

MIKE - B

MSc. in Innovation, Knowledge and Entrepreneurial Dynamics

Entrepreneurial Ecosystem - Evidence from Bulgaria.

Master thesis

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Abstract

This qualitative study serves multiple goals. First, it explores Entrepreneurial Ecosystems' best practice in view of theory regarding good collaboration between stakeholders. For this purpose, a body of literature about Entrepreneurial Ecosystems complimented by the theories of Systems of Innovation as well as Clusters, was reviewed and a theoretical framework was developed. Second, the study delves into the main needs and challenges of the Bulgarian entrepreneurs in the high-tech sector, followed by the advantages and disadvantages of doing business in the country as a complementary data source to acquiring a deeper understanding of the needs and challenges of the entrepreneurs and their possible derivations. Accordingly, 12 interviews with entrepreneurs from the high-tech industry were conducted, as well as a survey with 44 participants from the same category. Third, in view of the theory along with the evidence from the qualitative primary data, the study attempts to provide a solution for bridging the gap between best practice and the evidence from Bulgaria, as well as how to facilitate further the overcoming of these entrepreneurial needs and challenges. Finally, we concluded that the issue to the problem needs to be approached holistically and it needs to be addressed to all stakeholders in the Entrepreneurial Ecosystem.

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1. Introduction

The domain of entrepreneurship has been a widely discussed topic in the past two decades. Historically, entrepreneurs have essentially played a key role in economic development. In fact, this argument dates back at least since the Schumpeterian Theory of Economic Development. In concrete, “*Economic development in our sense is only accomplished in the form of carrying out new combinations of existing goods*” (J. A. Schumpeter & Opie, 1934, p. 139) , and that the entrepreneurs have “*carried out new combinations*” by employing “*existing means of production differently, more appropriately, more advantageously*” (J. A. Schumpeter & Opie, 1934, p. 132). This line of reasoning evokes a good sense for considering the value of entrepreneurship today. Having said that, while several scholars put emphasis on the underlying role of entrepreneurship on country’s economic growth (Wennekers, van Wennekers, Thurik, & Reynolds, 2005), however, the effect of entrepreneurial activity on different economies has been to some relevant sense, contrasting in some studies. In particular, some of the literature shows that entrepreneurial activity in certain countries may not necessary be a positively contributing factor for the economic growth of a country. For instance, entrepreneurial activity appears to have a negative impact on countries with developing economies, whereas the opposed has been observed in developed economy countries. For the former, the authors observe a negative impact of “entrepreneurship” on GDP growth. However, they argue that even though their result shows that “poorer countries fail to benefit from entrepreneurial activity” (Stel, Carree, & Thurik, 2005, p. 318), entrepreneurship in these countries should not be disheartened, and this result can possibly be an indicator for either the presence of insufficient number of larger companies, or lower level of human capital of entrepreneurs in these countries. On the contrary, for rich countries, the authors’ find a positive effect (Stel et al., 2005).

Furthermore, with reference to Stel et al. (2005) that entrepreneurship should not be disheartened, the concept of Entrepreneurial Ecosystem has recently gained a considerable attention from numerous members of the academic community, as well as in policy circles. Although relatively new, the entrepreneurial literature is quickly expanding. Moreover, academics put an explicit emphasis on the importance of the interplay between the components of an entrepreneurial

ecosystem in increasing the performance of entrepreneurship on a regional level (Alvedalen & Boschma, 2017).

Several authors claim that the notion of entrepreneurial ecosystem originates from the literature and studies on National Innovation System, Regional Innovation System Business Clusters, and Entrepreneurial System. Moreover, entrepreneurial ecosystem is what is also called a “systemic” approach to entrepreneurship, where the focus on studying the concept is concentrated at the network structure in the system and the relationship between its different components (Alvedalen & Boschma, 2017; Cavallo, Ghezzi, & Balocco, 2018).

1.2 Problem formulation

In this section, we are going to describe the relevant issues concerning the objective of this research.

As previously stated, entrepreneurship is vital for the economic development of countries, and in chapter 3 we will discuss numerous reasons behind it. Thus, it is important for a country to have a strong entrepreneurial presence.

However, Bulgaria seem to perform relatively low in entrepreneurship. According to The Global Entrepreneurship Index (GEI) 2018, Bulgaria scores relatively low in entrepreneurship being positioned on 69th place with an index score of 27.8 (Ács, Szerb, Lafuente, & Lloyd, 2018, p. 21). In fact, if we take all GEI participating countries that are members of the European Union and consider their average score and rank positions, Bulgaria scores way below average, as well as occupying the lowest rank among other members of the European Union. In particular, while the EU average is 53.8, Bulgaria achieves a moderate score of just 27.8. Thus, the country is positioned at the bottom of the rank among EU members ([see Appendix A.1](#)). In addition, yet not a single unicorn startup that comes from Bulgaria is seen on the global scene (CBinsights, 2019).

These lines of reasoning rise a number of concerns to think about such as: Why is that entrepreneurship in Bulgaria does not perform as good as other EU members, and even countries across the globe? What is it that prevents entrepreneurs in Bulgaria to succeed and even create globally competitive unicorns? Is there something to do with the culture of the country, or is the government maybe not taking enough effort to support entrepreneurship? What might be the things that prevent Bulgaria to become competitive and succeed in introducing new successful ventures,

not only at national, but also European and maybe global scale? What thinks need to be taken into consideration regarding this matter if we want to foster a successful entrepreneurship in Bulgaria?

1.2.1 Research Questions

Based on the above-mentioned, we are going to address the following research questions:

- 1. What is the best practice for facilitating a good collaboration between entrepreneurs and the entrepreneurial ecosystem?*
- 2. What are the main needs and challenges faced by the entrepreneurs in Bulgaria within the high tech sector?*
- 3. How to bridge the gap by means of facilitating appropriate solutions between best practice and the case in Bulgaria, as well as overcoming the entrepreneurial challenges and needs?*

In order to acquire a more clear picture and find answers to the above-mentioned research questions, we are going to use the following approach:

First, by reviewing the literature, we are going to investigate what is the best practice according to the theory, for a good collaboration between entrepreneurs and entrepreneurial ecosystem, through illustrating successful cases from elsewhere, which are further discussed.

Second, we are going to investigate and understand what are the entrepreneurial needs and challenges in general, as well as within the context of Bulgaria in the high-tech sector, and how the theory in this area can help us facilitate increased probability of success for the entrepreneurs in Bulgaria.

To do so, we are going to start off by the creation of a questionnaire to try to learn a bit more about the entrepreneurial needs and challenges within the Bulgarian high-tech industry context, followed by more in depth interviews with the CEOs of selected companies in order to acquire a better understanding about their needs, their challenges, and their collaboration with the ecosystem. Afterwards, in view of best practices according to the theory, we are going to promote some guideline principles and solutions for new ventures in general but also for the public sector to

regional and national level to see how can they improve further entrepreneurial activities in the region.

1.2.2 Short overview of the remaining project

Chapter 2 Methodology:

Presents the methodology behind the study, including research philosophical assumptions, the research design, sample and data gathering techniques as well as data analysis methods.

Chapter 3 Theoretical background:

Provision of cross-disciplinary approach, implying for multiple theories and concepts, and in particular the study includes: Systems of innovation, clusters, while emphasis are put on Entrepreneurial ecosystem theory.

Chapter 4 Data and Analysis:

Consists of two parts: 'Secondary data' and 'Primary Data, Results and Analysis', which provide data from secondary sources of information as well as primary data, gathered through a process of conducting interviews and survey.

Chapter 5 Discussion:

Reveals possible applications and integration of best practices, according to the literature, in the Bulgarian entrepreneurial ecosystem, while proposing implications for the government and entrepreneurs. The research limitations and future research suggestions are presented as well.

Chapter 6 Conclusion:

Concludes with presenting a summary of the main findings based on theory and data insight

2. Methodology

For a reasonable understanding of the philosophical concepts of the study, we will reveal what lies behind our perception regarding the ontology, epistemology and research design of the report in the following chapter.

Pertinent knowledge about the philosophical assumptions is required for better assimilation of research fundamentals, as well as make it easier for the observer to develop in proper manner his/her study (Easterby-Smith, Thorpe, & Jackson, 2015, p. 133).

First, the methodology chapter will identify the qualitative approach along with the specific characteristics that it holds, as the research will be of a qualitative nature. Then, as described above, the ontology, epistemology, and design of the research will be introduced, while they will be tied to the qualitative approach. Afterwards, the methodology outlines the practical steps for conducting the study, among which the sample and data collection techniques, as well as the data analysis methods.

2.1 Qualitative procedures

Qualitative research employs various philosophical paradigms, strategies, methods and techniques of data gathering processes and its analysis and respectively its interpretation and establishing further implications and recommendations, which, on other side, requires the application of different methodologies to accomplish the research process (Creswell, 2009, p. 173).

As in this study, while adopting qualitative research, the observer gathers information by primarily conducting interviews or surveys, observing whole situations often for a long period of time in a cyclical manner, and/ or examining secondary sources of information such as organization or public documents, statistics, etc. Often, researchers collect data from more than one source and use both primary and secondary data in order to validate the research more properly. In other words, researchers collect data in multiple forms to provide reliable research. Then the data is reviewed, organized, systematized, analyzed and interpreted.

Since the particular research is qualitative in nature, this leads to its inductive manner which is basically a process of building the main patterns from bottom up or by arranging the data from less

abstract to more abstract divisions. While applying inductive way of doing a research, the observer is aware of organizing a complex process of investigating the data and the patterns that emerge at the same time, until creating comprehensive structure of themes relevant for the topic and thus generate certain theory (Creswell, 2009, p. 175). Moreover, this process could be defined as rather emergent and dynamic than static. In similar vein, the research design often cannot be determined at the beginning of the research but it could shift along the process of data collection or the other phases. Therefore, the research questions could undergo a change, the same goes for the way of obtaining the data and the respondents from the sample.

Qualitative research enables researchers deploy a holistic picture of a certain issue that is under observation, which, on other side calls for involving various perspectives (Creswell, 2009, p. 176). By presumption, the validity and reliability of qualitative studies cannot be compared to those of the quantitative research. Same is the issue with the generalizability due to the nature of the data and its process of gathering, which in qualitative researches is primarily based on consideration of individuals' perception on particular problem which further is highly subjective approach. However, if the researcher pay attention to the details and document all of the steps and procedures that were involved throughout the process of doing the research, the study is more likely to be assumed as reliable. Incorporating validity based strategies is also recommended in order to enhance the accuracy of the study (Creswell, 2009, p. 190).

2.2 Philosophical assumptions

2.2.1 Ontology

The ontology concept discloses the essence of reality, whereas epistemology divulge the knowledge as well as assist researchers comprehend how to approach the world. In light, the social as well as the natural scientists assume the philosophical issues in different way. Nevertheless, being aware of these assumptions is seen as key part of the research process, due to the fact it can improve the quality of the study in depth (Easterby-Smith et al., 2015, p. 134). The ontology captures four different dimension within the concept: realism, internal realism, relativism and nominalism. In social science perspective, there are similar circumstances surrounding the ontology concept though here the philosophy is concentrated on the people behavior not in objects,

which are the focus of natural science. If we take the racial discrimination as an issue of observation, the internal realist would assume it as real life occurrence that is independent from the observer and could affect the people life chances and success. The relativism admit racial discrimination is experienced in different way by different people depending on their race and geographical location. In other words, there is multiple rather than a single reality. Researcher who has adopted relativist ontology understand that the different researchers adopt different assumptions. The nominalist point of view imply that people have their own perception of truth, but actually there is no such thing as truth (Easterby-Smith et al., 2015, p. 140).

Being aware of the essence of the study and its field of research, ontologically the phenomenon of entrepreneurship ecosystem is related to the social science rather than natural science. Along this line of thinking, our ontological point of view is based on the relativist assumption due to the study requirements of obtaining different perspectives and meanings that the individuals assign to their experiences.

2.2.2 Epistemology

In order to follow the rationale of philosophical assumption of the research, the epistemology would be presented as well. In practice, human behavior is internally justified and conducted by the conscious or unconscious perceptions of the world or the individual reflection of the ‘truth’ which are embedded in language and culture. Epistemology demonstrates the specific guidelines of what actually constitute the knowledge (Johnson & Duberley, 2000, p. 8).

There exists two dimensions of the epistemology: social constructivism and positivism, which are in the ‘divergent’ poles. However, in social science the philosophers do not adopt a single side but rather subscribe to aspects related to both of the epistemological assumptions. In practice, it is not excluded to combine the two traditions and apply the so-named mixed methods. Moreover, they have substantial advantage according to the social scientists due to the fact they enable the deeper understanding of the research. It is worth mentioning that, researcher should be conscious of the potential pitfalls if combining the two dimensions (Easterby-Smith et al., 2015, pp. 143–144).

Since the study adopts social constructionist epistemology, this implies that particularly that approach would be presented and emphasized. Social constructionism refers to the idea of social reality, therefore is focused majorly on the people’ experiences and their meaning. Additionally, social constructionism represents the individual or group thoughts and feelings, where their

interaction and experiences are appreciated. In other words, human action is the one in which observer is interested the most and pay attention to. In contrast to the positivistic approach, here the focus is not on the external objectives but the behavior of people and the meaning of the different situations they experience. When adopting social constructionism as research epistemology, the observer is engaged in the process and he/ she is interested in the individual or group behaviors. The observer aims to understand as much as it is possible the particular situation under observation and collect data by qualitative methods which then induce the generation of ideas. Social constructionism is about the abstraction of theories and include single or small number of cases which consist of people perspectives (Easterby-Smith et al., 2015, pp. 148–149). The positivistic point of view is related to realism and internal realism ontologies, whereas constructionism is associated with the relativism and nominalism ontologies (Easterby-Smith et al., 2015, p. 152).

It is worth pointing some of the weaknesses and strengths of the constructivist epistemology paradigm. The main strengths of the constructivist paradigm are that it enables the longitudinal manner of observing the case over time. It also provides the opportunity to explore the human thoughts and feelings and thus help researcher, think of new ideas and therefore, generate new theories. The method of data gathering is considered as more natural than static and artificial. On the contrary, the weaknesses could be recognized in the time and resources needed for realization of such research, which is seen as a huge constraint for the policy makers (Easterby-Smith et al., 2015, p. 161).

2.2.3 Research approach

According to the Stanford Encyclopedia of Philosophy, phenomenology is about the personal perspectives of an individual in regards to an experienced by them situation or problem. The particular experience is based on certain object and its meaning and relevant conditions. Basically, phenomenology could be represented as a research approach which aims to explore the so-called 'phenomena' or the emerging situations/ events/ problem and the personal acquisition of certain consciousness towards this real- life issue and its meanings (Stanford Encyclopedia of Philosophy, 2013)

The research approach which best corresponds to the particular study, is phenomenology, because of its manner to the investigated phenomenon and in particular, to the method of exploring certain

problem or situation, which in our case is the entrepreneurial ecosystem within the Sofia region, while interpreting the individuals' stories and meanings they give on the observed problem. Moreover, phenomenology enables researcher, approach the situation in more engaged manner in order to capture the perspectives of each respondent and more specifically to our case, the founders/ co-founders/ CEOs' thoughts. Thus the gathered knowledge would afterward contribute with generation of concepts/ theories.

2.2.4 Research design

The research design purpose is to systematize the research, while organizing its data gathering process in the most effective way. Moreover, the research design helps researcher make their own agenda of what is going to be researched and how. Following the stated above structure of constructionism as well as more engaged research style, there would be indicated the different research methods and techniques which correspond to these dimensions and respectively to our study (Easterby-Smith et al., 2015, p. 193–194,196).

Research designs related to constructionism are connected to relativist ontology as well as the nominalism. The constructionist research often starts with wide range of assumptions and interpretations which can bias the study. Therefore, the researcher should take into account the various truths and elaborate them in order to illustrate how these realities contribute the theory (Easterby-Smith et al., 2015, p. 242). In addition, there exists the concern whether the constructivist methods are able to demonstrate validity. Thus there are the following criteria: plausibility, authenticity and criticality (Easterby-Smith et al., 2015, p. 259).

Since the report' ontological and epistemological assumptions are related to relativism and respectively social constructionism, the research design of the particular study would include different techniques for gathering the data. The qualitative nature of our study, would comprise of qualitative data which is related to a process of gathering non-numerical type of data.

For the sake of clarity, the types of data would be identified. Secondary data consist of already produced written sources of certain information that is assumed as relevant by the researcher for the purposes of the study. This type of data could vary from company reports, different archived information as well as can include information from the mass media and books. Secondary data is

widely used and usually complement the primary type of data. When using secondary type of information, researcher should be conscious about the quality of the used data. It is recommended to use information of high quality (Easterby-Smith et al., 2015, p. 378).

In contrast, primary data could be gathered from the so-called qualitative interviews that are basically conversations which includes questions and respectively answers. The main benefit of conducting interview is that these technique enables researcher capture best way the meanings and perspectives the respondent has on certain problem. Additionally, the method provides the researcher with in depth understanding of the world view of his/ her interviewee and thus diverse insights could be gained (Easterby-Smith et al., 2015, pp. 390–391).



Figure 1: Ontology, Epistemology, Methodology, Methods & Techniques

Based on (Easterby-Smith et al., 2015, p. 134)

2.3 Sample and data gathering

This report is focused on the context of entrepreneurs in Sofia, Bulgaria.

The group of participants that we have selected consists of CEO's, founders and co-founders of the companies subject of the research. Having in mind the type of companies they belong to, this type of background of the participants is the closest to entrepreneurs as they are involved in the creation and running of the companies, as well as in the decision making processes. Therefore, our assumption is that they are precisely the ones who can provide the relevant data to our study and therefore to enable us to address the research questions.

The way in which the collection of primary data is structured as follows: First, we set sample criteria where companies need to be operating within the high-tech sector ([see appendix B.2](#)), are located in Sofia region ([see appendix E](#)), are younger than 10 years ([see appendix B.3](#)); employ less than 100 employees ([see appendix B.1](#)). Second, we contacted approximately 218 companies ([see appendix E](#)) based on the above-mentioned criteria in order to understand which of them would be interested in participating in our study. Moreover, we decided that it would be convenient to offer them two means of participation to the study - a short survey and a longer interview. Thus they can decide for themselves which one to choose according to their schedule, as we assumed that many of them would be busy enough and would not necessarily be willing to dedicate 30 minutes to one hour for an interview. Therefore, with the attempt to achieve higher participation rate, besides offering them an interview, we also proposed a survey that takes between five and ten minutes to fill in. This approach resulted in having 44 participants on the survey, and 12 participants for an interview. Accordingly, the surveys and interviews are techniques we employed for gathering our primary data.

The reasons behind our choice of conducting survey and interviews as a mean of data collection is the benefits that both of them offer. In particular, we were able to acquire rich, qualitative in-debt data and better understand about the situation in Bulgaria, learning about the participants' experience and opinions, and to understand their challenges and needs. Therefore, since this study is qualitative in nature, interviews and a survey were perceived as a suitable choice for data collection.

We are well aware that we could have used only interviews and try to reach out a bigger sample, but we think that considering the time available, it is important to have realistic expectation with sampling in terms of response rate and time. Not only the time we have on our disposal for this study, but also as mentioned the time which the participants would be willing to dedicate. Moreover, we could have used triangulation and reach out to other actors from the entrepreneurial ecosystem such as banks, angel investors, governmental and support institutions (especially for answering the second and third research question), etc., but then again with the time available and the complexity it would imply, we considered a more realistic target. However, we are still able to

acquire relevant data, being it secondary, in order to enrich the data sources and to understand the phenomena well enough.

2.4 Data analysis methods

For participants' convenience and acquiring rich data, both the survey and the interviews were conducted in Bulgarian language. While some of the interviews were recorded, all interviews were transcribed (including the non-recorded ones) for further analysis. Moreover, with an agreement with our supervisor, it was agreed that for now the data will be documented mostly on recorded digital platform and text documents ([see appendix D](#)), but it will be available upon request and translation respectively. This applies also for the data from the survey. However, in the analysis section, the responses and results are presented in English.

The total amount of recorded data is as follows: 31 pages of interview transcripts from 12 participants ([see appendix D](#)). The process of transcribing the data involved reducing the text volume to a quantity that is easier to be analyzed and is meaningful; 220 minutes of voice recordings of some of the interviews (8 recordings); 1 Microsoft Excel that represents the questionnaire with the responses from 44 participants, which were initially 48 but 4 of them were considered irrelevant and therefore excluded. As mentioned, as agreed with the supervisor, and due to inability to properly integrate the Microsoft Excel file, recordings and the file will be available upon request.

Furthermore, we employed a CAQDAS (Computer-Assisted Qualitative Data Analysis Software) program called NVivo 12 for analyzing the data. The reasons for choosing this method are on one hand, the volume of the interview transcripts coupled with answers of the open-ended questions from the survey, and on the other hand, the utilities offered by the CAQDAS programs. These include the ability of a team to work on the data analysis collaboratively; keeping the codes and their frequencies alongside throughout the progression of the analysis; maintaining a list of the created codes and their assigned meaning; visual classification of code labels; discovering sequence, co-occurrence and overlap of particular codes, as well as possible relationships and patterns within the data; and others. Moreover, Saldana (2013) suggests that using CAQDAS software is vital in studies where the analysis include interviews from several participants or lengthy note taking and fieldwork (Saldana., 2013, pp. 25–34).

Through the transcription of the data and the employed coding process, we were able to better analyze it and acquire rich insights and understanding of meanings from the participants.

Moreover, during the coding process we created different codes (themes) which helped to assign particular pieces of data to specific themes to help with the analysis process. For instance, under the themes 'needs' or 'challenges' we assigned words or phrases which represent the needs and challenges that the participants face. As we went through the data several times, and therefore better familiarized ourselves with it, the codes were developed concurrently and later on re-organized and re-coded. Hence, the data was carefully explored and to determine important and relevant themes.

Regarding the survey results, we used Microsoft Excel and its pivot table functions to produce charts and illustrate the results, also identifying significance in some areas where respondents answered in similar manners. Since some of the questions from the interviews are also asked in the survey, therefore, this was taken into consideration in the chart creation process, and consequently included. Thus, we avoided a possible segregation of the results between the survey and interviews. While some of the charts and figures mentioned are presented in the report where considered appropriate, others are included in the appendix.

In the analysis process, we also considered excluding some of the answers to questions which we realized that we influenced and consequently biased. For instance, when asking participants to answer the question "What do you think about the entrepreneurial culture in Bulgaria?" besides the given option to answer with an open answer, we also provided a number of options to choose from, which were all positive in nature. Thus, almost no negative answers were given and we assume that participants decided to pick an answer from the available options (perhaps for a time-saving purposes or else), which consequently resulted in agglomeration of mostly positive answers. However, answers to this question from the interviews were included in the analysis process, as it was assumed that no bias took place, because the question was open and no available options were provided for the respondents to choose from.

Finally, we used somewhat intuitive approach for the data discussion of the observations and results, while taking into consideration the objective of bringing meaningful understanding of the respondents experiences.

2.5 Validity and Reliability of the research

Even though we present and discuss our findings in as rigorous way as possible, however, in terms of validity and reliability of our research, we would like to address the following considerations. First, since we employed a coding process using NVivo12 software, and it was the first time that we used such a software, therefore, we should acknowledge that there is certainly a better way to approach the data analysis through NVivo12 in terms of coding techniques, development of themes, identifying relationships, and presenting the findings. However, considering the qualitative nature of our analysis,

Moreover, there exist also the question about our personal bias. As we are Bulgarians and are quite familiar with the situation in terms of mistrust between people in general, as well as the matter of corruption and misleading practices from the government and institutions, we should acknowledge that we may be biased regarding this matter and are likely to resonate with participant's insights about corruption and bureaucracy. However, as we are aware of such as possible bias, it was taken into consideration and we tried to be as objective as possible throughout the research.

Regarding the collected primary data (questionnaire and interviews) and all contacted companies, we were able to document some of them in the appendix. While the transcript of interviews is provided in ([appendix D](#)), the survey results will be available upon request to be additionally provided, because the Microsoft Excel file volume does not fit within the report and we can not find a way to properly illustrate it. However, a list of contacted companies is available in ([appendix E](#)).

2.5 Ethical considerations

Since some of the interviews in the transcript consist of information and opinions of the participants that is considered somewhat sensitive, the names of the companies from the transcript available in the appendix ([see appendix D](#)) will be provided with a secondary file along with the report. In addition, in the process of primary data presenting, we refer to each company as such: “interview 1; interview 2...” in order to avoid uncovering their names. However, in the secondary file, their names correspond with each interview number mentioned.

3. Theoretical framework

Starting from the fundamental theories about innovation systems and clusters, which are seen as the basis of the Mike B program and therefore largely inspire most of the students' projects. Thus, we use a cross-disciplinary approach to develop a more general picture of the report, endeavoring to enrich it. Furthermore, we narrow down the focus on the theory of the entrepreneurial ecosystem, which we consider to be the foundation of the project, identifying the theory itself, the concepts derived from it and the components it consists of.

3.1 Systems of Innovation

Lundvall (2016) assumes the systems as a process of interdependent interaction of certain domains. He refers to the innovation system as complex activity which gather particular components that interact to create an innovative product and emphasize the dynamically reproductive process of knowledge diffusion (Lundvall, 2016, p. 87).

Although, National Innovation System approach has a wide range of variables, the term is in great demand among the policy makers due to the fact it benefits with assimilation of the continually changing innovative environment and provide certain framework that could be applied for enhancing the country's competitiveness while understanding the innovation and technology development. The most common indicators for measuring innovativeness in one country are R&D activity, patents as well as the level of the production of innovative products (Lundvall, 2016, p. 90).

The occurrence of innovation in a single company or on country level could be recognized when new markets, products and mechanisms emerge while at the same time adopting knowledge-intensive activities. Additionally, they could vary from incremental learning processes such as learning-by-using and learning-by-doing or more radical and intense.

The system of innovation approach is not applied only on national level, but it could affect positively the stakeholders from local level, where companies adopt it to improve and sustain, through regional level to world-wide scale.

Similarly, Edquist (2016) aims to introduce the system innovation approach not only on national level but he sheds light into the insights of the system innovation phenomenon as whole. In order to identify the innovation system, one should be able to clarify the term. The literature recognizes

‘innovation’ as focused on product innovation, which is basically the creation of new innovative product, as well as process innovation which is the creation of new techniques and methods of the production process of innovative products. The other part of ‘systems of innovation’ is the ‘system’, which could be assumed as a bunch of components that influence the production of the innovations such as economic, social, organizational and other processes. Additionally, the focal components could be determined as organizations or companies, venture capital organizations, and institutions such as laws, rules, norms that seek to maintain the companies’ activities and relations (Edquist, 2006)

The majority of the scholars determine the phenomenon as dynamic and complex rather than static, interconnected process of interaction between the companies, the public and non-governmental institutions and others which main purpose is the innovation creation. Moreover, in the past decade many concepts have derived from the National Innovation System such as Regional Innovation System (RIS) and Technological Innovation System (TIS). The SI approach has gained a popularity among the policy makers due to the fact the system innovation approach could be used as a source of developing and enhancing the economic growth by innovation movement as well as the phenomenon could be applied as a benchmark in order to measure the country’s performance on various levels: global, national, local. In practice, the system innovation approach and its methodology is characterized to be driven within diffusion with numerous components and it has cycling manner (Edquist, 2006, pp. 2–4).

Edquist (2006) introduces three kinds of learning within the innovation system pattern: when creating innovative products, research and development and competence building or learning-by-doing and learning-by-using processes (Edquist, 2006, pp. 6–7).

The role R&D plays for the development of the innovation systems is highlighted by a large number of observers. Therefore, the government as well as the private companies and organizations could make investments in order to enhance the R&D activities. The educational institutions such as the universities and in particular the link between the universities and the business is crucial and it should be supported by the government that on the other side, could improve the collaboration with various stimulating activities.

For the sake of clarity, the relationship between the elements within the system of innovation would be presented briefly. While the different organizations interact with each other, they encourage the spillover effect which on other side leads to positive effect on the innovation

creation. Another factor which could stimulate or restrict the innovation process is the institutional factor. In order to be analysed adequately, the innovation systems should have set certain boundaries in terms of the geographical location and the activities that could vary from national, regional and local level (Edquist, 2006, pp. 10–14).

The regional innovation system (RIS) is related to the elements in within one region that produce innovation and stimulate the knowledge exchange. Moreover, the regional innovation system is focused on the production of innovative products or processes and business models and techniques which contribute with increase in the innovation capacity. RIS also consists of various actors that interact interdependently insisting research and development activities, STI and DUI processes. The interaction between the educational institutions and the business sphere should be taken into account as well (Björn, Markust, & Michaela, 2015, p. 2).

Nowadays, the globalization is tending to be a mainstream topic among the economy circles. The internationalization movement insist the defining of practical actors of innovation world-wide (Carlsson, 2006, p. 57).

Carlsson (2006) aims to explore the literature in terms of the systems of innovation on international level and more specifically the open state of the national innovation system in various nations measured by capital and technology transfer as well as R&D expenditures. An outcome of the Carlsson (2006) investigation is the notion that the alliances and networks among the economies are essential especially if these countries are willing to improve their competitiveness capacities (Carlsson, 2006, p. 59).

One of the measurements that is used to estimate the performance of a particular system of innovation on global level is the R&D and its role in foreign direct investments as well as the multinational alliances. In practice, the multinational enterprises and leaders establish strategies focused on their globalization positioning in terms of technology development and knowledge exchange. In order to establish best practices and relations on international level, it is considered as crucial to first identify the components that have impact on NSI such as financial capitals, institutional set-up, competitive environment and others. Moreover, by implementing stimulating programmes and strategies, the government could improve the economy's conditions and thus support the globalization of the local companies (Carlsson, 2006, p. 61,63,65).

3.2 Clusters

Porter (1998) defines clusters as critical formations in a particular location, gaining massive success within a specific sphere/ industry and characterized with competitive advantage or in other words the clusters are companies concentrated in a specific geographical location which are constantly interacting with each other as well as with the institutions in certain sphere. These critical masses could be recognized in the more advanced economies however, nowadays, many developing countries strive to form the so-called cluster due to the fact, the existence of the latter is seen as great tool that insists and stimulate the economy growth. Although the heart of the company's organisation is of vital importance, in regards to the clusters and their premise to emerge, the external environment has key role as well. There is a large number of examples that confirm the notion that geographically concentrated companies within a particular industry have the power to create seizable output especially in terms of innovation and thus gain competitive advantage. Such well-known clusters are as follow: Silicon Valley, Hollywood, Wall Street and many more. It is assumed that the emergence of the clusters affects positively not only the countries' economies but also has a global impact. In general, clusters provoke different considerations to be taken into account such as the geographical location and the companies' positioning as well as the role of the educational institutions and the government about contributing to the economic growth. Clusters may consist of specialized suppliers who are responsible for the acquirement of machinery and different services within certain industry. They include also various customer channels and manufacturers and often other companies with relatively similar usage of advanced technologies and inputs. Another component of most of the clusters is the institutional presence such as educational institutions in the face of the universities or other educational agencies that aims to contribute with education and research and development activities and other support (Porter, 1998, p. 78).

In terms of the boundaries of the cluster- it has variety of options, which depends on the industry linkages. In other words, a cluster could fit into the regional or national barriers but it may expand to a larger territory. Clusters do not often conform to ordinary industries and systems instead they could be obscured. Another characteristic of the phenomenon is that it provides both cooperation as well as competition among the rivals which is considered as the main driving force of the cluster. The competition and cooperation within the cluster exist in a straightforward manner due to the

fact they both occur among not identical actors (Porter, 1998, p. 79). Additionally, the clusters' formations advantage the companies with informal relations as well as with great flexibility and efficiency. Moreover, the cluster enables companies to develop in more productive way by accessing advanced technologies, information, suppliers, specialized human capital, complementarities and access to public goods while at the same time benchmarking their performance with the rivals operating in the particular location and thus motivating themselves (Porter, 1998, p. 81).

3.3 Entrepreneurship

Although entrepreneurship as a term is adopted for a considerable time, a general definition is not adopted yet by all of the researchers but has several variations, that depend on the researcher's perspective as well as the nature of the subject under observation (Bildeanu & Diaconescu, 2018, p. 3).

However, there is a considerable amount of literature on entrepreneurship that comes from J. Schumpeter (Alvedalen & Boschma, 2017, p. 890), who is one of the greatest economists of the 20th century with significant contributions to development economics. In his book "The theory of economic development", entrepreneurship is regarded as an imperative driver for economic development. Through creating and implementing new ideas, the entrepreneur wipes out the existing economic order. Speaking beyond economic development context, the entrepreneur's importance and its key role as an actor in creating and sustaining an entrepreneurial ecosystem is also recognized (Alvedalen & Boschma, 2017, p. 891). According to the business dictionary, the most precise example in regards to entrepreneurship definition is the establishment of business for profit sake. Additionally, entrepreneurship is determined as a complex phenomenon that requires the possession of specific skills such as tolerance to risk, innovativeness, creativeness, a few to mention as well as spirit and motivation (BusinessDictionary.com, n.d.)

Innovation, and, more importantly within the context of this thesis, entrepreneurship is considered a significant component for fuelling development engines. The important role of entrepreneurs in countries' economic development is widely recognized by numerous scholars and they "*Create new products, processes and services for the market*" (Gorji & Rahimian, 2011, p. 31). While the development of entrepreneurship in a country can often be hindered by impediments such as contrasting and complex regulations, on the other hand, concise administrative procedures and

regulations in a country are associated with a positive effect on the propensity of entrepreneurs towards launching a business. The authors identify three categories of limiting factors/barriers of independent entrepreneurship: individual - including family and education as varieties within the category; organizational - including financing, physical resources, and marketing; and environmental - including socio-cultural factors, as well as rules and regulations. While some differences in barriers between men and women for entrepreneurship in terms of significance have been indicated (Gorji & Rahimian, 2011, pp. 31–32), however, these are not a subject of relevance to our study as we are not investigating differences in gender segregation within entrepreneurship or regional context.

3.4 Entrepreneur

Schumpeter (2003), claims that since the emergence of the industries, the entrepreneur is defined as the owner or founder of a particular business entity or organization and on the other hand the employer/ master in the specific organization (Joseph A. Schumpeter, Becker, & Knudsen, 2003, p. 245). According to the English Oxford Dictionary, an entrepreneur is a person who has established a particular enterprise (physical capital). Furthermore, it is considered that entrepreneur has qualities such as innovativeness and creativeness as well as the ability to seize business opportunities and exploit and commercialize new products, services or techniques. In addition, the entrepreneur makes important decisions acquiring and obtaining resources, taking risks, manage the labor and capital in order to gain a profit and sustain over time (Dissanayake, 2013, pp. 4–5). There exist three groups of self-employed individuals. The first category of self-employed persons is those who identify and exploit a new business opportunity. The second group is self-employed workers who have no choice but to start work for themselves because of a lack of other job opportunities. The third group is individuals with the status ‘dependent self-employed worker’ (Román, Congregado, & Millán, 2013, p. 154). Isenberg (2011), suggests distinguishing the three following terms: entrepreneurship, self-employment and small and medium enterprises. Furthermore, he argues that entrepreneur is an individual who is constantly evolving and pursuing growth through value added activities. In detail, entrepreneurial activity is characterized to be risk-taking and dynamic process (D. Isenberg, 2011).

Consequently, we are assuming as the ‘true’ entrepreneurs, those who are opportunity-driven. They are seen to be able to capture opportunities, have entrepreneurial qualities, and successfully apply them to prosper by achieving their goals (Román et al., 2013, p. 154)

3.5 Entrepreneurial Ecosystem

Recently, a new and relatively more systematic concept which capture the entrepreneurship phenomenon by an interdisciplinary view is the ‘entrepreneurial ecosystem’ concept (Cavallo et al., 2018). Entrepreneurial ecosystems are seen as a number of entrepreneurship-oriented actors who are linked with each other as well as organizations and institutions that are somehow interacting in order to build, govern and sustain certain performance in particular location. To put it in another way, the relation between the stakeholders within the entrepreneurial environment are vital for the establishment of well-functioning entrepreneurial ecosystem (Pillai & Ahamat, 2018, p. 235).

In light, 'entrepreneurial ecosystem' term is reckoned to has the following characteristics: the existence of particular socio-economic sphere where the actors maintain relations and thus attain certain equilibrium while pursue to achieve their business interests. Isenberg (2016) states that these interactions within the business environment are also impacted by the policies which aims to restrict or support the ecosystem (D. J. Isenberg, 2016, p. 565).

Probably, the main advantage of the concept is that it brings together the process of interplay between the focal actors within a particular environment and how the culture in it can influence the entrepreneurship and thus lead to a successful entrepreneurial environment instead of investigating the potential effect of the entrepreneurial components separately. Although the majority of the scholars study the entrepreneurial ecosystem’s contribution with value creation to a certain region, other investigate the phenomenon on city level (Cavallo et al., 2018). In Isenberg’s point of view, entrepreneurship ecosystem should not be necessarily applied as a pattern that examines the entrepreneurial performance within the nation’s boundaries, but rather regard the term as phenomenon that could conceive in smaller unit of analysis due to the fact the ecosystems within one country could vary immensely (D. J. Isenberg, 2016)

Another key reference of Isenberg (2016) is related to the contradictory findings that associate the start-ups with the entrepreneurial ecosystems and the fact that the newly-launched enterprises are

accepted as the frontage of the ecosystems. Isenberg (2016) esteems it as a misconception due to the fact that ecosystems consist of much more components that should not be neglected. Additionally, it is worth mentioning, that although the emergence of the start-ups is critical for one ecosystem to develop, not all of them contribute with employment growth and value-added (D. J. Isenberg, 2016, p. 569).

Since the defining of the entrepreneurial ecosystem concept the term has conceived numerous derived types of systems such as ICT (Information and Communications Technology) ecosystems, organizational ecosystems, university ecosystems and the innovation and knowledge-based ecosystems. The researchers have focused especially on the latter one respectively, which they define as a specific platform that consists of enterprises and organizations or scale-ups that interconnect dynamically with each other and do complex processes in order to develop an innovation-based product/service. In the reinforcing cycle within the heart of the entrepreneurial ecosystem the scholars posit the following components: diversified entrepreneurs, finance capital, human capital, networks, support institutions, knowledge flow as well as the culture that captures the entrepreneurs' success stories where the scalable-oriented start-ups are seen as the renewable engine of the process. In that vein, the linkages established between the mature enterprises and the newly launched innovative ventures is critical for developing high-quality value creation to the ecosystem (Cavallo et. al., 2018).

For more comprehensive understanding of the phenomenon, the entrepreneurial ecosystem' domains, according Cavallo (2018), would be presented briefly: entrepreneurs (potential and already existing); organizations (banks, venture capitalists, companies, business angels); institutions (support agents, policy-makers, universities, financial institutions); process (enterprise birth rate, amount of high-growth enterprises, sell-out degree, entrepreneurial ambition). All of the components mentioned above have a strong correlation in a peculiar evolving process and are all influenced by the entrepreneurial culture within the ecosystem. It is worth mentioning that although many scholars assume that entrepreneurial ecosystem concept is related to a specific regional location, other deny this dimension as a characteristic of the ecosystem, arguing that in nowadays digitalization era it is more adequate to consider the entrepreneurial ecosystem as an independent of spatial effect phenomenon (Cavallo et al., 2018).

When analysing the entrepreneurial' dynamics the researchers refer to a process that includes three phases in a company lifecycle: the formation process, the growth process and the sustainability of

the company or its dead/ exit. If seen as more dynamic and non-linear rather than state process, the entrepreneurial' dynamics is influenced by several activities such as the social aspect in the system. Another prominent stream among the scholars is the debate of whether the entrepreneurial ecosystem could be governed and if some actors could impact others. Some advocate for equality between the subjects, others consider the policymakers as critical factor and third assume the large corporations as potential influencer (Cavallo et al., 2018).

Entrepreneurship ecosystems are assumed as useful tool when studying the emerging and development of enterprises in certain region. As it is mentioned above, ecosystems consist of networks, culture, financial capital, educational institutions and specific policies that stimulate the creation of innovation and knowledge based ventures. Spigel (2017) sheds light into the components that consist in the entrepreneurship ecosystem as well as their relations and their impact on the ventures' competitiveness. Moreover, the entrepreneurship ecosystem is explored in-depth by investigating the internal configurations of the main components as well as examining the outcomes of the high-growth system and the different ways of developing an ecosystem. In addition, Spigel (2017) focuses on the relationship between the elements which, on the other side, enhance the environment and competitiveness among the new ventures (Spigel, 2017, p. 50)

In detail, entrepreneurship ecosystem consists of social, cultural, economic, and political components within a specific region which encourage the actors of the system take a risk and support them by investments and know-how when launching innovative new enterprises. Otherwise explained, there are business infrastructure, successful stories and role models, finance capital, public policies, entrepreneurial culture and economic support in the entrepreneurship ecosystems. Other elements and features could be added such as educated labor, accountants, educational institutions, spin-offs and incubator organizations as well as different markets and available customers. Although the literature distinguishes many concepts of the entrepreneurship ecosystem, they share one characteristic which is that particular components are outward of the companies but within the boundaries of the location and enhance the competitiveness in the region. This activity leads to intercompany relations, knowledge exchange, organization mobility, spillovers, incubations activities, and networking. These elements could be grouped into three main categories: social, cultural, and material. They would be presented briefly since all of them are critical for the creation of the ecosystem framework. As cultural attributes, we can assume the individual's attitudes towards entrepreneurship, their norms in the region and level of risk-taking

as well as the stories of successful entrepreneurs that inspire the others to start own business. Next attribute is the social one, which is simply the social networks, knowledge flow for new technologies, access to financial capital, and different opportunities and advantages. Here it could be included the mentors and the skilled workforce in the entrepreneurship ecosystem as well. Last but not least, are the material attributes which could be defined as the location, the specific policies and other organizations which regulate and support the market as well as the universities and other educational institutions in the entrepreneurial field that facilitate with incubation, coworking, and acceleration (Spigel, 2017, pp. 51–54).

The lack of strong local market or best practices and policy regulation, for example does not necessarily imply harmful effect on entrepreneurship ecosystem but the interaction between every attribute is more important for the system's development. Each component of the configuration complements the other.

As the European Commission claims, the entrepreneurship is the process of improving the economic state by being proactive, innovative, creative, having a tolerance to risk and provide adequate management, the entrepreneur is an individual who has the capability to identify business opportunities, capture them and make a profit. Most of the streams in the literature that deal with entrepreneurship adopt the consideration that the ability to run and sustaining certain capacities would help develop entrepreneurial skills. Moreover, large number of entrepreneurial programs are provided by the educational institutions. In order to prosper and push forward, the entrepreneur needs a favorable environment where he/ she would be able to acquire innovation and knowledge exchange and thus expand his/ her business. The entrepreneurial ecosystem is the process of gathering various enterprises that could be distinguished on level of maturity, field, capacities, and size as well as institutions that aim at establishing attractive entrepreneurship conditions and stimulating the well-functioning of the process within a specific geographical dimension. The success of the entrepreneurs depends mainly on the ecosystem' state and in particular on the policies and stimulating activities that work to facilitate and enhance the cyclical process. A broad acceptance among the researchers is that entrepreneurship is the backbone of the country's economy by providing innovativeness, value-added, and competitiveness. In that vein, entrepreneurship should be consciously supported by the public domain (Maroufkhani, Wagner, & Wan Ismail, 2018, p. 546).

Healthy entrepreneurial ecosystems are those in which leaders are all striving for the values of entrepreneurship. In the healthy entrepreneurial ecosystem, the different public authorities build well-functioning institutions that aim to support the entrepreneurship such as research and development, and other facilities. Other actors involved sufficiently in the ecosystem are the educational institutions also recognized as critical for teaching managerial and analytical skills as well as to motivate the individuals to pursue entrepreneurship as a future career option. The financial capital, on the other side, is another vital element of the system which could be acquired by venture capital funding, business angels, microloans, debt finance, capital markets, etc. The conducive entrepreneurial ecosystem is nothing without a market which is highly relevant and enables the entrepreneurs to operate there and to meet the customers' needs. The next dimension is the culture within the ecosystem and more specifically, if the population tolerates the risk and the failure as well as the individuals' attitude towards entrepreneurship and the success stories of the entrepreneurs. Not only the leaders of the ecosystem are key to stimulate the smooth process but additionally the contribution of the external nongovernmental organizations, that help with various services such as creating linkages between the entrepreneurs in different ecosystems or in other words enhancing the networking process (Maroufkhani et al., 2018, p. 548).

