it does not use it. The Incubator is obliged to deliver the milestone plans filled by the tenants to its primary stakeholder Sintef. The tenants do not use the milestone plan as a tool to monitor their development. Moreover, the Incubator does not make use a review panel and the tenants are not reviewed or formally appraised during their stay in the Incubator. Short term coaching comprises informal and regular interactions between Incubator and tenant (Rice, 2002; Patton et al., 2009). The Incubator offers short term coaching and according to the tenants these were about once every week, but did not go in depth on their businesses. Moreover, a few tenants were not aware of the coaching service of the Incubator.

For technical knowledge the Incubator often relies on its network, while it provides business advice itself (Hansen et al., 2000; Scillitoe and Chakrabarti, 2010). Furthermore, tenants are helped when the Incubator already has a network where tenants can profit from (Tötterman and Sten, 2005; Warren et al., 2009). In this respect, universities for example can even bring tenants into contact with

customers (McAdam and McAdam, 2008) and provide R&D equipment (Chan and Lau, 2005). YES Foundation did not provide technical assistance to its tenants, although it did have the contacts with the university. This is a part of the Incubator's network that has not been fully developed by the Incubator, which is in line with Hansen et al. (2000) findings that Incubator sometimes come short in organizing their business network. However most tenants in the sample were not technically sophisticated and might not need the contacts with the university. Furthermore, the Incubator stated that his commercial consultant network was not much used, but evidence suggests that the network of consultants performed advices for at least some of the tenants, although tenants such as T2 and T8 preferred to use their own consultants. The consultants delivered advice which for example T7 and G1 awarded, but these tenants stated some contradictory advices as well. However, with respect to consultants that focused on business advice it is questionable whether these consultants provided advice that the Incubator was not able to deliver. Most of the tenant businesses do not have that sophisticated ideas that require thorough and specific market knowledge.

#### **5.1.4 Graduation Policies and Exiting Non-Performing Tenants**

The most important effect of review panels was the removal of non-performing businesses that in return opened up space for new business ideas (Patton et al., 2009). An argument that is consistent with that of Peña (2004). However, the Incubator did not remove non-performing tenants. The Incubator stated that this was due the fact that incoming office rents were necessary for the financial situation of the Incubator combined with an empty new tenant pipeline. However, structures for the appraisal of tenants had not been institutionalized. In YES Foundation the responsibility to take the decision for removal from the Incubator was solely the Incubator manager himself. This will put a burden on the shoulders of the Incubator manager and might not be a structure that allows to objectively appraise the performance of the tenants. After all, the Incubator manager and tenants work every day in the same building. A review panel as observed by Patton et al. (2009) might be a more objective measure the tenant performance.

Graduation rates are seen as a good measure to appraise Incubator outcome performance, since these are relatively politically safe (Hackett and Dilts, 2004b; Peters et al., 2004). In YES Foundation however, graduation policy was politically inflicted to some extent. From the initial five year Sintef program only three years were left for operating the Incubator due to the search for infrastructure. As a result, a fixed term graduation policy was chosen. However, fixed term graduation might not be beneficial (Rothaermal and Thursby, 2005), and can result in graduating tenants when they are not ready for it (Hackett and Dilts, 2004b) having different resource bases (Aaboen, 2009). YES Foundation graduation results therefore can be politically inflicted. However, the analysis revealed that up to August 2010 only three graduates had been counted, namely those that were able to grow their resource base. This provides some support for the argument of Peters et al. (2004) that Incubators do not count tenants that just had 'done well' in their graduation rates. However, the usage of graduation rates might be contaminated by environmental factors, such as country and culturally specific factors that have an influence on graduation.

#### **5.1.5 Functioning of the Tenant Network**

The tenant network is considered an important part of Incubation (Tötterman and Sten, 2005), although some authors do not see a positive contribution of the tenant network (Chan and Lau, 2005; Warren et al., 2009). Some of the YES Foundation tenants tried to establish a collaboration, of which one actually succeeded. However, there was also a case that did not succeed due to a lack of

trust between the two tenants, although this collaboration looked promising. Furthermore there were also two tenants that absolutely did not want to collaborate, since they were in the same e-commerce business with business models closely related. These findings provide some support for the argument of Schwartz and Hornych (2010) that tenants too closely related are not beneficial for tenant networking. However, the other relations seemed promising, since these were complementary, which is consistent with Incubation literature (Tötterman and Sten, 2005; Schwartz and Hornych, 2010).

A lack of trust and fear that business ideas will be stolen has been described more often in literature (Chan and Lau, 2005; Bøllingtoft and Uihøi, 2005; Hughes, 2007; Warren et al., 2009; Schwartz and Hornych, 2010), but in this perspective the potential mediating role of the Incubator has been described as well (Peters et al., 2004; Tötterman and Sten, 2005; Patton et al., 2009; Schwartz and Hornych, 2010). However, the Incubator manager at YES Foundation did not intervene or assist in the development of the collaboration. This is a finding consistent with Incubation literature that state Incubators to have limited ability to realize these collaborations (Peters et al., 2004; Schwartz and Hornych, 2010). Furthermore, most tenants pointed out that the Incubator could not be seen as a quasi-partner (Rice, 2002), which might assist the Incubator in identifying fields of collaboration between tenants. Furthermore, the design of the Incubator seemed to create a split between tenants from the one side and the other, which provides some support for the necessity to have a well designed Incubator facility (Tötterman and Sten, 2005; Bøllingtoft and Uihøi, 2005).

#### **5.1.6 The Value of Trainings**

Trainings are subject to some controversy in Incubation literature, since differing views on this subject exist. Positive findings state that trainings increase the number of graduates (Peters et al., 2004), have a positive influence on tenant employment (Peña, 2004) and are generally considered as valuable by tenants (Tötterman and Sten, 2005). However, literature has a more negative stance on trainings as well, since trainings were considered time consuming by tenants (Tötterman and Sten, 2005) and lack specificity (Wright et al., 2004). Findings on attendance differ greatly as well, since Mian (1996) reports 80% attendance rates, but findings also state that trainings are hardly visited (Rice, 2002; Warrant et al., 2009). At YES Foundation, attendance rates were very low. The tenants considered trainings as important, but not important enough to give priority to these trainings. Instead, daily operations were considered more important, whilst some tenants indicated that the trainings could improve in quality as well.

The Incubation literature on trainings combined with the results in this study does not bring an end to the controversy around the value of trainings, but might enhance this controversy even more. A possible explanation about the differing rates and perceptions on trainings might be handed by Incubation literature already, since Warren et al. (2009) suggests training goals should be set and linked in the review process and taken up in milestone plans. This study did not notice a specific policy in organizing trainings, something which has been observed by Rice (2002) as well. Including training goals in milestone plans can give trainings the legitimacy it currently lacks and create tenant awareness with tenants, since they are directly linked to their performance appraisal. However, this does not provide a solution to the quality issues emphasized in literature (Wright et al., 2004) and stated by some tenants in this study.