Some scholars include crowdsourcing as well as industrial dynamics in the entrepreneurial ecosystem pattern. As an activity, crowdsourcing refers to some extent to the concept of open innovation which is a process in which the enterprises exchange relevant sources and solutions from the outside to enhance their capacities. The crowdsourcing has introduced a financial tool as well, the so-called crowdfunding activity which provides external public capital from the crowd through digital communications. This leads to the recognition of the crowdfunding as a new alternative mechanism that enables entrepreneurs to obtain financial capital efficiently (Maroufkhani et al., 2018, p. 549).

Although the entrepreneurial motivation in the face of well-educated individuals has a vital role in the development of positive entrepreneurial culture, there is as well the need for a favorable environment for an entrepreneurship ecosystem to emerge. Scholars in the field, have advocated for conscious choices when it comes to stimulating the entrepreneurial activity in one country. Moreover, some of them suggest building high-growth based businesses in a particular location rather than a large number of companies with poor quality. The majority of the countries are seeking for a more generic pattern when discussing entrepreneurship ecosystem. They prefer using

the concept on a national level. The criteria are seen as important because the developed nations approach it as identification for the rate of their progress, whereas developing nations estimate their movement while benchmarking their entrepreneurial position with the progress of the advanced countries (Mosleh Shirazi & Mohamadi, 2018, p. 632).

It is worth mentioning that the entrepreneurship ecosystem is related to rapid growth and includes only scalable mature companies or start-ups. Moreover, these ecosystems are assumed as formations consisting of innovation-based companies that are contributing to the environment with job and value creation. This claim has been repeatedly highlighted among the literature in the field because it is assumed as an appropriate way of distinguishing the traditional manner of defining the entrepreneurship with the more recent conceptualization (Mosleh Shirazi & Mohamadi, 2018, p. 633).

Nowadays, many researchers and principals assume the notion that the fast-growing new ventures or in other words ‘gazelles’ have an essential part of the economic development and in particular, they contribute with increase of the employment and the innovation creation, with political stability, inward investments and enhance the companies’ competitive advantage in one country. For instance, the Canadian government emphasizes the efforts entrepreneurs make and their vital role in the economy. That is the reason why Canada aims at reinforcing the entrepreneurial activity in the country. In light, a large number of countries recognize the entrepreneurship as the backbone of their economies. Therefore, the policy-makers aim to establish specific favorable regulations to improve the environment for the start-ups as well as the small and medium enterprises (Rahatullah Khan, 2013, pp. 28–29).

Van de Ven (1993) focuses on the activities that are involved in developing the entrepreneurial infrastructure, which includes skilled labor, investments, regulation policies, research and development activities, manufacturing, distribution, etc. The listed components are assumed as external sources for entrepreneurship, however, they take a crucial role in the ecosystem (Van De Ven, 1993, p. 211). By involving those components to interact with the elements of entrepreneurship ecosystem framework, one could understand better how the different actors and attributes interact in order to develop particular infrastructure which would influence the overall entrepreneurship process (Van De Ven, 1993, p. 217).

Isenberg (2011) describes an entrepreneurial ecosystem as a system consisting of six domains: Culture, Policy, Finance, Human Capital, Markets, and Support. Moreover, each of these consists

of numerous other elements, but for convenience, they are grouped into these six general domains. Although every entrepreneurial ecosystem can be illustrated by these six domains, however, a fundamental component is the complex interaction between the numerous elements within these domains (D. Isenberg, 2011).

Even though no strict rules for an entrepreneurial ecosystem to emerge are presented, some scholars argue for a few core principles which can help for creating an ecosystem. Silicon Valley cannot and should not be imitated, and the ecosystem should be designed around the settings of the geographical location. Private entities should be engaged from the beginning, attention and support for the ‘gazelles’, engaging and raising the awareness of the community, the process of companies development should be organic, developing such regulations that will not be an obstacle for the players (Stam, 2014, p. 4)

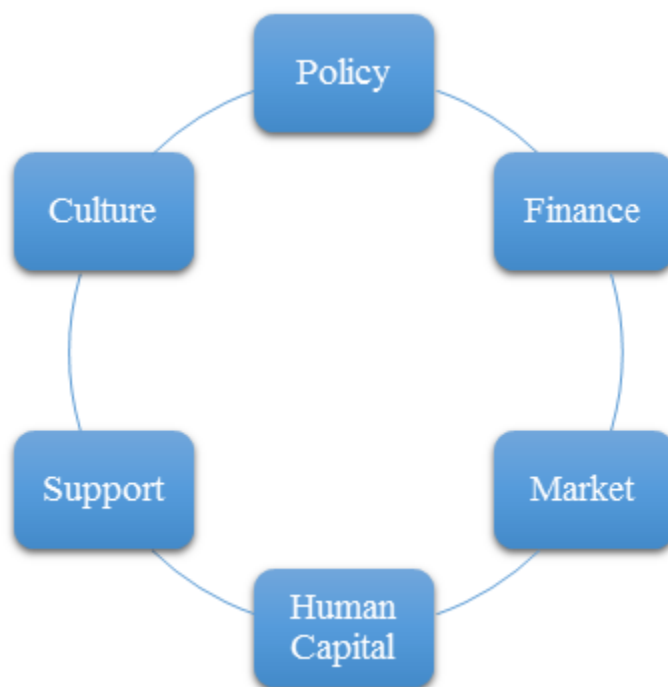


Figure 2 Entrepreneurial Ecosystem Domains

Source: (D. J. Isenberg, 2016, p. 572).

3.5.1 Relative concepts to Entrepreneurial Ecosystems

Although the entrepreneurship ecosystem concept is not the most recently emerged phenomenon among the business literature, it gains more and more popularity as well as it became an assumption that is mainstream in the modern economy. The entrepreneurial ecosystem could be defined as a so-called umbrella in a specific region which gathers a variety of entrepreneurs as well as a wide range of stimulating institutions that aim to support the new venture creation and help them sustain and expand.

The entrepreneurial ecosystem term was first used in the 80s debates regarding the entrepreneurship concept where the scholars have argued about the impact of the economic, political, regional and cultural structures on the entrepreneurs and their activity. Different formations such as OECD, Kauffman Foundation, and World Economic Forum have also highlighted the importance of creating a particular strategy as well as developing a specific framework in order to shape the entrepreneurship ecosystem concept. This led to an increased interest among scholars from academia that aim at building relevant theories of how entrepreneurial ecosystems could be thriving and promote economic growth. The main reason of the researchers' focus is because once the characteristics of the flourishing ecosystem are discovered, that would allow entrepreneurs to develop knowledge and thus seize more business opportunities, identify niches and contribute with value creation (Spigel & Harrison, 2018, p. 152)

Mayer (2016) points out the importance of identifying the evolutionary framework of the entrepreneurship ecosystem to capture the development of its elements over time (Mack & Mayer, 2016, p. 2119). Although plenty is written about the evolutionary process in the industrial clusters, it seems neglected the theme of the entrepreneurial ecosystem and its elements' evolution. This process could be illustrated with the following phases: First, the birth stage that is an activity which is characterized by the presence of more launched companies than companies which are dying. In that phase, the other components of the entrepreneurial ecosystem such as markets, finance, and the culture which is low risk-oriented are emerging and improving. Moreover, support organizations as incubators or other organizations are founded. The second phase is the growth stage that could be described with more specific elements of the entrepreneurial ecosystem, and markets are oriented at national and even international level. That is the moment when universities

and colleges start providing education in the entrepreneurial field. In addition, successful entrepreneurial stories emerge, and financial capital is getting more accessible. Another component of the system that is developing is the entrepreneurial networks which are expanding due to the changing culture and policies that are favorable for new company creation (Mack & Mayer, 2016, p. 2121). The final stage of the framework is the sustainment phase, where the number of company births is low, while a large number of companies exit the market. Unfortunately, if the company is not successful and robust enough, it can be doomed to die because of the extremely high competition. Moreover, the financial capital, in terms of investors, is becoming more and more challenging to reach. The entrepreneurship oriented policies and strong leadership are seen as crucial for companies' sustaining. During that phase, entrepreneurship is no longer appealing for career choice (Mack & Mayer, 2016, p. 2124).

Adding the entrepreneurship ecosystem evolutionary pattern to the current study is assumed as essential when exploring the entrepreneurship ecosystem phenomenon. By determining each phase of the system's process as well as the elements' development in the different stages, a brighter picture could be illustrated. Although the different observations identify only the focal actors in the system, it is important to approach the process within a dynamic framework rather than static (Mack & Mayer, 2016, p. 2131). This is seen as critical as the entrepreneurship ecosystem could be better understood as well as to be applied when comparing different systems.

According to *'The death of competition: leadership and strategy in the age of business ecosystems'* the era of immutable businesses whose actors seek supremacy by competing with their rivals is long forgotten option. Moreover, the market boundaries that have been assumed as traditional are blurring. Moore (1996) recommends using the term 'business ecosystem' instead of 'industry'. He continues with an example for Microsoft ecosystem and how the company unites four different industries such as information and communications, PCs, and consumer electronics. In addition, the executives of Intel, Microsoft, Disney, and others seek to establish brand new business ecosystems. However, the author points the new wave of running a business and more importantly, to sustain it among the competitors. That wave brings the emergence of business ecosystems and approaches the competition in another way. Nowadays, more and more companies coevolve with each other rather than scrambling for the marketplace. This would lead to the formation of alliances, establishing new relationships, sharing a vision. Such cooperation is characterized as more flexible and resilient. Moreover, companies which coevolve with their rivals are getting

stronger and superior than companies that compete with others. Although the majority of the companies focus on daily issues such as what their competitors have done which could lead to lack of time for future growth, others in contrary emphasize relations with key suppliers and customers or even collaborating with competitors in different aspects like shared researches in order to improve the environment for everyone. As it was mentioned, some companies see opportunities for growth by developing relationships and networks to contribute to the overall economic well-being and in turn, to increase their competitive advantage. In other words, the successful companies have a sight of the big picture instead of concentrating their efforts solely on enhancing the inward processes of the company. Sometimes the most dominant and creative companies have the power to transform the environment in their favor (Moore, 1996).

3.6 Commonalities of Innovation Systems and Clusters with Entrepreneurial Ecosystems

Several differences and similarities between the concepts of innovation system, cluster, and entrepreneurial ecosystems can be found in the literature. For instance, the systems of innovation concept which includes innovation-based structures as well as the main characteristic of the clusters, namely - the knowledge spillover effect among the companies in a particular location, could provide insights into the effect of certain regions on the entrepreneurship. This could lead to the concern of whether entrepreneurial ecosystem concept is a distinct term or gathers the features of the concepts mentioned above. On the other hand, the entrepreneurship ecosystem could be explored as a concept that points out the weaknesses of the IS and clusters, and their attitude towards entrepreneurship alone. For instance, they focus on the needs of the successful innovative entities and pay no significant attention to other companies. An example could be that there is no clear evidence that the start-ups can benefit from the knowledge and resource spillovers as much as the mature companies, because of their limited absorptive capacities (Spigel & Harrison, 2018, p. 155). Another aspect that may differ between the entrepreneurship ecosystem and both clusters and IS concepts is that, instead of focusing on the technical and market knowledge such as IS and clusters concepts do, entrepreneurial ecosystem approach also includes the understanding of the entrepreneurial process itself. The latter consists of particular capacities such as seizing opportunities as well as the ability to run and sustaining a business which involves skills such as risk-tolerance, innovativeness, creativeness, analytical and critical thinking, etc.

Another difference of the IS and cluster approaches from the entrepreneurial ecosystem theories is the industry focus. Both IS and clusters are concerned mainly with the innovation as well as the technical knowledge in a particular sphere. In contrast, although the ecosystems are also concerned with the technology and innovation-based ventures, the companies are in unrelated sectors, and they are not even required to operate on the same market (Spigel & Harrison, 2018, p. 156).

In consequence of these notes, it is essential to elaborate on the entrepreneurial ecosystem phenomenon, and how it is beneficial for the entities within the ecosystem and more specifically, the advantages for the start-ups as the RIS and cluster frameworks do not cover the process and its features. However, the concept of the entrepreneurial ecosystem is assumed to be more or less chaotic, mainly because of the absence of a strong correlation of the causes and effects between the different elements within the ecosystem. There is also confusion regarding the observation level- if it is on a local, regional or national level or it might be on a specific unit level. According to some venture support organizations, the presence of financial resources alone is not enough for one company to succeed. However, more critical appear to be if the entrepreneurs can draw on the resources in the ecosystem, based on their personal characteristics, networks, and capabilities. On the other side, if the entrepreneur is not willing to communicate with the other members of the ecosystem and build trust-based networks, it would be even harder to engage and enhance their competitive advantage in the business environment (Spigel & Harrison, 2018, pp. 158–159).

However, it could be concluded that both the access to resources as well as the social networks are crucial for strengthening the entrepreneurial ecosystem. Moreover, the activities enabling the creation of resources such as talented workforce, knowledge, financial capital, and their flow among the ecosystem are essential for the assimilation of the essence of entrepreneurship growth. Well-defined and functioning entrepreneurial ecosystems are those with network dense between all of the actors within the environment (Spigel & Harrison, 2018, p. 161). Additionally, the strength of the ecosystem relies on its culture as well. Cultivating entrepreneurial culture is well-known to encourage the knowledge flow process, risk-taking, network expanding, and trust. Another measure worth to mention is the wide range of policies such as venture investments, creating incubators and other supporting interventions that could contribute to the entrepreneurship improvement (Spigel & Harrison, 2018, p. 164).

The similarities between the innovation systems and entrepreneurial ecosystem could be recognized in the face of the domains they both include. A large amount of them is seen as more or less identical. For instance, the system of innovation contains organizations and public institutions, and so does the entrepreneurial ecosystem. Moreover, both phenomena approach the interaction between the focal actors and even emphasize the interconnection among them as this process is considered as essential for the knowledge diffusion and the spillover effect, which are the main driving forces for growth. In addition, both of the theories spark passionate debates about whether the government and the public institutions should assist the processes within the systems, while they should also be more conscious about their incentives. Contrary to the system of innovation, the entrepreneurial ecosystem consists of a larger number of components which are focused on the organizations' support within the business environment. Another difference of the entrepreneurial ecosystem is the geographical aspect which is highly uncertain and depends on the observer's perception while the systems of innovation define various innovation systems on a different level. The same goes for the cluster concept, which implies accurate location of the formations. Moreover, the entrepreneurial ecosystem theory refers to diversification of the companies, and in particular the sectors they operate in, whereas clusters consist of companies in the same industry/ sector.

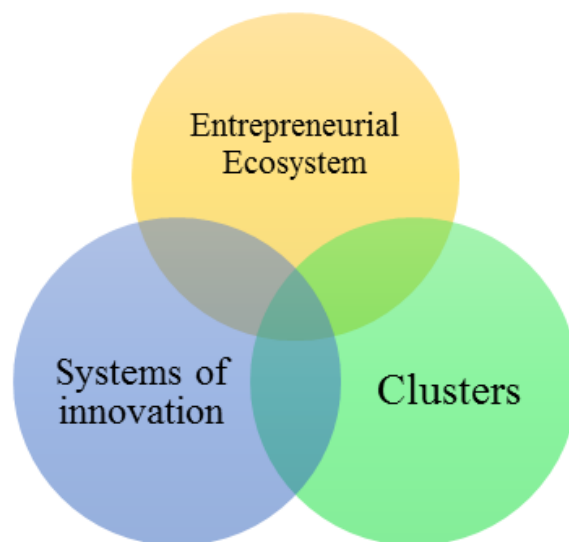


Figure 3. Overlap between the concepts of Entrepreneurial Ecosystem, Clusters and Systems of Innovation

Source: (Spigel & Harrison, 2018, p. 155).

3.7 Entrepreneurial Ecosystem within the High Tech sector

The section below aims to introduce the entrepreneurial ecosystem specifically in the high technology sector as well as its main components and actors, following the literature propositions. Each of the entrepreneurial ecosystem's components would be presented in separate paragraphs, for the sake of clarity as well as in consideration of the better elaboration of the complex phenomenon under investigation. Moreover, the entrepreneurial ecosystem components are defined and explored at their most in accordance to the high tech industry. Emphasizing the actors and components is also viewed essential for our purposes of answering the research questions.

3.7.1 Description of High-Tech Sector

In this section, we first define what the *high-tech* sector consists of regarding the industries that fall into this category. Second, we further describe the types of industries that the selected companies for analysis (the sample) operate in, as this sample is the main source of primary qualitative data. Thus, on one hand, it will help to describe how we regard the sample to the high-tech sector in Bulgaria (which also partly relates back to our second research question), and on the other hand, to add more context regarding the type of sample we have selected, and clarify how it is related to our report.

The term *high-tech* is the abbreviation *high-technology* (Eurostat, 2017), but yet the term does not have a widely accepted definition (Donovan Dennis J., 2015). Other than that, as high-tech sector may be too broad of a term, and can also be related to both services, as well as manufacturing, we consider it important to slightly narrow it down in view of its relation to the selected sample for this study. Thus, through the following three steps we frame a variety of high-tech associated industries (both service and manufacturing related) from different relevant sources. First, we look at the different segments comprising the high-tech sector according to (Fryeberg, Collingnon, & Kratzert, 2014) from the figure below:

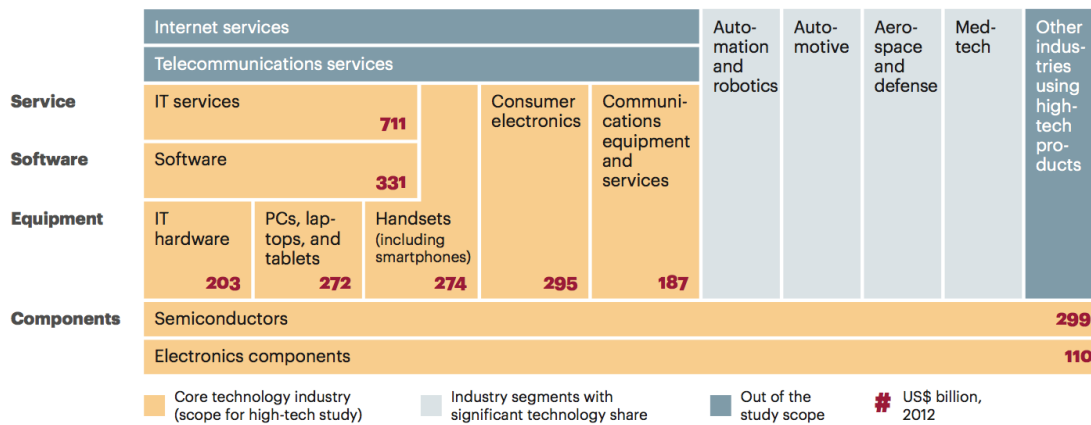


Figure 4: Defining the global high-tech market

Source: (Fryeberg et al., 2014, p. 2)

It is important to emphasize that the different box colors of each segment associated with the (Fryeberg et al., 2014) study scope, as well as the numbers showing the US\$ value detailed in the figure above, are not considered relevant for the purpose of our study, as we use the figure solely for illustration purposes. Therefore, these two details should be ignored, and it is only the different industry segments from the high-tech sector that matter from the figure for the context of our study. Thus, we employ the segments comprising the *high-tech* sector according to the figure as follows: Internet services; telecommunication services; IT services; software; IT hardware; semiconductors; electronic components; PCs, laptops, and tablets; headsets (including smartphones; consumer electronics; communications equipment and services; automation and robotics; automotive; aerospace and defense; med-tech; other industries using high-tech products (Fryeberg et al., 2014, p. 2).

Second, as previously mentioned that the term high-tech doesn't have a widely accepted definition, however, Donovan Dennis J., (2015) illustrates an example of traditional high-tech industries. The example is shown in the figure below:

Sample: High-Tech Industries	
<u>Manufacturing</u>	<u>Services</u>
Chemicals	Digital Media
Pharmaceuticals/Biologics	Information Technology
Medical Equipment	Telecommunications
Machinery	Architecture
Computers/Electrical Equipment	Engineering
Transportation Equipment	Scientific/Technical
Aerospace/Avionics	Healthcare (at least a portion of the sector)
Instruments & Controls	
Robotics	
Optics/Photonics	
Communications Equipment/Devices	

Figure 5: Sample of high-tech industries

Source: (Donovan Dennis J., 2015)

Therefore, we add to our scope of high-tech sector the above listed manufacturing and service industries.

Third and last, Eurostat aggregates the manufacturing industry based on technological intensity as well as on NACE Rev.2 (Eurostat, 2017). Thus, within the high-tech sector we also employ their selection according to this classification. In concrete, as based on NACE Rev. 2 3-digit level, Eurostat distinguishes the following 4 categories: High-technology; Medium-high-technology; Medium-low-technology; and Low-technology (Eurostat, 2017), where we employ the first two categories (high-technology and medium-high-technology). The figure below illustrates the types of manufacturing industries included in the two categories:

Based on NACE Rev. 2 3-digit level

- High-technology:
 - Manufacture of basic pharmaceutical products and pharmaceutical preparations (21);
 - Manufacture of computer, electronic and optical products (26);
 - Manufacture of air and spacecraft and related machinery (30.3)
- Medium-high-technology:
 - Manufacture of chemicals and chemical products (20);
 - Manufacture of weapons and ammunition (25.4);
 - Manufacture of electrical equipment (27);
 - Manufacture of machinery and equipment n.e.c. (28);
 - Manufacture of motor vehicles, trailers and semi-trailers (29);
 - Manufacture of other transport equipment (30) excluding Building of ships and boats (30.1) and excluding Manufacture of air and spacecraft and related machinery (30.3);
 - Manufacture of medical and dental instruments and supplies (32.5)

Figure 6: High-tech classification of manufacturing industries based on NACE Rev. 2 3-digit level

Source: (Eurostat, 2017)

Finally, we limit the analysis to Bulgarian new ventures which: are mainly located within the region of the city of Sofia; are younger than 10 years; employ less than 250 employees; operate in industries within the high-tech sector as shown above.

3.7.2 Entrepreneurs and the new venture creations

The new venture creation is defined as an independently established entity in which founders should acquire specific expertise in particular product/ technology/ service. For its competitors, the new venture creation is seen as a new entrant in the market, while for its customers, it is considered a new way of product or service supply. The new organizational entity must find resources, tackle the environmental issues, and compete with the rivals (Gartner, 1985, p.698).

The individual who is establishing a new venture creation or the so-called entrepreneur has the following characteristics: the ability to seize opportunities, a need to achieve business goals, risk-taking behavior, tolerance to failure, etc. (Gartner, 1985, p. 699)

Within the environmental context of view, the entrepreneur is considered highly dependent. In other words, if the environment encourages and contributes to the new business creation with its favorable supportive character or in contrary, restrict the entrepreneurs of launching and running a business by harmful regulations. However, two types of perspective regarding the environment

could be recognized. On the one hand, the environment is seen as the external conditions surrounding the venture creation, and where the entrepreneur should adapt to in order to survive and sustain. On the other hand, some scholars believe that the environment is the own perceptions of the entrepreneurs and how they perceive when and where they want to develop a business. The favorable conditions within the ecosystem could be as follows: available financial capital such as venture capital and other funding, experienced and acknowledged entrepreneurs, talented labor, suppliers, customers, policy support, synergy between the academia and the business, facilitates in terms of infrastructure and services, well living standards as well as entrepreneurial culture. On the opposite, the new venture creation could face the following obstacles: market entry barriers, harmful competition, buyers, and suppliers power (Gartner, 1985, p. 700).

Many researchers consider new ventures as a great economic tool that contributes to job creation and mobility, and improve economic flexibility and efficiency. The nascent companies are seen as extremely dynamic and uncertain not only due to the changing environment and the competition by other mature and already sustainable businesses but also the young entrepreneurs usually have obstacles in terms of networking and engaging with particular suppliers and potential customers. Unfortunately, this highly uncertain process of developing the company leads to failure in many cases (Liao, Welsch, & Moutray, 2008, p. 2). In other words, entrepreneurs in a particular ecosystem are linked with each other on the basis of common vision and goals as well as their need to obtain and expand their knowledge and experience to support the company's success (Nambisan & Baron, 2013, p. 1074).

The performance of the entrepreneur and the ecosystem as a whole could vary in regards to the scope settled. For instance, for a single company, success can be determined by its revenue, the offers, employed workforce, customer base, image, etc. In contrast, within the ecosystem perspective, the company could advantage by the image, market share, and the increase of the members of the ecosystem. Moreover, as it was mentioned, one of the challenges faced by the entrepreneurs is to survive and sustain in the long-term. This implies that entrepreneurs should be flexible and capable of identifying and exploiting opportunities within the ecosystems' barriers as well as outside the entrepreneurial ecosystem if they attempt to expand the company (Nambisan & Baron, 2013, pp. 1076–1077).

Although the entrepreneur should identify and seize a market opportunity as well as come up with a business idea and concept to start own enterprise, the acquirement of particular resources is vital

for one's business to exist and operate on the market. Otherwise stated, the company's launching process may consist of a creative business plan and particular resources to proceed with the company to a real-life business entity. In consequence of the basis of these notes, the specific resources should be mentioned briefly: human capital, social capital, and financial capital. In regards to the human capital, there are two dimensions to be taken into account: the experience and knowledge of the new venture founder and the same of their employees. The reason why human capital is essential when setting up a business is that the better human capital, the better prospects for the startup, and the higher the productivity and efficiency of the company would be. Additionally, human capital is considered to be the crucial factor when it comes to the sustainment of the new venture and preventing it from failure. The social capital resource could be expressed by the relationship network among the ecosystem or the connections that the entrepreneur has with other individuals, business entities, and stakeholders in the environment. The social capital in the business sphere should not be neglected, but it should be viewed as a critical source that could support the nascent entrepreneur in terms of finance and other facilities. The third resource that would be mentioned briefly is financial capital. The latter is reputed to be the primary resource without which the nascent entrepreneurs could not establish and run their business. Often, the funding from external institutions or organizations is not available, especially for a new company with no track record, which has a rather uncertain character. Thereby, in practice, the financial source of a new venture is raised mainly from its founder. Usually, the tech companies are more prone to survive compared to their rivals that are not technology-oriented (Liao et al., 2008, pp. 4–5).

As it was mentioned, the topic of the new venture creation is highly discussed among the entrepreneurial circles. The statistics show that nearly 80-90% of the nascent companies fail. Therefore, the entrepreneurs are prone to invent new ways of overcoming the obstacles and avoid having a serious battle with reality. Such challenges the entrepreneurs may face could be problems related to the business ecosystem where the company operates in, the establishment of new routines and rules within the company, the legal arrangements, developing a business plan and business model, the networking process and social skills, resource endowment, the time constraint, etc. Another critical factor which should be taken into account when discussing the overcoming of challenges is the entrepreneurs' experience and knowledge in the field, as appropriate expertise

could accelerate the company development and improve the chances of the entrepreneur to make a profit. Moreover, the nascent entrepreneur' managerial skills are critical for the company's performance and ability to find the breakeven point. Although most of the researches stand by the notion that founder's previous experience and educational level have much to do with their company success and great performance, other would deny it and consider such assumption as irrelevant for the business fields (Oe & Mitsuhashi, 2013, p. 2193).

The high percentage of failures in the startup ecosystem stems from the fact that when still young, companies suffer from a large number of problems such as engagement with suppliers, determining particular operational and managerial patterns and others, which were mentioned above. If the founder has experience from other companies in terms of specific organizational habits, routines, and administrative procedures, they could apply them in their own company and therefore deal with matters such as management of human capital, social ties, and other operational working tasks. The researchers distinguish three types of experience regarding the recently established companies: entrepreneur's previous knowledge and experience in launching companies, work experience, and such in the same industry. In general, founder's previous experience in the process of learning-by-doing increase the chances of the new venture to recognize business opportunities, which leads to enhanced knowledge of the customers' behaviour due to the overlaps within the business sphere and thus enforcing the company's performance and gaining competitive advantage (Oe & Mitsuhashi, 2013, p. 2194).

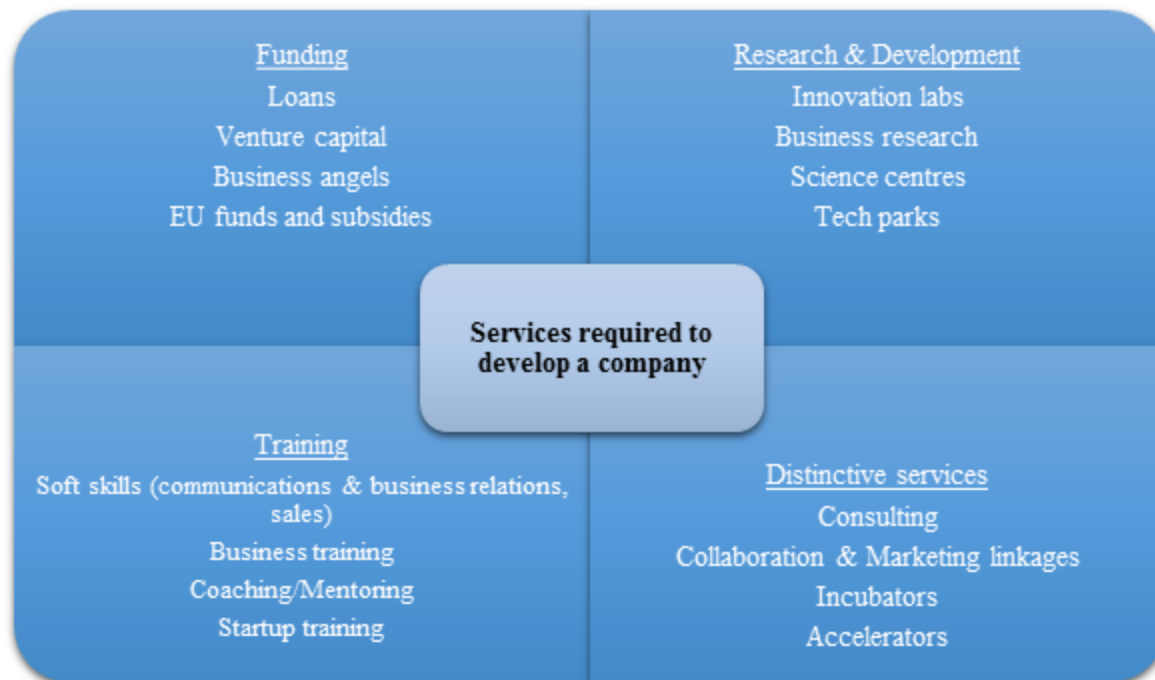


Figure 6: Services required to develop a company

Source: (Rahatullah Khan, 2013, p. 29) Muhammad, R. K. (2013), p.29

3.7.3 Introduction to the entrepreneurial ecosystem within the high-tech sector

Although extensive research towards investigating the business environment is done, less attention is paid to the nascent entrepreneurs operating in the innovation and technology industry and their impact on sustainable economic growth. By applying the entrepreneurial ecosystem components, Cohen (2006) examines how a particular economy could be transformed into an innovative hub through 'tech entrepreneurship'. For instance, a study which explores the interconnectivity between the entrepreneurial ecosystem elements shows that the process of their interaction leads to the formation of tech hubs consisting of high technology new ventures in a specific region. Furthermore, the elements which emerged as most relevant from the study are culture, formal and informal connections and the infrastructure of the particular region.

For the sake of clarity, the entrepreneurial ecosystem within the context of the high tech industry would be defined: Entrepreneurial ecosystem is such a system which consists of actors who are continually interacting with each other, positioned in particular region, dedicated to sustainable

growth through stimulation and encouragement of innovation and technology-based ventures. In consequence, the entrepreneurial ecosystem within the high tech industry is focused on developing economic and social value in a particular community by producing value-added enterprises which process contribute to job creation, enhanced business environment, competitive advantage and economic growth (Cohen, 2006, pp. 1–3).

Informal network is a networking process that is crucial for newly established companies as the founders often need mentorship or any advice to overcome their lack of management background. In contrast, formal networks represent the government organizations, research and development based institutions, consulting, and other types of supporting agencies, big enterprises, and talents (Cohen, 2006, p. 7).

- Research institutions play a vital role in developing a high tech entrepreneurial ecosystem as their potential can provide essential expertise from a wide range of areas such as political and social science, engineering, psychology, biology, etc. Not only the producing of qualified graduates is linked to the research institutions' capabilities, but they also innovate radical or incremental technology solutions which if commercialized while collaborating with the business, can result in far-reaching contributions.
- In the perfect economy, the government is highly concerned with the high tech companies work and achievements. Governmental institutions could foster the entrepreneurial ecosystem state by various incentives such as providing subsidies and other financial aids, decreasing the bureaucracy or establishing innovation programs and competitions as well as high tech science parks, thus, to push the traditional businesses to become more innovative.
- Support services are comprised of legal and consultancy support, supplier agencies, incubators, and accelerators, which provide to the high technology new ventures access to co-working space, networking, links with investors, mentorship (Cohen, 2006, p. 8).
- Capital resources: The difficulties which recently established high tech companies have with acquiring financial capital are well known to be of a significant necessity for the entrepreneurs because of the complex and expensive technologies behind the product or service innovation and the overall sustainability of the company.

- Talents are the driving force of high tech companies, and consequently, they rely on attracting highly skilled professionals, which often is an obstacle due to the great demand of labor in the sphere of information and technologies.
- Big companies by presumption have vast experience, profits, and respectively, sources that could be of significant importance for the high- tech oriented ventures. The benefits that the big ones can provide are launching training, spin-off effect through labor mobility, different foundations, and others (Cohen, 2006, p. 9).
- Infrastructure is also taken into account when high tech new ventures consider where to establish their business.
- The culture within the region where the entrepreneurial ecosystem is positioning, play a key role as well. Culture is assumed to be the element which is almost impossible to 'borrow' from other ecosystems which culture is more entrepreneurial oriented. Although the culture in particular region is critical towards entrepreneurship and is rather difficult to be changed and improved, a few steps could be made such as developing knowledge and awareness of the positive effects of entrepreneurship on the social and economic progress. Additionally, awareness can be fostered by media by introducing best practices, cases, and role models (Cohen, 2006, p. 11).

3.7.4 Human Capital

The human capital, as one of the domains of the entrepreneurial ecosystem, has the following characteristics: knowledge, skills, education level, and experience. The human capital is closely linked to the entrepreneurial ecosystem and can influence its functioning. Moreover, a highly experienced and educated workforce implies strengthening the ecosystem, and therefore, the companies are prone to succeed because of the knowledge-based activities usually implemented in each scalable oriented working environment. In practice, the venture capitalists and investors attach great attention to the entrepreneurs' experience and their skills when selecting potential candidates. The contradictory debate whether human capital is among the core factors in the entrepreneurial ecosystem or the notion is overemphasized is widely spread (Unger, Rauch, Frese, & Rosenbusch, 2011, p. 342).

Scholars admit human capital is a significant part in the chain of business development. Human capital is related to the process of employees' recruitment for higher organization productivity. In

the nowadays digital era, the skilled and educated specialists in ICT (Information and communication technology) sector are highly demanded. Unfortunately, the business is often challenged to satisfy its needs of recruiting corresponding talents despite the fact that the supply and demand for skilled labor are disproportionate. This tendency leads to the establishment of various training programs related to the innovation industry to enable the talent flow and thus reinforce the companies' performance and competitive advantage. In practice, human capital requires high-quality education and incentives in the value added spheres such as mathematics, engineering, science, and ICT. In other words, it could be concluded that qualification in the mentioned spheres is an essential part of the human capital improvement (Rangone, 2017, pp. 236–237).

3.7.5 Entrepreneurial Education

The present awareness of the entrepreneurship among academia leads to the creation of an increasing number of entrepreneurial-based programs. Since the launching of the first entrepreneurial course at Harvard University large number of scholars and economists have started debating whether entrepreneurship can be taught or it is a personal capacity, one should be born with (Fayolle & Gailly, 2008, p. 586).

In general, the policy makers are starting to realize the great value entrepreneurial education brings to the economic and social circles. The European Commission suggests the implementation of entrepreneurial programs on all educational levels to enhance the member countries' entrepreneurial state (Marques, Ferreira, Gomes, & Gouveia Rodrigues, 2012, p. 658). Moreover, the European Commission put great emphasis on the entrepreneurial education as it shapes students' behavior to be more proactive, creative and risk-taking and thus motivate them to establish innovation-based businesses (Hämäläinen, Ruskovaara, & Pihkala, 2018, p. 3).

The reason for applying such incentives is that the more qualitative entrepreneurial education, the more qualified individuals there would be in the business spheres as well as the increased creation of new jobs related to the knowledge intensive industries. Moreover, the entrepreneurial culture is seen to enhance the students' motivation and inspiration for running their own company and pursue entrepreneurship as a future career option (Walter & Dohse, 2012, p. 812). The teaching manner when studying entrepreneurship should be taken into account as well. In concrete, the problem-based learning techniques, along with involving students in real life cases, or meeting them with

successful local entrepreneurs. These are crucial and can lead to the students' commitment to the learning process. When incorporating cases of prosperous startups or already mature enterprises in school, students are more prone to believe that being an entrepreneur is an exciting venture and thus their attitude towards entrepreneurial activity will be much higher (Walter & Dohse, 2012, p. 815).

Furthermore, in the recent decade, a lot of advanced economies have created various entrepreneurial programmes. Norway statistic regarding the entrepreneurial education introduced that in the Norwegian educational system, around 90% of the schools have established subjects related to entrepreneurship. This is motivated by the fact that the particular education is seen to develop various qualities and mindset that are in high demand such as creativeness, innovativeness, tolerance to risk, analytical thinking, a few to mention (Johansen & Schanke, 2013, pp. 357–360). Moreover, the government in China aims to trigger the entrepreneurial growth in the country while launching different entrepreneurial incentives such as stimulating the startup ecosystem, creating incubators, accelerators and entrepreneurial courses in the school curricula (You, Zhu, & Ding, 2017, p. 65).

A large number of universities deliberately make efforts to encourage the establishment of new ventures that are closely linked to academia. It is widely considered that the synergy and diffusion between academia and business is an essential tool for economic development due to the knowledge flow processes through the transfer of talented and capable students to the business environment.

The educational institutions worldwide and more specifically, those in the advanced countries, have various initiatives focused on different industries. For instance, the universities establish programs and researches in favor of the business field as well as create science parks that have a strong influence on the social and economic aspects. Recently, many policies support the launching of university-based new ventures. University startups are considered as such entities that are created by people no matter if staff or students within a particular university, and are characterized by knowledge-based value added. The university new venture creations aim at invention and commercialization of innovative technology-based products or services created within the university boundaries (Miner, Gong, Ciuchta, Sadler, & Surdyk, 2012, pp. 214–215)

3.7.6 Financial Capital

It is widely spread the notion that the establishment of a particular company is hardly accomplished a task without the intervention of the financial institutions (Rangone, 2017, p. 238). The financial process as a component of the entrepreneurial ecosystem, is considered as an essential element, relevant for all of the stakeholders in the system. Much attention granted to access to investments. The resource of acquisition of that type is widely researched due to the significant character it has, especially for the nascent entrepreneurs who face a great challenge to obtain financial capital on early stage. A large number of business experts report the unwillingness of the banks to aid companies without a solid background. This tendency leads many companies to rely on a bootstrap way of financing to deal with the companies' needs. In other words, the companies, and in particular, the startups are forced to use personal finance. On the one hand, self-investment could prevent the founders from owing credit to external suppliers or sharing portions of the companies with investors, while on the other hand many good ideas may be prevented from coming into being due to financial constraints. However, to attain financial security in the long-term, companies often have to create different strategies to approach the financial institutions because founders lack resources at the different stages of their business development (Jonsson & Lindbergh, 2013, p. 662).

The high-tech venture creations, continuously increased establishment is indicative for the technology transformation, which is observed recently. Colombo (2014) implies that there are hidden issues regarding the financial acquisition of high tech companies. Additionally, public subsidies are not the most common source of fund-raising as the informal type of financial resource acquisition (Colombo, Croce, & Guerini, 2014, p. 335).

As it was noted, there has been growing interest in the investment activity within the high tech industry. It is considered that capital market may affect the investments in high technology companies in different ways. However, investors have particular doubts of financing such companies, due to the uncertain character of the projects which are often based on research and development activities. Often high tech companies are assumed as too complex and suggesting for further knowledge and expertise, which in practice investors lack (Carpenter & Petersen, 2002, pp. F54–F55). However, there exist various tools and sources for acquiring financial resources.

In practice, entrepreneurs often face obstruction in maintaining their businesses when lacking substantial amount of funding, which in turn force them delay the business activities focused on the company's growth (Davila, Foster, & Gupta, 2003, p. 690). Therefore, the venture capital could benefit the company significantly, especially when it is on early stage. Moreover, VC could be distinguished from the other more traditional based financial institutions and alternatives, due to their interest in new ventures within high tech and innovation industries, and on the other hand venture capitalists provide not only funding but assist the entrepreneurs with special management advices and suggestion in order to help them tackle growing their companies. There is the notion that new ventures which have benefited from VC, have higher performance rate than new ventures which have not received financing from venture capitalists (Davila et al., 2003, p. 691). However, in contrast to the US venture capitalists who put great emphasis on investing in recently established high tech companies, the high tech ventures in Europe are often considered to face the challenge of accessing financial capital (Carpenter & Petersen, 2002, p. F70).

3.7.7 Networking

In practice, entrepreneurs should attain their goals by obtaining specific resources. In order to acquire these resources, the entrepreneurs have to establish a certain relationship with the actors in the ecosystem, such as other entrepreneurs, institutions, and other stakeholders. The networking process has been widely studied among the researchers, especially when discussing newborn companies and such in their early stage of development. Networking is seen as probably one of the most critical resources for the new ventures, which is characterized with informal and in some ways unstructured nature. Similarly, to the network features, another somewhat obscured formation are the so-called business angels. The latter is defined as investors who act informally and could be recognized as organizations consisting of business-oriented people who seek to help startups with high growth potential (Rocio, 2014, p. 167). In light, business angels assist in the new ventures with financial capital as well as mentorship.

Social networks are connections and relationships with family, friends, community, and relationships within the particular organizations, to mention a few. The networks can provide companies with a different type of value and resources. When newly established, the companies

could benefit from their relations with facilitating the process of gathering complementary resources and acquire help. Another feature of the networking process is that it brings to the companies tangible and intangible sources (Rocio, 2014, pp. 168–169) (Aliaga-Isla, 2014, p. 168-169).

Widely accepted notion is that, network relationship matters, especially for the startup companies, whether they positioned in Israel, Canada, Boston, in other geographical location or online based. When discussing networks and new ventures, one of the things that could arise in someone's mind are the relationships of the youth in their school/ university years. Moreover, many connections could be established via social media platforms such as LinkedIn, Twitter, Facebook, MySpace that enable the individual to stay in touch with personal or professional contacts (Nann et al., 2010, p. 3).

Otherwise presented, the social capital by itself is considered vital due to the entrepreneurs' inevitably embedding within the ecosystem, and more specifically, their relations with the stakeholders. Study results show that social factor is a strong prerequisite for an individual when deciding to establish their own company (Román et al., 2013, p. 152). There is the notion that the more connections and alliances the founders of startups have, the more successful businesses they grow. In other words, a strong correlation between the startups' network and the performance of the company exists (Nann et al., 2010, p. 5).

3.7.8 Support Services

Neck, Meyer, Cohen, & Corbett (2004) refer to incubators as specific organizational formation where the nascent entrepreneur has worked before starting his/her own business. Another phenomenon the authors consider as important is reviewing the spin-offs which are seen as organizations established by person or group who have previously left a company and currently are launching a new company in related industry (Neck, Meyer, Cohen, & Corbett, 2004, p. 193). As the National Business Incubation Association has stated the business incubation is a complicated process of the development of business-oriented companies. This process includes supporting activities that aim at accelerating the development of the start-ups while contributing the entrepreneurs with a variety of technical and innovative sources and services. These activities are promoted and offered in the particular business incubator as well as its network. Similarly, the European Commission describes the business incubators as specific organizations that

systematically help newly-launched enterprises define and run their businesses successfully with the following comprehensive support activities: space, services as well as networking. The European Commission considers business incubators as a vital tool for reinforcing the companies' sustainability and thus foster the entrepreneurship by positively affecting the knowledge flow, the improvement of the human capital and job-creation (Fernández Fernández, Blanco Jiménez, & Cuadrado Roura, 2015, p. 784).