### 5.1.7 Financial Services and Perception of Tenants

Most Incubators partner with local banks, aim to reach government funds and some Incubators have contacts with venture capitalists (Grimaldi and Grandi, 2005; Tötterman and Sten, 2005; Chan and Lau, 2005). YES Foundation has contacts as well to provide tenants with funding, such as beneficial loans and a government grant. However, tenants at the Incubator did not have any issues with obtaining finance although not many tenants made use of the Incubator facilities. Obtaining finance often is difficult for small firms (Michaelas et al., 1999; Cassar, 2004; Shane, 2002) and even described as the most important reason to doubt whether a tenant expects to succeed with its business or not (McAdam and McAdam, 2008). The contradiction might have different causes. It might be culturally influenced, since McAdam and McAdam (2008) execute their research in the USA. Furthermore, it can also be that the infrastructure of the Macedonian Incubator attracts tenants that do not have the ambition to grow. However, most tenants in YES Foundation are worried about the risks associated with obtaining external finance. Concerning infrastructure and financing again, the infrastructure is likely not to attract large start-ups with high tangible resources. However, Cassar (2004) states that financing is more likely when start-ups are large and have substantial tangible resources. This reasoning seems logical for the disinterest of Bulgarian investors in T1's virtual assistant and might be valid for most of the tenants in the Incubator.

Although that the YES Foundation tenants did not express the need for external financing, the Incubator still wanted to develop its financing possibilities through executing a large research on financing in the Balkans and with the development of an angel network. Aernoudt (2005) states that angel networks are often underdeveloped, which is consistent with the Incubator's reason to found one. However, the tenants did not express the need for external financing, but still the Incubator's focus is on increasing the financing possibilities. This is contradicting with the stance that an Incubator should aim to address the needs of a tenant (Aaboen, 2009; Ratinho and Henriques, 2010). An explanation for this might be the Incubator's financial background, since it has its interest. It might also be the larger environmental field, since the Incubator stated that obtaining finance is a difficult issue in the Balkans.

## 5.2 Discussion Summary

The analysis has revealed that the Incubator is in financial distress, which makes it hard for an Incubator to perform. Rice's (2002) research findings concluded that those Incubators performing the least claimed financial distress to be the main cause. A plausible explanation, since YES Foundation developed additional activities as well in order to be able to continue operations. Thereby, the additional activities became the dominant operations within the Incubator, which is likely to have had an effect on the quality of business support. Analysis on the outcomes and development of the Incubator's tenants reveal that most are not growing. Some are growing marginal, having one or two employees.

This discussion section has revealed numerous relations between the various factors, but two factors stand out as the main causalities, namely stakeholder support and long term coaching. Stakeholder support, or better its lack affects most of the factors of the Incubation concept including the coaching activities of the Incubator. However, it might be as well that coaching and especially long term coaching can have a causal effect on stakeholder support as well. At first, stakeholders support was limited which was exemplified in unreliable funding, lack of cooperation in the search for an Incubator and not actively participating in the Incubator's advisory board. Moreover, in the broader perspective of the Balkans OECD (2009) emphasized that most Incubators were not included in national strategies, but were mere ad hoc initiatives. Although that the lack of inclusion of stakeholders caused the Incubator difficulties, it also did not provide extra reasons to the stakeholders to provide support, since it has not developed its resource base that brings an extra added value to the development of Macedonian entrepreneurship.

An analysis of the primary activities of the Incubator shows that most activities are centered on the EU projects and that the best developed business support factor is the financial network. However, no other distinctive competencies could be distinguished on which the Incubator accelerates. Other services were offered, but were only slightly awarded by the tenants. From this perspective, the Incubator is not likely to convince the stakeholders that already showed a lack of interest, of the righteousness of the Incubator. This reciprocal effect perhaps is the upside down approach, but since the importance of stakeholder inclusion is pivotal, might be the best way for YES Foundation to gain more legitimacy. In this, Incubator expertise is likely to play an important role as well. The Incubator already made companies grow through his advices, but these business support activities could be much more enhanced and structured.

A structured approach towards process activities will influence much of the factors within the Incubation concept. For instance, the implementation of a review panel, milestones and strong assistance at the start of the Incubation period might not only create clarity for the tenant, but assists in improving other factors as well. This Incubator's funder Sintef required feedback of the development of the tenants where they invested in. A structured approach will guarantee that. The review panels will influence the graduation factor, since non-performing tenants will leave the Incubator opening up space for new business ideas. Furthermore, the process activities are intertwined, which means that when the Incubator manager or staff is highly familiar with a tenant, it is easier to set the right training goals and might even make the search for partners easier.

A lack of stakeholder support could theoretically be assigned to Incubator expertise as well, since the Incubator's network was not strong enough to swiftly resolve the issues with the Macedonian

government. However, the final location and building is a direct consequence of the network, since a government acquainted was responsible for this. The contact with Sintef proved hard as well, but involvement from the main funder from the start should not be dependent upon the qualifications of the Incubator. The university has helped the Incubator from the start providing infrastructural arrangements in order to overcome the absence of the Incubator building. However, it is likely that the university was only used for practical activities, and that an integration of the university and thereby its network and expertise was not considered.

Considering the influence of the stakeholder support factor, the Incubator mission was hard to realize, since the infrastructure might not have attracted the entrepreneurs that the Incubator aims for. In extension, this would have had an effect on selection procedures, which combined with limited funds for promotional activities do not attract the quality pipeline of new business ideas. The question is what the Incubator could have done in order to increase this number, or that the initial strategy had been too small to attract a quality pipeline. The suggestion that the graduate tenants were all over 30 years of age but had hired youth makes it worthwhile to investigate whether its strategic focus should be broadened. After all, it does not matter whether youth unemployment is reduced by business owners or by workers.

## 6. Conclusions and Recommendations

This chapter concludes the findings of this report through answering the research question, enabled through the findings earlier in the report. Moreover, recommendations for the Incubator are presented. Next to the implications and possibilities for future research, this study incorporates the limitations of this study as well.

### 6.1 Conclusions

In order to be able to have a full overview, the research question is stated in the highlighted area.

What factors enable Business Incubation support to function and how do these relate to each other?

Incubation literature is not unanimously convinced of the value of Incubators and found evidence of Incubation's contribution to job creation and regional development (Reitan, 1997; Roper, 1999; Robson and Bennett, 2001; Rice, 2002; Aernoudt, 2004; Peña, 2004; Tamasy, 2007; Ratinho and Henriques, 2010). However, a number of these authors also found some Incubators stand out in a positive way (Roper, 1999; Aernoudt, 2004; Rice, 2002; Ratinho and Henriques, 2010) and authors that are generally positive (Hackett and Dilts, 2004b; Scillitoe and Chakrabarti, 2010). This study has found a number of factors through analysis of a single case study that revealed a number of factors that can influence the performance of an Incubator.

Generalization of this study's results falls within the limitations of the single case study, although on some aspects a strengthened claim is possible. A lack of stakeholder support and consequential financial distress have been mentioned before (Rice, 2002), but not on beforehand of a project start. Moreover, this claim is strengthened by findings of the OECD (2009), although it is not clear what the basis for their findings is. The study's findings also confirm that it is likely that an Incubator in financial distress will shift focus from assisting tenants to operations that directly contribute to continuation of the Incubator as an entity, thereby decreasing the quality of the Incubation process. Moreover, an Incubator may change strategy from the more vulnerable specialized strategy to a more generalized mission in order to be able to occupy the Incubator with tenants.

The most dominant factor in this research is stakeholder support, since it influences the functioning of many factors. It negatively influenced the fulfillment of the Incubator mission, since the Incubator was not provided with a suitable infrastructure facility. This in turn made it hard to attract the right tenants. As a result of the lack of a quality pipeline selection procedures could not become operational, graduation criteria were politically influenced in order to be able to show quick results and the Incubation process factors suffered from the focus on rent generating activities, such as the EU projects. The evidence states that the lack of stakeholder support is explained due to not being included into a national program, but that the project is an ad hoc initiative from Sintef, consistent with the finding of OECD (2009). The Incubator was not able to make the stakeholders have a larger contribution, which might be caused due to a lack of experience and network in this area. However, it is not likely that the Incubator manager will be able to alter a national strategy and include the Incubator in such a strategy, since it probably is too small to have an influence on this inclusion.