The scholars clearly exhibit how entrepreneurship enhance economic growth: produce more productive and innovative enterprises, knowledge-spillover effect, and competitive advantage. In contrast, some researchers assume that the mentioned outcomes do not apply in every city/ country, while others refer to entrepreneurship as the driving force to technological change. There is also the assumption that entrepreneurial activity could diminish the negative correlation within the society by creating cohesion among the individuals and more specifically among those who are in the risk groups.

There exist certain phases which the incubators carry out:

- The pre-incubation phase that enables the entrepreneurs to realize their ideas into a real-life business while legislating it to operate competitively on the market. To be successfully promoted, the business idea should be supported by an adequate business plan.
- In the incubation period, the business incubator provides a wide range of services to the enterprises. These include shared spaces and business networking within a knowledge-intensive environment, fundraising activities, ICT and advisory services, international trade, etc.
- The post-incubation phase allows the 'graduated' companies to continue their contacts within the incubator network.

Moreover, the new ventures are prone to obtain certain economies of scale by overcoming the transaction costs if considering using the incubator's services than running their business alone. Another advantage is the networking process from which the venture could acquire technological transfer (Fernández Fernández et al., 2015, p. 785). There exists a large number of networks which are not limited to the enterprises in the incubator. Such examples could be the European Business Network, United Kingdom Business Incubation, NBIA, German Association of Innovation, and others. Despite the large-scale services delivered from the business incubators, probably the most significant are the knowledge-intensive business services (KIBS) that offer certain capacity to the enterprises by generating spillover effect. In other words, the different knowledge-intensive

business services and their value-added form a considerable part of the incubators' infrastructure. Regarding the services, numerous examples of business services offered by the incubators exist. These include assistance to contract procurement, learning-by-doing processes and synergies, access to finance, and one stop-approach. The assistance with contract procurement aims at providing help to the smaller business to be as competitive as the big ones. The synergies and the learning-by-doing processes result in innovation as well as networking capabilities and internationalization. The access to financial capital helps with funding, and the one stop-approach enables enterprises to limit the information costs (Fernández Fernández et al., 2015, pp. 786–787). After the establishment of the first incubator in New York, the US in 1959, the incubation approach has spread along with the notion it is a significant part of the developed entrepreneurial ecosystem because incubators are an essential tool that supports and shapes the new venture creations (Hausberg & Korreck, 2018). Incubators are mostly focused and emphasize the nascent companies within the high tech sector. Moreover, the incubators assist with direct funding, expertise, mentorship, and networking with the stakeholders in the ecosystem. In practice, the literature has no exact definition of the phenomena, but it should not be confused with the concepts of science parks and technology centers that are often used to help all kind of companies and especially more mature entities. In its narrower sense, the incubators could be defined as specific organizations that aim at supporting the development of new venture creations by providing tangible resources such as co-working spaces and different administrative services as well as intangible ones such as coaching, monitoring and networking and also financial capital.

Another support formation for the startups could be found in the face of the accelerators that aim to help the development of a group of startups by assisting them with mentorship and specialized education in how to pitch to investors as well as introducing them to business angel organizations and venture capitalists (Hausberg & Korreck, 2018).

To graduate from an incubator is considered much easier than the actual survival when the approximate time has passed. Unfortunately, after exiting the incubation phase, a small number of startups can boast that actually have been accelerated and could move to the critical point and thus sustain in long-term. However, the incubator graduates that have are prone to perform much better than other non-incubated new ventures in terms of growth rates, financial resources, and human capital. The incubation process expands startups' technological capabilities and their ability to socialize. In summary, many scholars would agree that incubators, whether they are university or

business in their essence, have an outstanding impact on the nascent companies. On the other hand, many researchers would deny by stating that there is not enough evidence that could support the positive interaction between the incubators and the new venture creations and the startup likelihood to survive in long-term(Hausberg & Korreck, 2018).

An ongoing debate of whether accelerators are actually a type of incubator or they should be defined as a separate concept is widely discussed. Unfortunately, the literature does not provide clear qualifications in regards to the business accelerators and incubators' differences. Instead, some studies state that the terms represent exactly the same meaning, while others suggest both stands for a different type of support. Moreover, accelerators are viewed as profit-oriented, and their aim is to provide the new venture with the opportunity for rapid growth. Accelerators are focused on new ventures with the potential to grow, which implies that the founders should demonstrate exceptional skills and motivation. Furthermore, the accelerator program takes place in a short period of time, in which the entrepreneurs are advised, trained, and their capacities are shaped and developed to introduce their product successfully in front of investors and gain access to financial capital (Ganamotse, Samuelsson, Abankwah, Ruth, Anthony, & Mphela, 2017, pp. 19–20) (Ganamotse, 2017, p.19-20).

3.7.9 Entrepreneurial Culture

Entrepreneurial culture is a relatively new term introduced in the economic domain. It is a type of regarded to entrepreneurship. It could be recognized to consists of different elements like the typical culture such as specific values, attitudes, and beliefs integrated within a group, organization or the society that have similar characteristics and features as entrepreneurship. In consequence, the entrepreneurial culture shares the following characteristics: risk-taking, creating and promoting innovation, stimulating the positive change and improvement, motivation and passion for venture creation, problem-solving, failure tolerance, etc. Additionally, it is stated that entrepreneurial culture contributes to economic development and growth (Drob, 2016, p. 66). In other words, entrepreneurial culture is the set of moral, attitudes, laws, etc. that shape the individual's behavior within the entrepreneurship lifestyle which consists of specific criteria: mindset, courage, talent to seize and act upon business opportunities, creativity, risk acceptance, self-confidence (Nguyen, 2016, p. 235).

Recently, the economy circles put a considerable amount of attention on comparing Europe and the US' entrepreneurship activity. In light, the statistics show that Europe is the one that is lagging behind, thereby the interest of which are the constraints for this result are widely discussed and observed. A frequent hypothesis, in regards to the obstacles, is the European entrepreneurial culture. Numerous studies conclude that the culture is not as entrepreneurial oriented as that of the US and that the investments in entrepreneurship seem more like a waste of resources, but other measures should be applied (Bildeanu & Diaconescu, 2018, p. 3). For instance, the European Commission' survey for 2012, demonstrates the following results: around 38% of the EU population prefer starting a business, and 57% choose the destiny of employee. Whereas 52% of the US citizens prefer being entrepreneurs, and respectively 46% prefer the other option. A high percent of EU nascent entrepreneurs point the following challenges they consider an obstacle in regards to entrepreneurship state in Europe: Cultural issues such as insecurities and fear to fail; complex regulations and bureaucracy; high taxes; lacking access to financial capital in all stages (Bildeanu & Diaconescu, 2018, p. 10). Along this line of thinking, Europeans are considered not to tolerate the risk that much and to be more conservative when it comes to establishing their own business. Thus, the following incentives towards promoting entrepreneurship among the society could be offered: implement entrepreneurship programs in school curricula, stimulate the networking processes especially between new venture creations and mature companies, the establishment of entrepreneurship based programs and training online, etc. (Bildeanu & Diaconescu, 2018, pp. 16–17). Furthermore, entrepreneurial culture could be stimulated step by step, which imply a long-term strategy. Involving successful entrepreneurs to participate in curricula as guest-lecturers and to reveal their stories is seen as a good practice which can motivate and inspire the students to pursue entrepreneurship as a future career path. Role models are considered to have an essential impact on other entrepreneurs who have recently started a business as well as policymakers who need business expertise (Stam, 2014, pp. 24–25).

3.7.10 Market

Some economies are endeavouring to produce certain market models and conditions which are optimal and all resources and services are allocated efficiently, for instance: customers and producers are in position of price taking; complete and perfect markets and information flow exist; and lack of external factors. Indeed, markets cannot be grown and sustained in such manner. Additionally, the market has the following 'imperfections': companies are not completely efficient, there is a wide range of externalities, issues with the pricing system and the information flow is not spread to all equally. However, fortunately, all of the mentioned above shortcomings, initiate business opportunities that can be seized by opportunity-driven entrepreneurs, which on the other side could lead to market improvement (Cohen & Winn, 2007, p. 32). Some economies' position proposes that, when identifying opportunities, entrepreneurs are able to balance the market by more efficient distribution of the resources (Cohen & Winn, 2007, p. 38). Another aspect in regards to the market is the recent convergence of the technology transfer and the rapid modifications of customer's demands, which in turn leads to the highly uncertain character of the market. This implies that companies with the ability to align their business orientation to the market, while applying innovative and technology-based methods, would gain a competitive advantage over their rivals. Both market and entrepreneurial orientations would be described briefly, as they both could be involved in the company's strategy. Firstly, market-based orientation is the company's set of activities with respect to serving consumer needs, whereas entrepreneurial orientation refers to the company's strategy and it is seen as more aggressive and risky, along with that it involves the introduction of innovative products/ services on the market. Scholars assume the equilibrium between the two orientations, plays a key role in the company's efficiency, growth, and sustainment in the long-term (Atuahene-Gima & Ko, 2001, pp. 54–56).

Since having experienced the post-socialist period, it is worth to mention some of the consequences this phase has as well as how and to what extent it is reflected on the Bulgarian market. The transformation from socialist to market economies is seen as a great challenge, which the 'post-socialist' countries such as China, Vietnam, and some Eastern European countries experience until nowadays. As a consequence of the transition period, these countries meet the challenge to create adequate regulatory framework, which includes all of the state structures such as legal, commercial, economic and political, that in turn shape the regulations, policies and laws needed for the fluent operations on the market. Moreover, the countries related to the post-socialist period

are considered to have a certain amount of entrepreneurial oriented talents. However, free-market is still not well developed and lack support from the state. In light, there is evidence that a large number of interest-driven entrepreneurs, misapply their social ties to politicians for further rewards. In general, such countries struggle with a bad image, due to associations with grey and criminal practices within the political and economic circles. In addition, the entrepreneurs who have established relations with politicians, receive a considerable amount of financial capital in the form of state subsidies, which are then utilized inefficiently (Kshetri, 2009, pp. 236–237).

Although the entrepreneurs in advanced countries are operating in already established free-markets, the overall state of the entrepreneurial activities in post-socialist countries is on developing stage. However, the growing entrepreneurship tendency could be recognized in the post-socialist economies. For instance, returnees from the US and advanced European countries contribute to the market development by creating organizations which aim at supporting and promoting entrepreneurship. Moreover, such educated and experienced from abroad talent is seen as one of the driving forces to influence the community's values and motivations to start own businesses in an appropriate manner (Kshetri, 2009, p. 240).

To overcome the lagging in terms of the market state, the returnees' efforts are not enough, but emphasis should be put on the institutional transformation. Specific regulatory framework should be established as well as a process of monitoring the proper implementation of the laws and the rules that influence the business (Kshetri, 2009, p. 48).

3.7.11 The role of the state in the entrepreneurship ecosystem

According to the Kauffman Foundation, nearly all of the new jobs in the US were created thanks to the startups in the high-tech sector in the years 2000-2001. Unfortunately, there are not a few cases when a nascent company could not survive, and many potential growth projects fail due to a wide range of reasons such as not enough financing in the different stages, not making the right business decisions, and many more. Even though the failure rates among the startups are rather high than low, there exist various innovative services that aim at improving the chances of new venture creation growth. Such services could be the so-called startup hubs or incubators and accelerators that promote entrepreneurship development, innovation creation, creativity, networking, mentorship, and financial capital. In consequence, for the last decade, there could be

recognized an increasing number of high-tech hubs worldwide, and a few examples in terms of location are New York, Seattle, Austin, Tel Aviv, Berlin, Singapore and others. While discussing the entrepreneurs' activities, their challenges, and supportive programs as well as services, one should take into account the role of the government and its impact on the ecosystem as a whole. Moreover, the role of the state should not be neglected due to the fact that it is considered as one of the main actors in the entrepreneurial ecosystem (Fuerlinger, Fandl, & Funke, 2015, p. 4). The support in terms of the state is known to have benefited several ecosystems, including Silicon Valley. When it comes to technology and innovation creation, the US' government is considered as highly involved with its interventions and incentives to stimulate the innovativeness in the country. In this regard, Europe is seen to commit far less concerning entrepreneurial- based stimulations, which, on the other hand, could enhance the competitive advantage of the European countries. This claim is often regarded as very relative, and many economists have a different point of view.

In light, the startup company is part of the entrepreneurial ecosystem, and thus its activities affect straightforward and indirect the ecosystem which then on other side affect the performance of the startup. The interrelated linkage between the business sphere, the government, the academia, and the society is defined as the most significant prerequisite for technology and innovation growth as well as the economic growth of the specific regions and countries (Fuerlinger et al., 2015, pp. 5–6).

Some scholars research, related to the entrepreneurial ecosystems, reveal the consideration that government plays a critical role in stimulating and promoting entrepreneurship and innovation through its regulations and incentives in the field.

Along this line of thinking, the policymakers in the advanced countries have realized the need for establishing a favorable business environment to enhance the economies. Public institutions benefit the business by establishing two types of policies. The first type aims to increase the number of companies entering the business by improving the entrepreneurial education as well as facilitating the new entity registration process. Moreover, there are policies oriented towards specific target groups such as students, women, academics, and immigrants. Some policies also stimulate innovation-based projects. In this vein, public authorities seek to stimulate the emerging technology sectors through fostering the research and development activities in academics. Moreover, attention is paid to educating and forming specific skills of the labor force, establishing

technology-based platforms, establishing VCs particularly for new ventures in the biotechnology sector and clean technologies. For instance, in France, there is a law ‘Law on Innovation and Research to Promote the Creation of Innovative Technology Companies’, that enables academics to participate in the establishment of companies as well as universities to create incubators and also public funds that provide finance on early stage. In terms of the networking, policies could stimulate the process by developing university and science research centres, programs focused on the collaboration between academia and the industry, as well as links between the private and the public sector (Autio, Kenney, Mustar, Siegel, & Wright, 2014, p. 1106).

The advanced economies have altered the policies regarding the business as a whole in order to foster the development of the enterprises and make them scale-ups. The rationale behind the drastic transformation of their focus is the governments’ desire to enforce the economies’ productivity, job creation, globalization, and innovation. Numerous empirical studies that observe the high growth companies in various advanced countries show that the impact of such rather small instead of large enterprises, with focus on internationalization within high-technology and innovation-based sectors, cannot be overlooked due to the high percentage of job creation and value-added activities, as well as a spillover effect. Moreover, the incentives established by the governments include research and development grants, low taxes, the establishment of incubators and accelerators, access to financial capital, etc. Although the incentives are assumed well developed at first glance, some scholars argue that they might not be the best solution for stimulating the rapid growth of the economies. Therefore, the topic of whether the government should establish such incentives is widely debated. Besides that, the generation of stimuli with the purpose to benefit the companies, often have an insignificant effect (Mason & Brown, 2014, pp. 3–4).

However, programs that are based on mentorship and management skills development are assumed to have a higher influence on the new ventures’ improvement and effectiveness, rather than providing financial support. Fortunately, some policymakers become aware of the holistic approach and implement interventions oriented towards assisting with networking and enhancing the synergy among the actors within the entrepreneurial ecosystem (Mason & Brown, 2014, p. 5). It should be noted that each entrepreneurial ecosystem is dynamically evolved and unique. The ecosystem’s domains could be distinguished in many aspects. For instance, the community culture, financial institutions’ structure, the state of the educational institutions, services provided and

governmental state, are exceptional, and if one is willing to ‘replicate’ other system’s features and state, is prone to fail. However, there exists a large number of individuals, including policymakers, who aim at duplicating practices from Silicon Valley and trying to implement them in fundamentally different ecosystems. Integrating adequate framework as an action plan for fostering entrepreneurship is crucial. For instance, if the government seek to attract qualified foreign labour, there is a need of favourable immigration policy. Moreover, the role of the entrepreneurs to build actively a strong community by themselves is significant factor for developing well-functioning entrepreneurial ecosystem (Mason & Brown, 2014, pp. 19–20).

In light, the most powerful actor within the ecosystem is assumed to be the single entrepreneur and their attitude towards sustaining and improving the ecosystem. In other words, the entrepreneurs should take the lead and develop the ecosystem by themselves while establishing networks, mentorship, and different support entities. In practice, however, entrepreneurs are committed to their own businesses, which, on the other side, require a great amount of time and effort. On top, the chance entrepreneur would engage in extra activities such as organizing events and building networks without being inspired by other entrepreneurs who have already engaged in such activities, is rarely to come true. In consequence, one solution to the problem could be developing and maintaining an appropriate culture which promotes entrepreneurship and creates a high status and image of the entrepreneur among the population. Thus, the individual could understand and be aware of the high value that entrepreneurs bring to the economy and therefore be proud of them and develop cohesiveness among the community (Spigel, 2016, p. 147).

To sum up, most of the scholars agree that the market is responsible for building healthy business environment and the organic flourishing of the innovation creation. There exists a wide range of mechanisms which understanding and implementation is crucial for one economy to develop a well-functioning entrepreneurial environment. However, state should not ‘lead’ the movement of the business progress, but rather assist with various stimulating initiatives such as removing the obstacles and challenges that entrepreneurs face with regards to bureaucracy and corruption as well as investments in R&D centres (Fuerlinger et al., 2015, p. 8).

3.7.12 Entrepreneurs and SMEs needs

Along with the importance of innovation and entrepreneurship for the economy, policymakers have also recognized the significant role of small and medium-sized enterprises (SMEs) for national and regional economies. One of the outcomes is the growing attention to the types of policy instruments deemed vital for encouraging innovation in SMEs. Such instruments include national and local policy initiatives that intend to support the needs of SMEs in their innovation endeavors. However, the constraints that SMEs usually face differ from those of the large companies. In particular, for SMEs, these are scarce internal resource base such as the knowledge base, managerial, human, and financial resources. These are typically a limiting factor when it comes to acquiring new knowledge, innovate, compete, and grow. On the contrary, large companies are usually well experienced in mitigating such constraints and have established proper utilization practices (North, Smallbone, & Vickers, 2011). Furthermore, there is also a substantial difference between 'expressed' and 'latent' needs. Accordingly, the former type is related to the needs as stated by the company's owner-manager, while the latter is the type of needs that may occur by a "*systematic audit of the strengths and weaknesses of the firm in terms of resources and competence*" (North et al., 2011, p. 304) i.e. needs that the business owner-manager may not necessary be aware of. Moreover, the distinction between the two types have a particularly important policy implication, assuming the purpose to properly address the exploitation of the firm's full potential, and not offering merely a client/market - led support (North et al., 2011, p. 305).

In her study, Yusuf (2010) discovers that only 26 percent of the time the US start-up assistance programs were effective in addressing entrepreneurs' support needs. In concrete, the provided assistance did not correspond with the entrepreneurial support needs, which accounts for the low effectiveness of the assistance program. The definition for effectiveness of assistance program used by the author is "*the extent to which the program provides assistance that addresses the support needs of the entrepreneur*" (Yusuf, 2010, p. 299), i.e. the higher the match between the entrepreneurs' needs and provided support by the assistance programs, the higher the effectiveness of the assistance programs.

However, despite the impressive findings, the study had a small sample size of (n=66) and is bounded within the context of the US. Moreover, no explicit statement is addressed regarding

whether or not the entrepreneur's needs (as perceived by themselves) can be considered as the most significant ones, around which the assistance programs should aim their focus. This can be further used in regards to assistance programs when it comes to their contents and implementation. Therefore, addressing best practices may come in hand for successful assistance programs in regards to designing and implementation, also in view of the context regarding the specific country, region, industry, and type of ventures.

3.8 Answer to research question 1

In order to answer the first research question:

What is the best practice for facilitating a good collaboration between entrepreneurs and the entrepreneurial ecosystem? we reveal some of the researchers' claims on the topic with the purpose to explore both the entrepreneurs' needs and the ecosystem's preconditions for satisfying these needs according to the literature.

Besides the wide range of statements, in regards to the entrepreneurship ecosystem's domains, which presence is essential for the entrepreneurs' performance, the existence of the following components is majorly considered prerequisite for improving the new venture creations: financial capital, market, talent pool, support in terms of services and public institutions, network, culture and policy.

Regardless of whether the new venture is operating within the high-tech sector or in another area, each of the ecosystem's components is vital for entrepreneur's efficiency. In addition, each of the components are interconnected, hereby their state, how they are linked as well as how the entrepreneur will absorb these resources, is crucial for developing a well-functioning company.

It could be said that, the presence of the mentioned components would not be sufficient for the company's success if the entrepreneurs do not seek to develop their own qualities and contribute to the ecosystem, because the state of an entrepreneurial ecosystem depends on each entrepreneur actions, behavior and attitude and vice versa, while the success of the entrepreneur also depends to some extent on the ecosystem conditions and state. Therefore, greater emphasis is placed on entrepreneurial culture and the power of social attitudes towards entrepreneurship.

Widely discussed solution to numerous problems linked to the theories of systems of innovation, clusters, and entrepreneurial ecosystems, is the interrelation processes between the entrepreneurs,

academia, and to some extent with the government. This is determined to be the prerequisite for innovation as well as technological development and diffusion, which lead to the economic growth of entire locations, regions, and countries, that in turn imply an improved performance of each entrepreneur (Fuerlinger et al., 2015, p. 6). In this vein, government could enhance the entrepreneurial conditions through developing certain infrastructure that enables the networking and collaboration between the entrepreneur and higher education institutions, research organisations as well as public institutions (Autio et al., 2014, p. 1106; Mason & Brown, 2014, p. 5).

4. Data and analysis

The chapter 'Data and Analysis', contains two main sections, divided into:

First part, called 'Secondary data', consisting of as the name suggests- secondary data about: Country profile; Entrepreneurial status in Bulgaria according to reports; Bulgarian entrepreneurial environment: constraints and perspectives, that includes also the Bulgarian tech ecosystem and government initiatives for stimulating entrepreneurship.

The second part 'Primary data, Results and Analysis' is based on the primary data, collected from interviews and the survey, that represents the following: Entrepreneurs' needs and challenges as well as the disadvantages and advantages of the ecosystem. Then the 'gap' in view of the entrepreneurs' challenges and needs is identified. Afterwards in 'bridging the gap', we make our suggestions, that are inspired by the literature, for potential solutions aiming to overcome the entrepreneurs' needs and challenges. Finally, the entrepreneurs' suggestions on what measures should be undertaken to promote the ecosystem, are presented.

The analysis procedures above, help answering the second research question:

What are the main needs and challenges faced by the entrepreneurs in Bulgaria within the high tech sector?

And to some extent, the third research question:

How to bridge the gap by means of facilitating appropriate solutions between best practice and the case in Bulgaria, as well as overcoming the entrepreneurial challenges and needs?

4.1 Secondary Data

4.1.1 Country profile

The Republic of Bulgaria is located in East Europe and can be characterized as lower middle income economy. From 1944 to 1989, Bulgaria is a central planning economy, where the private sector is excluded and denied. After the year 1989, Bulgaria experiences numerous reforms in order to transform into market economy. This period could be defined as highly dynamic and unstable with the presence of large number of political changes and rotations. After 1988 the private sector in the country became legitimate (Manolova & Yan, 2002, pp. 166–167).

The total area of the country is approximately 110,993 km². The capital of Bulgaria is Sofia, which is the largest city in the country. At present, according to worldometers the Bulgarian population is approximately 6,900,000- 7,000,000 people. As BBC News states, the country is a current member of EU, NATO as well as the Council of Europe. Trading economics estimates the country's GDP is worth \$56.82 billion dollars (2017).

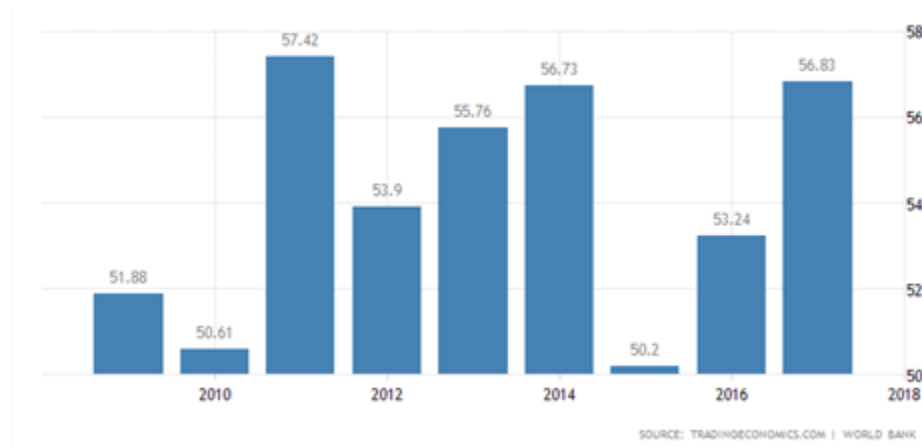


Figure 6: Bulgaria GDP (Bulgaria GDP, 2017)

4.1.2 The Bulgarian Entrepreneurship activity

According to the GEM Bulgaria Annual Report for 2017 nearly 52% of the Bulgarian population assume entrepreneurship as a relevant career option, while in 2016 the percent is 57. Only 66% of the Bulgarian adults could agree that the entrepreneurs in the country have high living standard

and around 40% consider entrepreneurship to enjoy media attention. This continuing depression over the recent years regarding the Bulgarian attitude towards entrepreneurship might be a sign of decrease support in terms of the government or weakening the acceptance that entrepreneurship could be driving force that would enable the country of being as competitive as the other high-income European countries. For instance, only 21% of the Bulgarians perceived business opportunities in the region they live in 2016, while in 2015 the rate is 15%. It could be seen that this result is rather positive as well as there could be recognized increased tendency in terms of the Bulgarian population' intentions and ability to seize good opportunities of running own business. However, the amount of the potential Bulgarians who are already having the desire of starting a business is only 7% compared to 5% in the year 2015. This extremely low number could be a result from both lacking of entrepreneurial knowledge and skills as well as to the business environment which is related to governmental issues, corruption, relatively unskilled labour in regards to some industries, low purchasing power, small market, etc. The Total early stage Entrepreneurial Activity for 2016 or the TEA index is around 4%, compared to around 3,5% in 2015 (Andonova & Krusteff, 2017, p. 12).

The mentioned numbers are extremely low and among the lowest world-wide. Although the low percentage nascent entrepreneurs, there is a tendency almost all of them to sustain in long-term. However, the country has relatively higher percent of necessity-driven early stage entrepreneurs than improvement-driven early stage entrepreneurs. The most active group among the population in terms of entrepreneurship is the group of 25-44 year olds. It should be taken into account that establishing attractive incentives and improving the business ecosystem in Bulgaria can drastically stop the brain drain process in the country and stimulate the emigrants, especially those who are well-educated and experienced in foreign economies to return back and thus contribute with knowledge flow. The average entrepreneurial in Bulgaria is with secondary educational level (Andonova & Krusteff, 2017, p. 13).

Most of the new enterprises in Bulgaria are retail and wholesale oriented. In terms of new venture creations in the high tech and knowledge-based industries, the country has small share, compared to the advanced innovation-driven countries in European Union. Small number of the nascent entrepreneurs in Bulgaria expect to establish any job – 72%. However, around 13% of the early-stage entrepreneurs have high-growth potential. In that vein, the state should be addressed with the challenge to encourage the increase of the gazelles with favourable environmental conditions

in order to contribute to the economy development in the country. 17 % of the entrepreneurs in Bulgaria consider their product or service as new to the market. This tendency leads Bulgaria to the lowest in the ranking for innovation-based new ventures globally which could be recognized as a major obstacle in terms of the country's performance and competitiveness capabilities. Although the number of the innovation-based new ventures is rather small, they are assumed to be extremely efficient and committed to their creative and innovative activities. Widely spread idea is that the competitive advantage of Bulgaria is concentrated and based to the cheap labour in the country. The notion is mistaken and cannot be related to the case of the early stage ventures and their sustainability. In spite of the small size of the country, it has drastic regional asymmetry in terms of quality of life, incomes, job opportunities, etc. The capital of Bulgaria – Sofia remains to be determined as the region with the most perceived opportunities with 11% higher level in comparison with other regions (Andonova & Krusteff, 2017, p. 14).

As the Digital Economy and Society Index (DESI) report for Bulgaria 2018 that examines the countries progress regarding their digitisation by indicators such as technology integration, internet services usage, the population digital skills, etc., states that Bulgaria is on 26th position out of 28 countries in the European Union. Although, the low position in the ranking, there is a slight progress in terms of the country's performance in the overall use of digital services. However, one of the major challenges the country face is that the average citizen does not have adequate digital skills as well as the continuing neglecting in terms of the business to integrate technologies in their companies. It seems common practice for both public and the business to underinvest in the digitalisation of the infrastructure as whole (DESI, 2018, p. 2). Despite the low tendency regarding the digital skills among the population, there is a slight progress. For instance, the Education Ministry has started to promote IT programmes in school and university. Moreover, the education institutions aim to attract the students take part in the fields of mathematics, science, engineering and ICT by number of reforms. Recently, the tendency of mismatch between the business needs in terms of the human capital and the current amount of specialist could be recognized. Increasing number of emerging companies in the ICT sector report that there is a lack of skilled professionals and more particular the in-demanding IT specialists (DESI, 2018, p. 5). Nowadays, the Bulgarian business ecosystem is recognized to be growing, technology and innovation oriented entrepreneurs are starting to launch growth potential companies. However, the investment in digitisation is

limited, which combined with the scarcity of IT professionals lead to the overall slower pace of the digitisation transformation process in the country. In general, the efficient implementation of relevant for the technological boost of the ecosystem incentives are crucial for the country and might enhance the overcoming of the challenges Bulgaria face (DESI, 2018, p. 8).

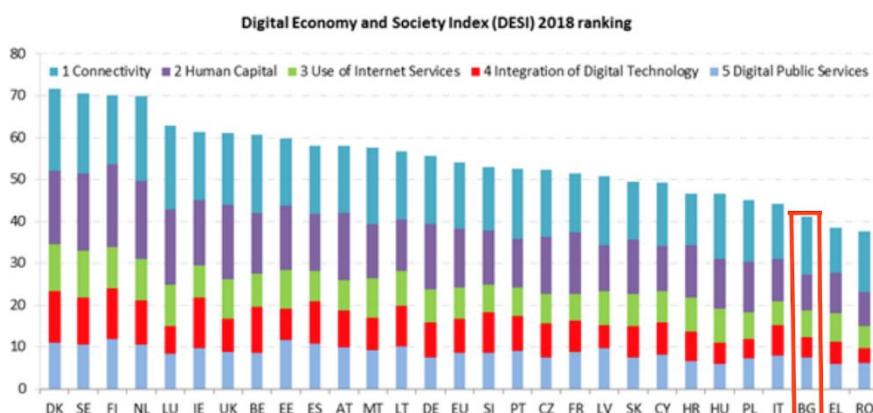


Figure 7: Digital Economy and Society Index (DESI) 2018 ranking

Source: (European Commission, n.d.)

4.1.3 Bulgarian entrepreneurial environment: constraints and perspectives

The entrepreneurship in one country is usually influenced by the institutions in the nation, which comprise of legalization organisations as well as economic and political structures. Not only the formal structures have impact on the entrepreneurial activity but also the informal institutions shape in some extent the entrepreneurship in a country. They could be recognized in the norms and laws which directly or indirectly act on the entrepreneurs' behaviours and attitudes and thus affect the creation of new ventures and country's entrepreneurial growth (Williams & Vorley, 2015, p. 840).

The article "*Institutional asymmetry: How formal and informal institutions affect entrepreneurship in Bulgaria*" by Williams (2015) study how and to what extent the institutions in Bulgaria influence the entrepreneurial environment as well as the institutional asymmetries within the formal and informal structures in the country. The term institutional asymmetry can be associated with the misalignment between the informal as well as formal institutions while considering the

formal type defined as supportive and the informal being unsupportive. Some scholars refer to both formal and informal institutions as special source which can regulate and stimulate the entrepreneurship. The formal institutions in Bulgaria are assumed to accomplish slight progress in the recent decade while keeping in mind that the country's economy has been transitioning and is characterized as developing country. The institutional asymmetry in the Bulgarian context of transforming economy, culture and attitudes towards entrepreneurship can lead to decrease in the overall economy growth, corruption and others. Therefore, both formal and informal institutions should be taken into account when discussing entrepreneurial potential growth (Williams & Vorley, 2015, p. 841)

Institutions are essential part of the entrepreneurial ecosystem due to the fact they interact directly with the other stakeholders such as organisations. The formal structures guide the actors in the ecosystem while defining and dictating the written laws and norms which are socially accepted in the environment. On the other hand, informal structures define the culture, attitudes and behaviours accepted by economic and society patterns. In the case of transition economies, the institutions are widely observed mainly due to the fact, the entrepreneurs in such countries face a number of challenges that comprise of uncertainty in terms of the changing regulations. For instance, constantly changing taxes and bureaucracy as well as obstacle to access bank loans due to the tendency of the banks to favour the larger corporation instead of assisting both small and large enterprises. This leads companies to seek loans from family and friends. The only competitive advantage of countries like Bulgaria that attracts foreign investors is seen in the low cost labour and 'cheap' standard of living. Moreover, large number of entrepreneurs operating in the market of such countries, claim that the state creates no adequate measurements for protecting intellectual property rights as well as often predisposes to corrupt practices (Williams & Vorley, 2015, pp. 842–843).

Bulgaria is related to the lower-income economies in Eastern Europe, passed through central planning in the years 1944- 1989 that could be characterized with elimination of private entities. After the communist period, the country experiences the beginning of the democratisation and liberalisation. It is worth mentioning, that Bulgaria is positioned at the end of the list with countries in European union, even after countries with the same statute of transition economies such as Hungary and Czech Republic. In 2007, Bulgaria has joined EU which lead to the development of the country in many aspects including the business sphere and the emergency of new enterprises

and alliances with local and foreign organisations. According to the World Economic Forum for 2012, Bulgaria is ranked 62 place for competitiveness among 142 countries world-wide. Furthermore, the ranking place Bulgaria on 59 position regarding level of ease access for entering the market and running a business (Williams & Vorley, 2015, p. 844)

It is considered that the Bulgarian informal institutions are seasoned with socialist flavour. In terms of the formal institutions and in particular the Bulgarian government, it is recognized to continuously favouring the larger enterprises and thus the small and medium enterprises and the high technology small size companies are not able to benefit as much as the 'big' ones. This tendency leads the desirability of large number of entrepreneurs to terminate the business activities as well as the decrease in the entrepreneurship spirit of the society. In other words, the perceptions and attitudes towards entrepreneurship in Bulgaria seem rather negative and sceptical instead of positive. However, in comparison to the post-socialist period, Bulgarian entrepreneurial culture has been improved over the years. Number of scholars argue that not every transition economy experience superior improvement and gain competitive advantage over the other advanced countries. Notwithstanding the foregoing, the Bulgarian high tech companies with scale focus have increase in the recent 8-10 years. However, not all of the mentioned companies' scope is to operate on global level due to the challenges they face in regards to policy restrictions which constraint them to expand internationally. Another issue that detent the Bulgarian entrepreneurs of potential growth is the corruption which is a major problem in the country. Moreover, the Corruption Index for 2012, ranks Bulgaria as one of the most corrupted nations in Europe which makes the implementation of some of the best practices ineffective activity (Williams & Vorley, 2015, pp. 854–856)

In order to gain competitive advantage and finally overcome the gap between its low performance and that of the advanced European countries and their markets, Bulgaria could put more efforts on the creation and commercialization of innovation and technologies. In detail, priorities such as optimizations of the human capital and education, R&D activities, innovation and technology creation in order achieving accelerated development and growth (Taneva & Dimov, 2010, p. 571). It should be mentioned the recognized progress within the recent years, induced by financial support for R&D based projects, conducted in the higher education institutions. Moreover, efforts are made in regards to the research and science infrastructure, yet there are no clear priorities and

reforms established to secure the mentioned incentive. Another positive sign is the initiatives towards integrating entrepreneurship education in school. A survey conducted among business entities and researchers, NGOs as well as representatives of public administration, that is focused on the interconnections between the business and education and research institutions shows that around 70% of the researchers assess the research environment as inadequate and hardly accessible. In contrast to the specified responses, there exist at least 30 research centres supported by the National Research Fund. The high percent of unsatisfied researchers, however, could be interpreted as relevant due to regulations' defects in terms of the particular access to the already existing infrastructure. 60-70% of the respondents assume the connection between public and private sector as ineffective as well as lack of investments in public researches, but the funding is often scattered over smaller projects. Therefore, the assessment of the absorbed financing for the research initiatives is hard, thus recommendations and suggestions barely could be made due to the obscured national industry state (Anguelieva, Kabakchieva, & Gourova, 2011, pp. 34–35).

According to the respondents within the survey, business is also unprepared to contribute for better connectivity with the academic sphere. A favourable condition for inter-sectoral fulfilment is enhancing the processes of knowledge flow and IP transfer. Public sector and in particular the government is assumed to be the main actor to facilitate the collaboration between stakeholders in the economy by launching various stimulation initiatives. The overall results from the survey in terms of the role of the state for developing interconnections within the 3 components: academia, state and business, show that respondents lack hope and trust in the established policies and regulatory framework. 60% of the respondents share that they rely on the business to improve the technology and innovation creation, instead of governmental incentives. In terms of the practices aimed to support the process of collaboration between the academia and business, which are already implemented in some business organizations are: generation of mini academies, creation of innovative and technology based programmes for students, forming and shaping labour skills such as communication, operation and management skills, etc. When asked to share opinion on National Innovation Policy, 65-75% of the respondents' state that the policy does not specify certain priorities and framework. Additionally, the innovation policy cannot be recognized as implemented and coordinated in practice (Anguelieva et al., 2011, pp. 36–38).

4.1.4 Bulgarian Tech Ecosystem

According to Startup Yard and the article ‘What’s special about the Bulgarian Tech Ecosystem’ where a group of Bulgarian entrepreneurs were interviewed in order to share their perspectives on the country’s ecosystem. The first thought which pop out from respondents being part and running a relatively nascent business within the Bulgarian boundaries, is that the country provides excellent talents on a low price when comparing to the other European countries. Moreover, the interviewees admit that the market is progressively growing and developing, especially the high technology industry which on other side instigates the need of expanding the talent pool in the area of IT sector. Besides this, large US and European multinational enterprises seek to outsource IT specialist from Bulgaria, which on top of that make it even more tough activity for Bulgarian entrepreneurs to sustain competitive advantage in the region. Another issue that is considered as weakness in the ecosystem is that the founders are not as well educated and experienced as it is perceived to be on adequate level. Furthermore, there is a lack of mentors in the ecosystem who can guide the nascent entrepreneurs to provide them assistance in their business venture. In addition, another weakness of the Bulgarian entrepreneurial ecosystem the respondents share is the lack of investments in research and development activities. On the other side, the government is assumed to act indifferently towards the high technology sector which to some extent has positive features as well (StartupYard, 2016).

As move.bg states the company success is strongly influenced by the success of the ecosystem. Sofia the capital of Bulgaria, was listed as one of the top 10 locations for starting a business by Forbes. According to the article, Sofia city has established an outstanding entrepreneurial ecosystem in comparison to 8-10 years ago. The reason for this claim could be seen in the increasing number of companies in the high tech sector as well as angel investors, events and etc. Therefore, a lot of publications and articles have proclaimed the city as the entrepreneurial hub on the Balkans.

In addition, the Bulgarian entrepreneurial ecosystem has made prominent progress recently. Besides the rapid growth of the entrepreneurial ecosystem in Bulgaria, the author of the article states a few aspects that are missing on the ecosystem. Although there exists a couple of great examples for companies exits on the territory of Bulgaria, there is no Bulgarian company that operates globally and its products or services are reaching the average person world-wide such as

Estonia which is a small former communist country just like Bulgaria, but with the difference that Estonia has Skype and a significant improvement in terms of entrepreneurial environment.

Another missing issue regarding the business environment within the country's barriers is lack of completely developed fundraising system and in particular business investors that are not as much to serve the needs of great amount of the startup companies. Mostly, the funds invest in already established and succeeded technology companies or the so-called series A, and the intermediate level is neglected. In particular, those recently launched companies within the high-tech industry are the most in need and often fail to guarantee their financial stability. It is worth to mention that the Bulgarian entrepreneurial ecosystem is popular with its IT industry. Moreover, a lot of multinationals such as SAP, HP, VMWare, Microsoft and other have positioned in it and outsource large number of Bulgarian IT specialist. While there is considerable number of programmers and software developers, there is a lack of skilled individuals qualified in sales and marketing. This lead to the third issue in regards to the ecosystem which is the lack of strong correlation between product developers and people who are able to sell these products. This situation results in the ecosystem's lagging behind of growing globally.

The next obstacle of the entrepreneurial environment is that it seems to be unattractive for foreign talents as well as for Bulgarians who have emigrated to study or work abroad which leads to brain drain phenomenon. While attracting skilled workforce from abroad, the Bulgarian ecosystem would be more prone to generate knowledge flow, diversification and tacit knowledge which is highly appreciated and can enhance the entrepreneurial environment and made it robust and quickly growing location for running a business. The formal education in entrepreneurship can be seen as a challenge as well. In Bulgarian case, most of the nascent entrepreneurs are recognized to prepare for their business venture by themselves instead of attending entrepreneurial programme or course. The practical oriented problem-based learning is crucial for the producing of more qualified entrepreneurs. Moreover, the entrepreneurial education is assumed to inspire and motivate the students to pursue entrepreneurship as potential career path as well as it shapes the students' behaviour and attitude and develop highly demanded skills such as self-confidence, innovativeness and creativity and courage to keep doing what is needed for the company to succeed (Valkov, 2016).

4.1.5 Governmental initiatives in promoting entrepreneurship

The Ministry of Economy has introduced the strategy 'Entrepreneurship 2020- Bulgaria' on November 2015. In addition to the strategy one year later, the Ministry included the measure 'National Network of Local Centres and Business Development Incubators' to one of the priorities of 'Creating a Favourable Environment for growth and enterprise development'. A list of 31 specific measures were created which are committed to the long-term policy of encouraging and creating new businesses by the Ministry of Economy.

The strategy would affect several fields such as the 'Entrepreneurship education and training to support growth and development of new enterprises', the 'Improvement in the administrative and legislative environment for business entrepreneurs and support at the crucial stage of the life cycle' and 'Strengthening entrepreneurial culture in Europe for the growth of a new generation of entrepreneur'.

The first field which is planned to be influenced as it was mentioned above is the entrepreneurship education and training. The measures are related to the introduction of entrepreneurship education programmes in the school curricula as well as in the universities. The aim of the Ministry is to promote entrepreneurship among the young students. The second area: administrative and legislative environment in regards to the work of entrepreneurs, is focused mostly on the starting businesses and aims to provide funding to a pilot projects in several spheres including ICT as well as financing for students who are willing to start a new venture. This pillar would work upon eliminating the time consuming procedures for obtaining licenses and permits. The third field: entrepreneurial culture, is considered to be affected with six measures which are focused in promoting entrepreneurship in the country by supporting the female entrepreneurs, the entrepreneurial networking and social entrepreneurship as well as involving successful entrepreneurs act as a mentors for the nascent ones (Republic of Bulgaria Ministry of Economy, n.d.-b)

The COSME Programme 2014-2020 that stimulates the competitiveness of SMEs was introduced in 2013. The programme supports four areas including: Improve and assist for the access of finance for SMEs, help SMEs with access to global markets, enhancing the framework conditions for SMEs competitiveness as well as promoting entrepreneurship. COSME is primarily financing instrument due to the fact it aims at facilitating the SMEs access to finance. The COSME financial

instruments consists of loan guarantee mechanism as well as capital growth facility. The financial support is mainly for supporting the SMEs and their internationalization, the clusters, entrepreneurial programmes and training, etc (Republic of Bulgaria Ministry of Economy, n.d.-a)

According to 'Promoting innovation and entrepreneurship in Bulgaria within its EU membership' the author suggests that the level of innovation of one business organisation depends mostly on the best practices applied such as usage of activities related to ICT field, implementation of various strategies for developing and reinforcing the human capital through programmes and training as well as improving business plan and market' strategies. Another essential factors are the access to finance, internationalization and developing activities based on intellectual property.