Process activities, long term coaching in particular, could have been implemented in a more structured way, but suffered from the additional deployed activities as well. Evidence suggests a discrepancy between impact between tenants, which might be caused by too little capacity to support all tenants. Evidence shows that the Incubator has booked some successes in their process activities, but evidence suggests that long term coaching characteristics were hardly implemented and that short term coaching has been implemented, although troubled by the additional activities.

Perhaps the largest effect stakeholder support had, was on the process activities. Although that without predictable financing the Incubator should have set up structures for a more systematic approach of coaching, this does not take away the fact that financial distress will have had a large impact on the potential functioning of the Incubator. However, this distraction might have made the Incubator's position worse, since Sintef already requires milestone plans that monitor tenant progress. In extension, it might be that the proper handling of the milestone plan might have had an effect on the stakeholder support as well.

This study considers Incubator expertise not as a factor of considerable impact, although there is room for discussion. The evidence suggests that it was hard to avoid the issues with stakeholder support and the consequential search for a suitable facility. It does not seem plausible that the Incubator is the person to arrange the relationship between the funding Sintef and the Macedonian government. However, one could consider Incubator expertise as a crucial factor in setting up a structured approach towards process activities. However, another plausible explanation that Sintef's involvement in the implementation of the Incubator should have been greater.

The infrastructure was due to the long search for a suitable location too small and therefore does not make the Incubator self sustainable. The Incubator offered the basic services, but the design of the Incubator seemed to create a split in the networks of the tenants. The tenant network then was not actively guided by the Incubator. It yielded a good collaboration, but also saw a collaboration end due to a lack of trust.

The business network did not seem to be affected by the Incubator's issues, but a discrepancy was noted in the university network, where the Incubator does not make use of the technical expertise of the university. The financial network is considered as the best developed factor, which might be explained by the factor Incubator expertise. Previous working experience but the tenants in the sample stated that this was the area where they needed the least support.

Although the tenant network and trainings noted some activity, these are not considered as the factors with the highest impact. The tenant network noted some attempts for collaboration, but there was no evidence of relationships between companies that have succeeded. Attempts between tenants have been made, but finally these attempts failed. The Incubator was not involved in creating these networks, although it might be helpful for establishing a basis of trust between the tenants. The trainings in this study were considered valuable, but were hardly visited. It is likely that the tenants preferred daily operations over the trainings. It must be said that the trainings were not



included in a structured approach. However, these two factors were for this Incubator not the factors that had the most impact.

## 6.2 Recommendations

The specialized mission the Incubator pursued proved to make YES Foundation vulnerable, a finding consistent with Aerts et al. (2007). Therefore it is proposed that the Incubator broadens its target group. It is recommended that as well the factor 'age' as 'industry' is broadened. One of the targets of the Incubator is to reduce unemployment among youth, but this can also happen through entrepreneurs that hire employees as they grow. After all, results among the Incubator tenants show that the dominant working force consists of young employees. YES Foundation should attract starting companies that are complementary to each other, since this can increase the chances for beneficial tenant networks (Schwartz and Hornych, 2010). Furthermore, a broader target group focus will be beneficial, since the Incubator faces issues with regard to a quality pipeline of new tenants, which is a necessity to have successful Incubation (Patton et al., 2009). Consequently, this will increase the chances to successfully follow the already present selection procedure format provided by Sintef, which is an approach recommended in literature as well (Lumpkin and Ireland, 1988; Hackett and Dilts, 2004b; Aerts et al., 2007).

The YES Foundation Incubator has suffered from a lack of stakeholder support that already originated before it opened its doors. The lack of stakeholder support is the most dominant cause for the issues of financial distress of the Incubator, which has been exemplified in most factors. Financial distress already rose at an early stage at the Incubator, since Rice (2002) and Hackett and Dilts (2004b) state an Incubator has to justify its existence through showing results. In order to resolve these issues it is recommended that the Incubator strengthens its relation with its stakeholders and, following Ratinho and Henriques' (2010) argument, improve its expertise of the profile of politician. However, this might turn out to be hard, since the lack of support was eminent from the start. It might be a better approach to develop capabilities that will convince the stakeholders of the righteousness of the YES Foundation Incubation concept. Another possibility is to pursue the inclusion of YES Foundation in a Macedonian national entrepreneurship strategy, although it does not seem plausible and likely that the Incubator is able to achieve this.

Business support is the most important activity of an Incubator (Bergek and Norrman, 2008), but although it should be business support was not the Incubator's most important activity, which was claimed due to executing EU projects as a result of financial distress. However, in order to be able to influence the stakeholder support the Incubator should consider to strengthen its coaching activities. It should especially consider to improve its long term coaching, since this is seen as yielding the best results for an Incubator (Rice, 2002; Peña, 2004; Scillitoe and Chakrabarti, 2010). Eventually, the Incubator will increase its own resource base through developing tenants (Aaboen, 2009) which in turn can bring extra legitimacy to its stakeholders.

The Incubator had a well developed financial network offering beneficial loans and aiming for government grants, which is consistent with (Grimaldi and Grandi, 2005; Tötterman and Sten, 2005; Chan and Lau, 2005). However, the tenants did not express the need for obtaining finance, which contradicts the theory that states the importance of business assistance on perceived tenant needs (Patton et al., 2009; Aaboen, 2009; Ratinho and Henriques, 2010). Therefore it is strongly recommended that uncovering these needs is the starting point of the Incubation with all tenants.

The uncovering will be a process where the Incubator spends much time as a tenant enters the Incubator which is likely to create mutual trust between tenant and Incubator (Patton et al., 2009). In extension, business assistance should be particularly strong at the beginning of a tenant's Incubation period (McAdam and McAdam, 2008; Patton et al., 2009).

Long term coaching can be institutionalized through milestone plans and review panels (Patton et al., 2009) and consists of assessing development needs continuously (Rice, 2002). The milestone is advised to contain the development goals of the tenant that were identified in the meetings with the Incubator. They can serve as well to include tenant training goals, so that tenants can be appraised on attending these trainings and developing the specified skills (Rice, 2002; Patton et al., 2009). Moreover, the review panels will serve to remove non-performing tenants from the Incubator so that they can make place for new business ideas (Patton et al., 2009), which is seen as important by Peña (2004) as well. Moreover, this structure prevents the Incubator from taking this decision, which is considered beneficial as well.

The trainings of YES Foundation are hardly attended, a finding consistent with Rice (2002) though conflicting with Mian (1996). Furthermore, the trainings were not integrated in a general approach, such as inclusion in the milestone plans and tenant goals, which is advised by Rice (2002) and Warren et al. (2009). It is therefore recommended that training goals should be aligned with the milestone plans that are already available to the Incubator. Literature sees training appraised as valuable (Peña, 2004; Peters et al., 2004; Tötterman and Sten, 2005) which the Incubator's tenants stated as well, although the trainings were not valuable enough to actually visit them frequently. However, some tenants raised their concerns about the specificity of the trainings, consistent with literature as well (Wright et al., 2004). These findings suggest that the quality of the trainings should be examined. Furthermore, offering trainings by itself, instead of outsourcing might yield an extra Incubator competence.