Since the most popular components for sustaining successful businesses were reviewed, then the problems Bulgaria meet in terms of stimulating the innovation and entrepreneurship are summarized. As the study shows, Bulgaria is one of the European countries which are continuously lagging behind with significantly low indicators which is seen to be a result of the poor connection between business, academia and other research and development organisations as well as to the degree of commercialization of the research activities. Likewise, Bulgaria ranks last in terms of R&D activities when comparing to the other European countries. The system which is made to support the innovation promotion works below its potential as well as the contribution of innovation to the economic growth is low due to the insufficient size and access to financial and intellectual resources, the low patent activity of the Bulgarian enterprises, the low employment in science and knowledge intensive sectors and the low share of high technology exports from the country. Moreover, the administrative procedures are considered complicated complimented with underdeveloped information environment.

These problematic areas could set the main directions of measures that Bulgaria can adopt to stimulate the innovation and entrepreneurship. An integrated approach is needed as well as a bunch of innovation and entrepreneurship based incentives. The government can stimulate entrepreneurship through financial instruments. One going strategy that also aims at improving the entrepreneurial and innovation growth is the 'Innovation and Entrepreneurship operational programme'. The latter supports the creation of innovative products and services as well as investments in R&D and developing innovative shared infrastructure and SMEs. The target group is mainly consisting of young entrepreneurs. Another operational programme that aims at

promoting economic development through innovative based techniques is the ‘Science and Education for Smart Growth’ programme that seek to attract funding and invest in the universities and other areas of business innovation (Ivanova, n.d.).

4.2 Primary Data, Results and Analysis

In this section we are going to present the findings of the qualitative data collected through the questionnaire and interviews. Moreover, the data presented in this section is entirely based on the participants’ responses. For presenting the results of the data, we are using the following two sequent approaches:

First we introduce the results from the participant’s responses from the survey which gives a summary of variations in quantities that fall into some upper or lower limits. Thus, the graphs provide a more distinguished quantities of particular responses and help to identify more distinguished and frequently provided answers.

Second, we arrange the data collected from the interviews according to the themes and sub-themes that emerged from the coding process. The themes were categorized with a consideration of the second research question “*What are the main needs and challenges faced by the entrepreneurs in Bulgaria?*”, (where *needs* and *challenges* are the key words and main subjects of investigation). Additionally, the themes “*advantages*” and “*disadvantages*” are included as complementary factors as in the process of data gathering, the respondents were asked to share their opinions about advantages and disadvantages of doing business in the country. We considered this approach relevant for gaining a deeper understanding of the ecosystem state as well as in general for the conditions for running a company in Bulgaria within the high-tech sector. Moreover, their “*suggestions*” for how the ecosystem can be improved is also included. Each of these themes consist of sub-themes which are created on one side, in relation to response significance, i.e. the arisen trends from the answers, and on the other side, in regards to the ecosystem components according to the literature. Therefore, the emerged themes are as follows: *challenges*, *needs*, *advantages*, *disadvantages*, and *suggestions*. Moreover, the sub-themes will be shown in the process of presenting the results, but for the sake of providing an example, the theme “*challenges*” consist of sub-themes such as: *human capital*, *policies*, *bureaucracy* and *financing*, where each of them like the *financing* for example also consists of its own categories such as *angel investors*, *banks*, *investment funds*, *etc.* which are means of financing, but also provide additional information

within them in regards to the answers of the respondents. For instance, the category “*angel investors*” is perceived by the following: “*lack of access to angel investors*”; “*many angel investors lack knowledge in investing*”; “*angel investors avoid companies with physical products*”; “*founders lose control over the company when funded by angel investors*”.

4.2.1 Needs

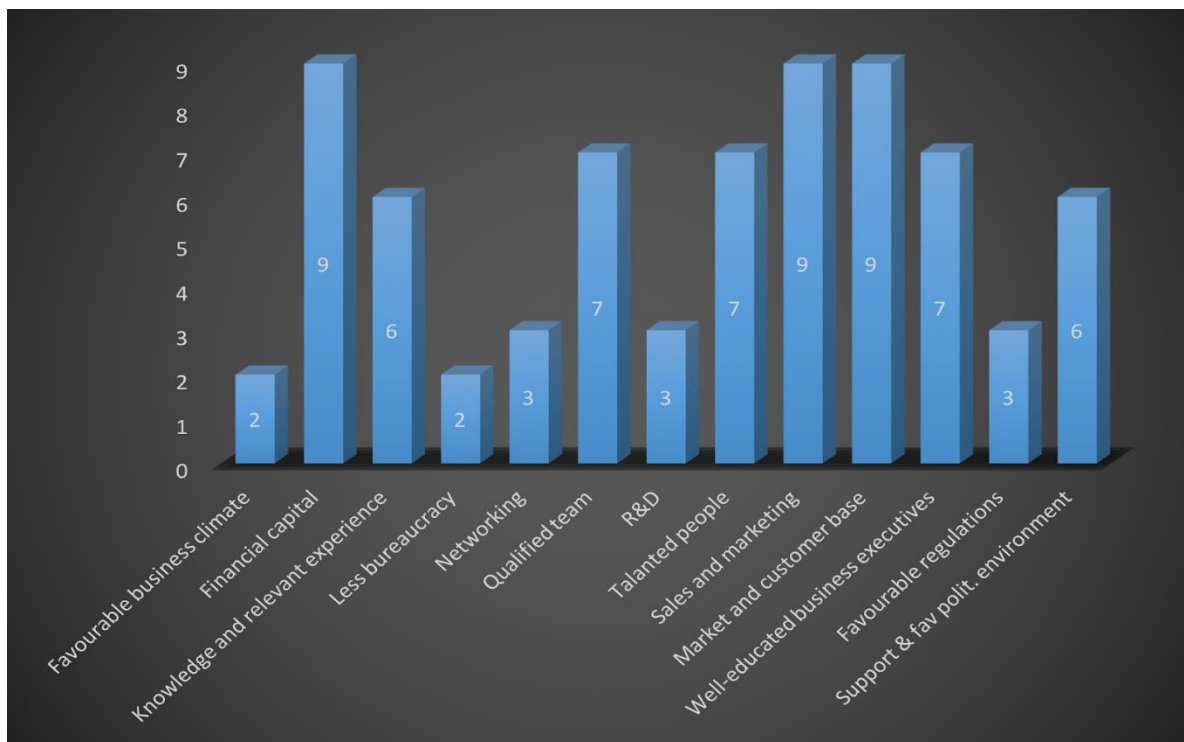


Figure 8: Chart with needs

The main needs of the entrepreneurs according to the graph that is based on both the survey and interviews, are as follows: Financial capital; market and customer base; talented people, sales and marketing personnel, qualified team and well-educated business executives as a human capital; knowledge and relevant experience; governmental support and favorable political environment; favorable regulations; research and development; networking; favorable business climate; less bureaucracy.

Since the answers given in the survey were too basic, in the interviews we ask the respondents to further elaborate on their needs. Moreover, through the interviews and the coding process for data analysis, we were able to acquire a deeper understanding about the different main needs in terms of their meaning and sub-themes. In light, a wide range of needs emerged throughout the interviewing process, therefore they are included in the sub-themes together with the survey results. In consequence of the basis of these notes, our aim is to gather both the answers from the survey as well as those from the interviews, to create brighter picture of the entrepreneurs' needs in Bulgaria. Therefore, we constructed the following map:

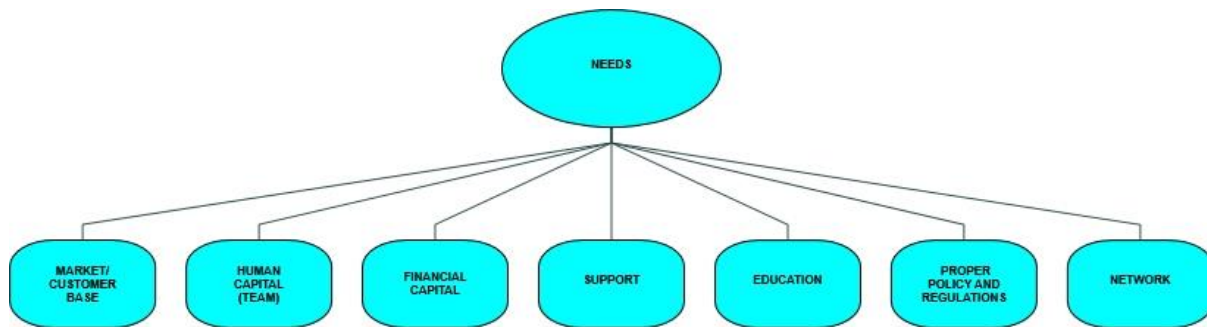


Figure 9: Map of needs

1. Market and customer base. Both local and international market is one of the main needs according to the participants. This need is also perceived as being the biggest challenge that entrepreneurs are facing which is shown in the graph with challenges in the next section.
2. Financial capital and funding on all stages of the company development. The entrepreneurs generally lack financial capital, which also implies the lack of financial capital being one of the main challenges as well. Therefore, in order to avoid redundancy and repeating, we provide further elaboration in the section with challenges. Despite that many company founders may be excellent IT specialists or engineers, they often don't have a sufficient general business understanding, sales and marketing knowledge, financial planning etc which are important for developing a company. Consequently, this obstacle implies issues regarding growth of their business and can even be a reason for failure. For instance, *"Me and my partner are engineers. To us, domains such as developing a business model or a financial plan, as well as developing a marketing strategy, are very unknown and we have*

to learn how to do it on the way, and to seek partners to help us. Just having a product is not enough because you need to show it, market it, price it, and create a team” ([interview 7, Q3](#)). Moreover, another respondent states that *“In Bulgaria, there is a very good engineering talent, but often what happens is that leadership does not have any genuine vision”* ([interview 8, Q6](#)), which implies that some founders can lack business skills for running a company even though they may be good engineers or have a good idea. In concrete, *“People have talent, we have good designers, programmers, engineers in Bulgaria, but are not well enough educated in how to structure their businesses”* ([interview 8, Q8](#)). Moreover, *“Entrepreneurship element in the IT sector is very popular”* ([interview 11, Q14](#)). This line of reasoning can also be relevant, to some sense, to the lack of financing from angel investors and VCs from a viewpoint where founders who seeking financing, besides showing a good idea or a product worth investing into, they also need to demonstrate a reasonable business acumen and ability to create, develop, and lead a business. Following that, a great idea without a proper execution may equal to zero, while in contrast, angel investors and VCs are also known for usually not only investing in a good idea, but looking after the skills of the founders and their team. Finally, this matter can be investigated in a future qualitative research on Bulgarian VCs and angel investors to understand more about the factors they look into when considering where to invest as far as entrepreneurs and new ventures are concerned.

3. Human capital in the country appears to also be a major need for the Bulgarian entrepreneurs, and is addressed twofold. On one hand, it is regarded in terms of the human capital to possess skills such as: education, technical, sales, marketing, management and leadership, where the latter is supposed to help with business modeling, branding, image, and with focusing on the truly important issues which may come on the road. In concrete, *“Interestingly, it is harder for us to find qualified labor within the non-technological positions such as sales and marketing, but this deficiency is within the whole country”* ([interview 9, Q3](#)). Moreover, *“Qualified specialists is a big challenge”* ([interview 11, Q5](#)) and *“In general, finding cadres in Bulgaria is one of the biggest problems for the businesses”* ([interview 5, Q3](#)). *“Otherwise, there is an abundance of qualified technical labor”* ([interview 12, Q4](#)).

On the other hand, the need is also addressed in terms of this human capital to be kept motivated and continuously developed. For instance, *“At the moment, the biggest challenge for our business and similar others in Bulgaria, as well as worldwide is the talent and how it to be constantly recruited, motivated, and qualified”* ([interview 8, Q1](#)). However, here we can argue that considering the wages paid in other tech hubs in Europe, software developers’ salary in Sofia scores for the lowest position compared to the rest of the tech hubs in Europe included in the chart from Sifted.eu (Palmer, 2019) which could be one reason for the above-mentioned difficulties for entrepreneurs to recruit, motivate, and qualify employees. In concrete, 11 of the participants state that one of the advantages for doing business in Bulgaria is the cheap labor ([see appendix C.20](#)), which statement may go back to our argument regarding the salaries paid to the labor, because recruitment, motivation and qualification of the employees can also involve incentives such as adequate salary ,and thus, this perceived advantage may also act as an unrealized disadvantage. In addition, *“The Bulgarian IT specialists are as good as those from the European countries but are cheaper in terms of expenses”* ([interview 11, Q8](#)). Bulgaria being a member of the European Union which, one hand is a significant advantage for doing business in the country according to the participants ([see appendix C.24](#)) and on the other hand, also gives its citizens mobility and freedom to seek competitive, higher paid jobs and better working conditions elsewhere in the union. Therefore, one thing to be addressed can be the question regarding labour' wages paid, as with having access to otherwise more profitable European markets, there is a good sense in considering also european related competitive salary and other working conditions. In addition, the lack of human capital is mainly for qualified positions such as sales, marketing, management, which may also imply one of the reasons for the main need of customer base.

4. Support. The need of support has the following multiple sides: governmental support, accelerators and incubators with well-developed programs, laboratories, conditions for sustainable growth, developed ecosystem, access to European projects.

Moreover, governmental support includes support for small and medium sized companies, good business climate, predictable environment, favorable political and economic environment.

Ribeiro-Soriano (2012) states that governance is the main catalyst that is determined to support the entrepreneurship activity in one economy which therefore leads to economic growth. Moreover, policy makers should be highly concerned of stimulating the entrepreneur by establishing at least adequate incentives as the entrepreneurship could be viewed as a tool for rapid growth. It is government job to enhance the entrepreneurship activity by reducing the overwhelming regulations and provide favourable conditions such as investments in R&D activities and knowledge generation for the entrepreneurs. An empirical study which analyses the impact of the regulation on the entrepreneurship activity in 19 EU countries, shows that regulations and policies created for the business have rather negative effect on the entrepreneurship in each country (Ribeiro-Soriano & Galindo-Martín, 2012, p. 862).

Accelerators and incubators appear to not exist in Bulgaria according to some participants, e.g. *“accelerator programs are useful, but there aren’t any in Bulgaria”* ([interview 7, Q6](#)), but to be only coworking spaces promoted as such *“Campus X in Sofia is promoted as incubator, but it is simply a co-working space”* ([Interview 8, Q8](#)). Moreover, *“Accelerators in Bulgaria do not exist, they are just VCs, but don't have many functions such as mentoring, monitoring, and network creation”* ([interview 4, Q3](#)). In addition, *“what we don’t have is accelerators, seed funding, series A, B - at least it is very difficult on a local level”* ([interview 9, Q5](#)).

According to Gonzalez-Urbe (2018), accelerators aim is not just to assist with funding and provide share working space to early stage ventures, but also to supply the companies with essential business knowledge and mentorship throughout the programme. In other words, accelerators focus on improving the nascent companies’ entrepreneurial capital, which is basically the set of capacities individual should have in order to successfully launch and run a business. While involving the entrepreneurs in various workshops and providing guidance of how to effectively seize opportunities, access valuable networks, attract customers and pitch in front of investors, accelerators seek to develop and sustain founders’

potential to better manage their businesses and grow further (Gonzalez-Uribe & Leatherbee, 2018, pp. 1567–1567).

5. Education in general is a need in terms of quality, and regarding education in the field of entrepreneurship at schools, as well as IT and software one. Educational system in the country appears to be of a poor quality. For instance, the educational system often fails in providing a quality of education for people to stay and be successful in the country and that is why they immigrate abroad ([interview 5, Q7](#)). Other than that, it would be beneficial if big companies such as Facebook, Amazon and Alphabet be attracted with some of their R&D budgets to be involved with scientists and universities in Bulgaria, as they do it in Switzerland for example to create spin-offs from research-based companies. However, involving Bulgarian universities, they would interfere, rather than help ([interview 9, Q5](#)). In addition, *“As a start, the education needs to be improved and innovate for the ecosystem to develop. Good ideas that worth to invest in, come from the education. At the moment, universities don't play a role in entrepreneurship maybe with a few exceptions”* ([interview 10, Q6](#)). Moreover, *“The concept of entrepreneurship needs to be implemented in the educational system”* ([interview 6, Q7](#)).
6. Policy and regulations as a need includes three sub-categories – low bureaucracy, better and faster institutions, and legal framework which by itself includes proper regulations, stable legislation and tax procedures, clear laws and regulations that are valid for everyone. Regarding the low bureaucracy.
7. Network includes the following: organization of events, partnerships and more cooperative spirit.
About networking in general, *“Contacts and networking are on one side a good resource, but on the other side, they are weakly developed in the ecosystem”* ([interview 1, Q9](#)).
Regarding organization of events *“The actors in the ecosystem should create a more trampled paths for startups to go abroad more successfully”* ([interview 12, Q6](#)).
In terms of partnerships and more cooperative spirit, we discovered that Bulgarians are rather not oriented toward partnerships. For instance, *“Bulgarians have problems with*

having partners” ([interview 3, Q15](#)), and something that is missing is that Bulgarians seldom create partnerships and they want to be their own bosses and have 100% of the company ([interview 8, Q8](#)).

Previous research which examines the Bulgarian entrepreneurs’ attitudes and detects that between the years 1990-2011 around 88% of the respondents’ point at hard work as the key factor for future success and sustainability, whereas in 2011, 85% of the Bulgarian entrepreneurs reveal that in order to succeed one should establish connections as well. Furthermore, when asked to share their perceptions of an entrepreneurial capacities, the majority of the respondents outline the following traits: creativity, ambition for growth and profit as well as network of contacts. However, large amount of the Bulgarian population is seen to understand the ‘networking’ activity as a way of avoiding paying taxes and other legal responsibilities due to shady ties (Chavdarova, 2017, p. 248).

For the sake of clarity, assuming the analysis' complex and state in terms of the consisting numerous elements and their elaboration, the table (needs) illustrates some of the relevant respondents' claims, compiled from the primary data, in terms of their needs.

Needs	
<p>Market and customer base</p> <p>Local & International</p>	<p>Financial capital</p> <p>Funding on all stages; Lack of business skills required from the VCs</p>
<p>Human capital</p> <p>Lack of technical, sales, marketing, management and leadership skills; Qualified & motivated talents</p>	<p>Support</p> <p>Governmental support: good business climate; Accelerators and incubators: currently co-working spaces</p>
<p>Education</p> <p>Better education quality: brain drain; University spinoffs</p>	<p>Policy and regulations</p> <p>Low bureaucracy; Legal framework; proper regulations, stable legislation and tax procedures, clear laws</p>
<p>Network</p> <p>Organisation of events and more cooperative spirit; Lack of partnerships</p>	

Figure 10: Table of Needs (comprehensive)

4.2.2 Challenges

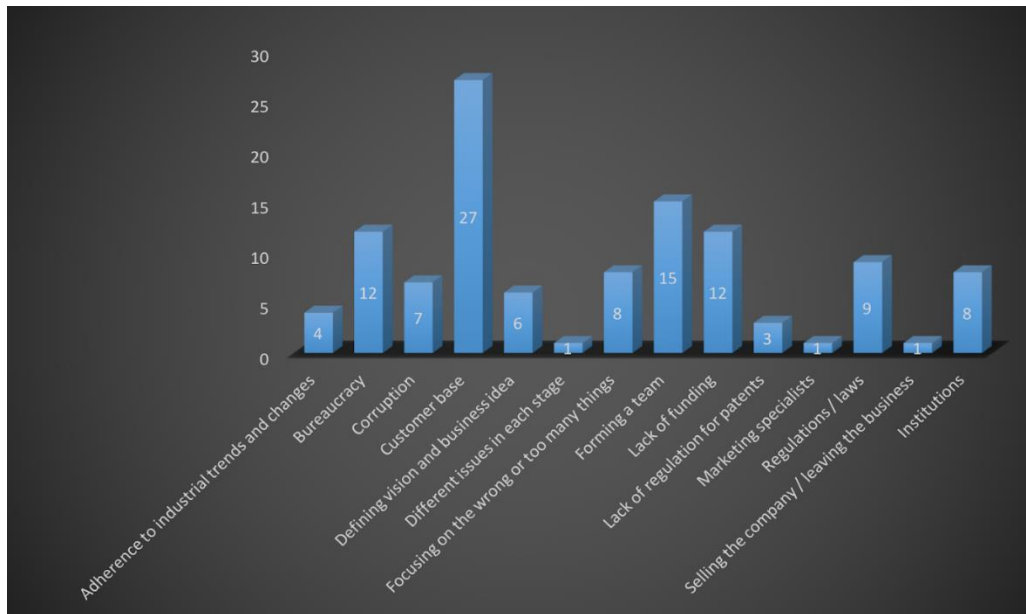


Figure 11: Chart of Challenges

The graph illustrates the challenges faced by the respondents (entrepreneurs) in the course of running their companies. As it can be noticed the biggest challenge according to the majority of the respondents is the customer base problem followed by the forming a team issues, lack of funding, bureaucracy, problems with the institutions, regulations, corruption and focusing on the wrong or too many things. A smaller number of respondents have stated that they consider challenge to adhere to the industrial trends and changes, defining vision and business idea, the lack of regulation for patents, lack of marketing specialists and challenge to sell the company or leave the business.

Furthermore, we explore these issues more in depth through the interviews from which we were able to gain deeper understanding about the challenges and discover possible reasons behind them. In the following lines, we are going to discuss each of them more thorough.

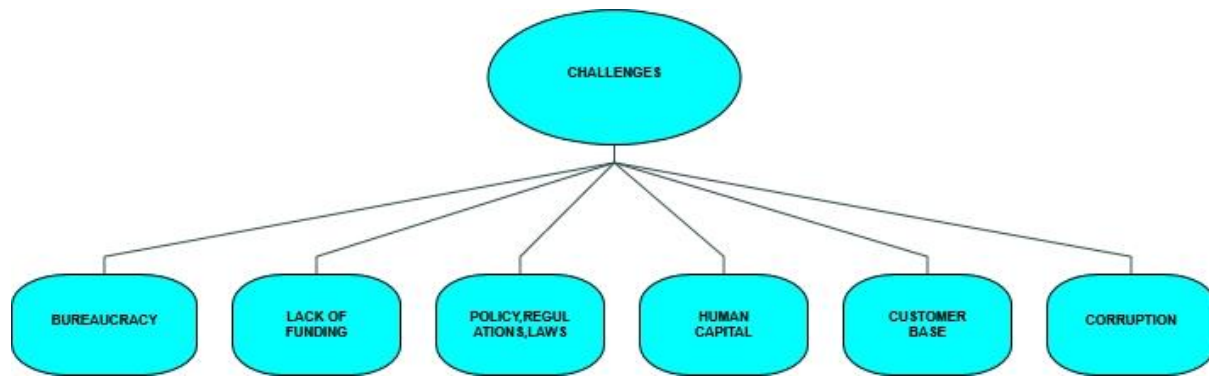


Figure 12: Map of challenges

The main challenges identified from the respondents are as follows:

1. Customer base includes small domestic market with low buying power which may also be one of the reasons for their main focus to operate in foreign markets. For instance, *“The market is small and startups are forced to seek international markets”* ([interview 4, Q4](#)); *“The B2B market in Bulgaria is slowly developing towards green companies and that is why we mainly operate on the European markets - the customer base here is too small”* ([interview 3, Q7](#)).

There is the notion that, entrepreneurs’ performance is highly dependent on their customer base, which on other side, call for adequate strategy implementation that could acquire customers. In practice, however, it is not enough to create strong strategy but there are more variables that further overwhelm the entrepreneur and makes the situation quite complex. Such building blocks are the network and market size, a few to mention (Maicas & Sese, 2015, p. 209). Other than that, as there is a deficiency of sales and marketing specialized human capital in the country and many entrepreneurs appear to have a strong need for this type of talent, we consider it as one possible reason for the small customer base in the local market. In concrete, skilled sales and marketing specialists are usually a driving force when it comes to acquiring customer and closing deals. However, that does not necessarily imply the low buying power of Bulgarians, except may be in regards to adequate pricing. Therefore, this type of knowledge should be enforced in order for more people to be educated in these domains.

2. Bureaucracy in the country is a major challenge. In general, bureaucracy in the public institutions which are also linked to the European programs. On one side, there is a requirement of business history in order to apply for a program, while on the other side, entrepreneurs avoid applying due to the bureaucracy nested in the process.

Some of the European structural and investment funds (also called European programs) which are implemented for the purpose of investment in different areas such as job creation, growth, innovation-friendly business environment creation, environmental protection, as well as social inclusion in Bulgaria (European Commission, 2016) appear to be in some sense problematic, not properly implemented, or tied to corruption. For instance, *“European funds are somewhat shady about the way how the money is acquired, and with what contacts and bribes people get to the financing”* ([interview 7, Q7](#)). Moreover, *“Especially the European Programs for physical businesses. There, only when you start applying and they are telling you that some percentage of the money granted will be kept for them as a commission. When people hear about European Fund or European Program, they don't apply because they know how will they be welcomed. In my mind, it is a synonym for corruption. My father applied for such a program and they told him 20 percent of the grant will be for us. They just force you for a bribe”* ([interview 5, Q3](#)). However, the IT sector appears to be less impacted by bureaucracy *“Governmental policy and corruption mainly stifle physical businesses. Software and IT companies are flourishing because there is no corruption as their relationship with the state is just boiled down to paying social security insurance and taxes. They do not need institutions from which to be dependent on as the product or service is virtual”* ([interview 5, Q3](#)); *“in general, software companies are the least impacted by governmental regulations and requirements”* ([interview 8, Q2](#)).

Bureaucracy may affect the individual's attitude in way that he might be discouraged to start a business. In this sense, bureaucratic economies may hamper the motivation of the entrepreneur as well as his/ her capacities which on other side could lead to the decreasing of the ability to seize business opportunities and thus lower the value added activities (Sørensen, 2007, p. 390). Empirical studies imply institutions in developing and more specifically transition economies, enforce bureaucratic encumbers on the entrepreneurs by increasing costs and uncertainty. Entrepreneurs are forced to deal with various regulations

which are constantly changing and thus lead to highly uncertain business environment (Tonoyan, Strohmeier, Habib, & Perlitz, 2010, p. 806).

3. Financing. This challenge consists of lack of financial capital in general; lack of follow-up financing; financing regarding banks, angel investors and VCs, lack of investment funds. Moreover, banks are characterized as not being open to investments (where people often use consumer credits for fuinding business), requiring 3 years of business history, offering higher interest rate on the loans compared to banks in other countries in EU, and the banks themselves having issues with “hollow firms” where some people make loan abuse through acquiring capital for investing in otherwise a hollow firm.

Empirical evidence shows that there is a practice in some transition economies, that ensure credits with further favourable conditions only to big enterprises. In consequence, recently established companies and SMEs, face the challenge to receive loans from the banks which is the main reason why entrepreneurs often obtain financial resources from their families and friends (Tonoyan et al., 2010, p. 806).

In addition to the lack of angel investors and VCs, the few available ones are also stated to avoid funding hardware products, or to lack investing knowledge, as well as founders losing control over the company when funded by angel investors or VCs.

One possible relationship between Bulgarian entrepreneurs not having access to financing in general, but more specifically to angel investors and VCs could be that numerous participants have stated that they do not want to give control over their companies to an investor. For instance, *“In principle, we prefer programs and grants which are ‘no strings attached’ because essentially both us and most of the others, prefer not to have someone else to be dependent on with receiving financing from him”* ([interview 6, Q9](#)), and *“Generally, we don’t like the idea that from this type of financing through angel investors or VCs, we have to give control over the company”* ([interview 7, Q1](#)), or *“We are currently doing well and it is not necessary to get financing and to give control to other people that would take a role in the decision making and what to do”* ([interview 8, Q4](#)).

However, it is also suggested that perseverance is inevitable when it comes to seeking for funding *“We applied for funding many times and were rejected, but did not give up. But we were missing a technologist in the company and when we had to find one. When we*

found him, they funded us because they saw that we are persistent and work in a team and it is worth investing in us” ([interview 9, Q1](#)).

Angel investors are characterized as being two types. One type being skilled and experienced *“Those who are somewhat more educated and who understand that with being angel investor you have to act as such” ([interview 12, Q1](#)).*

The second type being still not well developed in understanding the idea behind investing as an angel *“Those who are still not developed enough and their thinking is not enough developed. They specifically ask for quite large percentage, often 50 percent, and at the same time they are not co-founders. Giving such a big percentage in the beginning, you are left with nothing for the next funding rounds. Thus, the future investors feel very insecure” ([interview 12, Q1](#)).* In addition, *“Some of the investors are not educated enough to be able to invest in information technologies in Bulgaria and they think it is a big niche, but they do not understand it and even though they rush into such projects, things don't work well enough for them because they need to have good technological partners” ([interview 8, Q7](#)).*

In general terms, people have the desire of becoming angel investors in order to share their ‘wisdom’ derived from their experience as entrepreneurs. Due to their passion to mentor and advise the entrepreneurs, often, it is of importance for the angel investors and thus it is more likely for them to invest, in equally ardent enthusiast in order to make a successful venture (Mitteness, Sudek, & Cardon, 2012, p. 596).

The trust between the entrepreneur and the angel investor is key when establishing such collaboration. Firstly, lack of trust can lead to detrimental results such as rigorous and inflexible behaviours as well as unwillingness to refinance of the investor's side. On the other hand, passably adopted way of communication can improve the company's performance.

Although there are numerous financial sources that could be obtained, the angel investors can be distinguished from the other venture capitalists due to their prominent part as a source of expertise and relation to the entrepreneur as well as the fact angel investors assist with financial resources often under uncertainty due to the early stage nature of the company (Bammens & Collewaert, 2014, p. 1982). In practice, angel investors invest approximately around 25 000- 500 000\$ in recently established companies, where there

exist cases of higher amounts, which automatically lead to the investors' necessity of demonstrating some control. The angel investor' commitment depends on his/ her personality as well as his/ her evaluation of the entrepreneur's capabilities and potential to reach sufficient return of the investments (Wiltbank, Read, Dew, & Sarasvathy, 2009, p. 120).

Moreover, angel investors and VCs are usually not interested in investing in physical/hardware products. In concrete, one example is *"In most cases, they seek something other than hardware, because it does not guarantee a quick return on investment"* ([interview 7, Q1](#)). In addition, *"For our previous project, we sought financing but unfortunately did not find. We were frustrated back then, because for a working product with a validated idea and customers, did not find even a small financing to be able to quit our full time jobs and focus on it. In consequence, we created a service company"* ([interview 9, Q2](#)), this example shows a case where besides the lack of interest of business angels and VCs for investing in physical products, this eventually implied the direction of the company founders from a product to a service.

However, it seems that two main VCs are performing well in Bulgaria in terms of seed and pre-seed funding. Eleven and Launchhub are stated to be the only ones who work properly and their owners are investors often back up investments when some company cannot find investors abroad. In particular, *"Business angels came as a result of Eleven because they were our mentors and simply from mentors they became angel investors. They just wanted to support us"*. In addition, *"Launchhub and Eleven and their founders as angels, they understand the need of securing a longer period of financing in the additional investment rounds, and you can say if you can not find a better option, they take back-up the investment round"* ([interview 12, Q6](#)).

4. Policy and regulation include the following:

Unfavourable regulations for business entity establishment including missing entity framework with vesting opportunities, as well as unfavorable conditions for foreign investors. For instance, *"Startups are forced to be registered as "AD" (Joint-Stock Company) which requires to have a big financial capital and so on which aggravates the situation with its development especially for startups"* ([interview 3, Q10](#)). Moreover, the

policy framework issue for entity establishment regarding high-growth oriented startups comes from the absence of entity framework that does not require big capital and at the same time allows investment rounds from outside investors having things such as vesting, convertible loans and others. In concrete, the “AD” (Joint-Stock Company) requires to have 25.000 euro (50.000BGN) capital for the establishment, while the “OOD” (Ltd. - Limited Liability Company) can be established with just 1 euro capital. While the AD entity provides the flexibility in terms of outside investors, the OOD entity does not. In concrete, *“There is this issue that vesting in Bulgaria can not be made from a legal standpoint. We are still OOD and there was not way the outside investment to be included as a capital which otherwise should happen. At the moment we are declaring these money as income due to the specifics of the legislative framework and therefore we have to pay an income tax. The other option is AD but it which implies too much unnecessary complications”* ([interview 12, Q3](#)). Moreover, *“Foreign investors do not have favorable conditions to invest”* ([interview 3, Q10](#)).

Unstable policy framework for the business.

For example, *“This is the thing with the physical businesses, requirements are constantly changing every year for the cash registers from the National Revenue Agency. Friends of mine spent 200.000 BGN (around 100.000 euro) to reconfigure their cash registers and the whole cash system in order to comply with the regulations, and the agency postponed the law for the next year. These people have now spent 200.000 BGN for something they do not need”* ([interview 5, Q3](#)).

An empirical study which analyses the impact of the regulation on the entrepreneurship activity in 19 EU countries, shows that regulations and policies created for the business have rather negative effect on the entrepreneurship in each country (Ribeiro-Soriano & Galindo-Martín, 2012, p. 862).

Necessity to establish entity abroad in order to mitigate bad image. In concrete, *“Some foreign companies tell us that we are only registered in Bulgaria and isn't there very terrible? In such cases it is better for us to register an entity in Switzerland or England. We have an entity in England and when necessary we are saying that we are from there if the customers hang back because we are registered in Bulgaria. If the projects are responsible also English, Swiss and German companies would not work with a Bulgarian*

company because they know they won't be able to sentence it screw up" ([interview 8, Q7](#)). What this participant meant is that due to the instability in Bulgaria in terms of justice system and muddle, Bulgarian companies have bad image which implies uncertainty for foreign companies about partnership.

Blockchain companies need to establish entity abroad due to lack of regulatory framework at home. For instance, *"The absence of such a framework hinders us. Not by accident Bulgarian companies and startups which create ICO (Initial Coin Offering) in some form are not registered in Bulgaria. All of them are registered in Estonia, Switzerland or Malta or in some of the other nice offshore zones"* ([interview 9, Q1](#)).

5. Human capital is a challenge because of either a lack of it, or the human capital lacking knowledge in general, as well as business knowledge or working habits. Moreover, there is a tendency of outsourcing the Bulgarian qualified labour by international enterprises which additionally aggravates the recruiting of talents and is stated to be one of the things that hinders the ecosystem to generate successful startups *"Qualified tech people are expensive to be employed since the outsourcing came in Bulgaria"* ([Interview 3, Q13](#)); *"It is getting increasingly competitive and even more from the penetration of big foreign companies such as IBM, VMware, Microsoft"* ([interview 11, Q9](#)). However, a question here to be investigated might be why is this happening? What are the possible reasons for that outsourcing companies attract the qualified people, instead of those people to be attracted by the entrepreneurs? Maybe we can only speculate about different reasons in regards to conditions such as financial, personal development and others.
6. Corruption in Bulgaria is a challenge. It is also stated to hinder the business through grey competition practices. Moreover, EU programmes and funds are used by the government officials for corruption tools because they charge the companies that are willing to receive funding with a 20% or so commission in order to provide the financial aid. Other than that, one participant even stated that the so called European programs are a synonym of corruption ([interview 5, Q3](#)). Many of our interviewees affirm that they are trying to stay away and keep distance from the government mainly due to their perception that it is highly corrupted and it may affect their businesses. However, mostly companies with physical

product experience corruption practices and while software and IT companies are less affected by them. As we already mentioned, the relationship of IT and software companies with the government is limited to only paying social security insurance and taxes. They do not depend on institutions as their products or services are virtual.

Our analysis shows that many participants mentioned the presence of corruption in the government and institutions as being a downside for the business and in general. Moreover, a significant number of answers refer to the different European programs which are designed for purposes such as entrepreneurship, new venture creation, and others, are subject of corruption practices from the institutions which are responsible for their implementation, and therefore, the programs which otherwise aim to help entrepreneurs and business, turn out to be partly or fully inefficient because they are often used for a tool for corruption by some civil servants *“The European programs are mainly used by governmental officials for schemes of corruption”* ([interview 5, Q3](#)). Moreover, as previously mentioned during an interview one of the participants stated that when business founders and entrepreneurs apply for such programs, a common practice is that certain percentage (in this case 20 percent) of the financial support granted from the program will be deducted as a commission in order for the applicant to be accepted for the grant. In concrete, *“Especially the European Programs for physical businesses. There, only when you start applying and they are telling you that some percentage of the money granted will be kept for them as a commission. When people hear about European Fund or European Program, they don't apply because they know how will they be welcomed. In my mind, it is a synonym for corruption. My father applied for such a program and they told him 20 percent of the grant will be for us. They just force you for a bribe”* ([interview 5, Q3](#)); *“European funds are somewhat shady about the way how the money is acquired, and with what contacts and bribes people get to the financing”* ([interview 7, Q7](#)).

Our reflection on this phenomenon is that the government might not be efficient in appropriately implementing these European programs, and what they state they are doing in the government website and other institutional public data, is not necessary what turns out to be the reality, at least according to the participants of our study. These lines of reasoning certainly imply a message to the government to pay significant attention on this

issue and take action in designing and implementing relevant policies aimed to investigate, capture, and solve the issue. Independent institutions in this case may be a good solution to be delegated that task, since on one hand, the nature of the problem also comes down to lack of trust in the government. In concrete, if trust in government is low, then one cannot be sure whether the government itself is not linked to these corruption practices which rises another issue concerning the reliability of the government being the one who addresses the issue, since government/politicians/and institutions are on the same side of the bridge.

One additional example concerning this argument is the recent scandal in the media regarding European programs for rural development aimed agriculture funds which has been claimed to be used by some members of the Bulgarian political class to build “guest houses” for the purpose of using them mostly for their own enrichment (reference). Moreover, another example that is known as “ApartmentGate” where some members (many of them already ex members after the scandal) of the political class and senior members of the ruling party GERB, have been recently accused in designing/changing policies for the building industry in a way to be suitable and create favorable conditions and privileges for a big private company , and in return, these politicians have acquired luxury properties (apartments in most cases) from the same company for prices that are way below the market value (Koseva, 2019). Thus, they are accused not only to be hiding taxes, but also paying promotional prices for their properties that are below the market ones. Even though these examples are out of the scope of the context of this study, they provide reasons for mistrust in the government and more importantly, the probability for presence of similar corruption practices regarding the European programs that we previously mentioned.

The table (challenges) represents some of the respondents' considerations towards the challenges they face while operating in the ecosystem.



Figure 13: Challenges (comprehensive)

4.2.3 Answer to Research Question 2

Finally, the answer to our second research question *“What are the main needs and challenges faced by the entrepreneurs in Bulgaria within the high-tech sector?”* is as follows: Their main needs are market and customer base, financial capital, human capital, support, education, policy and regulations and network. Moreover, it appears that some of the needs turn out to be inherently also challenges, which implies some overlap. Accordingly, the main challenges are bureaucracy, lack of funding, policy, regulations, laws, human capital, customer base, corruption.

The overall statement regarding the financial capital is that the resource is in great a demand for the entrepreneurs and it could be viewed as a need and challenge at the same time. The lack of financing is admitted by some of the respondents as a consequence of their business skills. The challenges that entrepreneurs face in terms of acquiring finances are as follows: lack of access to bank loans, small number of venture capitalists and business angels that are often seen to lack investment knowledge on one side, and on the other, entrepreneurs admit they prefer self-funding instead of cooperating and giving shares and control of their company.

Regarding human capital, besides its deficiency in general, the respondents also meet the challenge to recruit marketing and sales specialists rather than IT specialists.

The 'innovative' support organisations such as accelerators and incubators, are multiple times pointed to not exists at all. Although there is small number of VCs, properly established incubation and accelerator programmes which are normally related to the providing of mentorship, mentoring and assisting with network processes, cannot be recognized in the Bulgarian entrepreneurial ecosystem, and are rather defined as co-working spaces.

Better quality education is mentioned as a need, along with the integration of entrepreneurship in education curricula.

Another factor respondent's point as need is with regards to the regulations and policies, which should be properly established and maintained so that they do not hamper the entrepreneurs' activities. The challenges that respondents share in terms of the policies and regulations are: unfavourable regulatory framework for new venture entry to the market, and entity framework in general, that enables options for vesting from abroad, unstable policy framework as well as absence of regulatory framework for blockchain companies.

The networking is seen as underdeveloped to some extent. Interestingly, some of the respondents share that Bulgarian entrepreneurs are not partnership oriented and rarely establish cooperation.

The challenge that was mostly pointed is related to the customer base and in particular the small domestic market, which forces the entrepreneurs to persue foreign markets.

Bureaucracy is indicated to restrict the entrepreneurial activity in a way that the entrepreneurs are less willing to deal with European programmes for instance, however, online-based businesses appear as less affected by the institutional bureaucracy.

In a similar vein, the existence of corruption practices hinders the business as well. Analogously to the bureaucracy, the corruption seems to not be spread yet to the high-tech sector.

4.2.4 Disadvantages

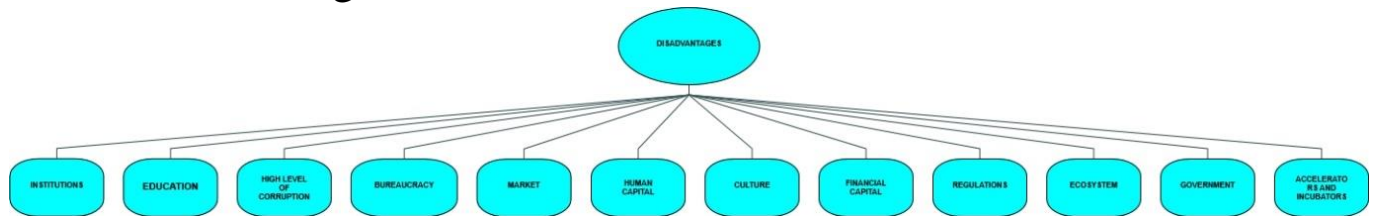


Figure 14: Map of Disadvantages

In view of the respondents' perceptions of the disadvantages of the Bulgarian entrepreneurship ecosystem, the following sub-themes were defined: *Institutions, education, corruption, bureaucracy, market, human capital, government, culture, financial capital, regulations, ecosystem, accelerators and incubators*. The findings from each sub-theme would be presented briefly in separated sub-topic in order to provide the reader information of what the reached founders/ co-founders/ CEOs assume as harmful for the ecosystem.

1. **Institutions.** The institutions in the country are one of the mostly mentioned disadvantages for establishing and running a business. In detail, the Bulgarian institutions are seen to hinder the business and to be an institutional burden. For instance, “*Hygienic-epidemiological inspections (HEI) ask for tranquility fee. Tax inspection and other institutions everywhere ask for a bribe. This hinders the business*” ([Interview 5, Q3](#)); ([see appendix C.1](#)). Furthermore, the institutions were characterized as cumbersome and inertial as well as lacking innovation practices “*Certainly, the system in Bulgaria is cumbersome and this is known by everyone*” ([Interview 11, Q10](#)); ([see appendix C.1](#)). Moreover, some respondents to the survey mention that institutions are considered to employ unqualified workers ([see appendix C.1](#)). Another disadvantage of the institutions is the inefficient justice system in Bulgaria “*About the system and justice, we don't even need to talk about it, but it is certainly disadvantage*”(interview 8, Q7), as well as “*The ineffective governance of the governmental structures*” (interview 2, Q7)

2. Education. Bulgarian education is characterized with being of poor quality ([see appendix C.2](#)), and to lack business and entrepreneurial programs and trainings. As mentioned earlier in the “needs” section, the human capital is not well educated and therefore, the educational system needs to be improved. For instance, *“There is a lack of enough education, encouragement programs are needed”* ([interview 1, Q13](#)); as well as that the educational system in Bulgaria fails to keep people and be successful in their own country ([interview 5, Q7](#)).
3. Corruption as well as its high level appears to be both challenge and disadvantage. Many respondents both from the survey and the interviews point to corruption as a challenge and inevitable a disadvantage. We have already elaborated it in the “challenges” section, but in addition here we provide a reference to the diagrams composed from the coding process ([see appendix C.3; C.4](#)) that shows the many respondents who mentioned it, therefore its significance.
4. Bureaucracy is also regarded as a disadvantage besides being a challenge ([see appendix C.6](#)), as well as some respondents using the term “excessive” bureaucracy ([see appendix C.7](#))
Excessive amount of bureaucracy could be recognized in the ecosystem, was duly noted by the respondents.
5. Market. The market in Bulgaria is widely accepted to be too small ([see appendix C.8](#)). Moreover, the buying power of the population is low as well ([see appendix C.9](#)). In regards to the companies that operate on the B2B market, some state that consumer thinking is very conservative. Also, many Bulgarian companies within the innovative industry are established and/or operate mostly on foreign markets and in particular the European market ([see appendix C.10](#)) due to the consideration that it is way more profitable than the Bulgarian one *“The profit is bigger on the foreign markets”* ([interview 5, free talk](#)); *“Project prices are may higher than those in Bulgaria, and bigger in scale”* ([interview 11, Q11](#)).
6. Human capital is stated to be poorly developed. For instance, as we mentioned in the “needs” section, lack of sales and marketing professionals, lack of business analysts and consultants, too few specialists. In regards to the management capacities of the individuals who are involved in venture creation, they are lacking leadership and product management skills and are unable to

generate new ideas. For instance, *“I think some time ago, the funds Launchub and Eleven had some money to acquire from Europe and did not have good ideas for startups to invest into and we were joking with friends that they are now financing even not so adequate ideas”* ([interview 5, Q1](#)). Other than that, one respondent suggested for what would help the ecosystem to develop is *“There are 2 sides - there needs to be good ideas, and there needs to be investing. I think investing is available, but maybe good ideas are difficult to be found”* ([interview 10, Q7](#)). Then again, as the previously mentioned lack of investments from VC funds and angel investors as a main challenge to the entrepreneurs, the above-described lack of good ideas may also be a consequence of the first. To put it other way, the difficulty for entrepreneurs to find investments may be also implied by their idea not being as good.