It is recommended that the Incubator enhances its business networking activities through aiming at other networks. From this perspective, it is recommended that the Incubator develops business networks outside Macedonia that will finally allow tenants to do business through exporting their products to the respective networks that the Incubator has developed. This might develop into a competence that makes the Incubator attractive. Moreover, the Incubator is able to develop such a network, since it already has been founded by a Norwegian organization. This is important since tenants are helped if the Incubator already has a network for these purposes available (Tötterman and Sten, 2005; Warren et al., 2009). It is also recommended that the Incubator decreases the use of consultants for activities such as SWOT analysis and business advice, since executing this in-house will yield extra competencies of the Incubator. Moreover, this is also necessary if the Incubator wants to develop the tenant needs at the start of their Incubation period. For that purpose, the span of control should be decreased as well, so that the Incubator has time available for the coaching. The span of control should therefore approach the advice of the 1:3.2 manager – tenant ratio (EC, 2002). A final note is that the Incubator is recommended to strengthen the networking ties with the university. This would then be consistent with literature that observes Incubators making use of technical expertise of universities (Hansen et al., 2000; Scillitoe and Chakrabarti, 2010). Perhaps tenants might get business through the university as observed by Chan and Lau (2005).

Incubation literature states that internal networks are an important part of Incubation (Tötterman and Sten, 2005), although no positive contribution was observed as well (Chan and Lau, 2005; Warren et al., 2009). However, most Incubators were found to have limited ability to realize tenant collaborations (Peters et al., 2004; Schwartz and Hornych, 2010), despite its potential mediating role is understated (Peters et al., 2004; Tötterman and Sten, 2005; Patton et al., 2009; Schwartz and Hornych, 2010). The Incubator did not mediate or guide the process towards collaborations, although he identified some collaboration potential. It is therefore recommended that the Incubator should actively mediate in the process towards successful collaboration. This might prevent the creation of lack of trust and tenant fear that ideas will be stolen, which is commonly observed in Incubation literature (Chan and Lau, 2005; Bøllingtoft and Uhløi, 2005; Hughes, 2007; Warren et al., 2009; Schwartz and Hornych, 2010).

The Incubator facility of the Incubator yields 600 m<sup>2</sup>, although Incubation literature advises facilities to be at least 3,000 m<sup>2</sup>. It is therefore recommended that the Incubator searches for a facility that meets this criterion. Furthermore, the Incubator most of the basic services as described in Incubation literature (Mian, 1996; Rice, 2002; Peters et al., 2004; Chan and Lau, 2005; McAdam and McAdam, 2008). Only a receptionist could further improve the basic facilities of the Incubator. The design of the Incubator seemed to create a split between tenants from the one side and from the other side. In the search for another facility the Incubator should be aware of design of the Incubator, since a well designed Incubator might enhance tenant networking interactions (Tötterman and Sten, 2005; Bøllingtoft and Uhløi, 2005).

Finally, it is recommended that the Incubator changes its graduation policies from the politically inflicted fixed term graduation to a case-by-case approach. Rothaermal and Thursby (2005) state that a fixed term graduation policy might not be beneficial. The reason for this is that tenants can graduate when they are not ready for it (Hackett and Dilts, 2004b) since they are likely to have different resource bases (Aaboen, 2009).

### 6.3 Further Research

The Incubator overall aim was to contribute to regional development through job creation. This is consistent with Incubation literature (Mian, 1997; Aernoudt, 2004; Hackett and Dilts, 2004b; Peña, 2004; Aerts et al., 2007). However, the YES Foundation Incubator was initiated and funded by an organizational organization, which has only been stated by Aerts et al. (2007). Other researchers did not observe this construction (Mian, 1997; Hackett and Dilts, 2004b; Aaboen, 2009; Ratinho and Henriques, 2010). It is therefore recommended that future research takes into account this possible construction as well.

The founding of Incubators by international organizations is particularly interesting, since the results show that the Incubator was not institutionalized and therefore suffered from a lack of stakeholder support. This finding had been observed as well by OECD (2009) who states that most Balkan located Incubators are ad hoc initiatives that are not included in a national strategy. This finding is generalizable although future research is necessary to confirm this finding in other Balkan located Incubators.

Generally graduation rates are not considered politically inflicted and might be used for appraising outcome performance of Incubators (Peters et al., 2004; Hackett and Dilts, 2004b). The results at YES Foundation show that it did only include those graduates that had actually been able to grow their

businesses. It did not include ex tenants that had been able to survive, but had not been able to grow their businesses. Although this provides some support for including graduation rates further research is necessary to further strengthen the legitimacy of this measure.

## 6.4 Research Limitations

The limitations of this research are related to the exploratory location of this study and factors related to the design of this study.

### *Single case study*

Although Yin (2009) argues that case studies do not necessarily are limited on generalizability, this study acknowledges some issues to take into consideration. The factors identified from Incubation literature and can be generalized. However, the causalities between the various factors can differ from Incubator to Incubator, and caution is advised in generalizing these causalities. However, this does not mean that the causalities found are not generalizable, but caution here is advised.

### *Viewpoint of the stakeholders*

Although that the most important conclusions aims at a lack of stakeholders support, the stakeholders themselves have not been interviewed due to practical limitations. However, the claimed lack of stakeholder support has not been verified at the stakeholders. The conclusions are drawn based on the Incubator's perception and based on analysis of the historical path of YES Foundation.

### *The Tenant Sample*

Since this study is not longitudinal in nature, it has been able to study just one group of entrepreneurs. Moreover, it was not able to track the development of the tenants for a longer period of time or to track more tenants, which a longitudinal study would be able to do. As a result, explanatory variables such as the quality of tenants might differ every half a year, but this effect can be countered by a longitudinal study. However, the identification of the factors and how the Incubator has organized its Incubation process do not necessitate the use of a longitudinal study. For example, the perceived impact of business support activities already revealed insights in the differences between tenants and Incubator. However, a longitudinal study design of one or two years would allow monitoring the impact of coaching activities directly.

### *Difficulties in Incubation Process Activities and Analysis*

The impact of the Incubation process cannot be generalized. Although that Incubators more often do not fully deploy the possible coaching activities (long term coaching), which is a generalizable finding, the exact impact of the Incubator on a tenant could not be identified.

### *Location of Macedonia*

The location of this research is uncommon in Incubation literature. In this perspective the findings with respect to the regional characteristics, namely the support of West-European NGOs and the lack of external financing, are hard to generalize. Further research is therefore necessary to find evidence regarding these topics.



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# Appendix A: Interviews Incubator and Tenants

## *Interview Incubator YES Foundation*

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### 1. Introduction

This interview is for the assessment of the Business Incubation Concept as it is implemented at YES Incubator. With your permission the interview will be recorded. The reason for this is to be able extract the data with the greatest caution and that we later can agree on what was said. The recordings and data can be made privately and anonymous if you prefer this option.

When the data is developed, we will plan a review in order to form consensus of the collected data. This meeting will also give you the opportunity to add elements you may have forgotten. Interpretation is up to me and my research.

Before we proceed, do you have any further questions?

1. Can you tell me something about yourself?

- Level of Education
- Working Experience
- How long in the Incubator

### 2. Selection of Tenants

#### 2.1 Goal of the Incubator

1. Who are your shareholders?

2. Is YES Incubator connected to a university? If yes, how are you connected?

3. Only if aimed at a single technology: What measures do you take to reduce vulnerability of focusing just on one technology?

4. What is the overall goal of the Incubator?

5. How do you measure whether or not you succeed in reaching the overall goal?

6. Does it consist of / have you considered the following/

- Number of firms exiting the incubator (graduating)
- Number of firms discontinuing operations while still as a tenant
- Firm growth, and if so, how are these measured. (als ja, hier later (2.3) op terugkomen en na gesprekken met tenants
  - o Number of jobs created
  - o Development measures, such as product innovation, quality of management team, and strategic alliances consummated

## 2.2 Selection of tenants

1. Do you experience difficulties in filling your incubation facility with tenants of your choice?

*In question 2 we presume two possible scenario's in filling the facility with tenants. Both answers should be answered, because a BI should have plans for both scenarios.*

2a. On what basis do you decide whether or not you accept a tenant? In case demand of potential tenants for facilities exceeds supply. Please give examples.