7. Government. There appears to be distrust in the government *“One of the main obstacles in the country is the absolute distrust of people to the government”* ([interview 9, Q8](#)). Moreover, the government is stated to be inefficient ([see appendix C.11](#)), and as mentioned before, *“Inefficient governance of the governmental structures”* ([interview 2, Q11](#)). In addition to the inefficient government, poor governmental policies, toxic governmental administration, insane laws, lack of proper policies ([see appendix C.11](#)) and governmental obstruction to the business ([see appendix C.12](#)). Moreover, the big companies are favoured in the expense of small ones *“The problem is that the system does not encourage small and new starting companies”* ([interview 7, Q7](#)); *“The big businesses should not be favoured and the small ones to be harmed”* ([interview 4, Q10](#)). Government is also considered to lack understanding of innovation and in particular blockchain technologies ([see appendix C.13](#)) and does not create proper policies in order to regulate emerging spheres within the innovation industry such as the blockchain technologies. As mentioned before in section “challenges - policy and regulations” companies operating in such spheres are forced to establish their businesses in other countries that provide favourable regulatory framework.

8. Culture also has various disadvantages which could be seen below. Bulgarians are not partnership oriented and lack trust in each other *“Bulgarians have problems with that to have partners, to create a team. They prefer to work solo and that is why they often fail, because they do not trust other professionals”* ([interview 3, Q15](#)); *“There is something that we Bulgarians are missing, we seldom make partnerships and it is rare to sit 5 people and make business. The Bulgarian wants*

*to be his own boss and to have 100% of the company” ([interview 8, Q8](#)). They “lack business culture” ([interview 2, Q11](#)). Failure is not well perceived by the Bulgarian population “*You also know that the failure in Bulgaria is perceived negatively. If you once did not succeed in something, then it makes you are a total disaster*” ([interview 9, Q6](#)). Additionally, entrepreneurship is not well perceived by the individuals “*There are big gaps in the perception of the Bulgarians about the entrepreneurship*” ([interview 2, Q13](#)). People prefer getting a job instead of launching a business “*Even till nowadays, the goal of their lives is to have a job, not to start a business*” ([interview 5, Q7](#)). Lack of successful entrepreneurs who are willing to share their stories to inspire others “*There is a lack of mentoring....in the ecosystem there are no experienced and established professionals who can and want to share their experience*” ([interview 4, Q8](#)).*

9. Financial capital mainly regarding the lack of angel investors and VCs ([see appendix C.14](#)). Moreover, besides appearing as a disadvantage, it is also previously mentioned in the sections “needs” and “challenges” and seems to be a significant factor.
10. Regulations. The regulations in Bulgaria are assumed as unfavourable which also lead to unfavourable business environment. The justice system in the country is on poor level due to lawlessness. The regulations in the country affect the business negatively as well as restricts the emergence of new companies due to the people’s insecurity to establish a business in such environment and in particular the poorly developed current regulatory framework. However, these are previously explained in the section “challenges - policy and regulations”, but additionally we provide an illustration of the above-mentioned ([see appendix C.15](#)).
11. Ecosystem. The ecosystem lacks mentorship and role models. For instance, “*We need some support from specialists such as mentors, but not only to come and ask us some general questions, but really to be involved in our business*” ([interview 10, Q9](#)), and as mentioned before, experienced and established professionals to share their experience ([interview 4, Q8](#)). Moreover, “*Bulgarians do not have an entrepreneurial culture because the entrepreneurs are not seen as role models. In American schools, children from a young age are taught to be entrepreneurial and have role models such as Bill Gates and all others. In Bulgaria are missing such a good examples and practices, also is missing enough education. Encouraging programs are needed*” ([interview 1,](#)

[Q9](#)). However, the ecosystem appears helpful when it comes to seeking human capital “*In principle, the ecosystem helps us to find people who can help us with a particular expertise, when we seek employees, subcontractors, the ecosystem helps with it*” ([interview 10, Q9](#))

12. Accelerators and incubators as mentioned before also in the section “needs - support” they are stated to be mainly acting as co-working spaces rather than assisting the nascent companies with mentorship, monitoring, networking and access to finance. However, besides the need for this type of support, these characteristics appear as a disadvantage.

4.2.5 Advantages

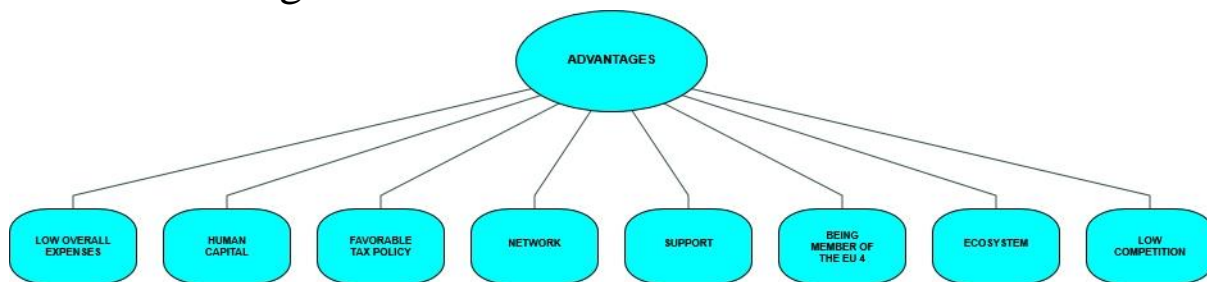


Figure 15: Map of advantages

In the same vein, the respondents’ understanding of the advantages within the Bulgarian entrepreneurship ecosystem, would be presented by the following sub-themes: *Support, network, low competition, fast internet, ecosystem (in general), financial capital, being part of EU, favourable tax policies, living standard, human capital and low overall expenses*. Each of the mentioned sub-themes would consists of the respondents’ perceptions of what are the positive sides of doing a business in the Bulgarian entrepreneurial ecosystem. The categories are not going to be presented in terms of their relevance.

1. Low competition. This include low competition from IT companies, many companies not acting professional which turns into advantage for professional ones, and most startups overestimating themselves ([see appendix C.16](#))

2. Ecosystem. Despite the lack of role models and mentorship, the entrepreneurial ecosystem in Bulgaria is admitted to be developing well in the recent years ([see appendix C.17](#)). In addition, *“There is a reasonably good ecosystem. Enough people with whom to exchange experience, which is a big plus compared to what it was 10 years ago...I think that we still have a way to develop further, but at least the direction is positive. It is more and more developing, more accelerator programs, more successful startups which is the most important for the people to get motivated”* ([interview 12, Q4](#)); *“I think that the ecosystem in Bulgaria is developing with very good pace”* (interview 2, Q10); *“In Bulgaria there are also customers and things are getting better in the last few years, just in our niche, when we started there was not such a culture established and knowledge about SEO in the business environment...”* ([interview 5, free talk](#)). Network is also expanding and as previously mentioned, some of the respondents’ state that *“In principle, the ecosystem helps us to find people who can help us with a particular expertise, when we seek employees, subcontractors, the ecosystem helps with it”* ([interview 10, Q9](#)). Moreover, entrepreneurship is popular among the IT sphere *“Especially in the IT sphere, the entrepreneurial element is very popular, at least from my observations...”* ([interview 11, Q14](#)). Additionally, large number of Software and IT academies emerge *“There are so many academies especially for software specialists and especially in this sphere, the salaries are astronomic”* ([interview 5, Q3](#)). Another interesting statement is that *“There are many successful companies operating on the market and they are trying to create favorable environment for the entrepreneurial community”* ([interview 3, Q10](#)), which is a sign of a contribution activities in a sense, from entrepreneurs/
3. Member of the European Union (EU). Bulgaria being a member of the EU is perceived as an advantage from the entrepreneurs. On one side, it gives an advantage in terms of free economy and trade with counties in the EU *“The membership of EU as well as free trade with Europe”* (interview 7, Q4), and on the other side, the opportunity to apply for European programs and collaboration with other countries in the EU ([see appendix C.24](#)).
4. Support. Even though there is a lack of enough business incubators, accelerators, VC funds and angel investors, however, some are established and currently developing well. For instance, *“There are 2 big VC funds - Eleven and Launchub”* ([interview 7, Q1](#)). Moreover, *“If I have to make a comparison with 10 years ago, I think we have walked a long way. The fact that we have*

organizations such as BESCO (Bulgarian Startup Association), “and the organization of the business angels is enough - this is a signal for a big progress. The fact that such structures started to organize independently without being prompted from the government and institutions is good” ([interview 9, Q5](#)), “We are members of different organizations...here in Bulgaria we are members on the Bulgarian-German chamber, maybe 4-5 such associations we are members of” ([interview 11, Q7](#)). The budgets for financing also are stated to be increasing “Accelerators and incubators in Bulgaria are developing and their budgets for investing in companies are increasing. 10 years ago they were very weak with a 50.000 BGN (25.000 euro) for a first prize while now up to 1 million BGN (half a million euro). Things are very different now” ([interview 11, Q13](#)). There is a presence of NGO accelerators that aim to support the entrepreneurs as well “We can see that NGO (non governmental organization) type of accelerators are developing along with the The Bulgarian Center for Not-for-Profit Law (BCNL)” ([interview 6, Q4](#)). The pre-accelerators in the ecosystem are emerging and also assisting the companies. The respondents point the Founders’ institute as trying to develop a good accelerator programme “Recently, Founders’ Institute is trying to create a good accelerator initiative” ([interview 4, Q3](#)). The co-working spaces are performing well and help entrepreneurs increase their networks “Most of the coworking spaces in Sofia evidently show a high level and are shown in many indexes of European charts” ([interview 6, Q5](#)). Finally, business angels are seen as a good choice for financing and other reasons such as providing business development expertise “Angels are a good option because in the early stage someone jumps with you in the trap and believes. In terms of that they are business angels, it means that they have already developed their own businesses and can provide you with additional expertise about the development of your business” ([interview 6, Q9](#)).

5. Network. Some respondents mention the network as being essential “The contacts and network are the most essential in this ecosystem. And the events which they organize when there is some nice lecturer and you can go and learn something new” ([interview 10, Q9](#)). Moreover, “There is a cluster called Balkan Blockchain Association in which I am one of the founders...we are trying to establish a connection with institutions and the European Commission or the government. We want to include people from the Balkan countries, not only from Bulgaria” ([interview 9, Q7](#)).

6. Favourable tax policy. One of the most mentioned advantages by the respondents about doing business in Bulgaria is the flat tax rate of 10% and the low taxes for companies in general ([see appendix C.19; C.18](#)), *“Bulgaria is very attractive in terms of taxes compared to other European countries, which should not be underestimated”* ([interview 11, Q8](#)).
7. Human capital. Some respondents mention the returning human capital from abroad being essential for the entrepreneurial ecosystem ([see appendix C.22](#)), *“I think that Bulgarian who study abroad with a good experience are highly valuable”* ([interview 3, Q9](#)), and that there are cases of entrepreneurs who have been previously studying or working in foreign countries then returning in Bulgaria and contribute with added value activities *“...people who have studied and worked abroad are returning and make radical changes in comparison to what it has been 8-9 years ago”* ([interview 3, Q10](#)). Young people are seen to be more entrepreneurial oriented compared to the older population *“People are creative, I am talking about the young ones...the older population is rather worse from this perspective”* ([interview 3, Q15](#)), *“...we see a great desire in young people like us”* ([interview 6, Q7](#)). Available skilled IT specialists ([see appendix C.23](#)).
8. Low overall expenses. This includes cheap labour ([see appendix C.20](#)), *“many qualified specialists who are cheap as expenses compared to the same type specialists in England who are much more attractive, which is normal”* ([interview 11, Q8](#)); cheap offices *“cheap offices”* ([interview 5, Q4](#)), being overall cheap to do business in Bulgaria compared to other European countries *“...in Bulgaria is in general cheaper to start own business and to make tests, especially in the beginning”* ([interview 10, Q1](#)), *“...here in fact is cheap to hire people in Bulgaria because the salaries in Holland and everywhere else are much higher and not only the salaries but all other expenses such as offices, maintenance, etc. It is cheaper for us to work for clients from London here in Bulgaria rather than clients from London in London”* ([interview 8, Q6](#)); cheap life ([see appendix C.21](#)) and the ability to product test cheaply ([see appendix C.26](#)).

4.2.6 How to bridge the gap?

What does “*to bridge the gap*” really means? First and foremost, we consider necessary to start with defining the gap, followed by possible solutions for bridging it. The results of this study reveal a number of inadequacies within the entrepreneurial ecosystem in Bulgaria, which inadequacies we will sum-up, define, and name “the gap”, and consequently illustrate with the figure below. Certainly, the process of bridging that gap is not to say that this is a straight leap from the current state into another one that may be unrealistically high considering the context of Bulgaria. In contrast, it could be a step-by-step action that involves a process of change and setting reasonable milestones to be reached in a sustainable manner over time.

Defining “the gap”.

In view of best practices according to the literature, and consequently the answer to the 1st research question, as well as in comparison with what we get to see in Bulgaria, we identified the following “gap” from inadequacies in the network, culture, market, financial capital, human capital, policy, support, and policy:

Network

First, when it comes to interaction between at least some of the components of the entrepreneurial ecosystem, we have discovered that the network within the ecosystem seems to be weakly developed. Not only the entrepreneur-entrepreneur and entrepreneur-investors networks, but also entrepreneur-formal institutions, i.e. the private-public sector and government network. Moreover, we discovered from the analysis that Bulgarians are inherently not so much oriented towards partnerships and often prefer to own 100% of the company. Other than that, enough events and cooperative spirit seem to be needed.

Culture.

Besides that, Bulgarians are not much oriented towards partnership, other gaps in the cultural aspect include: lack of business culture; a negative attitude towards failure and entrepreneurship in general where they are not being well perceived, which may also be somewhat influenced by the transition economy (post-

socialist period) of the country; and the lack of successful entrepreneurs willing to share their success stories to inspire others.

Market.

The local market is small and buying power of Bulgarians appears to also be rather low.

Financial capital.

A gap in the access of financial capital includes the following: not enough angel investors and VCs along with their little interest to invest in physical products; not enough investment funds; and the difficulties to access corporate bank loans. However, it should be mentioned the availability of the two main VCs Eleven and Launchhub who seem to be performing well and trying to support the entrepreneurs financially.

Talent pool/ human capital.

This includes the lack of human capital in general, as well as its quality of education and possession of skills such as technical, marketing, sales, management, and leadership. Moreover, its motivation and continuous development.

Support.

This includes governmental support, as well as accelerators, incubators, well-developed programs, laboratories, conditions for sustainable growth, and access to European projects

Policy and regulations

Regarding policy and regulations include the following: bureaucracy, corruption, the need for better and faster institutions, legal framework and proper regulations, stable legislation and tax procedures, and clear regulations and laws valid for everyone.

Finally, to illustrate the above-mentioned and address possible solutions for bridging the gap, we provide the figure below called “The Gap”. The different circle slices represent inadequacies identified in the components of the ecosystem, while the two rectangles which consist of the actors “government” and “entrepreneurs”, are positioned on the side. Thus, their role in terms of relationship between each other, as well as with the ecosystem, is illustrated through lines and arrows, while these processes and possible solutions to bridging the gap are further elaborated in the next section “How to bridge the gap?”. The small

black oval shapes signify for a proposal for bilateral role needed from the government and the entrepreneurs. The black arrows stand for the need of collaboration between the government and entrepreneurs, while the blue circling arrows represent the need for collaboration between the different ecosystem components.

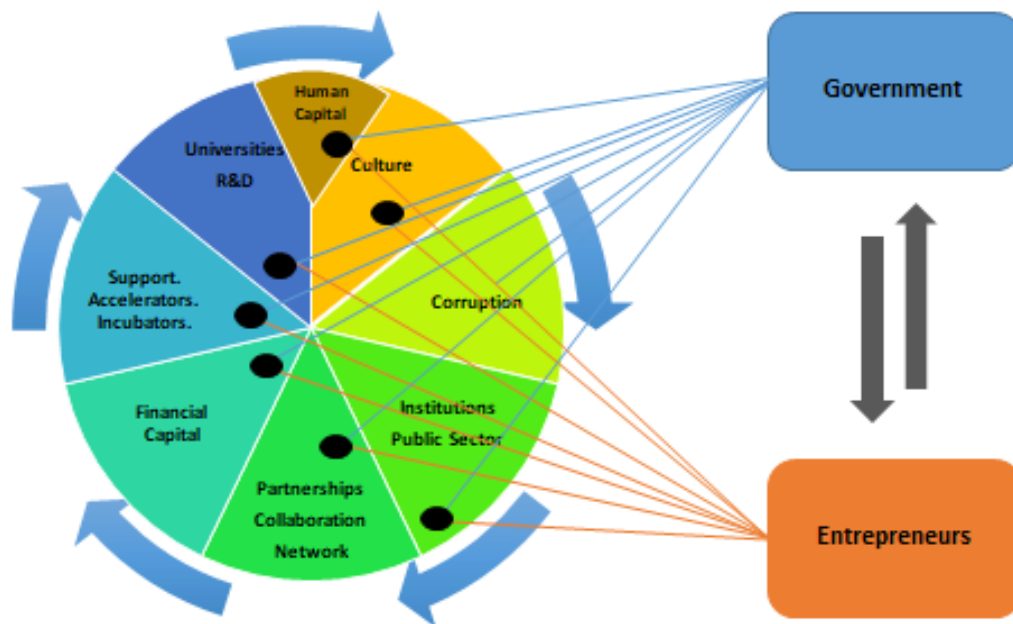


Figure 16 - The gap

4.2.7 Bridging the gap

The following section would represent our thoughts and suggestions while proposing solutions, inspired from the theory and then further assimilated to fit appropriately within the context of the Bulgarian entrepreneurial ecosystem, that aim to 'bridge the gap' as well as overcome the entrepreneurial challenges and needs.

Network

In view of developing a good network, according to Stam (2018), “*Entrepreneurial ecosystems have revealed to be a mobilizing metaphor in the public and private sector, also bridging the boundary between the two*” (Stam, 2018, p. 173). Accordingly, to bridge that gap by means of

facilitating a good collaboration between the entrepreneurs and the ecosystem, it would be a reasonable approach to start with improving the network entrepreneur-public sector and government. In reality, this implies a bilateral approach, namely - effort from both sides. Moreover, as we discovered from the results that Bulgarians are inherently not so much oriented towards partnerships, and often prefer to own 100% of their company, some collaboration efforts regarding entrepreneur-entrepreneur can certainly be a reasonable start for the ecosystem to develop further. A significant factor is the collaboration between universities-companies, which would enforce the overall entrepreneurship and economic development. If established, the synergy between the academy and entrepreneurs, would contribute with numerous benefits. Companies' advantage could be recognized by on one hand receiving qualified specialists, and on the other, technologies, relevant researches and solutions, a few to mention (Taneva & Dimov, 2010, p. 571).

However, a good practice that is already implemented in Bulgaria is the partnership between tech universities with the business, where knowledge exchange and practice is transferred and talent mobility fostered. The network process is deemed essential for establishing some kind of cooperation, which in turn enables both sides to exchange ideas, inspirations and most importantly, discover the needs of all parties (entrepreneurs, talents, academics, researchers) (Taneva & Dimov, 2010, p. 572).

Culture

Recalling the cultural aspect, we are aware that entrepreneurial culture plays a vital role in improving the business environment, which in turn influences directly or indirectly the entrepreneur's performance. However, it should be taken into account that entrepreneurs in entrepreneurial ecosystems in the developed economies do not necessarily face many of the problems which the Bulgarian entrepreneurs do. In the case of the Bulgarian entrepreneurial ecosystem, however, the entrepreneurs face a number of challenges and obstacles, and putting emphasis on the social attitudes towards entrepreneurship solely to overcome the companies' challenges and enhancing their performance, may not necessary be the most appropriate solution. In contrast, encouraging entrepreneurial attitude over the society may result in a higher number of people thinking about and undertaking entrepreneurial endeavors. This line of reasoning evokes the established entrepreneurs to be represented as role models, preferably with the help of the public sector.

Moreover, entrepreneurship culture could be positively affected by incentives related to the educational systems. In detail, if entrepreneurship is taught from primary through secondary and higher educational level, the specific culture is more prone to shape the mindsets and attitudes towards entrepreneurship, due to the consideration that one subject is better learned from early stages. Probably the most suitable example for this could be seen in the US, where pupils are stimulated and encouraged through different practices. However, it is worth noting that there exist a large number of well-known entrepreneurs with successful stories, who act as role models. Common strategy that aims at inspiring and motivating the students is widely discussed as the one with the greatest impact on students' perceptions of entrepreneurship. Therefore, we assume it as worth implementing it in Bulgarian curricula.

Other fields that might need 'role model' inspiration could be the public sector where policymakers might be interested in additional expertise as well as the business where especially the nascent entrepreneurs who are currently meeting the ecosystem's challenges and coping with managerial tasks, might appreciate couple of advices and suggestions for their company growth (Stam, 2014, pp. 24–25).

Financial Capital

On the one hand, the government could set up funds to support the new ventures financially. On the other hand, this is considered not as effective intervention as it spoils the organic process in the market (D. Isenberg, 2011). It should be noted here that, the elimination of corrupt practices relating to the absorption of European funds and grants would be a step forward and would help companies to operate in normal conditions and apply for financial aid, without fear of interference of state institutions. In general, the elimination of corruption and bureaucracy would lead to the proper absorption of financial capital, which is for business aims, and hence with high added value for the economy.

Moreover, we do not argue that the state should 'lead' the movement of the business progress, but as recommended by Fuerlinger et al., (2015) it should also assist with various stimulating initiatives such as removing the obstacles and challenges that entrepreneurs face with regards to bureaucracy and corruption, as well as investments in R&D centers (Fuerlinger et al., 2015, p. 8).

Market

Regarding the small local market and low buying power of the Bulgarians, there might not be a direct solution to this issue as the buying power is directly influenced by people's incomes. However, one indirect step in addressing this issue could be establishment of incentives and rebates both from the government and from the companies themselves, designed for people in general and the private sector when buying locally created products. Thus, the probability of choosing local products instead of foreign ones can be increased. Pricing and low-cost product range may also be addressed when it comes to targeting the local market in consideration with the buying power.

Talent pool/human capital

To improve the overall level and quality of the labour, the following measures would help to make this happen: Changing the learning approach in both schools and universities, while transforming the traditional method into practical based learning. Moreover, the integration of entrepreneurial programs in curricula to form highly rated skills such as proactivity, creativity, innovation, determination, teamwork and self-confidence. In addition, the involvement of successful entrepreneurs as guest lecturers at school is seen as a strong inspiration, and sometimes of crucial importance when pupils form their perceptions for a future career.

It is also important to encourage the study of subjects in-demand for the business, such as IT specialists, engineers, etc.

In light, the government plays a crucial role for the successful implementation of the mentioned initiatives and could support the educational institutions through investing and promoting high quality education for developing the future talent pool of the country.

Regarding the need and at the same time challenge of the human capital and consequently its recruitment, motivation and qualification but also in view of perceiving it as an advantage its cheap cost in the region, which in fact appears to be the lowest compared to other European tech hubs according to the chart of (Palmer, 2019), we would present the following argument and possibly a solution. In order to attract human capital and consequently to keep it motivated and continuously qualify it, entrepreneurs should consider incentivising it and providing adequate working conditions that are competitively related to other European countries and tech-hubs. This does not

necessarily mean to argue for drastically increasing wages to the level of developed countries, but rather to consider starting from somewhere. In addition, the cheap labor in the region being perceived as an advantage could possibly not be as such in the long run, as it can be an unrealized disadvantage if it is used as a tool for building a business model, especially in regards to building a sustainable one. Moreover, the role of the government in this case should not be underestimated, as they can in turn consider actions towards increasing the gross salary on the labor market through the national legislation, accompanied with incentives for the private sector. Thus, human capital that may otherwise consider seeking career opportunities abroad due to better working conditions and higher wage, could potentially stay, while some people who studied or have a professional experience from abroad may be attracted and consequently return.

Policy and regulations

Since the already developed economies are assumed to have appreciated a long time ago the value added from entrepreneurship activity and therefore are launching favourable policies, then it might sound naïve but considering the slight progress within the Bulgarian economic state, there is a chance the Bulgarian policymakers work upon improving the system's conditions in the country.

Good practice to be taken into account could be establishing policies that ease the companies' entry into the market by shortening the time for filing documents and licenses to register the company (Autio et al., 2014, p. 1106).

Another incentive could be influencing the students' desire of becoming entrepreneurs, by enabling them to participate in specific programs and competitions, where the students can form teams, and where they should create, produce and commercialize innovative product, and then receive award and further support.

Emphasis could be put on the innovation and technology-based new ventures through support in terms of free access to co-working spaces, laboratories, tech and science parks. Additionally, the government can facilitate the university-entrepreneur collaboration through various programs. In general, public investments in research and development activities as well as incubators and other tech centres, could be made (Autio et al., 2014, p.1106).

It is necessary to organize meetings with entrepreneurs, especially those engaged in the high technology industry, to make proposals to the policy makers, what they think is necessary and priority to be done to develop the entrepreneurial environment. In other words, the policy makers and entrepreneurs can carry out periodic constructive talks in which to discuss problems and potential solutions.

In nowadays' rapid technology development and respectively market, the government is forced to develop such measures, regulations and policies that could match the companies' pace of development in order to be able to shape such a regulatory framework that defines the activities of those companies engaged in the innovation and high-tech industry, otherwise these companies would be forced to register abroad. Unfortunately, according to our respondents, this is already taking place in Bulgaria, thus measures should be taken to solve the problem.

If public institutions and the government realize that if they take proactive measures on a given type of regulation and implement such legislation, regulating the activity of blockchain companies, for example, this would lead to attracting more Bulgarian companies to engage in a particular innovation based activity and create a potential cluster, and even attracting entrepreneurs having blockchain companies from around the world, who want to register their companies in Bulgaria, which in turn would lead to competitive advantage.

In relation to corruption, it should be made clear that it exists not only in the public sector but in almost every industry, sector, organization and person. Eradicating a problem of such a burden is an extremely difficult process that must be overcome by the citizens of Bulgaria.

Regarding the particular policies and initiatives that the government could implement for developing the ecosystem, we consider the following actions, inspired by OECD reports, to be good examples:

1. Firstly, the network, technology and knowledge exchange from the higher education institutions such as science and technology parks and the universities, to the business as well as tax break could be beneficial especially to the recently established companies.
2. Supporting the 'gazelles' is also viewed as prominent strategy where startups or SMEs with potential for rapid growth can be object for special facilitation which can consist of providing access to specific resources, assisting with supply chain issues, commercialization, etc.

3. Awareness of the educational importance should be raised. Notwithstanding, the size and profit of the SMEs and nascent companies, their help with even small amount of funding can be crucial for the education state, which could lead to more qualified human capital (Hofer & Delaney, 2010, p. 34).
4. The immigrant group is highly neglected, in terms of their capacities to contribute to one country development. In contrary to the above statement, high percent of the immigrants are characterized with relatively small age with rather entrepreneurial attitude and mindset due to their risk-taking nature. If the government provide certain educational and training programmes to the immigrants, the economy could gain benefits and at the same time solve the issue in long-term (Hofer & Delaney, 2010, p. 35).
5. As the financial capital is considered as one of the main obstacles for the entrepreneurs, the following strategies could be made: increasing the number and diversity of the financial instruments; refining the financial and more specifically investment education; stimulating the private sector assist with funding to innovation-based companies (Hofer & Delaney, 2010).
6. Even though, there exists policies and regulation that target the business, they lack monitoring and assessment which make them insufficient. The business needs and challenges are constantly changing which calls for adequate policies implementation that aims to encourage the entrepreneurs instead of hamper them (Hofer & Delaney, 2010, p. 40).
7. Vesting framework - Enabling foreign investors assist with financial capital Bulgarian entrepreneurs, without facing challenges in terms of policy obstructions complicated regulations

4.2.8 Suggestions for how the entrepreneurship ecosystem can be further developed.

In this section, we present suggestions from the participants regarding how the ecosystem can be further developed. They are grouped into different categories: education, government, financing, networking, support, and culture

Education. Suggestions about the education include that the education in general needs to be improved; to focus on practice and teamwork; to emphasize on IT related educational programs; local universities to acquire know-how from foreign ones; and that people who are educated abroad are valuable and need to be attracted ([see appendix C.25](#)).

Government is suggested by the respondents with the following: To incentivise and subsidize, to ease venture creation processes, to borrow best practices from developed countries, change taxation process, to attract R&D from big companies, public administration to start collaborating with the private, policymakers to educate themselves in technology, policy for hiring graduates to be established, justice system to be changed, innovation to be encouraged, immigration laws to be eased so foreigners can start a business in the country, corporate bankruptcy act to be established, clear governmental position for the blockchain technology regulations ([see appendix C.28](#)).

Financing is suggested to be developed by business angel vesting *“The business angel vesting needs to be developed”* ([interview 3, Q14](#)).

Networking is suggested to be improved by the following: Collaboration between all stakeholders in the ecosystem, foreign companies and investors to be attracted, establishment of international network, and media to report entrepreneurs (see appendix - suggestions networking). Moreover, *“The actors in the ecosystem to create more trampled paths through which the startups to be able to go abroad easier. There is one good initiative already, one organization in Silicon Valley which created a road trip and somewhat helps the startups to make a step towards there. This is crucial”* ([interview 12, Q6](#)).

Support includes the following: Establishment of accelerators, big enterprises to help smaller ones through programs, innovation and entrepreneurship to be supported, mentorship improvement, and more support for product companies ([see appendix C.27](#))

Culture is addressed with the following: Bulgarians to be more proactive, business and startup culture to be changed, entrepreneurial spirit encouragement, people to work in partnerships, social entrepreneurship to be encouraged ([see appendix C.29](#))

To sum up, it seems clear that entrepreneurs have numerous suggestions for how the entrepreneurial ecosystem can be developed further. Therefore, it would be a reasonable approach for the government, the institutions, and the educational system take them into consideration. Moreover, we recall our statement for increased collaboration between the different actors of the ecosystem.

5. Discussion

Since the Bulgarian economic and political state, and in particular the institutional effect on entrepreneurship, the government incentives and the current high-tech ecosystem, were revealed according to secondary data sources and the gathered primary data as well, some of the statements that appear most relevant would be discussed. In addition, as our study is interested in the entrepreneurial ecosystem, and in particular, the high-tech ecosystem in Bulgaria, the discussion will consist of the following sections:

The first section provides a brief summary of what is currently implemented as government incentives in regards to entrepreneurship, as well as what is considered as competitive advantage in the country.

The second part contains two types of concepts, one of which reveals how the implementation of the theory of National Innovation Systems helps policy makers develop analytical framework and proper initiatives to encourage the high value added ventures, while the other concept advocates differentiating the entrepreneur as a separate unit and the creation of policies and support programs related to his/ her activities. Firstly, the best practices and how developed countries manage to develop their ecosystems and stimulate entrepreneurs to operate in areas with high added value, were explored. Our research has shown that one of the most relevant things on which the actions of their National Innovation Systems are based is the collaboration between academia, business and government. Moreover, the stimulation of technology and knowledge transfer as well as diffusion is seen as a fundamental strategy for development not only of entrepreneurial ecosystems, but also of the economies entirely. In the interviews and survey, our respondents do not mention innovation based activities to such an extent, as a need or challenge to the ecosystem, but it might be an unconscious problem for them. Nevertheless, we considered that it is logical to explore the best practices for stimulating the high tech industry and to find potential measures that can be implemented in the Bulgarian environment. Then we narrow down the discussion, taking into account the Isenberg' approach, who focuses on the entrepreneur himself.

Our decision to use these concepts is due to the fact that we want to implement a rich picture and thus to look at the problem from as many angles and aspects as possible.

In the third part of the discussion, we present a summary of what, in our opinion, is important and relevant to be made both on the part of the government and the entrepreneur to achieve balanced interconnection and improved business conditions in Bulgaria.

5.1 Summary of the Bulgarian Entrepreneurial-based practices.

Seems the country has accomplished somewhat progress recently, in comparison to the country's state in the post-socialist/ transition period. However, a large number of measures are expected to be made. According to (Williams & Vorley, 2015), Bulgaria still rely on two economic aspects to gain some competitive advantage and attract investors, which are the low cost labour and the cheap life. Besides these 'advantages', Bulgaria also provide corrupt practices and tones of bureaucracy as well as financial access mostly for large enterprises. Even if the country tries to implement best practices in order to stimulate and support entrepreneurs, they are prone to fail due to inefficient activities. For instance, the National Innovation Policy is assumed to lack specific priorities and coordination processes, which lead to ineffective implementation in practice as well.

It is worth mentioning that the country has established various European strategies which are seen to target and work upon the improvement of the following areas: encouraging the new venture generation, integration of entrepreneurship education in schools and universities, improving the administrative procedures for the companies, strengthening the entrepreneurial culture, investing in universities and research organisations (Republic of Bulgaria Ministry of Economy, n.d.-b). Most of the incentives have been established since 2014 which raises many questions from which: If there exists such a range of incentives that leads to entrepreneurship growth; Why the country is continuously lagging behind and occupies the lowest places on the charts among other European members?

There are still poor interconnections between the entrepreneurs, universities and R&D organisations and the government. Moreover, there are no significant science-based practices, as well as knowledge and technology transfer.

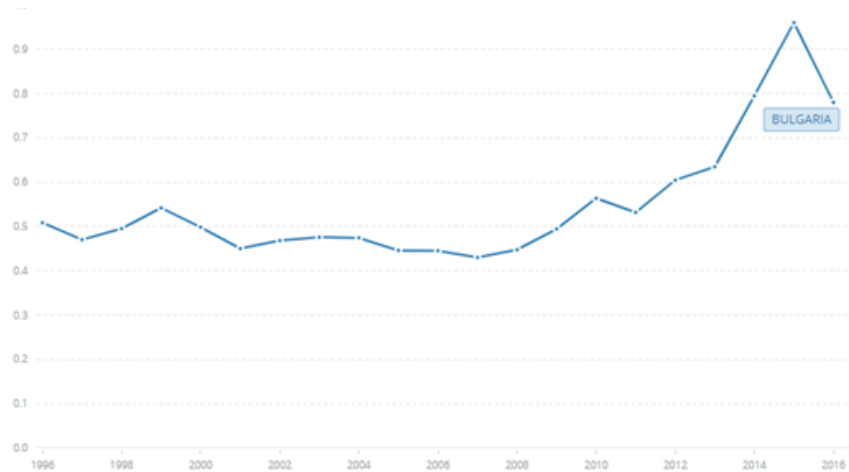


Figure 17: Research and development expenditure (% of GDP)

Source: (The World Bank, n.d.)

5.2 Best Practices

Some of the most influencing formations worldwide, the OECD and the EU, put a great emphasis on innovation as a core aspect for economic development. Thus, several technology and innovation-based policies were established to encourage new venture creations in the high-tech industry. Although these companies hold a small percent of the overall number of SMEs, they are seen as a catalyst and disruptive factor in the entrepreneurial ecosystems. Therefore, the countries part of OECD, implement various strategies to foster high-tech venture emergence. These include support for university-based spin-offs and research commercialization, investments, creation of incubators and science centers, encouraging the cluster formations (Mason & Brown, 2014, p. 773).

These policies created in the advanced countries, which purpose is stimulation of the high-tech industry, could be viewed as mission and diffusion oriented. The first type is characterized by resource concentration on large science-based projects in the spheres of aeronautics and microelectronics, whereas the diffusion-based policies aim to spread their focus on each company and stimulate them to adopt the technologies. Moreover, this type of policies tries to foster the networking processes between the entrepreneurs themselves and their relations with the public institutions which are deploying the technology transfer.

However, the German and the UK economies differentiate with their focus on the “radical innovation” company approach. Another aspect worth mentioning while considering innovation

state measurements is the economies' wide acceptance that R&D activities play a crucial role in enhancing their competitive advantage. Supplementary to the R&D support are the tax reductions, grants, loans, etc. In terms of financial aids for innovation-based activities, recently, governments increased the risk capital supply on early stage by creating public VCs, support for angel investors, and other types of funds. Besides the insufficient number of evidence, the latter public support (funding) is considered ineffective. Scholars argue that before implementing any support activities, the state should thoroughly understand and be aware of the evolutionary innovation framework which indicates that institutions and policies interconnect, and thus, shape the innovation structure and instrumental in dependence on the geographical location and its specifications. Therefore, for example, OECD and the EU adopted the National Innovation System as the most promising concept for knowledge comprehension. In general, the analytical framework that the National Innovation System could provide with, and enable policymakers to create adequate measures that would have a possible impact on the entrepreneurial and economic growth through investigation the correlation between the entrepreneurs, and the innovation creation and exploitation. However, policymakers are claimed to put more efforts on the generation without paying much attention towards the exploitation of this knowledge, which is one of the functions of the entrepreneurial ecosystems (Mason & Brown, 2014, pp. 774–776).

Another concept relevant for the study purpose, and in particular, setting different perspective for answering the research questions, but at the same time does not replace the theory that is used as the main inspiration for making the complete study: 'entrepreneurial ecosystem,' is the cluster concept. Clusters influence not only the entrepreneurship activity but also the synergy between the entrepreneurs with the academia, which results in human capital development, investments in R&D activities, which in turn leads to the collaboration between universities, as well as research organizations and the industry (Ryan & Giblin, 2012, p. 1325).

Policies that are designed for the 'entrepreneurship-innovation' clusters are recognized to distinct from the others. The specific concentrations are assumed to produce added value and can be based on a particular sector, or they might be focused on startup companies. Some interpretations on the particular formation: 'entrepreneurship-innovation' clusters are considered as such correlation that enables the high growth of the positioned locations though attracting the establishment of new ventures, and thus, evolving vibrant entrepreneurial activity (Chatterji, Glaeser, & Kerr, 2014, pp. 136–137). Favorable policies that could supply the new ventures or entrepreneurs in particular

region consist of: entrepreneurial-based programs and training that provide mentorship and their integration in school, technology and science support, the establishment of immigration regulations which enables the qualified foreign workforce, enter the national borders (Chatterji et al., 2014, p. 152).

Since the best practices towards entrepreneurship in view of National Innovation Systems and clusters, or in other words, the more generic approach was reviewed, the narrower methodology would be introduced as well.

D. Isenberg (2011) suggests a couple of policy implications, one of which is the differentiation of the terms related to entrepreneurship and clarifying the entrepreneur needs without further misinterpretations. Once defined as a separate actor in the system, the entrepreneur would be threatened differently and the policies and regulations for such individuals should differentiate, in comparison to the other actors in the system. Currently the entrepreneurs are seen as a part of the SMEs area of activities. Secondly, entrepreneurship should be provided with support and accurate understanding by the public sector. The flourishing entrepreneurial ecosystem has a broad spectrum of contributions such as developing the labour skills which are in high demand on the market, influencing the policymakers' perceptions and priorities for establishing incentives in favour of the market, creating clusters and spillover effect, social causes and foundations, etc. The author assumes the financial support for new ventures as meaningless, if a particular network among the actors within the ecosystem is not established and the 'players' are operating in isolation. However, entrepreneurial education or creating incubators, might be a better approach for stimulating entrepreneurship. Some governments 'bridge the gap' by providing certain amount of funding to the new ventures and claim they have made progress by investing in the entrepreneurs. D. Isenberg (2011) disagree with the mentioned method for assisting the new venture growth and providing 'right atmosphere', because of the consequences this measures have on the market afterwards, as well as due to the uneducated selection of the entrepreneurs who 'deserve' funding and who do not. Moreover, the author advocates for a more holistic view of the ecosystem's components and consequently, more complex solutions for the problems (D. Isenberg, 2011).

Considerable number of scholars, admit that entrepreneurs' ties with the universities play a key role for developing the entire ecosystems in various aspects. The new ventures establish alliances and connections, as well as enforce their innovation-based activities while reducing R&D costs, and shortening the time period for the development of products/ services. Moreover, it is assumed that it is a government job to build certain infrastructure which enables innovation and technology transfer (George & Prabhu, 2003, p. 93). On the other hand, the active role of the entrepreneur to build and maintain entrepreneurial community is argued to be crucial, due to the assumption that unless entrepreneurs do not demonstrate commitment and willingness to take the lead, the governmental incentives will not be able to provide the entrepreneurs with well-established conditions, but rather assist by removing obstacles (Fuerlinger et al., 2015, p. 8; Mason & Brown, 2014, p. 20).

A popular example for governmental intervention in the business sphere is the Indian IT industry case. For instance, in 1998 Indian government launched a policy which purpose was to develop the IT sector by introducing a wide range of incentives which stressed the significance of the industry for achieving economic enhancement. Some of the strategies implemented, were IT and telecom legislation, providing finance to new ventures that enter and operate in the IT industry as well as creating venture fund to benefit the information and technology sector and software development, allocating subsidiaries for consultancy services, again with focus on IT sector. The measurements were evaluated to contribute with approximately 50% growth of the IT industry per year. The established networks among the IT companies, spread and transform into clusters which afterwards, provoke the increasing of new venture creation. Therefore, the example with the Indian IT industry rapid growth could be viewed as a consequence to some extent, of the government desire and active participation through implementation of policies that aim to develop the flourishing of the IT sector (George & Prabhu, 2003, pp. 105–106).

Despite the impressive findings, this study has observed a phenomena which took place two decades ago. However, the results can serve as an example of political will and governmental desire to participate and contribute to the IT sector's development through policies and incentives.

5.3 Implications for the government

The perceived advantages of doing business in Bulgaria regarding the low taxes for companies and the cheap labor in the country, the government should not rely on them to serve as a benefit for attracting foreign investors, because with the presence of inappropriate regulations, these investors would quickly reconsider. Therefore, working on properly designing the regulations to be accommodative should be a subject of consideration.

From the point of view of political action on the entrepreneurial ecosystem, and in particular the interventions that the government would take as a responsibility, it is important to mention that they must be coordinated with business people, successful entrepreneurs who have insight into what would be appropriate to be done by the state and what actions should be left on the market. In other words, it is necessary to balance the activities of government and entrepreneurs for the improvement and enhancement of the entrepreneurial ecosystem conditions.

The government needs first of all to repair the damage it makes to the local business by removing obstacles in the legislative framework, cutting bureaucracy to a minimum, catalysing energy and resource in the eradication of corruption.

It should be mentioned that all processes, with the aim of changing the conditions for entrepreneurs, are a complex and timely process. Therefore, small steps and an incremental approach are appropriate to integrate into the implementation of the measures. The state of the country is considered too complicated, filled with complex and unnecessary legal frameworks, and a radical approach in this case may not be possible.

However, when the economic system is 'cured' from the obstacles, it can direct efforts to improve the country's innovation system and draw on experience from developed countries. In view of the best practices, implemented in OECD countries, the following measures in terms of the state could be made in order to encourage the entrepreneurial activity within the innovation and high technology industry, without interfering and imbalances the business environment: support and stimulation for spinoffs and cluster formations, investments in research and development activities, establishment of incubators, tech parks, science centres (Mason & Brown, 2014, p. 773). Although, the government should actively promote favourable conditions for the entrepreneurs, its responsibilities, according to Spigel (2016), should be reduced to: removing the obstacles and main challenges faced by the companies such as eliminating bureaucratic issues like licenses (Spigel,

2016, p. 147). However, if the state considers further stimulating measures, each of the interventions in terms of the government should be supported by a detailed study specifically carried out according to the concrete components of the entrepreneurial ecosystem as well as the innovation system framework, their conditions and geographical location.

The willingness of entrepreneurs to help the entrepreneurial development processes, as well as its popularization, are vital as well.

5.4 Implications to entrepreneurs

We would address the entrepreneurs and their role in the entrepreneurial ecosystem twofold. On one hand, we will suggest actions they should take in order to improve the ecosystem performance, while on the other hand, particular actions to consider regarding improving their own performance and consequently the performance of their businesses.

To begin with, entrepreneurs can try to create a strong entrepreneurial community through building a solid network, both inside the ecosystem, as well as internationally. On one hand, the solid network inside the ecosystem can result in an increased synergy between the ecosystem components and especially with other entrepreneurs. On the other hand, international network with other ecosystems and tech-hubs can contribute to attracting foreign investors and collaboration between local and foreign entrepreneurs. They should also act as role models to inspire both students and other entrepreneurs, giving advice and sharing own success stories. Thus, attitude towards entrepreneurship in the culture of the society can be increased. Moreover, they could also create entrepreneurial organizations and NGO type accelerators and incubators, which on one side, could act as a catalyst of the entrepreneurial culture in the community, while on the other side, could represent the entrepreneurs to the public sector. Other than that, they should communicate and coordinate their proposals with institutions and policymakers in order to build a relationship with the public sector, and to address challenges and solutions.

Moreover, those entrepreneurs who are already mature and have expanded their companies and networks, can also engage in venture capital or act as business angels. They can also try to create a well-functioning support infrastructure such as business incubators and accelerators.

A more intensive collaboration of entrepreneurs with universities and academia with joint forces can create mini academies for high-tech and IT sectors. Moreover, through such collaboration to

foster quality talent recruitment, and foster specific research in needed areas where such is not enough e.g. in development of innovative products.

Entrepreneurs can improve their performance by firstly analyzing their own qualities, whether managerial, leadership, or in terms of narrower specialization requiring certain competencies. Realizing their weaknesses, they will become aware of what they need to do to fulfill their abilities. As mentioned several times, Bulgarian entrepreneurs prefer to manage their business on their own, without creating additional partnerships. This can be seen as an obstacle, as being an entrepreneur is a prerequisite to own qualities such as communicativeness, risk tolerance, and others. It is also considered as a good practice to create relationships and being open to new cooperatives.

5.5. Research limitations and future research

We acknowledge at least the following limitation that this report is a subject to. First, the small sample size of entrepreneurs-CEOs which participated on a survey (42 participants), and interviews (12 participants), as well as the geographical location within the region of the Bulgarian capital - Sofia. In consequence, the views and opinions of the respondents are considered incapable of representing the whole Bulgarian entrepreneurial contingent. Therefore, to produce more robust findings, a future research with bigger sample should be conducted. Second and third, the study has a primary focus (and is consequently limited to) within the high-tech sector operating enterprises, and even though the sample is contextualized within this sector, the analyzed entrepreneurs are owners of enterprises that are on divergent development and growth phases. Thus, a future research that would segregate entrepreneurs based on their age and experience, as well as phases of development and growth of the enterprises their own would provide richer insights of the respectively associated needs and challenges, especially in regards to financing in view of development phase of enterprises.

It is beyond dispute that considering the above-mentioned limits, the findings of this research lack a foundation for generalizability. However, the value of this study contributes with providing a rich outlook concerning the Bulgarian entrepreneurial ecosystem and environment.

6. Conclusion

Our strongest finding from this study is that absence of collaboration certainly implies complexity, challenges, and in the context of this report weakness in the entrepreneurial ecosystem development and fostering entrepreneurship. Having said that, we discovered that a solution to the problem requires a holistic approach that involves a process of change and setting realistic goals for achieving milestones overtime. It would be naive to think that we can point to a culprit to blame. In fact, it is appropriate to address the problem to all stakeholders. Government and entrepreneurs should work collaboratively towards addressing the problem and consequently finding appropriate and adequate solutions. Moreover, as the country is constantly lagging behind in most European charts, the importance of taking immediate action towards improving the overall economic performance of the country, and consequently fostering entrepreneurship as a tool to be employed for achieving this goal, should be considered a priority. However, as mentioned before, we do not mean to naively argue that it can be achieved by going straight from the current state to another one that may be unrealistically high. Instead, it could be a step-by-step action that involves a process of change and setting reasonable milestones to be reached in a sustainable manner over time.

The research investigated what is the best practice for facilitating a good collaboration between entrepreneurs and the entrepreneurial ecosystem. The result was then compared to the reality in the Sofia region in Bulgaria, where the main needs and challenges faced by entrepreneurs in the high-tech sector were investigated. Furthermore, in view of best practice and what we get to see in the region, we were able to identify a gap and land on possible solutions to bridging that gap by means of facilitating good collaboration between the actors, as well as how entrepreneurs can overcome their needs and challenges.

During the process, we discovered that the main needs that entrepreneurs in the high-tech sector face are related to the lack of: financial and human capital, sales and marketing expertise, knowledge, customer base, management and leadership capabilities, support, favorable political environment. Moreover, their main challenges are also related to finding human capital, customer base, and financing, but also include significantly challenges with institutional bureaucracy, corruption regulations and laws, as well as keeping up to industrial trends and changes. While the government needs to take action in tackling corruption, bureaucracy, institutional burden, mistrust, quality of education, policies, and to some extent to engage in investments for support, it should also be open to

entrepreneurs and willing to collaborate. In contrast, entrepreneurs should be more proactive in the ecosystem and willing to support human capital development, access to financing, support, and collaboration with the government and policymakers. Moreover, especially established and successful entrepreneurs should act as role models and inspire other entrepreneurs and society in general with sharing their success stories, advice, and expertise. They could also build an international network with foreign entrepreneurs and attract investors from abroad, and therefore, help local entrepreneurs to acquire external knowledge and expertise, access financial capital, and consequently diversify their portfolio of investors.

Although there is a risk of repetition, we would highlight the importance of collaboration between the actors and components in the ecosystem, for creating a healthy and well-functioning entrepreneurial environment. Recognizing that building synergy between the focal actors and, above all, the three pillars: academia, business and the public sector, could not be achieved within a short timeframe, implementation and integration of good practices in this direction would lead to a progress in long term.

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Appendices

Appendix A

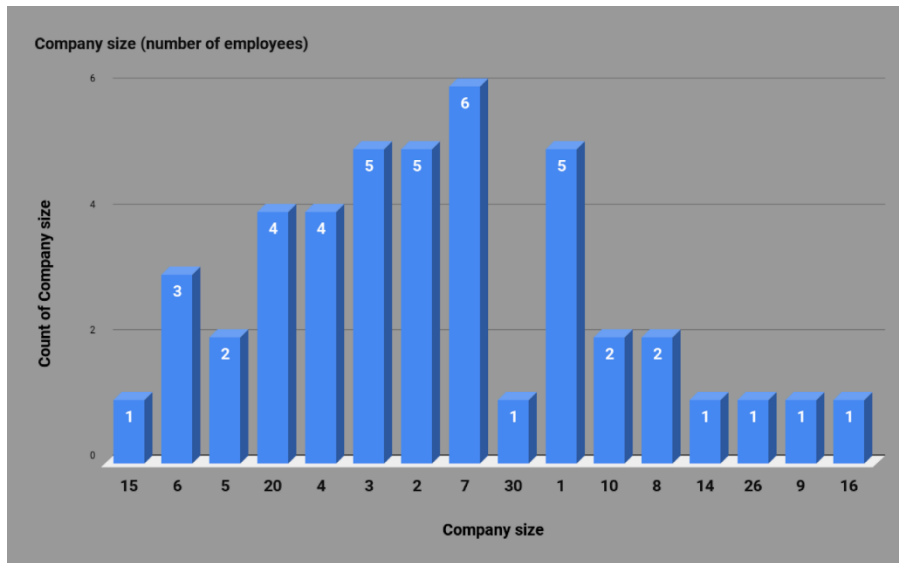
Self-created Microsoft Excel figure, based on The Global Entrepreneurship Index Rank of All Countries, 2018 by (Ács et al., 2018, p. 37).

Country (EU)	GEI rank	GEI index score	Country (EU)	GEI rank	GEI index score
United Kingdom	4	77.8	Poland	30	50.4
Denmark	6	74.3	Portugal	31	48.8
Ireland	8	73.7	Cyprus	32	48
Sweden	9	73.1	Spain	34	45.3
France	10	68.5	Slovakia	36	44.9
Netherlands	11	68.1	Czech Republic	38	43.4
Finland	12	67.9	Italy	42	41.4
Austria	14	66	Latvia	44	40.5
Germany	15	65.9	Romania	46	37.2
Belgium	17	63.7	Greece	48	37.1
Luxembourg	20	58.2	Hungary	50	36.4
Estonia	23	54.8	Croatia	54	34
Slovenia	25	53.8	Bulgaria	69	27.8
Lithuania	29	51.1	EU Average		53.78148148

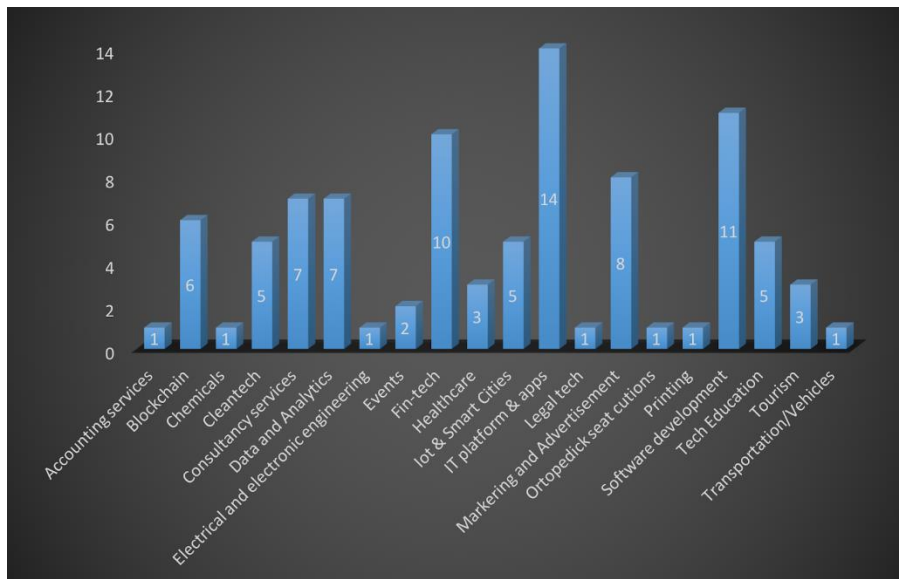
Figure 1. GEI index for European Union members.

Appendix B

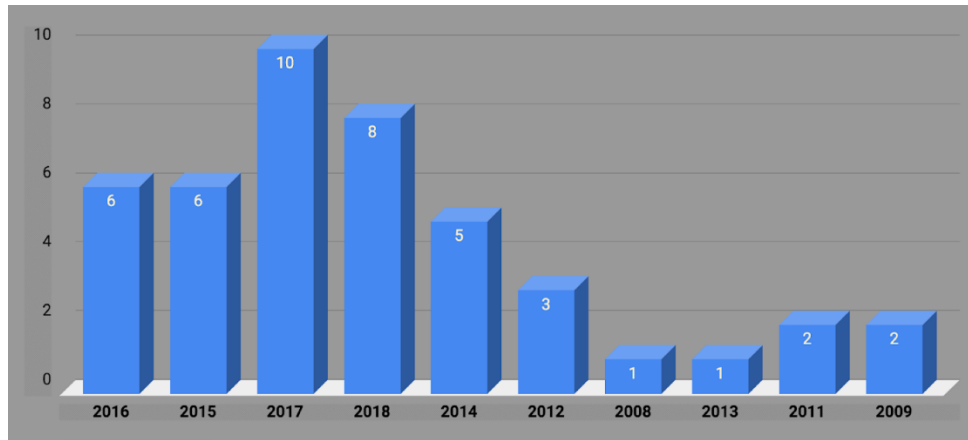
Appendix B.1 – Company Size (number of employees).



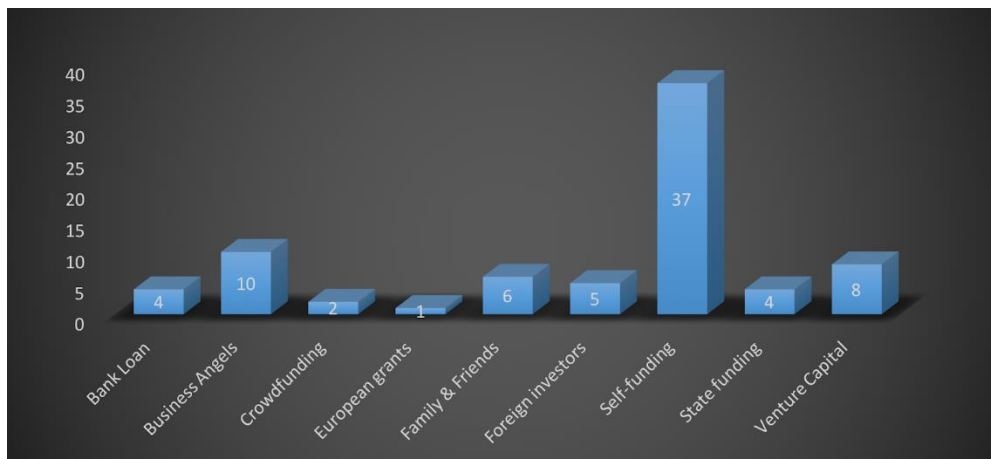
Appendix B.2 – Business spheres/areas within the sample companies operate.



Appendix B.3 – Company's year of establishment (2009-2019).



Appendix B.4 – Means of financing used by the sample companies.



Appendix C. Figures advantages/disadvantages

Figure C.1 – Institutions disadvantage



Figure C.2 – Low quality of education

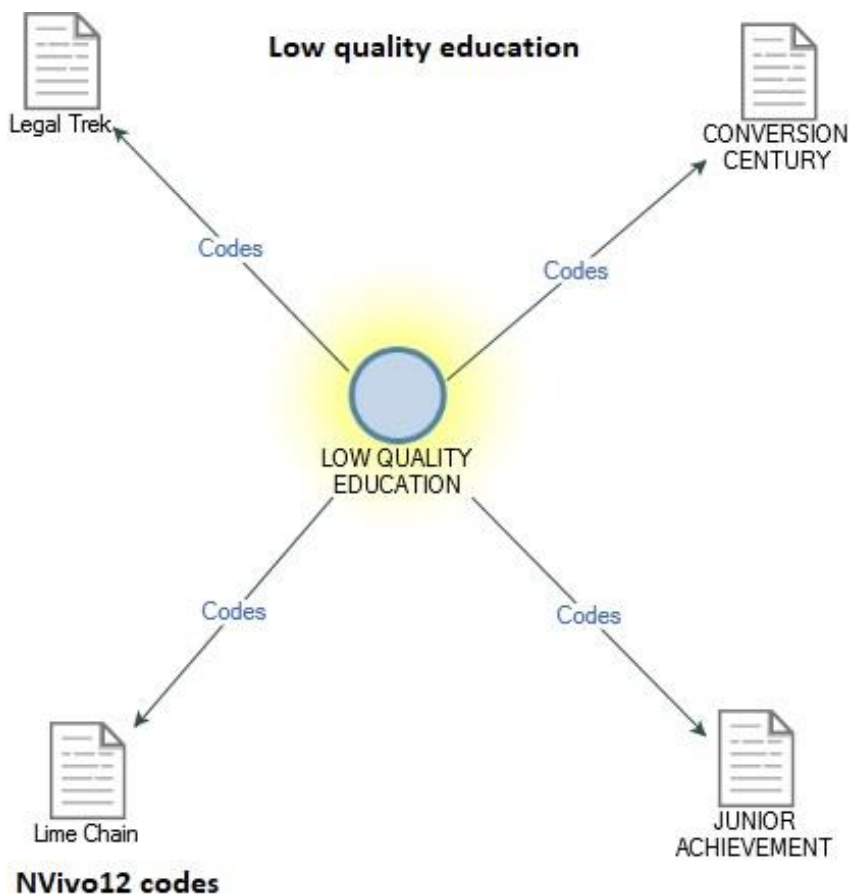


Figure C.3 – High level of corruption

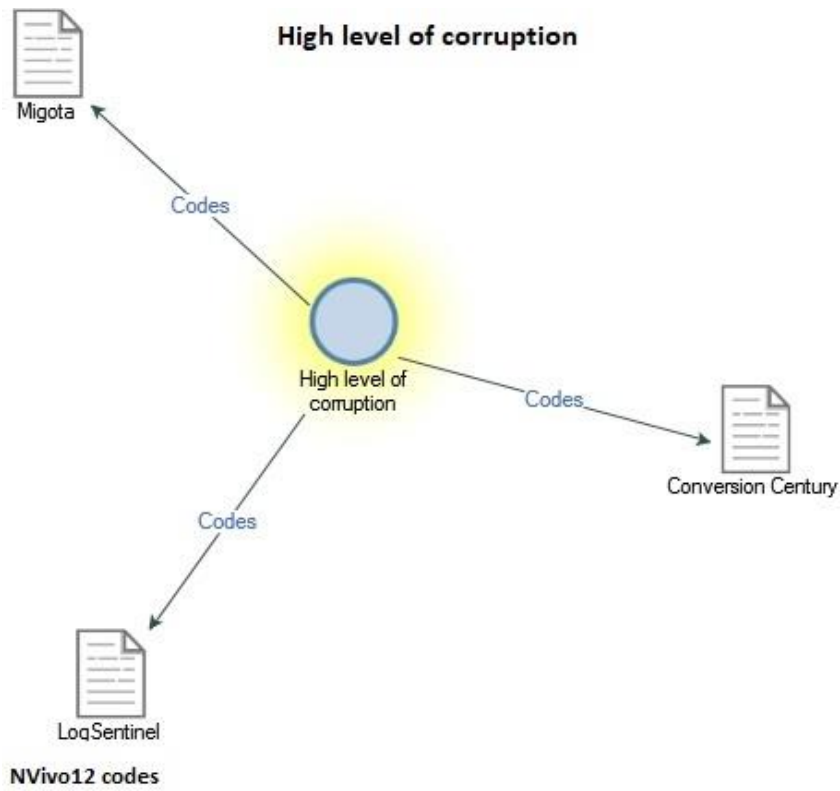


Figure C.4 – Corruption

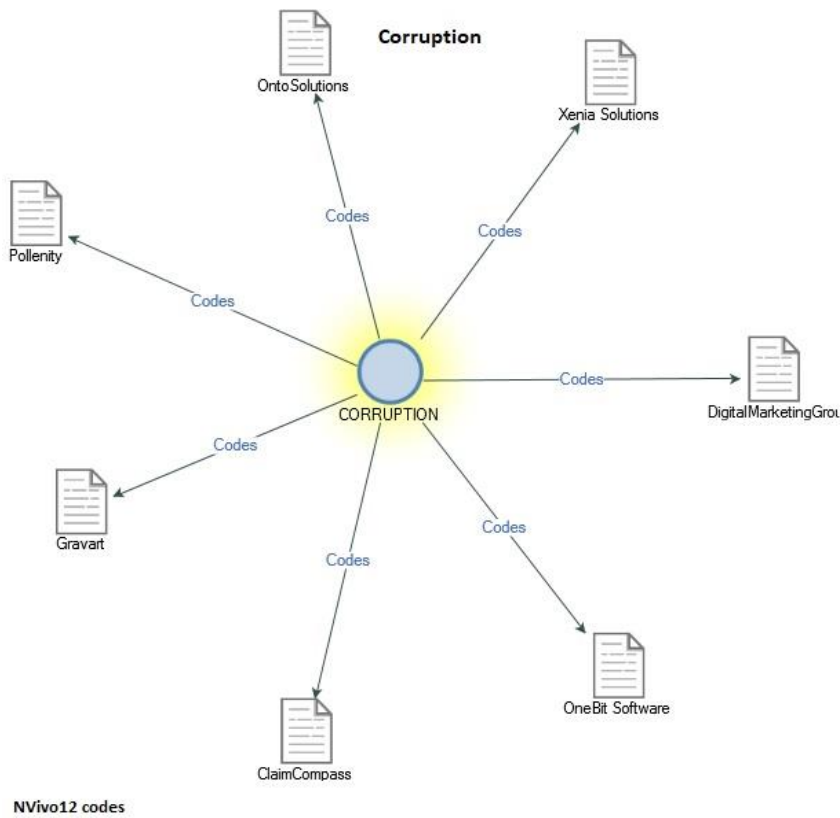


Figure C.5 – Inefficient government

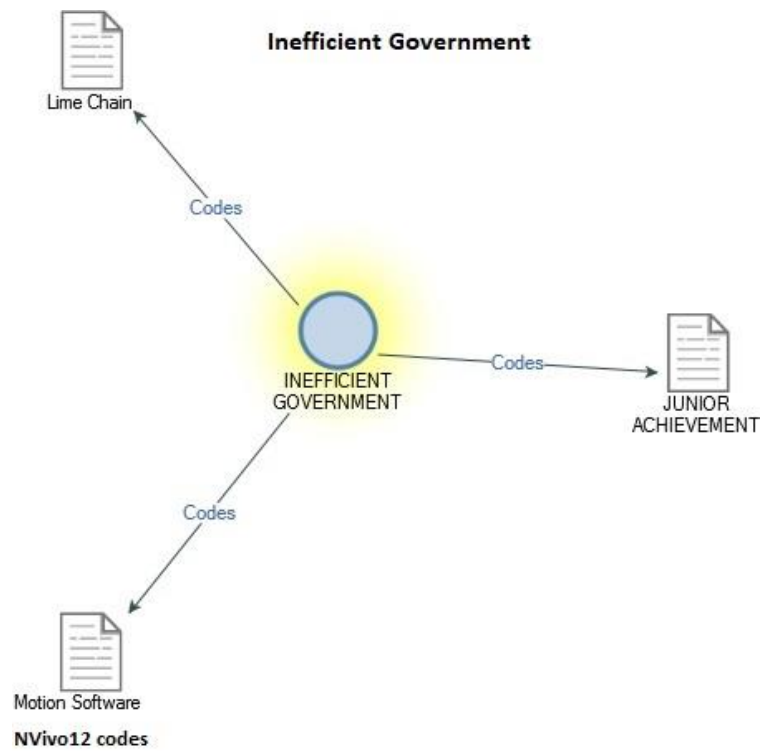


Figure C.6 – Bureaucracy

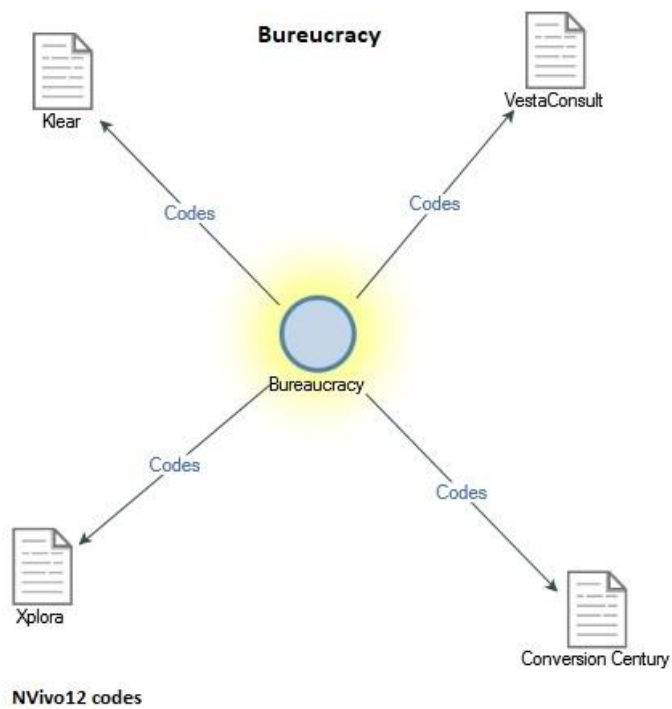


Figure C.7 – Excessive bureaucracy



Figure C.8 – Small domestic market

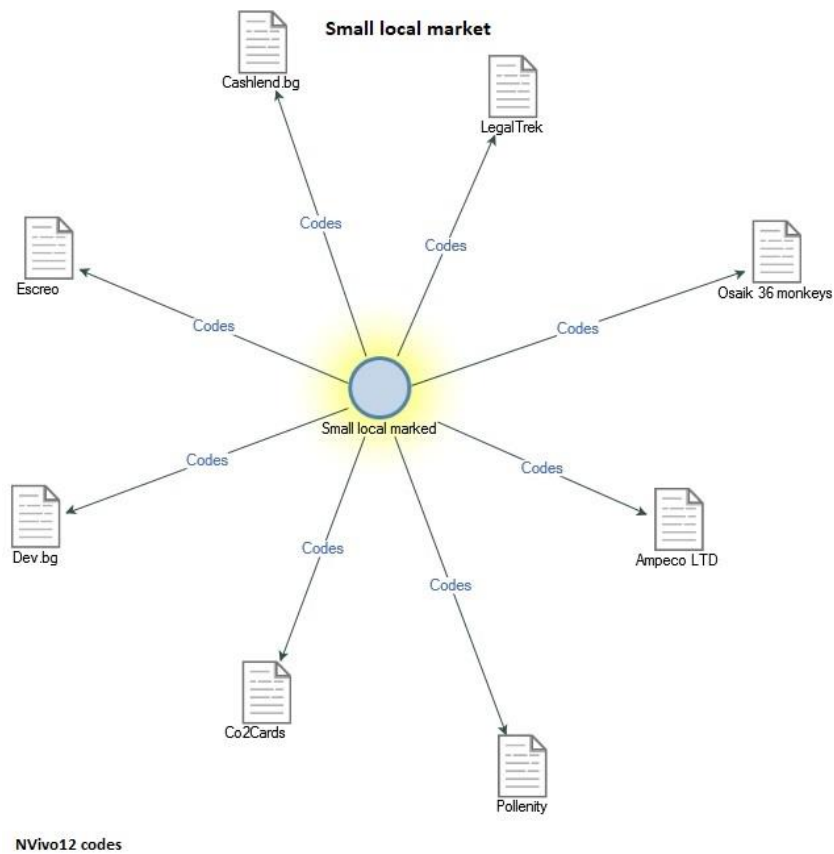


Figure C.9 – Low buying power

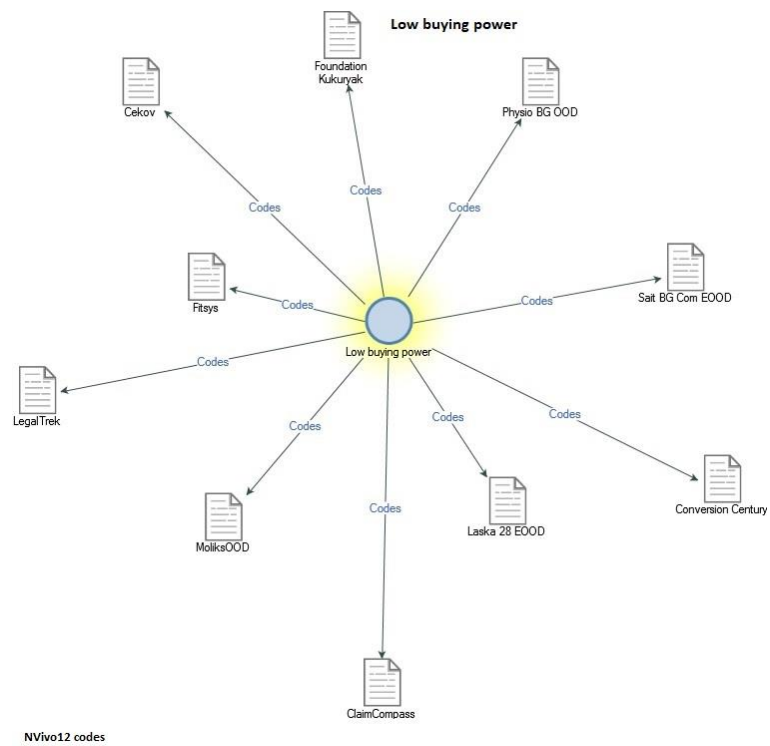


Figure C.10 – Mainly operating in foreign markets

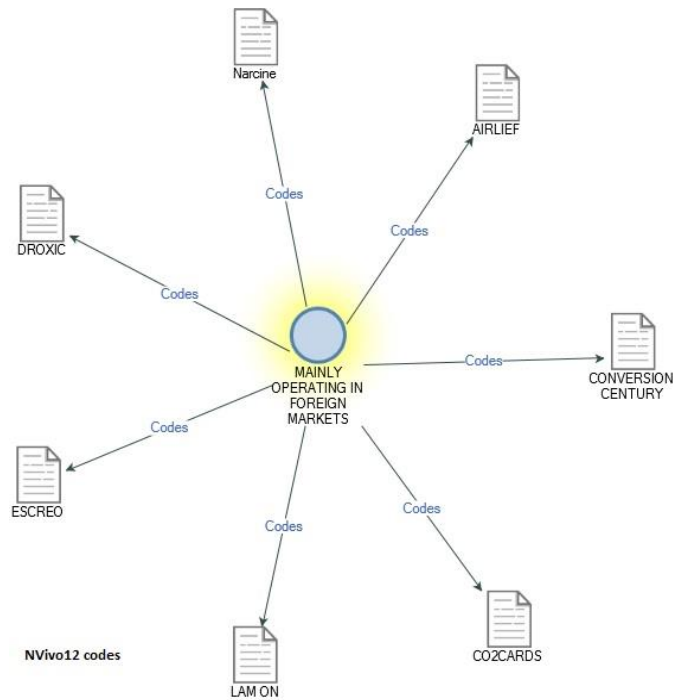


Figure C.11 – Inefficient government 2

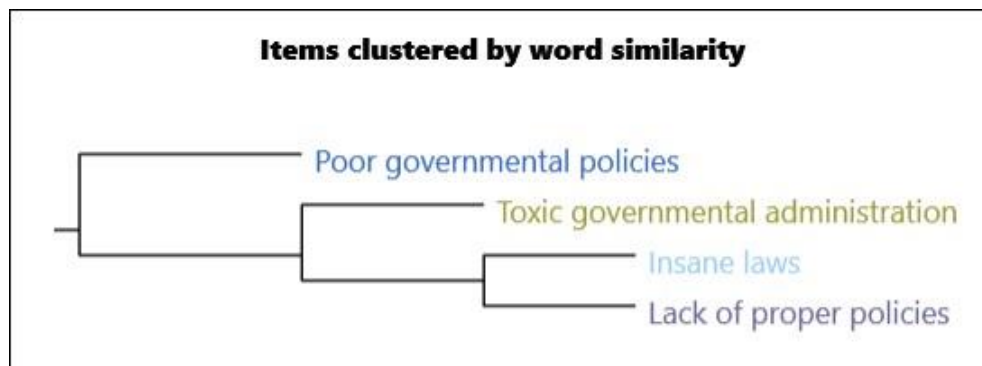


Figure C.12 – Governmental obstruction

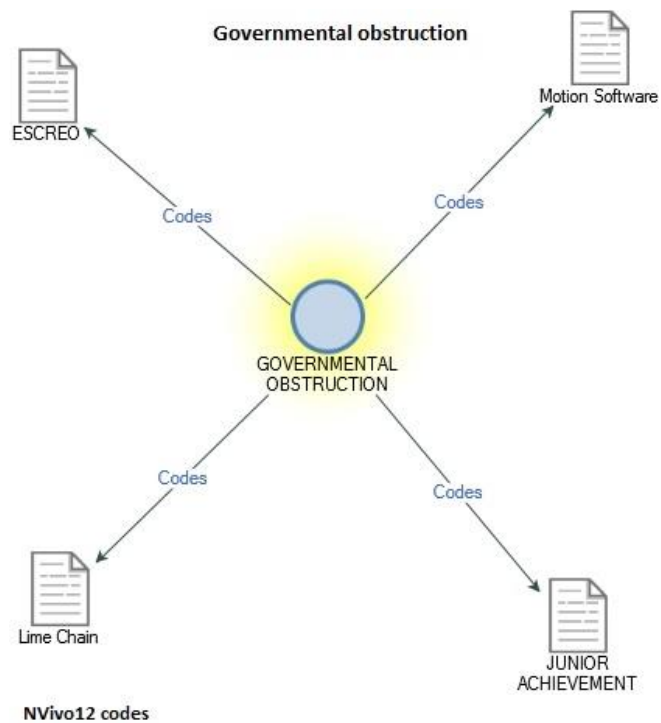


Figure C.13 – Government lacks understanding of innovation and block chain technology