2b. On what basis do you decide whether or not you accept a tenant? In case demand of potential tenants for facilities is limited. Please give examples

3a. (in case 2a results in no balanced selection) Can you think of better methods for selecting tenants?

3b. (in case 2a results in a balanced selection containing the items market, management, profitability and financial as proposed in the literature review) How do you make the final decision of selection a potential candidate?

4. (elaborating on the important item management) What do you see as the most important characteristics in entrepreneurs and do you select them on these characteristics?

- Higher Education Level
- Business Management Experience
- Combination of these with former capitalization of ideas in previous jobs

4a. If selection on these characteristics; Why do you select them this way? How do you relate that to the concept of Incubation which is devoted to the development of knowledge and resource gaps?

5. Who selects the tenants in YES Incubator? Have you considered doing this in conjunction with market specialists and other experts?

6. Are there any other ways of selecting tenants? I heard something about a Business Plan contest?

### **3. Business Incubation Process**

#### **3.1 Infrastructure**

1. Which of the following services do you offer?

1a. With what purpose do you offer them?

- Use of equipment (copier, fax machine, internet)
- Shared facilities (conference room, lunch room)
- A lab
- Other,

2. Does offering these services reduces cost for the tenants?

3. Does offering these services will have a positive influence of the results and performance of the tenants? In other words, does it help them with their business?

#### **3.2 Coaching**

1. How do you allocate your time during coaching? Meaning overall time per week available for coaching. Also please give an estimate number of hours per week.

2. What is the nature of coaching? Meaning what subjects are talked about? Do you focus on problems?

3. What is the frequency of the visits?

4. What is the intensity of the visits? Meaning hours/intervention episode

*Survey*

5. Which of the following business assistance do you offer and please grade them by impact. (0=little or no impact; 1=some impact; 2=significant impact; and 3=critical impact; no response=assistance not provided).

	<b>Coaching</b>	<b>Trainings</b>	<b>Networks</b>
<b>Accounting/tax assistance</b>			
<b>Legal/patent services</b>			
<b>Business plans/strategic planning</b>			
<b>Advice about team building</b>			
<b>Financial Management (cash flow/general)</b>			
<b>Sales/marketing/international trade</b>			
<b>Government procurement contracts</b>			
<b>Employment assistance</b>			
<b>Assistance with government grants and loans</b>			
<b>Incubator revolving loan fund</b>			
<b>Incubator seed capital fund for tenants</b>			
<b>Assistance to gain outside debt financing</b>			
<b>Assistance to gain outside equity financing</b>			

5a. If there are others, please note.

6. How do you consider the impact of trainings on the tenants? Do you have a list of all the trainings held for tenants in the last 2 months?

7a. Do you offer coaching when the tenant requests for it? Please state examples and relate this to the specific companies. Who are involved of your employees?

7b. Is the coaching under 7a the only coaching you provide? Please state examples

### 3.3 Networking

The previous chapter already highlighted in the survey instrument networking probabilities. This section elaborates further on networking.

1. Based on the figures in the survey instrument, where do you see networking as a crucial factor? Please give examples.

2. Are there any shortcomings in your business assistance that are not resolved by your network? Please give examples

- Institutional network
- Financing business consulting
- Government / local community support

3. Are you satisfied with the contributions of the know-how network? Please order them (according survey) and give examples.

4. Do you promote inter tenant networking?

5. Do you think that they can be of more assistance to each other?

### 4. Graduation and Performance

1. On what criteria do you graduate your tenants?

- Profitability
- Income levels
- Deadlines given by incubator (such as 3 years)
- Increase of rents of non-performing start-ups
- Sustained competitive advantage

2. Do you experience difficulties with your criteria for graduation? If so, can you think of alternatives.

3. Have you heard of the Resource Based View? If so, please elaborate. Also if it is implemented, how is it implemented.

4. Do you test whether or not tenants on a continual basis if they are closing knowledge gaps?

5. Another line of question: Did you experience entrepreneurs that were growing in a way that eventually they needed different types of resources as in the beginning? For instance assembling a management team.

### More insight in tenants

1. Please give me a detailed description of the following tenants:

- T1
- Cad-Inc
- T6
- T3
- Cas-Studio
- T2
- T5
- T8

## **1. Introduction**

This interview is for the assessment of the Business Incubation Concept as it is implemented at YES Incubator. With your permission the interview will be recorded. The reason for this is to be able to extract the data with the greatest caution and that we later can agree on what was said. The recordings and data can be made privately and anonymous if you prefer this option.

When the data is developed, we will plan a review in order to form consensus of the collected data. This meeting will also give you the opportunity to add elements you may have forgotten. Interpretation is up to me and my research.

The structure of the interview: First, I'd like to get some insights of you and the company so that I know what keeps you busy. Second, we'll assess how YES Foundation delivers services to you. It is important that in that process you report your experiences. Third, we'll assess through the Resource Based View your company and see what you are doing well and where there is room for improvement.

Before we proceed, do you have any further questions?

1. Can you tell me a little about yourself?

- Age
- Level of Education
- Working Experience
- Prior start-up experience

1. How long is the company in the incubator? Why did you decide to start your business in the incubator?

2. What was the reason to start with your company? Who is the decision maker in the company?

3. What was the basis, the initial business concept, of your company?

4. Is your company profitable?



5. If answered 4 negative; is your company growing towards profitability?

6. Is your company growing in terms of revenue and/or clients? (how much)

7. Is your company growing in terms of number of employees?

7b. Is it your ambition to grow the company in terms of number of employees?

8. What do you consider to be your core competences? (Core competences are those that your competitors do not possess, are valuable, inimitable and non substitutable)

9. Are these the same competences as the ones you started with?

10. Did you change your initial strategy?

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The table under describes the most common problems start-up companies face. Please state how you experience these potential difficulties and also address why.

<b>My company has most problems with the following issues:</b>	<i>Severe problems</i>	<i>Problems</i>	<i>Small problems</i>	<i>No problems</i>
1. Sales and Marketing of their products				
2. Acquiring External Finance (equity, bankloans etc)				
3. Internal Finance (cash flow management etc.)				
4. Product development				
5. Production				
6. General management				
7. Human resource management (hiring employees etc)				
8. Economic environment				
9. Regulatory environment				
10. Other,....				

11. How have these problems, if any, developed since the beginning of your start-up?

12. What role did the incubator play in solving these problems (if problems have occurred)? Did the incubator provided help with helping these problems?

13. Do you keep track of your development? How?

14. Does the Incubator keeps guidance of your achievements and development? Why and if so, how?

## **2. Business Incubation Process**

### **2.1 Infrastructure**

1. What was your reason to go to the Incubator?

2. Which of the following services do you use?

2a. With what purpose do you use them? Why?

2b. Do you think these services contribute to your business? Why?

- Use of equipment (copier, fax machine, internet)
- Shared facilities (conference room, lunch room)
- A lab
- Other,

13. Does the design of the incubator contributes to your business? Why?

### **3.2 Coaching**

1a. Do you follow trainings? Why?

1b. How do you consider the impact of trainings?

1c. Is any of these trainings (make preselection from information of incubator) a subject of use to you?

2. What is the allocation of time during coaching visits? Meaning overall time per week you receive coaching. Also please give an estimate number of hours per week.

3. What is the nature of coaching? Meaning what subjects are talked about? Do you focus on problems?

4. What is the frequency of the visits?

5. What is the intensity of the visits? Meaning hours/intervention episode

6. Is the Incubator helpful when you ask for assistance?

7. What is the best source for improving skills, trainings or coaching?

8. Are you satisfied with the assistance you get and does it fulfill all your needs?

#### *Survey*

5. Which of the following business assistance do you receive or attend, and please grade them by impact. (0=little or no impact; 1=some impact; 2=significant impact; and 3=critical impact; no response=assistance not received).

	<b>Coaching</b>	<b>Trainings</b>	<b>Networks</b>
<b>Accounting/tax assistance</b>			
<b>Legal/patent services</b>			
<b>Business plans/strategic planning</b>			
<b>Advice about team building</b>			
<b>Financial Management (cash flow/general)</b>			
<b>Sales/marketing/international trade</b>			
<b>Government procurement contracts</b>			
<b>Employment assistance</b>			
<b>Assistance with government grants and loans</b>			
<b>Incubator revolving loan fund</b>			
<b>Incubator seed capital fund for tenants</b>			

<b>Assistance to gain outside debt financing</b>			
<b>Assistance to gain outside equity financing</b>			

### 3.3 Networking

1. Which kind of networks do you use? Who established them and who is using them.

1a. Institutional (contacts with the universities )

2. Inter tenant network

2a. How many tenants do you usually discuss with?

2b. How many tenants do you know?

3. Do you make use of external financing?

2a. How often do you network together with the incubator.

## Appendix B: Tenant and Incubation Process Data

### Tenants Conforming to the Incubator Strategy

Aged < 30 years and IT	Not positioned in IT	Aged > 30 years
<b>3</b>	<b>10</b>	<b>6</b>
Byte	Osteta	T5
T2	SI Communications	T4
Agri Info	EU Consulting	Brand Online
	Etcetera	Ice Labs
	Consulting Mac.	New Media
	T1	T6
	T8	
	T7	
	Roma Research	
	T9	

These display the results for the tenants to identify whether or not they conform to the Incubator mission as displayed in figure 5.

### Tenant Questionnaire Results

	<b>Avg</b>	T2	T6	T5	Cas- Studio	T1	T8	CM	T4
Sales and Marketing	<b>2,13</b>	3	2	1	1	3	2	2	3
Acquiring External Finance	<b>0,63</b>	0	0	0	1	2	0	0	2
Internal Finance	<b>1,25</b>	2	1	1	2	2	0	0	2
Product Development	<b>0,75</b>	0	1	0	2	2	0	0	1
Production	<b>0,75</b>	0	1	0	2	2	0	0	1
General Management	<b>1,88</b>	3	2	0	2	2	1	2	3
Human Resource Management	<b>1,75</b>	3	2	0	2	1	2	2	2
Economic Environment	<b>2,13</b>	3	3	2	2	2	1	1	3
Regulatory Environment	<b>1,88</b>	3	1	2	3	2	2	1	1

The table provides the results from the questionnaire, where the highlighted numbers display the average of all companies. These data are included in figure 7 of the report.



## **Challenges and Issues of Tenants – Data for Figure 8**

### **T2**

#### *Background*

The founder started in 2008 with developing the software for e-learning. After finishing the bachelor in software engineering she worked further on programming the software for e-learning. At the time she entered the Incubator she was 28 years.

#### *Strategic Orientation*

The goal of the company is to deliver software for e-solutions. It would like to serve big companies with this kind of software, especially universities. The initial idea was to start an online school, but a competitor was first. Then, it was the aim to sell the software to companies, such as universities, for e-learning purposes. The specific conditions in Macedonia can be successful, since most students do not want to leave their home towns. This is already something universities advertise with. However, E-learning is at its beginning in Macedonia.

The company has got a clear picture of where to go to, and no major issues on strategic orientation are identified.

#### *Market Entry*

T2 already has some clients, but the founder states that it is not running as she wanted it to run. In total there are 4 clients, of which one brings the most revenues. This one is located in

The company is not selling to the market where it wants to sell; it has not breached the barrier and not made a sale to the university. However, this is the main focus of the company, hoping for that it would provide the breakthrough of the company's product. However, this has not happened yet.

Further, the company has one customer in Germany. This is a Macedonian that wants to set up a school for Macedonians that live in Western Europe, but still want their children to learn Macedonian. However, further revenues are necessary.

In market entry the company faces large issues, since it is not able to reach the market that has been chosen, namely universities that adopt e-learning applications.

#### *People Management*

The founder has a technical background in ICT. She has already hired some freelancers before she came to the Incubator. One for technical support and consultants for the strategic orientation of her business idea.

However, she does not want to hire full time employees, although she notes that it would be better to have someone extra in the office. There is enough work, she admits. Funding issues and the fear of delegating tasks are difficult for her.

The founder has hired freelancers, but is not willing to hire employees and has therefore issues, since it is not likely that this will bring her further with her business.

### *Obtaining Finance*

The founder had a starting capital obtained through family, but most was own capital. However, no bank loan was necessary so far. However, the end of the private capital is in sight. The founder expects to have difficulties with the pressure that external financing brings along.

Therefore, the founder also states that she is not ready to take up equity financing or whatsoever. The uncertainty is something that she has difficulties with.

All together, the company has got serious issues in obtaining finance, since the starting capital almost out of sight and there is no direct willingness to acquire external finance.

## **T4**

### *Background*

The company has two founders, both with a mechanical engineering background. The company is offering services, such as rapid prototyping, reverse engineering, redesign and graphical design. What deliver most is reverse engineering and 3D scanning.

### *Strategic Orientation*

The company has some serious issues that in total are twofold. First, the company does not exactly know what it wants to offer and second, has doubts whether it will choose to focus on the Macedonian market or to go abroad.

The company is now offering in a joint venture with another tenant graphical design. However, the company wants to stop offering these services, although most revenues come from this. The firm has doubts whether to go abroad or not. They are aware of the chances, but are a bit scared to try to pursue these.

In conclusion, the company faces serious issues with respect to strategic orientation.

### *Market Entry*

At the time of the interview the company was 2 years in the Incubator, but still had not been able to generate significant sales. Most of the sales come from a business area where they do not want to be in. However, the other offerings are not selling well.

The company has got chances to offer their products abroad, since a new firm entered the Incubator that tries to find businesses that connect Macedonia with Germany. However, the owners decide that it brings too much uncertainty. They are feared that if they get many assignments, they do not have enough manpower.

Furthermore, the company fully admits that they have a technical background, but lack skills in the economical part.

In conclusion, also in market entry the company faces major issues.

### *People Management*



The company has had one employee, an intern. However, he was laid off due to a lack of income. The Incubator had pursued the company to hire an intern in order to see the benefits of having some assistance for low cost.

The founders are particularly insecure about the effect of market entry, because they are afraid that the organization of workers might become very difficult.

In conclusion, in people management the company has serious issues. It worries about the effects of having extra manpower, which seems to limit their behavior in addressing markets.

#### *Obtaining Finance*

The company had arranged a loan, but this was done outside the Incubator. It was arranged when we were coming in the Incubator. It was a parallel process, the founders says, but only afterwards they heard about the possibilities to get a loan from the Incubator.

The company has applied for the revolving loan fund as well, but was rejected. A condition of the revolving loan fund is that a company should have had at least 2 clients over the last months. Furthermore, the company does not have its firm financed through equity.