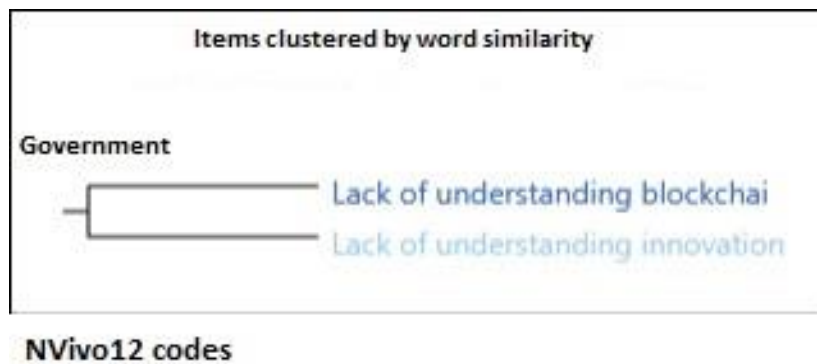


Figure C.14 – Financial capital disadvantage

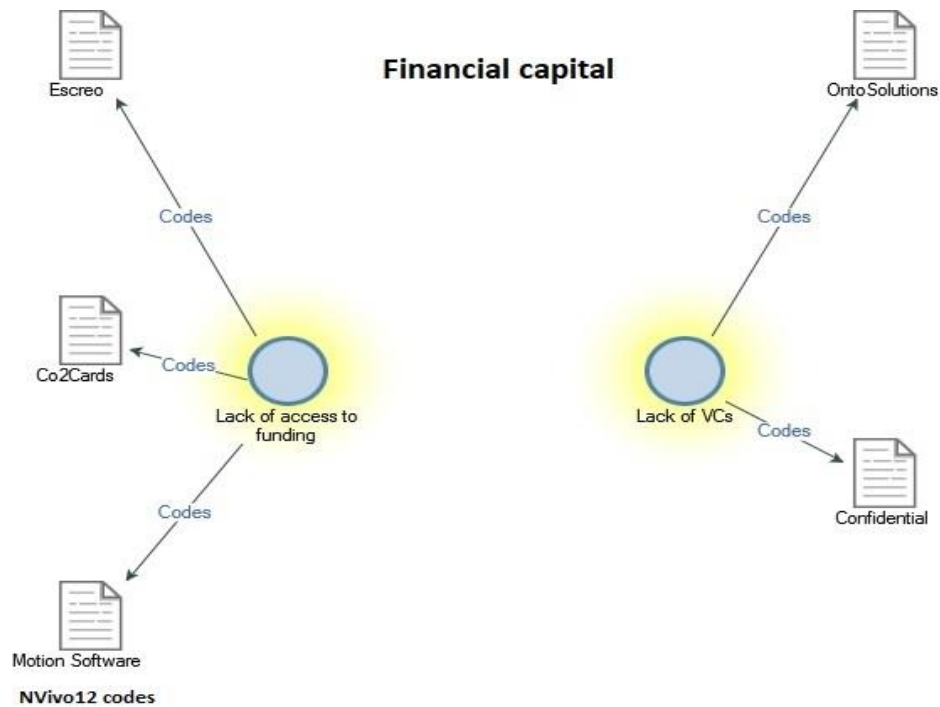


Figure C.15 – Regulations disadvantage



Figure C.16 – Low competition advantage

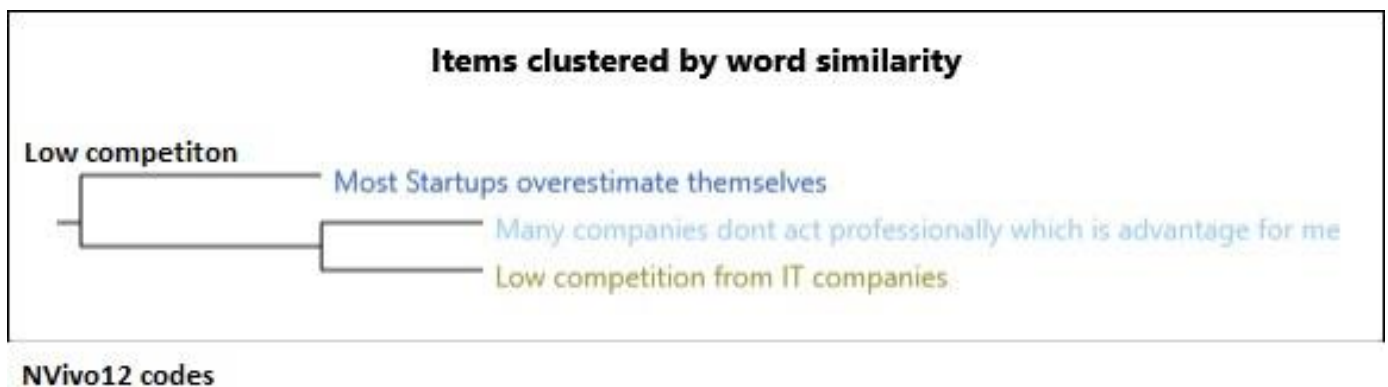


Figure C.17 – Ecosystem is developing well advantage

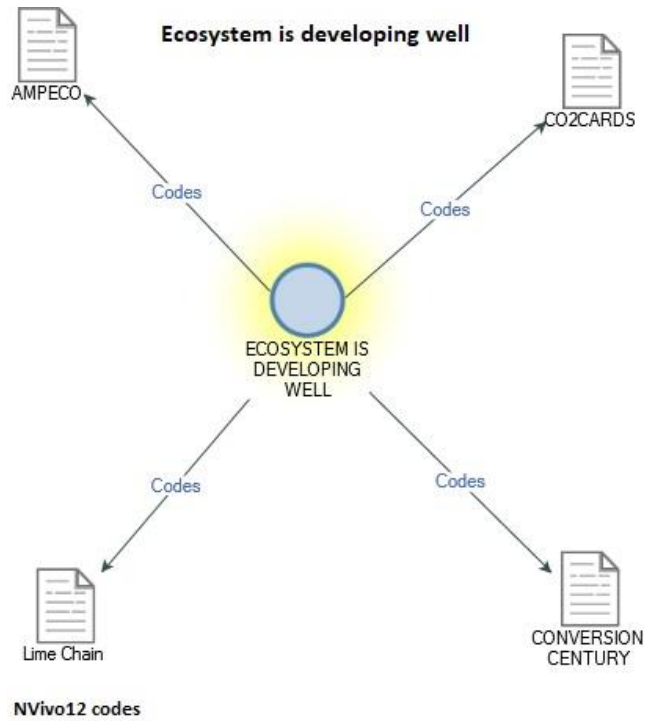


Figure C.18 – Low taxes advantage

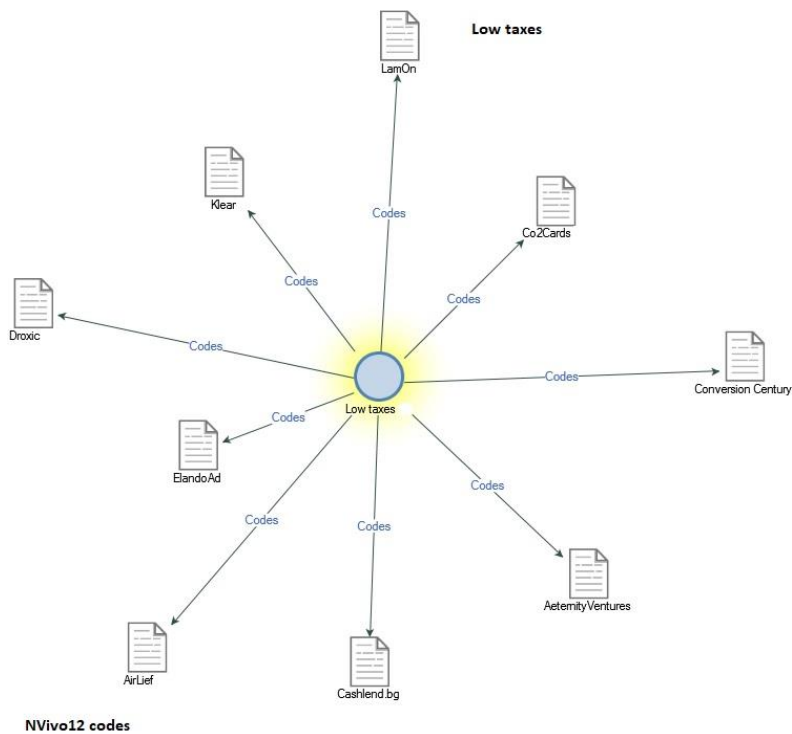


Figure C.19 – Flat tax rate advantage

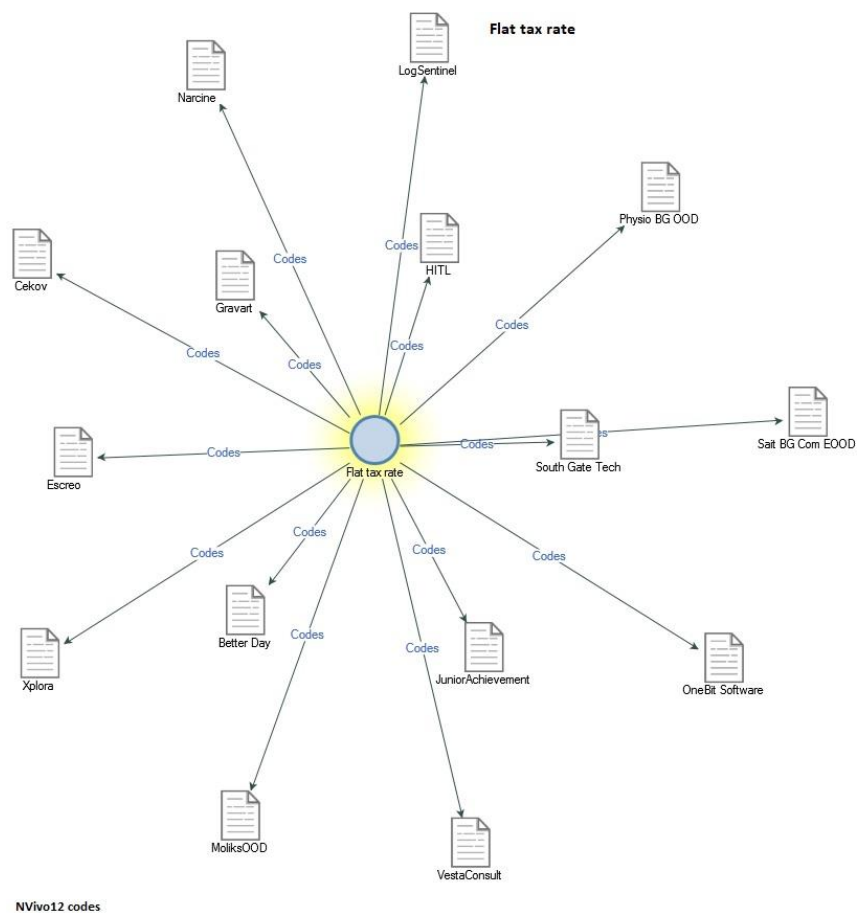


Figure C.20 – Cheap labor advantage

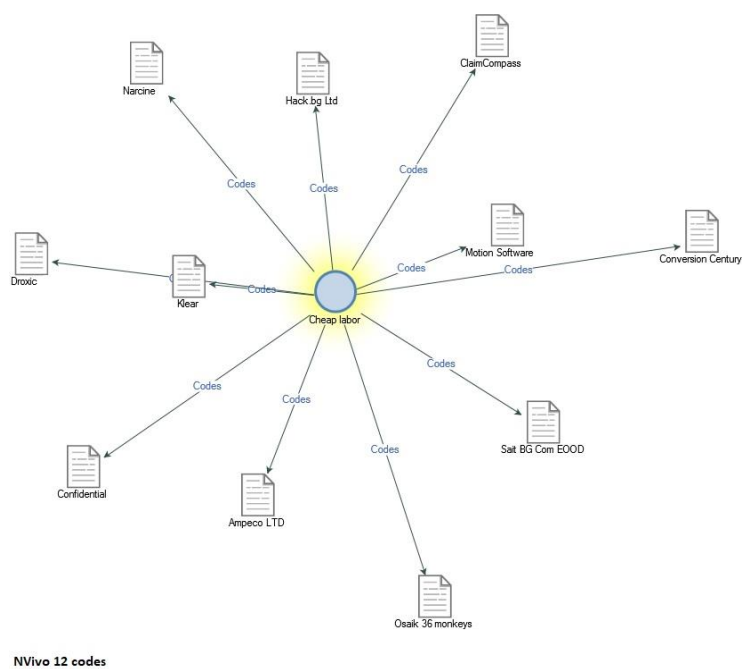


Figure C.21 – Cheap life in Bulgaria advantage

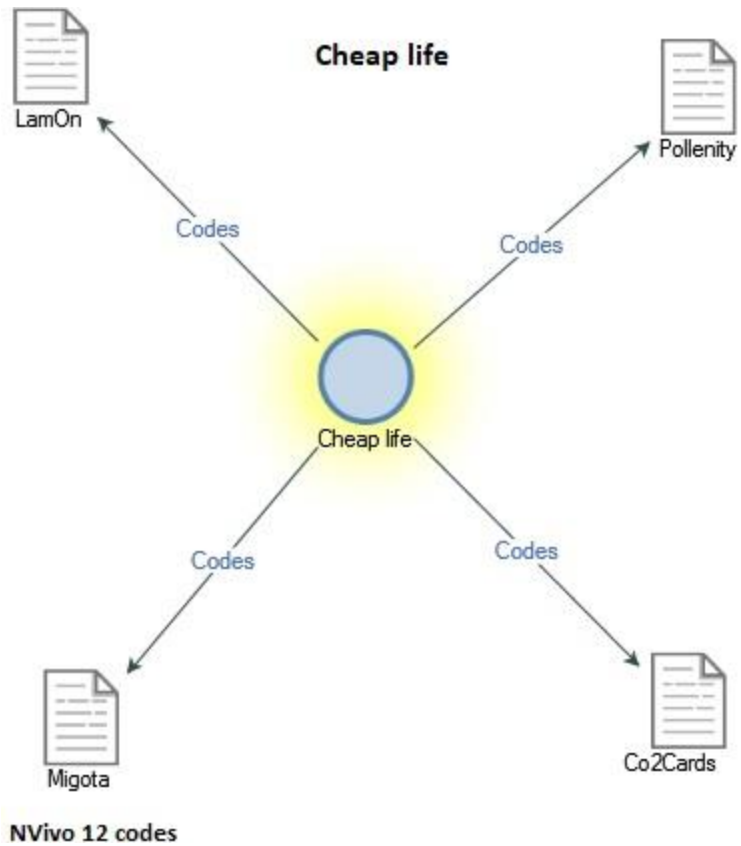


Figure C.22 – Returning human capital from abroad advantage

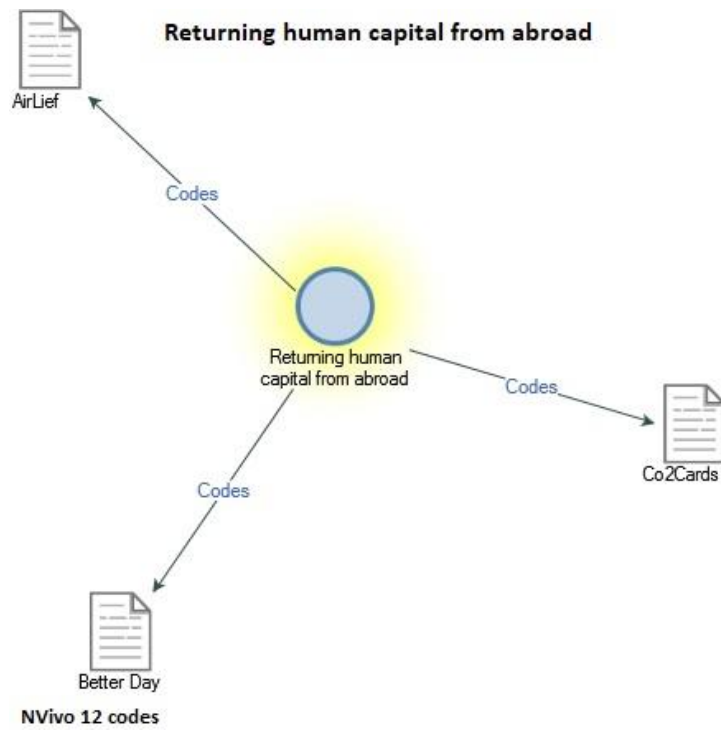


Figure C.23 – Presence of skilled IT specialists in Bulgaria advantage

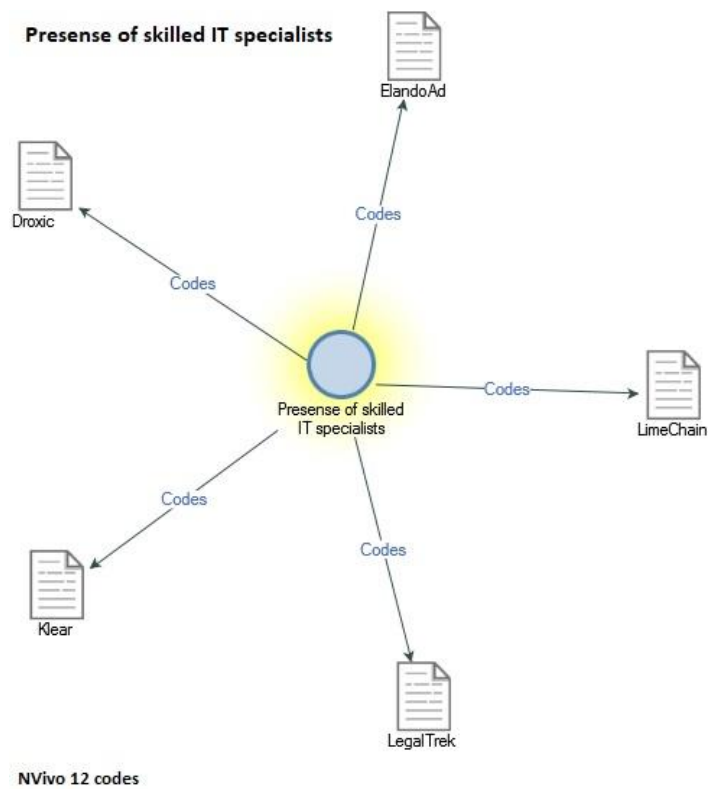
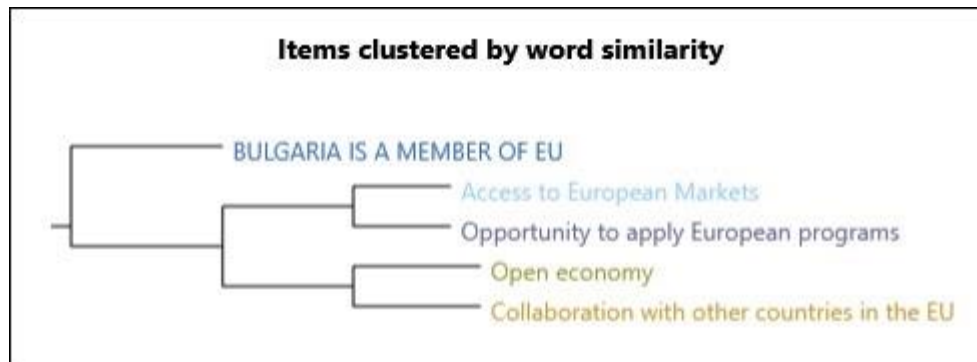


Figure C.24 – Bulgaria being a member of the European Union advantage



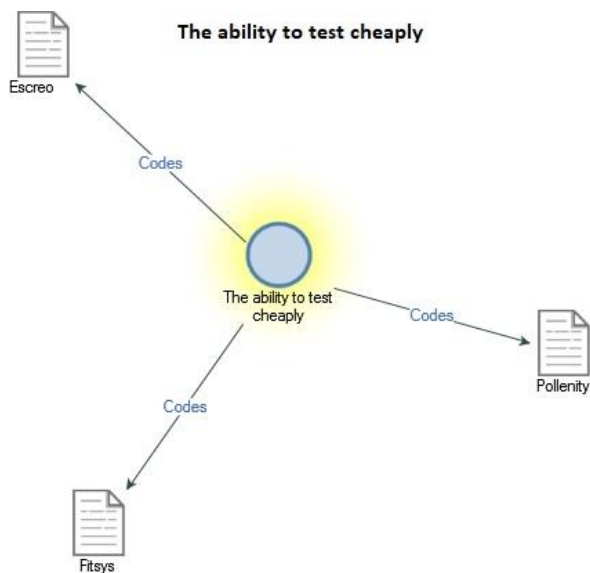
NVivo12 codes

Figure C.25 – Suggestion for the Education



NVivo12 codes

Figure C.26 - The ability to test cheaply.



NVivo 12 codes

Figure C.27 – Suggestion for Support



Figure C.28 – Suggestion for the Government

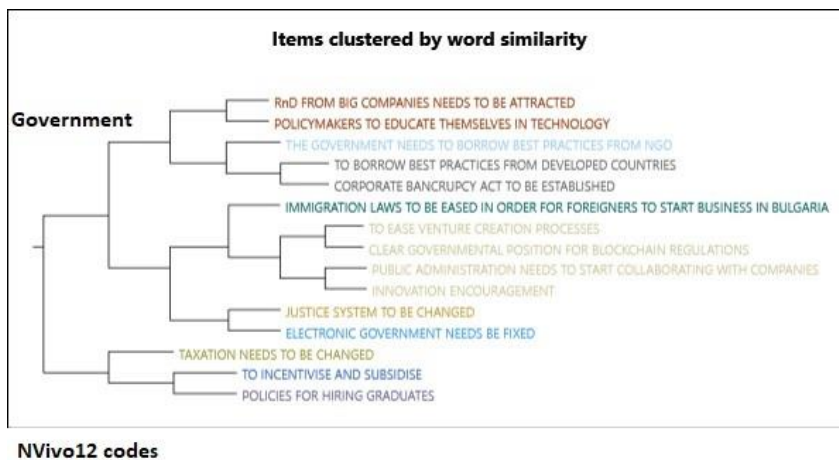
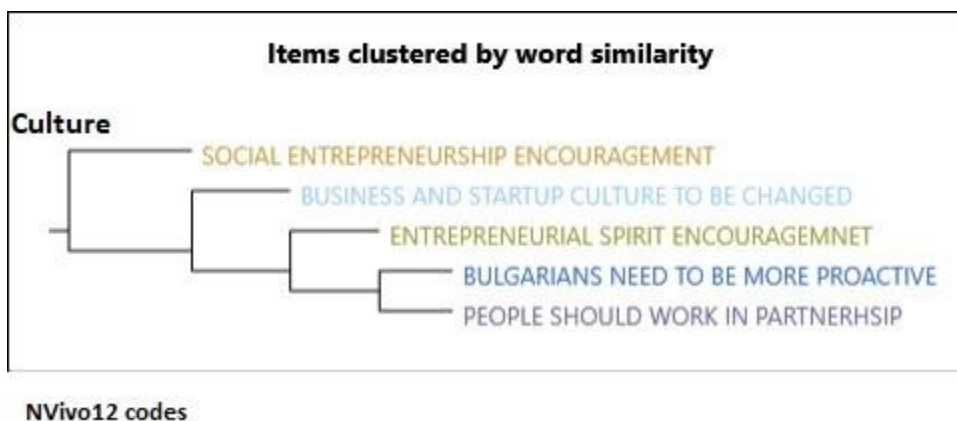


Figure C.29 – Suggestion for the Culture



Appendix D. Transcript of interviews

1. Interview

1. Какви са основните предизвикателства с които компанията се сблъсква? - клиентска маса/пазар

- твърде малък пазар в сферата на адвокатски софтуер бизнес.

2. Кои са основните нужди на компанията за да оперира успешно?

– Критичен е успехът на продукта и неговата комерсиализация.

3. Какъв начин използвате за финансиране на компанията?

- Рисков капитал, в допълнение колкото повече инвестиции, независимо органични или от външни източници, толкова по-добре за бизнеса и разрастването и развитието му.

4. Имате ли проблем с намирането на кадри?

- Не

5. Имате ли нужда от достъп до допълнителни услуги?

- Контактите и нетъуркинг са от една страна добър ресурс от друга в екосистемата са слабо развити. Не е достатъчно за една компания да присъства по различни събития и да прави контакти. Въпреки че ходим по евенти, няма полза от контактите които правим, ако продукта ни не се купува.

6. Кои според вас са предимствата за правене на бизнес в България?

- Добри програмисти най-вече. Ако имате добър екип и добра идея няма как да не се случат нещата.

7. Кои са недостатъците за правене на бизнес в България?

- Екосистемата е под всякаква критика, сравнявайки се с други страни и в това число Америка, където предприемачите знаят как да го направят и го правят. В България стартъпите се вземат на сериозно и на думи вършат чудеса, докато реално не е така.

8. Коя беше основната причина да започнетесобствен бизнес?

– Чрез софтуера ни искаме да ограмотим и дадем нов вид култура на адвокатите в страната. Да дигитализираме труда им и да спестяваме време. Вместо да се използват стари техники.

9. Какво мислите за предприемаческата култура в България?

– Българите нямат предприемаческа култура, по простата причина, че предприемачите не са пример за подражание. Ако вземем училищата в Америка- децата от малки се изучават на това да бъдат предприемчиви- имат рол модълс като Бил Гейтс и всички други. В България липсват такива добри примери и практики, както и липсва достатъчно обучение- трябва насърчителни програми. Средата е критична, а средата тук е не се развива. Трябва да се създава предприемачески дух, да се организират събития и да се участва в тях. Но според мен е по- добре да се наблегне на програмисти и компютърни умения от колкото на предприемачество в училищата.

10. Кои според вас са предимствата за правене на бизнес в България?

- Добри програмисти най-вече. Ако имате добър екип и добра идея няма как да не се случат нещата.

11. Кои са недостатъците за правене на бизнес в България?

- Екосистемата е под всякаква критика, сравнявайки се с други страни и в това число Америка, където предприемачите знаят как да го направят и го правят. В България стартъпите се вземат на сериозно и на думи вършат чудеса, докато реално не е така.

12. Коя беше основната причина да започнете собствен бизнес?

— Чрез софтуера ни искаме да оградим и дадем нов вид култура на адвокатите в страната да дигитализираме труда им и да спестяваме време. Вместо да се използват стари техники.

13. Какво мислите за предприемаческата култура в България?

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2. Interview

1. Какви са основните предизвикателства с които компанията се сблъсква?

- Манталитета и културата на българина, че инвестициите в образование и социално предприемачество са ключови за развитието на нацията. Възпрепятстване от страна на някои правителствени сектори, вместо подпомагането от тяхна страна да се финансират изследователски и научно развойни дейности. Предизвикателство е връзката с инвеститорите и промяната на съзнанието на бизнес хората и стартъпите включително.

2. Кои са основните нужди на компанията за да оперира успешно?

— повишаване на образованието и компетентностите на българската среда. Да се ограничи мудността у българите и да предприемат повече действия и бизнес начинания.

3. Какъв начин използвате за финансиране на компанията?

— Финансиране от бизнеса. Има финансираня, но няма достатъчно разбиране, че социалното предприемачество е ключово.

4. Имате ли проблем с намирането на кадри?

- НЕ

5. Имате ли нужда от достъп до допълнителни услуги?

- подкрепа от правителство/ правителствени структури на местно ниво.

6. Кои според вас са предимствата за правене на бизнес в България

- Част от обществото има предприемачески усет, но в същото време несигурно.
- Сравнително добра финансова рамка.

- Младите могат да предприемат бързо действия
- Добра локация в Европейския съюз сме, данъците също са плюс, много ресурси.

7. Кои са недостатъците за правене на бизнес в България?

- Няма висока бизнес култура и дългосрочно адресиране на истинските проблеми.
- Има доста копиране продукти, без ясна представа за целта и визията.
- Неефективно управление на държавните структури.
- Хората не са високо квалифицирани.
- Доста взаимодействие с партиите и лобизъм.

9. Имате ли нужда от достъп до допълнителни услуги?

- подкрепа от правителство/ правителствени структури на местно ниво.

10. Кои според вас са предимствата за правене на бизнес в България?

- Част от обществото има предприемачески усет, но в същото време несигурно. Сравнително добра финансова рамка. Младите могат да предприемат бързо действия. Добра локация- в Европейския съюз сме, данъците също са плюс, много ресурси.

11. Кои са недостатъците за правене на бизнес в България?

- няма висока бизнес култура и дългосрочно адресиране на истинските проблеми. Има доста копиране продукти, без ясна представа за целта и визията. Неефективно управление на държавните структури. Хората не са високо квалифицирани. Доста взаимодействие с партиите и лобизъм.

12. Коя беше основната причина да започнете собствен бизнес?

- Искан конкретика и действие. Желая да превръщам нещата в реалност и добрите идеи в действие. Имам високи морал и ценности и отрих призиването си в социалното предприемачество.

13. Какво мислите за предприемаческата култура в България?

- Има големи пропуски във възприятията на българина относно предприемачеството.
- Няма достатъчно разбиране за ценността на някои бизнеси и с какво биха допринесли за България.

14. Когато започвахте свой бизнес, имахте ли някои от следните очаквания?

- Приходи и да работя за себе си.

15. Кои от горепосочените или други очаквания се оправдаха?

- Всички

3. Interview

1. Коя беше основната причина да започнете собствен бизнес?

- Наследствен бизнес, след това реших да създам собствена компания, която да е зелена и да изчислява въглеродните емисии на Б2Б пазара. Главната причина е независимост и да правя каквото ми харесва.

2. Какъв начин използвате за финансиране на компанията?

- Самофинансиране. Изпробвали сме редица начина, като акселератори например, също и различни фъндрейсинг институции в това число и банки, но не са отворени за инвестиции
- струва им се твърде рисково. Били сме във фаундър институт, от който сме най=доволни, както в акселераторските програми на Клинтех в програмата климат кик.

3. Кои са основните нужди на компанията за да оперира успешно?

- Компанията се локализираше в София тех парка, който е своеобразен коуъркинг спейс, не инкубатор. Наема струва колкото наем на офис в центъра на столицата, но е приятно и се създават контакти.

4. Какви са основните предизвикателства с които компанията се сблъсква?

- Б2Б пазара в България бавно се развива в насока зелени компании, затова оперираме главно на Европейския пазар, много малка клиентска маса в България.

5. Какъв начин използвате за финансиране на компанията?

- Самофинансиране. Изпробвали сме редица начина, като акселератори например, също и различни фъндрейсинг институции в това число и банки, но не са отворени за инвестиции - струва им се твърде рисково. Били сме във фаундър институт, от който сме най=доволни, както в акселераторските програми на Клинтех в програмата климат кик.

6. Кои са основните нужди на компанията за да оперира успешно?

- компанията се локализираше в София тех парка, който е своеобразен коуъркинг спейс, не инкубатор. Наема струва колкото наем на офис в центъра на столицата, но е приятно и се създават контакти.

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8. Имате ли нужда от достъп до допълнителни услуги?

- Акселератори сме използвали, дават голям експириенс, все пак се занимават всекидневно с теб и ти дават съвети и т.н Смятам, че е изключително полезно за компаниите да участват в такива програми.

9. Имате ли проблем с намирането на кадри?

- Смятам, че има изключително малък процент от качествени и добри специалисти. Останалите някак нямат навики за работа. Смятам, че българи учещи или с някакъв добър експириенс в чужбина са много ценни.

10. Кои според вас са предимствата за правене на бизнес в България? (плосък данък, евтина работна ръка, благоприятна бизнес среда и др.)

- Смятам, че екосистемата в България се развива с много добри темпове. Хора учили и работили в чужбина се връщат и правят радикални промени, в сравнение с това което беше преди 8-9 години. Има доста успешни компании, които оперират на пазара и се опитват да създават благоприятни условия и предприемаческо кълони. Предимство е локацията, че сме в Европа, стандарта също е добър в сравнение с другите европейски държави. Данъците са ниски.

11. Кои са недостатъците за правене на бизнес в България?

- Няма достатъчен капитал, много слабо финансиране.
- Чуждестранните инвеститори нямат благоприятни условия да инвестират.
- Стартовете са принудени да се регистрират като АД, което трябва да има голям капитал и т.н, това утежнява много ситуацията и развитието на особено стартиращите компании.

12. Кое е нещото/а, което възпира успеха на бизнеса ти?

- Финансовите проблеми на първо място и това, че Б2Б пазара и компаниите нямат желание да бъдат зелени. Това предизвиква компанията да търси нови пазари на територията на Европа.

13. Кои са нещата, които възпират БГ стартъп екосистемата да произвежда успешни стартъпи?

- Още една причина може да бъдат кадрите.
- Качествените тех хора са скъпо да се наемат, от както аутсорсинга вече навлезе в България.

14. Кое според Вас може да подсили развитието на стартъп екосистемата?

- Смятам, че вече успешите и утвърдени стартъпи трябва да помагат на останалите, чрез програми.
- Трябва да се развие ангел вестинга. Общесвото трябва да расте, да се организират евенти и като цяло големите компании е хубаво да помагат на по малките дали с опит дали с финансиране. Трябва да се построят мостове.
- Също е хубаво да се привличат европейски компании и инвеститори да правят бизнес в България.
- Трябва да се улесни от страна на държавата правенето на бизнес, откъм регулациите които правят.

15. Какво мислите за предприемаческата култура в България?

- Хората са креативни, говоря за младите хора. Но пък не са се научили да работят качествено, затова доста бизнеси се провалят.
- По-старото поколение е по-скоро зле от тази гледна точка.
- Българите имат проблем с това да имат партньори, да създават екип. Те предпочитат да работят самостоятелно, затова често се провалят, тъй като нямат доверие на други професионалисти.

4. Interview

1. Коя беше основната причина да започнете собствен бизнес?

- Когато човек иска да постигне нещо голямо, взима нещата в свои ръце, а не работи за някой друг.

2. Какъв начин използвате за финансиране на компанията?

- Самофинансиране, но съм се допитвал и до Брюксел и фондовете там.

3. Кои са основните нужди на компанията за да оперира успешно?

- Акселератори в България не съществуват, те са просто венчър капиталисти, но отсъстват доста от функциите на акселераторите и инкубаторите като менторство, мониторинг и създаване на нетуъркинг.
- Последно време Фаундърс Институт се опитват да създадат добра акселераторска инициатива.

4. Какви са основните предизвикателства с които компанията се сблъсква?

- Малък пазар. Стартъпите са принудени да търсят международни пазар.
- Също така в моята компания аз съм сам ко-фаундър , което допълнително увеличава времето за изпълнение на задачите.
- Сам съм защото не мога да открия някой мотивиран колкото мен.

5. Имате ли нужда от достъп до допълнителни услуги?

- Ко-уъркинг спейсове има достатъчно, смятам че няма акселератори и инкубатори все още в българската екосистема.

6. *Имате ли проблем с намирането на кадри?*

- Липсват специалисти по продажби.

7. *Кои според вас са предимствата за правене на бизнес в България?*

- Възможността за самофинансиране.

- Стандарта е значително по-нисък.

8. *Кои са недостатъците за правене на бизнес в България?*

- Няма държавно подпомагане/ подпомагане от страна на държавата.

- Липсва менторството, не е на ниво, все още в екосистемата няма опитни и утвърдени професионалисти, които могат и искат да споделят опита си.

- Няма опитни специалисти по продажби

9. *Кое е нещото/а, което възпира успеха на бизнеса ти?*

- Липса на финансиране

10. *Кои са нещата, които възпират БГ стартъп екосистемата да произвежда успешни стартъпи?*

- Трябва да се направят законодателни промени и регулации, промяна в данъчното облагане

- Да не се фаворизира големия бизнес и да се ошетява малкия.

- Финансирането е голям проблем.

- Аз самият след преминаване на акселераторска програма сега съм в дупка, точно преди периода на продажбите.

- Липсват инвеститори и фондове.

11. *Кое според Вас може да подсили развитието на стартъп екосистемата?*

- Микростартиране и финансиране.

- Подкрепа за социалното предприемачество и иновации.

- Администрацията не желае да работи със стартъпи, което трябва да се промени. -

Образованието да стане практически настроено за работа в екип, вместо да се набляга на теориите.

- Менторството трябва да се развие, споделянето на опит е жизнено важно.

12. *Какво мислите за предприемаческата култура в България?*

- Младите са предприемчиви, но им липсва опит и трябва да действат повече.

- Завръщането на студенти учещи в чужбина в България е ключов момент за развитието на по добър човешки капитал и от там на по добро развитие на екосистемата.

5. Interview

Free talk

Сферата в която преди това работих 5 години и след като имах достатъчно опит реших да започна нещо собствено. Не е голяма фирмата в момента сме 7 човека екип, като растем спрямо нуждите. Концепцията си беше да не е голям бизнес а да е нещо което ми е достатъчно да живея добре. Човек трябва като започва бизнес да дефинира целите на тоя бизнес, някои искат да станат милионери, други просто искат да имат добър стандарт на

живот и време за себе си и семейството си. 60% от клиентите са ни в западна Европа и щатите. В България също има клиенти и нещата се подобряват последните няколко години, просто в нишата като почнахме нямаше още такава изградена култура и знания по СЕО в бизнес средите в България, а и печалбата е по-голяма в чуждите пазари. Но вече виждам че и в България нещата се подобряват от гледна точка на това, че много хора започват да го разбират и да искат да инвестират в него като продукт.

1. По какъв начин се финансирате, използвате ли новите методи, бизнес ангели и т.н.?

- Преди известно време работих в Илевън и от там видях как се губи суверенитета на един бизнес когато има външно финансиране. Това не е само за България като цяло е навсякъде. В случаят за моя бизнес не ми трябваше външно финансиране и затова си го финансирах с лични средства в началото и с органичен растеж спрямо клиентите и нуждите. Имам приятели които започнаха компании които са вече в софтуерната сфера, които развиват много сложни продукти които изискват години наред разработване и технологии които изискват много пари да се разработят и поддържат и да работят като цяло и голям екип, съответно те търсеха инвестиции. Мисля, че в България в момента има доста добри възможности в сравнение с 10 години, даже в един момент ми се стори преди 2-3 години, че пазара беше доста ликвиден от гледна точка на стартъпи. Според мен фондовете преди време Лаунчхъб и Илевън имаха пари да усвояват от Европа и нямаха добри идеи за стартъпи и общо взето се шегувахме с приятели, че вече финансират и не особено адекватни идеи като да продаваш лимонада в Турция или нещо такова, тоест идеи без резон да станат. С малко пичване вземат едни 60к евро и резултата накрая не знам какъв беше, но пак е хубаво това понеже се инвестира в някакви хора и млади екипи и те малко или много трупат опит докато ги харчат тия пари на европейския данъкоплатец. Но пък има и фирми които успяха да направят нещо с бизнеса си. Например Centoioda и те така минаха през доста различни неща, сега вече привлякоха външно финансиране с ангели и разработват AI products във финансовия сектор, това вече е продукт за който е много сложен технологично и изисква външни инвестиции. Аз не съм взимал външно финансиране.

2. Използвали ли сте акселераторски програми или инкубатори?

- Не. Изцяло си е на база на това което аз съм научил по пътя ми и съответно хората и партньори които работят с мен.

3. Имали ли сте проблеми с намиране на кадри?

- По принцип в България намирането на кадри е един от най-големите проблеми в бизнеса. Специфично в ИТ сферата просто направо са се хванали за гушите големите компании, има супер много академии специално за софтуерни специалисти и особено в тая сфера, заплатите са астрономически. При мен специфично не е имало проблем защото аз си търся талант директно от американския университет. Там имам контакти и ми е лесно да намирам хора.

- Според мен ще е добра идея държавата да има политика за програми които са насочени към финансово облекчение когато наемаш хора от университета които са още без стаж. Защото си е инвестиция от страна на бизнеса когато вземеш човек който е още студент и няма никакъв опит и съответно си е риск и усилие от страна на работодателя. Например като програми от европейския където 6 месеца им плащат заплатата, помня че ми помогнаха от американския преди време 2 ма студента и те ми казаха за тая програма, но аз като видях каква е бюрокрацията и колко документи са реших, че е по-добре да си ги

плащам там самичък заплатите на тия хора и да не се занимавам с бюрократията. Тоест тука политиката е ако може цялото това нещо да се облекчи и да има повече такива финансови възможности за да се насърчи това нещо. Тоест държавата би облекчила младите и неопитни хора, като чрез финансиране на началото им в кариерата когато са без опит, по този начин облекчаване на бизнеса те реално помагат на студентите да влязат по-бързо и лесно в бизнеса. Например 6 месеца програми които да облекчат бизнеса за да вземе човек който още не се е доказал.

- В момента в България първо, че няма много такива възможности и второ са много бюрократични. Има много проверки идват в офиса да гледат дали идва на работа, явно има хора и които злоупотребяват с това нещо. Трябва баланс. Аз точно заради бюрократизацията не се възползвах от тая програма. Аз и с евро програми не се занимавам заради това, защото при тях много бизнеси вече в България особено по-нови като чуят евро фонд или евро програма, това е нещо негативно за тях. Защото европейски програми в България са предимно използвани от чиновници в схеми за корупция. Особено европейски програми за физически бизнеси. Там още като тръгнеш да кандидатстваш и ти казват еди колко си процента за нас комисионна/подкуп. При ИТ бизнесите също има такива проблеми и според мен трябва такива програми да не са под шапката на евро съюза. Като чуе някой евро фонд или европейска програма никога не кандидатства защото знае с какво ще го посрещнат. На мен съзнанието ми това е синоним за корупция. Ако някой ми каже от бюро по труда има програма, ще съм по-склонен да подпиша и се съглася да го направя. За съжаление лоша слава тия европейски програми. И в семейството ми имам такива примери, баща ми има хранителен магазин, той кандидатства за една европейска програма и просто още на вратата му казват 20% от това което ще ти дадем е за нас/подкуп. Просто те те принуждават за подкуп само и само да можеш да платиш на тях и накрая като ти дойдат проверките всеки иска подкуп от проверяващите и баща ми вика, защо се хванах с тия глупости. И това е масово. Но ако навлезем в темата с корупцията ще ни трябва цял ден.

Корупцията в България предимно задушава физически бизнеси. Хранителен магазин например – ХЕИ ти искат такса спокойствие/подкуп. Данъчни, една камара институции и навсякъде искат подкуп. Това задушава бизнеса.

При онлайн бизнеса като моя, аз реално до сега не съм давал никакъв подкуп на никой защото никой не ми искал. Фирмата е супер лесно да си я регистрирам, 100лв и банкова сметка, аз даже нямам касов апарат и то нарочно защото те постоянно сменят законите. Това е другото нещо за физическите бизнеси, постоянно се сменят изискванията всяка година за касовите апарати от НАП. Едни познати дадоха 200.000лв да си преоборудват касовите апарати и цялата касова система за да отговаря на изискванията на НАП, а те отмениха закона и го отложиха за догодина. Тия хора сега са похарчили 200к за нещо което не им трябва.

- Политиките на държавата и корупцията, предимно задушават физическия бизнес. Софтуерните и АИ ТИ компании затова процъфтяват, защото там няма корупция защото взаимоотношенията им с държавата са просто до там да се платят осигуровки и данъци. Не им трябва ХЕИ и други институции от които да са зависими защото продукта е виртуален или е услуга.

Затова е важно за кои бизнеси става въпрос, че им пречи корупцията или бюрократията. Онлайн бизнесите и ИТ компаниите и тези в сферата на онлайн услугите супер добре се развиват и има добри условия. Данъците са ниски, заплатите са сравнително по-ниски от

други държави. Кадрите са сравнително добре обучени, зависи в коя сфера нали искаш. Програмистите са от най-добрите в света ИТ таланта.

Но физическите бизнеси там трябва да си луд да го започнеш това. Аз никога не бих започнал физически бизнес в България. Виждам какво е и от майка ми и бащата ми и от жена ми и от познати които има такива бизнеси и как държавата ги мачка.

4. Какви са според теб предимствата да правиш бизнес в България вместо в друга държава?

- Нисък 10% процента данък.

- Евтина работна ръка

- Евтини офиси. Ако ИТ продукта е нещо което може да се продаде на чужд пазар, печалбите могат да са много по-големи. И това е причината поради която големи компании са в София и България.

- Ако е физически продукт, България може да е лош избор.

- А за бюрократията, според мен тук е малко субективно защото на този въпрос може да отговори според мен само човек който е бил правил бизнес и в западна европа и в България за да може да каже. Аз специално с моят бизнес не съм се сблъсквал с някаква кой знае каква бюрокрация за да ми пречи на нещо.

5. А има ли нещо което възпира компанията ти?

- Със сигурност могат да се оправят електронно правителство и електронно гласуване, но не е нещо което да е dealbraker.

- В България на Б2Б и Б2С компаниите проблем е ниска покупателната способност на хората.

- Не мисля, че има нещо което ми пречи за бизнеса. Според мен хората които казват, че нещо им пречи в средата за бизнеса, голяма част може да го ползват като извинение за неуспеха си. Толкова много хора започнаха онлайн бизнеси и други и станаха милионери, значи може да станат нещата. Въпроса е че никой няма да ти го даде на готово това нещо.

- Нещо което според мен за други бизнеси е проблем, не за мен, в щатите има закон в който е заложено правото на човек за личен банкрут и компаниите също имат право на там чапър 11 ли кое беше където имат право компанията да банкрутира и съответно дълговете ти да се разсрочат. Нещо което в България го няма и съответно за кредитна карта на фирмата в банките при моите 4 милиона оборот на година, аз искам кредитна карта с 3к лимит и ми отказват. Защото трябва физическото лице да е гарант. И това се получава точно, защото в България няма такива закони които да защитават хората да правят личен и корпоративен банкрут и да се разсрочват дълговете. И съответно банките се подсигурият като хванат физическо лице за отговорен. Живял съм в щатите там буквално ти се обаждат и ти се молят да ти дадат кредитна карта, тука в България ти трябва да им се молиш за някакви си 3к лимит на месец което е нищо. Това е проблем. И бизнеса нали ми е здрав с големи печалби и те да не искат да го направят това нещо без физическото лице да се подпише като гарант, нали това какво значи, че банките не са достатъчно уверени в юридическите лица в България? Кое то значи, че държавата трябва да промени средата, така че юридическите лица да са подпомогнати. Проблема на банките също сигурно идва и че много хора правят кухи фирми и после теглят кредити и изчезват.
- Според мен за бизнесите това би било доста полезно ако държавата промени политиката и подпомогне по-лесното кредитиране на бизнесите от банките. Това би имало много голям ефект. Това би много по-добре отколкото да променя бюрократичното бреме, особено ако ти е онлайн услугата. Там не е чак толкова проблем бюрокрацията.

- Също например ако аз започна идентичен бизнес в България и в Холандия например. И ако там мога да взема 100к евро много по-лесно и на 3% лихва, а в България мога да ги взема на 5% и то само и единствено ако съоснователя в компанията си заложи апартамента. Съответно цената на капитала от който имаш нужда да си финансираме бизнеса от банката е много по-висок. И това е проблем съответно те прави по-малко конкурентен на пазара, тоест тук пак според мен държавата трябва да помогне чисто законодателно. Не е нормално цената на парите в западна Европа и в България да е толкова голяма разликата.

Например банка ДСК ако нямаш 2 години бизнес история вътре в банката или някоя друга банка в България, няма да ти дадат кредит без да има залог върху някакъв тип обезпечение. Значи ако започнеш бизнес и не искаш да си заложиш апартаменти или този на родителите ти, банките почти никакъв вариант не са да са ти вид капитал. И банките сега гледат изкъсо дори хора които взимат потребителски кредит а имат компания на тяхно име. Защото много хора вземат потребителски кредит и финансират бизнеса си с него.

6. Какво би подсилило екосистемата?

- Могат да се облекчат имиграционните закони например. Имам доста приятели чужбина и минават през 9те кръга на ада ако искат да останат в България. Според мен това е много грешна политика. Супер трудни закони и бюрокрация. Един млад чужденец който е завършил университет в България, знае език, иска да остане тук и да добавя стойност в нашето общество, да плаща данъци, да направи бизнес и му е супер трудно и почти невъзможно. Годици ги бавят с документи. Държавата трябва рязко да облекчи имиграционните политики. Например нова Зеландия имат такива политики. Те например знаят, че имат нужда от кадри в ИТ сектора и ако кандидатстваш за виза там и си с образование софтуер инженер, шанса ти да вземеш виза е 100%. Защото знаят, че техния бизнес търси такива хора. Това трябва да се направи в България.

- От икономическа и политическа гледна точка, профила на човека който искаш да живее в твоята държава е млад току що завършил университета човек. И ако може той да емигрира от друга държава в твоята на 20-30 години, това е идеалния човек. Особено ако е завършил в друга държава.

В Америка големият бизнес е изграден от имигранти. Имаше статистика във Форчън 500, че 70% от големите бизнеси или повече са изградени от имигранти.

7. Какво мислиш за предприемаческата култура в България?

- Според мен статистиките говорят, че от гледна точка на брой предприемачи на глава на населението, ние сме на последно място. До ден днешен целта на живота им е да имат работа, не да започнат бизнес. И съответно тоя менталитет според мен е наследен от комунизма където смисъла на съществуването на някого е да си намери работа.

- И тук можем да намесим образователната система. С един приятел си говорехме, как например Иван от някое малко градче, завършва гимназия или университет, след което започва работа някъде, работи 2 години и заминава в чужбина да бере ягоди. И тук нали образователната система толкова много години по никакъв начин не го е накарала този човек да може да намери начин в собствената си държава да е успешен.

- И според мен държавата каквито и политики да прави и да оправи бюрокрацията, банките също с кредитите, реално богатството на една държава и икономическия растеж се случва точно от хора които имат желание да направят и да променят нещо.

- И според мен и от демократична гледна точка проблемите които имаме с корупцията в системата на високите етажи във властта се толерира, това всичко според мен е продукт на провала на образователната система в последните 20 години специфично, през годините на прехода. Реално не знам училищата и гимназиите какво точно правят за да насърчат хората да започнат собствен бизнес.
 - Това което ABLE правиха беше много готино, те правеха ABLE mentor. Там ходят хора и реално хора се занимават с бизнес или имат собствен, комуникират с млади хора и по някакъв начин им стават ментори или role models, нали има смисъл в това нещо. Но трябва да има политика за това нещо на държавно ниво. Защото ABLE е частна.
 - Трябва да си оправим образователната система. Защото хем ще помогне на бизнеса да има достатъчно таланти хора, хем ще помогне на много хора да бъдат достатъчно уверени в себе си и да започнат свой бизнес.
- 8. Какво мислиш за инкубаторите и акселераторски програми и споделени пространства?*
- В София има вече доста, реално 2,5% от офисите са споделени. Кампус X, Бетахаус, Софтуни.
 - От гледна точка на офис, интернет и инфраструктура сме добре. По-скоро проблема е финансирането.
 - Според мен не е изцяло решението да има повече инкубатори, а да има повече предприемчиви хора и банките да дават по-лесно кредити.
 - Много хора ги спира това, че ако вземат кредит за бизнес и нещо се случи с тях например починат, техните деца наследяват кредита.
 - От гледна точка на стартъпи, know-how го имаме.
 - Имаме талант. Какво ли не правим, имаме си индустриални компании, имаме си софтуерни, какви ли не продукти не правим от автоматизация, до AI, до софтуери за автомобили, за selfdriving cars, хардуер за автомобили. Т.е имаме си и тежка и висококвалифицирани индустрии.
 - Според мен ключа е млади добре образовани хора, амбицирани и да имат достъп до финансиране.

6. Interview

1. Кои са сновните предизвикателства с които компанията се сблъсква?

- Едно от нещата които имаме предвид с тези спънки е от гледна точка на чисто държавни и Европейски програми които по наши си тук допълнителни закони повечето млади компании не могат да кандидатстват по тях. Тези за млади предприемачи или конкурентноспособност не можеш да кандидатстваш тъй като всяка фирма която иска да кандидатства по програмите, тези Европейските които минават през нашите министерства, условията са да имаш 3 финансови години назад, вече да си участвал в някоя програма, или да си печелил програма. Кое то генерално звучи като хем се опитват да подкрепят младите бизнеси, хем всъщност заключват възможностите да бъдат там във вече развити компании.

2. Какво инвестиране използвате?

- Ние не сме получавали никакво финансиране. Единственото финансиране което сме получили е грантово, което е от акселераторска програма от Клаймът Кик. Въпреки това се оглеждаме за инвеститори и Ангели с цел развитие на компанията, но все още не сме

получили нищо отвъд тези 15.000 грант които получихме през 2018. Ние се оглеждаме за бизнес ангели, но до момента не сме имали никакво финансиране.

- Относно бизнес ангелите, фондове и т.н. ние имахме достъп до много такива хора, най-малкото заради програмите в които участвахме, и там постоянно се сблъскваме с такива хора, основно извън България. Но не е като да няма, достатъчно е едно излизане на конференция в което просто трябва да си по-активен и можеш да се запознаеш с бизнес Ангели или хора които да те насочат към бизнес Ангели. Но извън България само.

3. Акселераторската програма ли ви помогна?

- Да, това бе първото и последното финансиране и съответно ни даде един добър начален старт за да реализираме тестовите и завършим прототипната фаза. Тя беше и много полезна от буткамповете които се провеждаха във Виена и Франкфурт, които ни запознаха с доста хора, съответно имаше и доста активна програма с уъркшопи и лекции и пак бяхме представени пред хора, нетуъркинг/контакти, възможности доста. Така че това ни беше голям плюс.

4. Мнение за другите видове аксесоари и инкубатори в България / София?

- Кампус X в момента набира сериозна скорост и около тях сме запознати по-скоро в чисто коуиркнг, нетуъркинг/контакти събитията им които са на ниво. Виждаме че се развиват и НПО тип акселераторите покрай Българската Къща за Нестопанско Право. Отвъд това не сме търсили много такъв тип акселераторски програми тъй като те са много отнемат много време и вече преминавайки през една, решихме че от тук насетне е по-добре да се фокусираме върху нетуъркинг/контакти, лекции, за да не се разфокусираме от нашата цел и продукт.

5. А Други като коуъркинг спейсове използвайте ли, виждат ли ви се полезни?

- От гледна точка на полезността със сигурност. Има изключителни хора, които работят на тези места и след повечето от тези компании така или иначе са минали през това което ние или минават или им е зад гърба отдавна, така че винаги е полезно да обменяш опит с такива екипи. Ние не използваме все още такъв конкретен коуъркинг, но сме достатъчно близки и с такива коуъркинг спейсове като Бетахаус, Пъзел и други. Повечето коуъркинг места в София явно доказват едно високо ниво и влизат в доста списъци на Европейски класации.

6. Какво може да подобри екосистемата?

- Според мен е въпрос на време, от гледна точка че вече в България много стартапи компании се развиват.

- Факт е че основно технологични и за тях има малко повече подкрепа от колкото продуктови такива.

- Но смятам че това също е въпрос на време и самите ние като хора и предприемачи да свикнем с идеята че е възможно, какви са каналите, как да ги търсим и как да се ориентираме в тази бизнес среда.

- Но аз наблюдавам все по-голям бум в тази сфера.

- И трябва институциите да влязат в роля и да се въведат някакви улеснения за стартапите, така че да не ги вкарват в сивата зона веднага, а просто да има облекчения за първата една година примерно.

- Да се установи една помощна платформа (създателят на промяната), която да има за цел да обедини всякакви активни хора и проекти, така че наистина да се превърне в онлайн инкубатор за цяла България на точно такъв тип дейни хора. Това е ключово.