In conclusion, the company does not have major issues with obtaining finance. It already has obtained external finance and did not express the need for more financial assistance.

### **Cas-Studio**

#### *Background*

The founder is an architect and started the company 2 years ago (2009). First worked from house, but wanted to be more serious and therefore moved to the Incubator. At the time the founder entered the Incubator he was 27 years of age.

#### *Strategic Orientation*

The founder has its product done and knows that it wants to attract architects or house brokers. However, it is not clear in which countries he wants to go to. At this moment most of its sales come from abroad, but he is not trying to find more customers.

Little sales come from Macedonian companies at this moment, but he is in a doubt which market he will intensify. Furthermore, the founder does not know yet whether he wants to grow the firm or not.

In conclusion, the firm has major issues on strategic orientation, since he does not know yet where he wants to go to with the company.

#### *Market Entry*

The company has got 4 clients, of which one abroad. This client is based in Switzerland and yields about 80% of the company's total sales. The founder says that he has not got any problems with selling its propositions at the moment, simply because he's not selling now.

However, the company tried to establish cooperation with the new Germany business tenant (T9). This failed, due to a lack of trust. A joint venture was not an option for Cas-Studio, but a cooperation was an option. However, Synergie did not want to disclose the data of their customers, which was demanded by Cas-Studio. Therefore, the cooperation collapsed.

In conclusion, if the company is satisfied with the one main customer it currently has, then it has not got issues with market entry. However, the owner specifically states that it wants to grow. Therefore, the tenant has got issues with entering a market.

#### *People Management*

The tenant states that he wants to have employees in 2 or 3 years. However, he already has had one employee. The Incubator had found someone that wanted to work as an employee. The Incubator often pushes to hire an employee.

However, the founder states that he is afraid of the risks associated with hiring employees. They could run off after two months, taking away expertise and maybe clients. Therefore the last employee only worked for a few months. The tenant did not want to delegate tasks to the employee.

Therefore, it can be stated that the tenant has got larger issues with managing employees in its company.

#### *Obtaining Finance*

The Incubator had offered the revolving loan fund, but the founder did not take it. Instead the company has one small credit for a car, but not more.

The company is in no need of obtaining additional finance, since it is likely that the firm will not grow. Besides that, it already took up a small loan.

### **T3**

#### *Background*

At the times of entering the Incubator the founder was 35 years of age. The owner had acquired a PhD in international development at the Bologna University. After that he worked in different developmental organizations. When there was no work anymore, he decided to start his firm and start writing projects, a field he had worked in before.

#### *Strategic Orientation*

The firm centers its strategic orientation around its major skill, namely applying for EU projects. The long term view of the company is to execute these businesses for the entire Balkan area. Furthermore, it is also deploying other activities to see whether these give good proposals, such as providing for trainings on the EU projects.

The company is searching for its best sales propositions and is therefore trying to find the right markets. This is still in progress and therefore poses a larger issue or challenge for the firm.

### *Market Entry*

Writing the applications for EU projects is the main market to entry. Most of the work, more than 60% is from the Incubator. The latter has executed projects, such as the anti-corruption report and a report on SME financing in the Balkans and here is where the main revenues come from. According to the founder the most critical part is to get more sales from external parties, which poses a major challenge.

The company gets most of its business from the Incubator in two ways. First, the founder possesses the writing skills for applying for EU projects. Second, the founder executes and writes the projects. Examples of these are the anti-corruption report and the 'bridging the gap' report. Both were initiated and applied for by the Incubator. The founder states that most its business comes from the Incubator, which is definitely more than 60%.

The founder states it is critical to get more sales from other parties, but that it is difficult. Various options are tried, such as trainings which are new to the company. However, these are promising.

In conclusion, the company is still very dependent upon the Incubator for its business, whilst it is almost 2 years in the Incubator. Therefore, it has got large issues with respect to market entry in the project writing business.

### *People Management*

At the start the founder did not expect to have employees. However, the Incubator persuaded him to hire an employee in order to save time. The Incubator stated that the founder only wanted to have a one-man show. He hired one intern that took care of the administrative tasks. Now the intern is a full employee and the founder is thinking to teach her how to write projects. In addition, there are 2 more interns now active within the company.

The founder now says that the major constraints of his company are the writing skills. This blocks the company in its further growth. The founder does not want to hire specialists that are already able to write, since these are considered expensive.

In conclusion, there are still major issues for the founder for its company to overcome. However, with the assistance of the Incubator it now actually is aware of the obstacles.

### *Obtaining Finance*

There is one loan in order to buy a car, which was not Incubator related. Furthermore the founder expressed that they do not need a lot of finance. However, on the other hand the founder admits that the business is constrained financially due to a lack of writing skills in the company. However, he does not want to take the risk to hire experienced workers, although this might work when trying to obtain finance.

Although that the company does not indicate that there are issues in obtaining finance, there actually are issues in the lack of writing skills. However, no investments are made.

### *Background*

The two founders, both 33 at the start, have founded a website for e-commerce. It is a site that offers all kind of consumer products. It has also been nominated for the best e-commerce website of Macedonia in 2010.

### *Strategic Orientation*

The founders have a clear representation of what they want. They aim to sell consumer products to the Macedonian market through an online shop. However, since sales do not proceed as expected the company is considering its position.

T5 experiences a lack of trust of Macedonians concerning online shopping. Therefore, they think about opening a physical presence in the centre with the aim to get people to know who is exactly behind the scenes of the website. However, the exact format of this physical presence is under discussion.

The company at first had a clear strategic orientation, but it has become more difficult since the online shop is not selling as expected. They have a major challenge with how to proceed further and to convince the Macedonian buyer of their concept.

### *Market Entry*

The firm faces issues with the acceptance of the Macedonian customer online. The sales on the website are not what they should be. The market entry in E-commerce is found to be hard. The main focus of entering the market and increase sales is through teach the Macedonians the benefits of E-commerce. Safety is among others the most important reason for the lack of sales and the smallness of the market segment.

The company here faces a major challenge, namely to convince the Macedonian buyer of e-commerce.

### *People Management*

The company has hired an employee once, but due to lack of work this was ended. Since then, not so much has changed and for the coming period there is no need for hiring extra workers to increase the business.

At the moment the company does not have an employee, but is also not in need of one. The services are deployed and brining in an extra employee is not likely to yield additional sales. Therefore, when there is work the company will hire. This is not the case and the founders currently and in the further future are not likely to have an issue with people management.

### *Obtaining Finance*

Currently, the company is in the channel for a grant. Further, there is no external finance within the company. However, the company states that in the nearby future they might have to take up a loan.

Regarding equity financing the owners state that they want to see a positive case. However, for them it is the last option when other possibilities are not available. Since the company does not have to purchase the items that it is offering, the only costs are office rents and their income.

However, when it will open up a physical presence it is likely that it has to take up a loan. Therefore, obtaining finance is considered for T5 as an issue.

## **Mladi-Info**

### *Background*

The company was started by a few journalists in 2008 that had the idea to open up a website to promote exchange between students. The office in the Incubator is one of two offices they have.

### *Strategic Orientation*

The company has its main resource base in its website on for exchange students. They have about 40,000 hits every month and this is their major resource base. The company's main issue is to find a value proposition for its website and the company has not yet found a way to commercialize it. They tried to generate funds through banner advertisements, but this is not yielding what was hoped for.

The company also has deployed other activities, such as taking up EU funded projects. The last project they took up was leading a project on children's educational tv programs. However, these kind of projects do not generate funds and it is hard to cover the costs of these projects.

The director of the company states that the process of taken a decision for the company to orient on already slumbers for 8 months. The company is in high doubt where to find value propositions and therefore is posed with a major issue in strategic orientation.

### *Market Entry*

the main way to collect money was through banner advertisements on the website. However, this is not working as expected. Especially not since the economic crisis has fully started. The company struggles with the fact that they have many 'hits' on their website, but not able to market it. Market entry is considered as a major obstacle for the company.

### *People Management*

The company works with volunteers. The company states the business is not stable yet and we cannot afford an employee on a continual basis. Sometimes we have a lot of work, sometimes we have nothing to do.

It is the challenge for the company to stabilize the business in order that it can hire employees. However, this is more an issue of strategic orientation and market entry.

### *Obtaining Finance*

We work with external finance, but that is not debt finance. We fully work with grants that we receive from international foundations. For example, our entire web portal functions on that.

Moreover, we are also in contact with the Dutch Mara Foundation that only provides equipment. So they saw that we were in need of computers, so they brought in computers.

Concluding this, the company does not have issues with external financing.

## **T1**

### *Background*

The company started in 2008 and consists of three founders, that were all under 30 years of age. The basic premises of the ideas was to be responsible for the planning of events. They got into the Incubator after they were 2<sup>nd</sup> in the Incubator business plan competition.

### *Strategic Orientation*

The basic resource base on which they work are the event planning skills. The company is working for more than 2 years, but also due to lack of sales has not decided its strategic focus. The founders want to specialize in every industry where events can take place plus the development of a virtual assistant.

However, questions can be raised by the fact that the company's strategy is still in flux. Taken together with the fact that the company is planning to aim at every specific market segment within the event industry it is clear that the company has some issues.

Therefore it is concluded that T1's strategic orientation contain major issues.

### *Market Entry*

The company has major difficulties in accessing the several markets for events. Most of their sales were established through contacts of the Incubator and the company as such has not been able to establish themselves steadily in the event market. A constant workflow has not been realized so far.

Also with respect to market entry, the company faces large issues.

### *People Management*

Organizing skills are not there, concluding from their idea to specialize on every field of expertise in the event business. Also, the founders are considering to hire a worker specialized in selling events, though that decision has yet to be made.

The three ladies also admit that they're not the best sellers and already recognized the need for hiring a worker that possesses these skills.

When sales skills are one of the large obstacles, then finding a suitable person will pose a large challenge for the company.

### *Obtaining Finance*

There is a necessity to obtain finance, since the company has tried to file for a bank loan and for equity financing. The company tried to reach the bank loan through the Incubator, since it has got small interest rates. But the company was not able to acquire the loan. To receive a bank loan the

company needed to have 2 clients, needed to have work. Need to have a signed contract with 2 customers, which the company did not have.

Furthermore, the company filed for equity financing on another idea, namely a 'virtual assistant'. However, there was no positive response.

Since the company wants to attract finance, but yet has not been able to do so, the company faces a large challenge in obtaining finance.

## **T6**

### *Background*

The company's skills lie in programming. It has developed a source code with which it tries to sell e-commerce software. The founder of the company was at that time 36 years of age.

### *Strategic Orientation*

The company focused on E-commerce where it thought to see a niche. However, the market has not developed as anticipated and therefore the company is now searching for other directions. At this particular moment the strategic direction for the longer term is not certain.

Although it wants to keep aiming on the e-commerce market, the company has little revenue from this business. Now it needs to reconfigure its idea on which particular software segment it wants to target.

In conclusion, the company faces large issues with respect to strategic orientation.

### *Market Entry*

Obviously, the company faced severe difficulties with the e-commerce market. Since the market is not developed yet, it is hard to get in. Also market entry with their E-commerce product abroad was experienced as difficult and not applicable.

At the moment the company has one contact from America (through word-to-mouth) in general software development, but it is far from certain whether this is a one-time shot or part of a new strategy. However, this one client provides the company with a good deal of business.

However, in general market entry poses issues. It is a major challenge to break in the e-commerce market and it is not certain what will be the situation when it enters other markets.

### *People Management*

The company is searching for new employees, because its client in America can supply in more than sufficient work. However, the company wants to attract senior programmers only. These are expensive and scarce, meaning that T6 has got great difficulties in attracting these programmers. Also, the company might consider a worker with more soft skills, since the founder and employees are all technical skilled.

### *Obtaining Finance*

The company has used the 1,500 EUR grant provided by the Incubator. Furthermore, it has not taken up any debt finance. The founder is interested in equity financing, but that depends on the requirements associated with it. However, the company expects to grow and finance extra employees through increasing revenues.

Therefore, it is not likely that the company will be posed with issues on obtaining finance.

	Strategic Orientation	Market entry	People Management	Obtaining Finance
T2	No	Yes	Yes	Yes
T4	Yes	Yes	Yes	No
Cas-Studio	Yes	Yes	Yes	No
CM	Yes	Yes	Yes	Yes
T5	Yes	Yes	No	Yes
T8	Yes	Yes	No	No
T1	Yes	Yes	Yes	Yes
T6	Yes	Yes	Yes	No

	Strategic Orientation	Market entry	People Management	Obtaining Finance
Issues	88%	100%	75%	50%
No Issues	13%	0%	25%	50%



## Coaching, Networking and Training Characteristics

### Coaching

	Incub	T2	T4	Cas	Consult	Exqui	Mladi	Momen	T6
Strate	3	0	1	2	3	2	0	2	0
Markt	3	0	2	2	3	0	0	2	0
Person	1	0	2	2	3	0	0	2	0
finance	2	0	1	1	1	0	0	1	0

### Networking

	Incub	T2	T4	Cas	Consult	Exqui	Mladi	Momen	T6
Strate	3	1	0	2	1	0	1	2	0
Markt	3	0	0	1	1	0	1	2	2
Person	3	0	0	0	0	0	0	0	0
finance	2	0	0	0	0	0	0	1	0

### Trainings

	Incub	T2	T4	Cas	Consult	Exqui	Mladi	Momen	T6
Strate	2	0	1	1	1	0	0	2	2
Markt	3	0	1	1	0	1	0	2	2
Person	1	0	2	1	0	0	0	0	1
finance	1	0	0	0	0	0	0	0	0

### Combined

	Incub	T2	T4	Cas	Consult	Exqui	Mladi	Momen	T6
Strate	3	1	1	2	3	2	1	2	2
Markt	3	0	2	2	3	1	1	2	2
Person	1	0	2	2	2	0	0	2	1
finance	2	0	1	1	1	0	0	1	0

The combined results are calculated through constantly using the variable with the highest impact. For example, if a company states for coaching a yield of 0, training 0, but networking 3, then the combined result for that company is 3. Since it does not matter for the tenant where the assistance comes from, this method was chosen.

When the companies that were highly dependent upon the sales directly through the Incubator, the underlying represents the scores. The tenants that have been excluded are T1 and T3.

### Combined

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	Incub	T2	T4	Cas	Exqui	Mladi	T6	Total
Strate	3	1	1	2	2	1	2	<b>1,125</b>
Markt	3	0	2	2	1	1	2	<b>1</b>
Person	1	0	2	2	0	0	1	<b>0,625</b>
finance	2	0	1	1	0	0	0	<b>0,25</b>

The combined results show that the total impact perceived by the tenants is much lower when T3 and T1 are left out of the analysis. These results give an indication that the impact of the Incubator through sales was perceived as high for the companies that received sales. These results however, do not display the entire truth of the Incubation process impact, since the Incubator has committed himself to these companies through advice as well. For example, T3 would likely not have employees if it was not for the Incubator's advice.