7. Какво възпира екосистемата.

- Основното е чисто на държавно ниво има каквото и да е желание, така че да са улеснени много от нещата които един млад предприемач трябва да открие фирма и да я поддържа. И да е улеснено кандидатстването за инвестиции, намирането на инвестиции и кандидатстването по въпросните Европейски програми, които също да са насочени към наистина млади компании които няма нужда да имат 3 завършени години.
- И в образованието да се заложи повече концепцията за предприемачество
- А какво спира екосистемата, много често са просто закостенелите понякога виждания на утвърдените хора в професиите си. Например нашите сблъсъци да намерим специалист в сферата в която работим, да намерим някой в сферата който да повярва в нас във идеята, на който му се работи да вярва че нещо отвъд рамковото може да се случи. Така че да, чудесно е да се бута програмата от долу нагоре, но със сигурност трябва да се срещнат някъде по средата и с институции, тъй като виждаме изключително желание в младите хора както и нас.
- Така че промяната ще дойде и се вижда че хората искат.

8. Какво смятате за предприемаческата култура в България?

- Хората са достатъчно креативни и всъщност нуждата от промяна ги побутва да бъдат и предприемчиви. Може би проблемите които са се натрупали в последните години, сега дават мегдан за нови начинания в посока промяна, но и все пак за устойчив бизнес и едно такова самодоволство, че хем си направил нещо собствено, но същевременно е и за света, но пък и успяваш да се издържа от това. Достатъчно компании има, които се занимават с конкретно социални проблеми и в общи линии е водещо за стартъпите социалния елемент в промяната, което е доста обнадеждаващо.

9. Каква е причината да предпочитате бизнес ангели?

- Ние не сме били финансирани от ангели. Но ангелите са добър вариант защото на поранен етап някой скача с теб в трапа и вярва. А пък от гледна точка на това че са бизнес ангели, значи са развили собствени вече бизнеси, могат да ти дадат допълнителна експертиза в развитието на твоят бизнес.
- Предпочитаме принципно програми и грантове които са с “no strings attached”, тъй като естествено че както ние така и повечето предпочитат да нямаме някой някой от който да зависим взимайки финансиране от него. Това е и причината всъщност да сме се насочили в момента до програми тим Chivas Venture i ClimateKic, така че основно предпочитаме програми от които можем да вземем финансиране без някой да взема дялове от компанията ни.

10. А вие насочени ли сте към европейските пазари? Къде бихте оперирали.?

- Основна цел ни е Германия, защото там на първо време валидирахме едно спокойно пускане на такъв продукт, че би се приел добре от хората тъй като си имат вече някакви по-конкретни морални цели които гонят. Знаете малко по-сериозно е нивото на компостиране, рециклиране, събирането на отделни отпадъци в Германия. По-лесно ни беше да имаме поглед на германския пазар заради и личните ни бекграунди в Германия нали. От там започна вече да се прикачват и други държави които просто сами генерално в политиките си показват, че биха искали по-зелено съществуване на бизнесите. Та най-вече от там, културата е различните държави е показател, но Германия е водеща като пример за много добри практики. Има и много печатници в Германия, Хамбург е печатна столица.

Със сигурност започваме пилотни тестове в България защото имаме близки и топли отношения с печатниците тук, но главната ни цел е да излезем на европейския пазар.

11. Според вас дали ще имате проблем с намирането на кадри тук като експанднете бизнес?

- Ами още е рано да знаем защото не сме на такъв етап и не можем да даваме оценки на работната ръка в България. Но около нас има доста колеги и доста стойностни хора които са изключителни професионалисти и на които имаме пълно доверие. Затова там нямаме особено голям проблем.

- От друга страна, подизпълнители ни които които произвеждат в техния завод фолиото, техните шефове твърдят, че няма работна ръка и няма кадри, но това е нещо което ние тепърва ще проверим лично.

- То има и различни аспекти на работа – едната е техническа а другата по-бизнес. Факт е, че много голяма част от хората са се ориентирали в дигиталната сфера и може би от тази гледна точка, подизпълнителите се оплакват, че няма истинска работна ръка и експертиза.

7. Interview

Свободен разговор:

Преди 3 години започнахме с приятели. Главната ни мотивация беше специално в София трафика е супер неоптимизиран т.е аз губех за работа по 2ч на ден в супер непродуктивно време. Така реших да направя нещо по въпроса и така направихме проект за превозно средство което хем да е компактно хем да е достатъчно за придвижване и да имаш 30км на ден пробег. Първия прототип беше с лошо качество само за тест и т.н.т. Започнахме с 3 колесен вариант с идеята за стабилност не се оказа лош вариант. След 1 година тестване и подобряване решихме да го опростим и така стана 2 колесен скутер. В момента почваме по-активно да го маркетираме и да създаваме бизнес от него. Имаме няколко продажби вече на наши клиенти но за да скалираме ни трябва капитал и за момента от всички варианти сме се спрели на краудвъндинг/crowdfunding вероятно стечували за kickstarter които са за групово финансиране.

1. Как се спряхте на краудвъндинга/crowdfunding, дали видяхте и за други начини наинвестиране като бизнес ангели?

- Ние поддържаме контакт с частни инвеститори и лица, дори с някои фондове. В България има 2 големи ВС фонда, Илевън и Лаунчхъб. Ние сме разговаряли с тях но в повечето случаи те търсят нещо различно от хардуер защото няма гарантирана бърза възвръщаемост и бг фондовете не са склонни да инвестират в такова нещо. За Ангел инвеститори също сме търсили дори водехме преговори с един тайландски инвеститор но там бюрократично са много по-утежнени нещата.

- При всички случаи този вид финансиране има и плюсове и недостатъци както икраудвъндинг/crowdfunding. Но като цяло не ни харесва идеята че при този тип финансиране с външен капитал от Ангел или ВС трябва да предадем контрол от компанията. Обикновено за сийд фъндинг е около 10-15% но те съответно и самия размер на финансирането не е много голям срещу този процент контрол.

- При краудфъндинга/crowdfunding интересното е че освен че получаващ поръчки, то освен фъндинг си е реално продажба защото получаващ поръчки за пред-продажби на

продуктите ги получаващ предварително във времето парите. Там това което ни харесва е освен финансирането получаваме още и директен фийдбек от хората. Тоест ние директно предлагаме продукта на аудиторията и моментално виждаме има ли интерес или не. Тоест ние си решаваме въпроса с маркетинг проучването дали има търсене за подобен тип продукт вместо да го правим ние самото проучване.

- Проблема в България е, че е по-ниска покупателната способност.

- При краудвъндинга/crowdfunding тук идва положителната страна че реално можем да предлагаме за цяла Европа. За сега е по-лесно да се ориентираме до Европа и като регулации и като административно и като доставка.

- Но да интерес има но цената ги спира хората в България. Сега ще проверим на европейския пазар.

2. А какво мислите за инфраструктурата?

- Тя има много голямо значение. Специално в София има някакви наченки на развитие на инфраструктурата, в Пловдив там ми се струва, че е малко по-добре.

3. Какви са предизвикателствата за правене на бизнес в България?

- Специално за хардуерен продукт като нашия има огромни предизвикателства.

Аз съм инженер и моя колега е инженер и за нас материя като развиване на бизнес план, подробни финансови планове, развиване на маркетингова стратегия, са много непознати неща за нас и ние трябва да се учим в движение как да ги правим тия неща и да търсим партньори които да ни помагат с тях.

- При разработването на един такъв продукт са много дисциплините от които трябва да разбира човек. Това е трудното и трябва да се търсят варианти как да се движи равномерно по всички направления. Защото само да имаш един готов и завършен продукт не е достатъчно, ти трябва да го покажеш, маркетинга, ценообразуващ и да създадеш екип.

- Ние сме 2ма но имаме външна помощ за маркетинг, продажби и други неща.

4. Според теб какви са предимствата за правене на бизнес в България?

- Ниски данъци за фирми. Труд и материали са евтини тук. По този начин можем да си позволим сравнително конкурентна цена и да имаме печалба. Членство в ЕС също търговия свободна с Европа.

5. Какви са недостатъците за правене на бизнес в България?

- България е труден пазар за такива неща. Първо заради цена и култура на мислене, не е като Дания и Англия всеки има велосипеди. Това е най-големия проблем в България.

6. Имате ли нужда от достъп до коуъркин спейсове, инкубатори, акселератори и т.н., мрежа, експерти и какви проблеми бихте превъзмогнали с някои от тези?

- Акселераторските програми са много полезни но в България няма такива варианти. В щатите и западна Европа има много такива които са полезни защото те за няколко седмици буквално те изграждат хем като лични качества на самите основатели/ фаундъри хем за бизнеса. Със сигурност на нас би ни било полезно, но сме на такъв етап с разработен продукт и е трудно да правим промени в продукта.

- Според мен акселераторите са много полезни но никога не съм се включвал и нямам мнение от 1во лице.

7. Какво мислите за предприемаческата култура в България?

- Има някакво раздвижване но това има връзка и с предния въпрос за

недостатъците в България.

- Проблема е че системата не насърчава малки и стартиращи компании.

- Големите компании просперират и поглъщат малко по малко такъв тип малки и средни компании.

- С такъв тип акселератори и някаква целенасочена държавна политика, субсидии и т.н. би могло да се стимулира, но за момента не съм сигурен дали тук има такива неща работещи на практика.

- Има европейски фондове които там вече е много shady как се усвояват, с какви връзки и какви подкупи/корупция се стига реално до финансирането. Ние не сме искали да се замесваме, там вече малко на политика опират нещата. За момента разчитаме на лични пари и на краудвъндинг/ crowdfunding.

8. За корупцията какво е мнението ти, имаш ли проблеми с нея?

Нямам опит с корупция но ние сме на страна от всякакъв тип държавни схеми и не мисля че има предпоставки ние да имаме проблеми с това да бъдем обект на корупция по някакъв начин.

9. Каква беше главната причина да започнете бизнеса?

- Моята лична визия е, че автомобилите започват да се заформят като отживелица специално за градско придвижване и това което искам да постигна е ако успеем да направим достатъчно удобно и привлекателно превозно средство, хората реално ще се замислят за него като алтернатива. Опитваме се да предложим на хората комфорт, дизайн и функционалност и ако и 3те неща са на достатъчно добро ниво реално си мислим че хората биха се замислили за това като алтернатива на автомобила за придвижване. Просто не е функционален автомобила защото не може в 2 милионен град да има 2 милиона коли.

За мен лично никога не са били стимули да съм си сам шеф и т.н. За мен винаги стимула е бил искам да направя продукта и искам да го дам на хората да го ползват и в последствие това трябва да се превърне в бизнес и то натурално нещата са си отишли към създаването на бизнес. Никога не съм имал такива подбуди искам да съм си шеф и да правя милиони.

- По-скоро винаги подбудите трябва да идват от ефекта който искаш да постигнеш и със стойността която предлагаш.

Ние видяхме възможност и я реализирахме, заради проблем.

8. Interview

1. Основни предизвикателства с които компанията се сблъсква?

- В момента най-големия проблем на нашия бизнес и други подобни в България и като цяло в света е таланта и как той да бъде постоянно набираен, мотивиран и квалифициран в правилните сфери на наука и технологии за да може да се справя със задачите които му се поставят. И реално това една фирма да има добри хора в нея които наистина мислят и са креативни, е предпоставка за това тя да е иновативна. В технологичния сектор в който ние оперираме, това да си иновативен е единственото нещо което може да те отличи от другите. Това да си иновативен може да е по многопера. Едно че може да са иновативни приложения, технологии или да се създава нещо ново което не съществува и може да е

услуга или продукт за индивидуалните хора или компании. А също така и иновации в процесите и начина по който работи.

- Кадри се намират, по-скоро как тия хора ще бъдат развити персонално по начин по който да изпълняват пълния си потенциал и това да е движеща сила за организацията за която работят.

2. А от страна на държавните структури като бюрокрация и т.н. имате ли проблем?

- Напоследък се засилват разни регулации, като цяло софтуерните фирми са най-малко засегнати от държавни регулации и изисквания, но напоследък започват някакви регулации за лични данни, процеси и т.н.т. Така че се засилва това влияние на държавата и не бих казал че се засилва в позитивен начин и това целия свят го казва за тия поправки които пратят е ЕС и Америка за личните данни и т.н. Примерно скоро един прост елементарен онлайн магазин за гривнички нямаш право да го имаш и поддържаш ако не отговаряш на един куп изисквания, касови апарати, директна връзка към НАП където да се отчитааш, да плащаш лиценз и т.н. И това е нещо много страшно и всички в тая индустрия го оценяват и затова се изказват по краен начин за всички тия регулации тъй като те променят начина по който интернет функционира и съответно всички компании които са част от това зависят и от него.

3. По отношение на клиентска база проблеми имате ли? Дали е лесно достъпен пазара тук.

- Ако са читави хората лесно се стъпва на пазара. Фирми като нашата по принцип не им трябва маркетинг и продажби. Става въпрос за по-малко компании такива до 100 човека да речем. На такива компании по 10-20 човека те са си екипи и на такива малки екипи не им трябва нищо тъй като те вършат добре работата и няма да останат без работа. Въпроса е да се утвърдят като си вършат добре работата и да бъдат препоръчани от едни хора на други. За големите фирми също, ние примерно почти никакви усилия не правим в насока да маркетингаме фирмата си директно на хора които не познаваме. А всичките ни клиенти идват от така наречения рифърал апроуч който означава, че наши клиенти ни препоръчват на бъдещи такива.

Аз 2017 работех като контрактор и фриленсър и с парите които спечелих започнах да наемам хора един по един и така станаха толкова.

4. Значи със самофинансиране е станало?

- Да изцяло. Нямаме външно финансиране.

5. А търсили ли сте от този нов тип краудвъндинг /crowdfunding или Ангел инвестор?

- Ние сме компания с услуги и няма нужда да търсим по принцип защото ти почваш да работиш и те ти плащат още същия месец. Такъв тип фондове са по-подходящи за продуктови компании където ще развиваш някаква идея примерно 5 години докато стани печеливша и обаче пък ще стане много велика и затова се набират пари от такива места.

- като растежа ни е бил над 2.5 за всяка година от операции като това е като оборот и като хора.

6. Предимства на правене на бизнес в България? И защо си решил тук да се развиваш от колкото Холандия и Англия както много стартапи правят?

- Ами познавах разни хора от местната екосистема и тук реално е много добре да се наемат хора в България тъй като заплатите в Холандия и навсякъде са много по-скъпи а и не само заплатите ами и всички останали разходи като офиси поддръжка и т.н. На нас ни излиза по-на сметка да работим за лондонски клиенти в България от колкото за лондонски клиенти в Лондон. Това от една страна.

- От друга страна и основна за мен АЗ не мога да живея в такива държави като Холандия и Англия просто тъй като не предлагат това качество което търся. Реално качеството на живот в България е много по-високо отколкото в Англия, тъй като предлага много повече разнообразие и неща за правене, чиста храна, чисти места за посещение. В Лондон ако живееш ти трябва 2 часа да излезеш от града през уикенда за да идеш на някой океан в който никога не можеш да влезеш.

- Има и нещо такова, че в България има много добър инженерен талант, но често се случва лидерството да няма някаква сериозна визия или да не се е замислял по този въпрос. Но това за нас е важно и се опитваме да развиваме в нашите колеги и колектив, това включва и като цяло хората да се предприемчиви и да търсят как да се подобряват и израстват персонално а не кариерно най-вече. Тъй като когато хората са пораснали персонално така са полезни за себе си и за света и това неимоверно ги прави добри служители на каквато и да била организация. И това пак казвам ни е най-голямото предизвикателство да направим хората да израстват личностно.

7. Какви са недостатъците за правене бизнес в България?

- Те са много. Няма достъп до много пари ако трябва да се правят стартапи, това е под въпрос дали е недостатък или предимство. Ако гледаме каква е статистиката от Силикон Валеј е недостатък, макар че има градове в които има много пари като Сингапур, Лондон, където има някакви големи фирми ама и тука имаме някаква такива така че не съм сигурен че това е голям фактор. По принцип смятам че ако една идея е наистина добра и хората които са зад нея наистина могат да я реализират и знаят какво правят, могат да го направят и без никакво финансиране. Това е недостатък нямаме достъп до големи инвеститори. Част от инвеститорите не са достатъчно образовани за да могат да инвестират в информационни технологии и има инвеститори в България които си мислят че това е голяма ниша и то е така, но не я разбират и въпреки това се впускат в такива проекти и им се получават кофти нещата защото трябва да имат добри технологични партньори.

- Друг недостатък неразбориите в нашата държава които са очевидни за всички. От към нали системи, правосъдие това няма какво да го говорим ама е със сигурност недостатък. Значи има фирми които ни питат ама вие сте единствено в България там не е ли много страшно? И в такива случаи по-добре да се регистрираме и в Швейцария или Англия и да казваме че сме от там. И ние даже вървим в тая посока да направим точно нещо такова поради тази причина. Ние имаме фирма в Англия и като има нужда се представяме с нея, ако клиентите се дърпат за това че сме регистрирани в България.

- Ако са отговорни проекти също Английски, Швейцарски и Немски фирми не биха работили с Българска фирма защото знаят, че после няма да могат да я осъдят примерно ако сгафи.

- Проблемът с правосъдието си го има и ако се реши, много неща ще ни се оправят. И това че държавата нали че се слагат евтини плочки, и че има неразбории, и тия неразбории носят негативен пиар на всички нива на държавата. Това е минус.

8. Какво според теб може да се направи за да се подсили екосистемата в България според теб?

- Това което стана с тия акселератори Илевън и Лаунчхъб защото аз съм бил в стартап с Илевън и знам как работи и знам как са нови такива се създават. Тъй като те вкараха концепцията за стартапи и показаха на хората как го правят на запад, коуъркинг спейсове, менторинг сесии и т.н. на някакво ниво нали за нашия стандарт може би е допустимо, но

не е високо. Защото хората които ги управляваха тия заведения или там организации, те самите не бяха достатъчно установили се предприемачи и нямаха достатъчно връзки за да могат да свържат достатъчно добре българската екосистема с европейската и американската. Не казвам, че лошо са се справили, това е една първа крачка да вървим в тая посока да станем по-стартър интензивно място. Аз съм бил в Португалия в Лисабон където скалата на тая индустрия е г/д колкото в България но хората които управляваха тоя акселератор бяха изключително добре свързани и единия от най-големите предприемачи в Силикън Валеј, който е от Германия ни бяха ментори. Това са основателите на Спотифай, Саундклауд, РокетИнтернет, на такива фирми. В България такива хора са идвали 1 път в годината за половин час на някаква презентация ако са идвали. А там са хората които са до тебе по цял ден и те учат как да си правиш бизнеса. Така че има разлика и точно пак бих казал образование, трейнинг и докарване на още хора от чужбина които знаят как се правят нещата и могат да споделят от техния опит тук – това и липсва на нашата екосистема и най-вече образование. Те хората имат талант, имаме добри дизайнери, програмисти, инженери, но не са достатъчно образовани за това как да си структурират бизнес, как да го ръководят и как да го развият. Защото в Силикън Валеј сигурно е позитивно че фирмите стават по 1 милиард и хората стават милионери за един ден, но има и негативни страни тоя растеж за които не знам дали сте се замисляли. Но примерно такива фирми като Убер, като ЕърБНБ те в тях наливат милиарди долари на месец и тия фирми не растат спрямо търсенето което идва от пазара и клиентите, има ами растат във всякакви посоки и начини и понякога се объркват и целта им се променя и става да набират следващите милиони и това набирање понякога се разминава с услугата и не се ползват парите може би достатъчно добре или ефекта не е достатъчно добър за обществото и планетата като цяло. В България нещата се случват много по-органично. Тук има нещо което ни липсва, българите рядко си правят партньорство и много рядко тук ще седнем 5 човека да правим бизнес. Българина иска сам да си е шеф, да има 100% от фирмата. Те изобщо не са чували за тия неща които се случват в Силикън Валеј или в Лондон където примерно СЕО-то на някаква компания я продава за 500 милиона и има 3% от нея, какъвто е нали случая на тия най-големи фирми като Пейпал, Туитър др. В България това никога не се е случвало и няма как да се случи. Най-големият ни такъв партньорство за успешен е на Телерик където бяха 3ма човека с по 33%. Но такъв тип фирми с много инвеститори ние не сме имали и това тепърва ще узрява и ще се прави. Та има много неща които могат да се развият. Има и много готини стартъпи. Например на мен ми харесват. ЕндуроСат на Райчо, Дронамикс на братята Рангелови. EnhanceCV ми правят добро впечатление също. СофтУни които ни станаха партньори и имат дялове при нас. Те почват да пускат СофтУни в целия свят на английси език. Няма много средища за такива хора между другото. Кампус Х в София се промотира за инкубатор а е просто коуъркинг спейс.

9. Interview

1. С какви предизвикателствата компанията се сблъсква? Попълнили сте, че имате проблеми с липсата на регулации за патенти.

- Ами патенти не, но липса на регулации ДА. Както знаете, нашата индустрия има доста допирни точки с финансовата индустрия. И най-вече с инвестиционната индустрия. И доста често някои неща които ние виждаме като технологични стъпки и рамки за да можем да си свършим работата, регулаторите ги виждат като някакъв вид финансови, инвестиционни или посреднически услуги. И нещото което например в Швейцария а вече дори и Америка, Англия, Малта, Естония правят е, имат много ясна регулаторна рамка, където предлагат различните видове Tokens, понеже това е един от големите проблеми – с какъв статут са. Дали са така наречените валути (инвестиционни продукти) или не са, нали блокчейна как се разглежда като технология. Обособяват се рамките и т.н. Липсата на такова рамка ни пречи. Не напразно всичките успешни Български компании и стартапи които са правили под някаква форма ICO-та не са регистрирани в България, всички са регистрирани или в Естония, или в Швейцария или в Малта, или във всичките тия готини офшорни зони. Така, че това нещо е една голяма пречка за индустрията и чисто икономически би привлякло много капитал. Ако имаме нещо в тази посока направено, можем буквално да привлечем милиарди капитал в рамките на година.

- За тези регулации, трябва държавата да има позиция и да се изкаже. Понеже в момента нещата са оставени във въздуха и нито знаеш какво е позволено, нито какво е забранено. Дори да има ясна позиция да знаем как може да работим в нея/около нея, е достатъчно полезно и ценно.

2. Вие сте се финансирали с лични финанси, но търсили сте други начини като краудфъндинг/crowdfunding и т.н., други фондове Европейски.

- Не, изцяло сме с лично финансиране, като инвестицията беше до толкова, че да си имаме достатъчна техника – лаптопи, да можем да избутаме няколко месеца преди да започнем да правим пари, защото това е сервиз бизнес (услуга), не е като продуктите. Тоест тука вършиш работата и получаваеш пари, което е доста lean and sustainable начин да изградиш компания, не е като продуктите да инвестираш много и да чакаш дълго време да започне. Така, че тук не ни е било нужно. За предишни проект Swip – продължителен мениджмънт tool, там за него търсихме финансиране, но за съжаление не можахме да подсигуриим. Ние се бяхме ядосали тогава, че при работещ продукт с валидирана идея и клиенти, не можахме да намерим дори малко финансиране, за да можем да си напуснем фул тайм работата и да се концентрираме върху това нещо. Накрая се ядосахме и си направихме сервиз/услуга компания.

3. Имате ли проблем с намирането на кадри и дали според теб има в БГ опитни специалисти?

- Със сигурност има опитни специалисти. Ние на този етап нямаме проблеми с намирането на кадри. Ние си обучаваме разработчици. Ние имаме мини академия която правим в нашата компания и когато някой кандидатства за техническа позиция при нас, той минава обучителни курсове и след това работи върху мини проект и по този начин ние валидираме неговите умения. И където има пропуски ги запълваме. Плюс, това също показва и нивото на мотивация на хората, защото те трябва да

отделят не малко време в рамките на 2-3 седмици след работно време примерно 2 часа на ден. И съответно ние нямаме проблеми и успяваме да си намерим хора. Интересно е, че по-трудно ни е да си намерим качествени хора в рамките на нетехническите позиции – продажби, маркетинг.

Маркетинг, продуктов мениджмънт, дори бизнес анализатори и консултанти. И причината тука е, че страната се е обособила към един аутсорсинг център, вече почва да преминава към услуги с добавена стойност и общо взето хората имат такива технически знания. Но ние имаме липса на маркетинг и продажби познания в цялата държава.

4. Акселератори, инкубатори възползвали ли сте да участвате в такива програми?

- Не, защото не ние нужно. Аз самия съм ментор в един от акселераторите – Илевън. При сървиз/услуги бизнес, подобен вид структури няма да имат интерес, защото те търсят да инвестират и да си максимизират печалбата там 10 пъти минимум възвръщаемост. При нас е права пропорционалност на вкарани и изкарани пари. Кое то за тях не е супер привлекателно, нали като говорим за сървиз/услуги компании. Та ние засега се справяме и не е необходимо да взимаме финансиране и да даваме контрол на други хора, които да играят роля в това как взимаме решения и какво правим.

5. Какво мислиш за стартъп екосистемата в БГ, как би могла да се подобри?

- Мисля, че се развива добре. Ако трябва да направя сравнени с преди 10 години когато стартирахме, мисля че сме извървели много път. Самият факт, че имаме организации като БЕСКО, като организацията на бизнес ангелите, е достатъчно – това е сигнал за много голям напредък. Самият факт, че подобни структури започнаха да се организират самостоятелно без да бъдат подтикнати от държавата и институции е добре.

- Какво нямаме: Нямаме акселератори, сийд фънд, Series A, Series B – много трудно, поне на локално ниво. Големите инвеститори които се позиционират като Series инвеститорите, същите могат да избутат на международно ниво до някакъв приличен seed round, извън това ни няма. Съответно – липса капитал.

- Другото нещо което ни липсва е know how в продажби и маркетинг отношение, как да позиционираме. Нямаме пряк и лесен контакт към чужди пазари и съответно чуждите пазари които са атрактивни в момента са Сан Франциско и Ню Йорк, и съответно ХонКонг, Сингапур, до някъде Пекин. Трудно имаме достъп до тези външни пазари, откровено Азия е доста непозната за голяма част от компаниите в България.

- Ще полезно ако можем да въвлечем големите компании като Фейсбук, Амазон, Алфабет, и практиката която утвърждава, понеже ние поддържаме контакт с един от водещите университети в Швейцария където те работят по този начин, а именно че големите компании които споменах имат бюджет за R&D и въвлечат хора които са традиционно учени, малко ги пречупват да гледат малко и в бизнес посоката и от там се раждат много нови стартъпи. Така, че освен от типичното където имаме някой с гениална идея, доста често голяма част от успешните компании стартират на базата на някакво проучване което е на академично ниво и после се спин оф-ва в стартъп. И това е по-устойчиво защото в единият случай ти очакваш на някой да му хрумне гениалната идея, а в другия случай имаш постоянно повтарящ се процес където статистически винаги на година имаш 1-2 стартъпа които се обособява с идеи които са economically viable. Това ни липсва също. И общо взето това трябва да построим.

- Аз не бих замесвал университетите, понеже, бих ги замесил при разни други условия, но знаем университетите в БГ и съответно те биха попречили повече от колкото биха помогнали. Така, че аз бих ангажирал компании да направят research labs в БГ, след това бих замесил чужди университети и бих замесил БГ университетите покрай чуждите за да започнат да черпят know-how и да достигнат нивото на европейските си колеги. Това е един модел който би се случил. Да предположим, че без никакво познание и досег с външна среда, българските университети да влязат в един research lab и да стигнат до някакво смислено ниво, е така доста оптимистично според мен. В историята нямаме традиции в това да проучваме нови неща, нашите технологии винаги идват от някъде. Ще трябва да се научим да го правим, но трябва и да признаем, че не можем да го правим, защото ние си мислим, че можем.

6. Какво е мнението ти за предприемаческата култура?

- Българите са креативни. Не сме най-креативните също така, но се справяме окей и сме достатъчно креативни. Имаме бизнес нюх, всичките ми допири и досеги с хора от централна Европа мислят, че българите са ме супер предприемчиви и това е породено от факта, че ако искаш добър живот тук или някакъв смислен живот, трябва да си го вземеш. А ако се пуснеш по водата, няма да имаш такъв. И съответно това те кара да бъдеш предприемчив. Защото хората в централна Европа трябва сравнително по-малко усилия да вложат за да водят нормален начин на живот, докато в България трябва да положиш повече такива усилия. И от там идва цялото нещо, че сме предприемчиви.

- Как се гледа на предприемачеството? Вие самите знаете, че на неуспеха или провала в БГ се гледа много лошо. Ако един път не си успял нещо да постигнеш, тотално за нищо не ставаш. И хората го гледат това и това потиска социално. В София е различен случай. Неуспеха се приема по-добре въпреки че пак не се приема, но е по-окей да направиш нещо, да сгрешиш, да пробваш пак, но примерно извън големите градове, ако не успееш един път те заклеймяват вече и това е. Така че, една битка която трябва да направим е да започнем да гледаме на неуспехите като някакви lessons learned и learning curve от колкото, че не ставаме за нищо.

7. Можем ли да говорим за хай тек клъстър или блок чейн клъстър и ако има, дали вие имате някаква изгода от него и дали имате допирни точки с тази среда?

- Да, има такъв клъстър. Казва се Балканска Блокчейн Асоциация в която аз съм един от основателите. По-скоро за момента понеже още е рано и всички сме много заети, освен да опитаме да направим връзка с институциите и европейска комисия или правителство под някаква форма като министерски съвет, други активности няма. И по-скоро това е в момента организация с която се опитваме да поставим посока, понеже е доста млада, и да има обединяващо консули от социална точка на хората които се занимават с блокчейн в страната.

Искаме да включим и хората от балканските страни, не само от България.

Ползите са, че се познаваме най-малкото, не си пречим, учим разни неща от различни хора които сме вътре, споделяме си информация което е доста добавена стойност за нас. Но да, общо взето на такова ниво е в момента.

Членовете са 10-15 компании.

8. Какво би подпомогнало екосистемата?

- Специално за блокчейн, това е технология. Коеето означава, че тя ще е толкова добра до колкото както се използва и е просто един начин, едно средство. Аз бих препоръчал

хората които активно се занимават с полиси мейкинг и са въввлечени в управление, да се разчетат малко и да задълбаят както означава тази технология и какви предимства дава. След като разберат тези предимства да започнат да работят в посока на най-належащите проблеми в момента. Една от най-големите спънки в страната е абсолютното недоверие на хората към управляващите и това може да бъде много изсветлено използвайки технологията и давайки много голяма прозрачност на това как се взимат решения как се разпределят бюджети, самата страна как използва бюджетите по различните пера и да даде много добра ясна представа и възможност на всички данъкоплатци да виждат реално къде отиват данъците. Кое е естествено означава няколко други неща, че скрито разпределение на финанси пак биха се разпределяли, би било по-трудно така че неефективността на използването на средства трябва значително да падне. Австралийците например са направили блокчейн базиран car to car communication protocol и на друго ниво пък има и един такъв консолидационен протокол който е на инфраструктурата където всъщност се активизират шофьорите да карат по-добре без нарушения. Всеки пък когато спазваш ограничението, не минаваш на червено, не засичаш хората или даваш предимство на други хора или спираш на пешеходна пътека, получаваш различни койнчета или някакви точки. И съответно колкото по-добър шофьор си и спазваш правилата, толкова повече ти се начисляват точки които можеш да използваш или в определена търговска мрежа, или в КАТ за някакви услуги или в държавна администрация, облекчени такси, което също е добра обратна връзка за застрахователите, понеже ако ти не си рисков шофьор ти дават по-добри условия спрямо останалите които са рискови. Нашите партньор от Eternity пък работиха с варненска община да направят регистър на всичките бездомни кучета посредством блокчейн. Има много проекти и български компании които работят по know-how проекти извън страната. И когато се опитат да донесат тези проекти при нас в България, срещат един отпор. Включително моя съдружник е консултант към европейска комисия относно всички блокчейн въпроси в техническо отношение към България. Общо взето ние успяхме да сме част от това не защото някой от държавна администрация се е допитал до нас да каже момчета вие знаете много елате тука, а понеже хората от европейска комисия дойдоха и казаха момчета ние мислим, че знаете много елате тук. Кое означава, че на локално ниво не се сещат.

- И другото нещо, той беше част от блокчейн проект в Дубай понеже те искат много да ползват технологията, и работеше над смарт сити проект вече 8ма година. И ние бяхме поканени да вземем участие и да направим Абу Даби един по-добър град посредством технологията. Нещо което пак тук не сме били поканени. И дори когато активно търсим контакт с държавата не го получаваме. Та за полиси мейкиръте бих казал да прочетат какво е това нещо.

- И второ, нека се консултират с други хора също дори не от БГ за да видят как да направят нещата по-добре.

9. Според теб нужна ли е някаква информативна кампания малко да се образават тия полиси мейкърс?

- Да, ние се опитваме да го направим. Но е трудно защото трябва да се обединим в нещо по-масово като комуникация и тогава би имало добър ефект. Но за момента няма такава активност.

10. Interview

1. Виждам, че си посочила бизнес ангели и рисков капитал като финансиране на компанията? Можеш ли да ни разкажеш повече и каква е обстановката в България с финансирането.

- Според мен НЕ е трудно в БГ да се намерят пари, има доста възможности. Ние няколко пъти кандидатствахме и ни казаха Не, но ние не се отказахме и като кандидатствахме няхахме технолог в екипа и затова трябваше да го намерим.

Вече като го намерихме, хората ни финансираха защото видяха, че сме упорити, работим в екип и си струва да инвестират в нас. Иначе в България по принцип е евтино да стартираш свой бизнес и да направиш тестове, особено в началото. Сега разбира се зависи и какъв бизнес развиваш, но като цяло има няколко фонда които подпомагат млади компании. Нашият път не беше много труден. Има няколко преакселераторски организации които помагат на хората да си развият определени идеи. Ангелите дойдоха в резултат на Илевън защото те бяха наши ментори и просто от ментори станаха Ангел инвеститори. Те просто искаха да ни подкрепят и така, не сме ги търсили активно.

2. Спомена за акселераторски програми, вие участвали ли сте в такива програми и какво ти е мнението за тях? Дали са развити в България?

- Може да бъдат и по-развити, но като за България те сега тепърва се развиват и стават още по-различни и интересни програмите, но като цяло е добре. На нас най-вече ни помогнат това, че ни дадоха пари и ние си напуснахме работата и се фокусирахме върху бизнеса, така че това беше достатъчно. Сега гледам, че сменят фокуса и гледат да финансират по-малко компании но да са по-ангажирани с компаниите което е супер. В началото не ни липсваше менторство, но сега ни липсва вече като сме на друг етап в развитието на компанията. Трябват ни хора които да ни помогнат да отидем на следващото ниво. Докато инвестицията когато дойде, ние не разбирахме тогава нито от бизнес, общо взето всичко което сме научили, сме го научили по време на работата. А сега вече като сме достигнали такова ниво ни трябват хора които да ни помогнат да стигнем на следващо ниво.

3. Какво е мнението ти за екосистемата в България?

- Предимствата в България е, малкият пазар и че всеки се познава и ако трябва да говориш с лидери в определена сфера, според мен чрез един контакт в ЛинкТин ще можеш да ги намериш. Така че много бързо можеш да достигнеш до твоите клиенти, просто да отидеш и на врата да им чукнеш или на някое събитие да ги срещнеш, много по-лесно е от колкото ако си на някой голям европейски мегаполис в чужбина, и логистиката е по-трудна и като цяло е трудно някой да те представи. Но тук, тъй като сме малка държава и всеки се познава и можеш много бързо да достигнеш до определен контакт.

- Медиите също лесно се достига до тях и първоначалната реклама може да бъде евтина и бърза, а не да контактуваш Ню Йорк Таймс или някой от големите сайтове и да се загубиш в полето от предприемачи.

4. А за недостатъците?

- Ами малкият пазар също е и минус. Това даже не е тест пазар, хората казват че е по-скоро pre-test. Много е малък пазара, повечето компании трябва да търсят веднага да се развиват в чужбина за да могат да успеят.

- Иначе като цяло ако си имаш по-малко вземане даване с държавата, толкова по-добре. По-скоро да не пречи, а не толкова че искаш да ти помага.

5. Значи смяташ, че в ръцете на бизнеса трябва да бъде предприемачеството.

- Да

6. Вие понеже сте продуктова компания, какво ви е мнението за държавата в лицето на институциите?

- Аз нямам достъп с тях затова нямам мнение. Ние не работим с институции, държавни предприятия рядко ни се налага и така планирам да остане. Така, че не мога да отговоря.

7. Какво би спомогнало на екосистемата за развитието и?

- Всичко стартира от образованието. Трябва да има иновации в образованието, да се стимулират децата още на ранна възраст да мислят по-креативно, по-иновативно, да не се страхуват от неуспеха, да работят добре в екип. Така че, повече иновации в образованието ще спомогнат за по-качествени идеи. Защото в момента има липса на идеи. Има няколко фонда се появили, но аз се чудя те от къде ще намерят качествените добри идеи които да финансират. Значи те са 2 страни - трябва да има добри идеи и трябва да има инвестиране. Аз мисля, че има инвестиране, но може би трудно се намират добрите идеи.

Зад тези идеи трябва да има добри хора да го създадат, те започват от образованието. Не е нужно да създадеш бизнес на 20 години, те даже хората казват след 30 години когато вече имаш опит и контакти/ мрежа, тогава може да се създаде успешна компания. Естествено винаги има изключения, но в повечето случаи това е естественият път. Защото малко американската култура ни кара да си мислим, че на 20 години трябва да си милиардер и това е нормалното, а това не е нормално. Мисля си, че университетите НЕ играят в момента абсолютно никаква роля в предприемачеството. Може би има няколко изключения, сега направиха една магистърска програма във Варна, Американския университет може би е малко по-напред, но в другите университети си нямат идея какво се прави в тая област. По принцип в чужбина, университетите са център на иновациите и на създаване на нови идеи, тестване на нови идеи, особено що се отнася до истински иновации, дори ако щеш в медицината, ИТ, и т.н. С риск малко да генерализирам, в България университетите са си една стара институция не са толкова активни, а мисля че могат да бъдат много по-активни. И 3-то е медиите. По принцип медиите са много затворени за стартъпи, има една или две медии които пишат и са много активни в отразяване на добрите новини, но масовите медии и телевизиите, според мен е много трудно и там да влезеш и да разкажеш за своя бизнес освен ако не си някой супер голяма компания илипо някакви супер добре стекли се обстоятелства. А пък те хората извън София гледат телевизия и си мислят, че навсякъде държавата е супер зле, а пък добрите примери не се споделят. Така че може би малко активност в медиите да разказват добрите истории на малкия и среден бизнес. И хората повече да работят заедно

8. А ти къде си учила?

- Пловдив езиковата и Софийския за магистратура.

- Аз бях на няколко предприемачески програми и затова мога да правя разлика между българските и чужди университети.

9. По какъв според вас начин успявате да се облагородявате от екосистемата? Какво ви носи като ползи?

- Аз мисля, че ми е малко тясна екосистемата и гледам главно на вън. Но това е, че ние в момента сме стигнали до едно ниво и според мен малко сме блокирали и ни трябва някаква подкрепа от специалисти тип ментори, но не само да дойдат и да ни зададат едни общи въпроси ами наистина да бъдат включени в нашият бизнес. Проблема е, че има много липса на качествени кадри като цяло в целият пазар. И по принцип екосистемата ни

помага да си търсим хора които могат да ни помогнат в определена експертиза, когато си търсим служители, подизпълнители, екосистемата помага в това. Като напиша, че ми трябва някаква експертиза в някоя сфера и хората веднага се отзовават, в смисъл контактите/мрежата са най-ценни в тази екосистема. И събитията които организират от време на време когато има някакъв готин лектор и отиваш да научиш нещо ново. Достъп до информация, мрежата/контактите е точно и това, когато има възможност и за финансиране някой да ти го изпрати. Когато има възможност за някакво състезание, някой да ти го изпрати и да има такъв обмен на информация.

11. Interview

1. Какви са основните предизвикателства за компанията?

- Основното предизвикателство е намирането на качествени специалисти. Имаме много добро име на пазара, имаме хубава мрежа/контакт от хора с които се познаваме тъй като и Змата сме в бранша от ИТ 2000 година. Това ни помага да набираме качествени кандидати които да се включат да работят при нас. Допълнително следваща стъпка планираме да отворим офис в Ниш, Сърбия, който ще бъде изцяло девелопмент ориентиран, т.е. ще набираме там предимно програмисти. И нещо подобно направихме и в Пловдив.

2. А имаште ли някакви предизвикателства в началото?

Най-трудната част може би беше освен да привлечем хора, (за нас е важно да изграждаме дългосрочни отношения както с клиентите, така и със служителите ни). Първите клиенти беше основното предизвикателство, защото ние стартирахме компанията без нито един клиент и беше въпрос на месеци да успеем да привлечем първи клиенти. Да в общи линии на 4тия месец вече работехме за реални клиенти от Германия.

3. По какъв начин се финансирахте?

- Стартирахме с една инвестиция, един от партньорите ни който казах, че оперативно не участва, той направи инвестицията за да стартира Дроксик като компания. Така започнахме. Но ресурса с който разполагахме общо взето беше да оцелеем за 6-7 месеца. Т.е не сме почнали с някакви милиони със сигурност. Т неговият дял на този колега беше да финансира този първоначалния капитал. Т.е лично инвестиране. Той е инвеститор, французин.

4. А след това разполагате ли с други инвеститори?

- Не сме ползвали никакви други инвестиции. Всичко след това като инвестиции е било на база приходите които сме генерирали и част от печалбата която е била заделяна с цел инвестиция в офиси в Германия да речем, в Пловдив, в Ниш.

5. Имали ли сте проблем с набирането на кадри, програмисти в БГ.

- Да, случвало се е, той пазара е доста конкурентен. Не знам ако не сте в тия среди може и да не знаете, но много чуждестранни компании влезнаха на българския пазар които започнаха да предлагат много атрактивни условия и то финансови предимно. Така че има предизвикателства определено и още повече, че ние набираме предимно опитни специалисти а за тях почти всички компании се интересуват. Така че това е бих казал едно от големите предизвикателства които имаме. Да им предложим добра оферта не само финансово, но и други елементи като възможности за развитие, участие в интересни

проекти, нови технологии на които да работят, средата, отношението към тях, това са важни неща и при нас са на добро ниво.

6. Имате ли нужда от достъп до допълнителни услуги като консултанти, коуъркинг спейсове, и т.н.

- Ползвали сме външни услуги, например външни recruitment agencies особено в чужбина. Тук ние си имаме собствен отдел 2ма човека които се занимават само с набиране на нови кандидати, но за чужбина сме ползвали външни за набиране на местни служители. Вече работим със софтуери като CRM системата дори си е външен продукт който ние сме интегрирали.

На ниво консултиране сме имали нужда за някои проекти, но чисто технически се оправяме вътрешно. Друго по-мащабно не се сещам.

7. Контакти и нетуъркинг дали е важно за вас да имате контакти с ваши конкуренти и други от вашата сфера?

- В нашата сфера с конкуренти партнираме с някои компании. Наши клиенти също. Бих разделил клиентите ни на 2 типа. От една страна работим с много големи девелопънт компании чуждестранни, които нямам нужната експертиза, тогава се включваме ние. Другите ни клиенти са добре финансирани стартъпи или крайни клиенти. Т.е едните са големите агенции с които партнираме които работят с големите брандове като БМВ и т.н.т и си партнираме по големи проекти където имат нужда. Членуваме в различни организации примерно САЙТКОР (датска платформа) за разработване на различни системи сайтове, на ПИМА сме членове, тук в БГ сме членове на българо-немската търговска камара, може би 4-5 такива асоциации сме членове.

8. Какви са предимствата за правене на бизнес в България?

- Специално за нашия бранш, едно от големите предимства да имаш офис в БГ са: . Много качествени специалисти които като разходи за същия тип специалисти в Англия са много по-атрактивни, което е нормално. И факта че сме в ЕС, че сме близо до всички останали държави в Европа и за 2 часа си където решиш.. От към данъци също. България е доста атрактивна от към данъци на фона на останалите европейски държави, което не е за подценяване.. И да факта че семействата ни са тук, още от ден първи сме решили че нямаме намерения. Пътуваме много, но за по няколко дни отиваш връщаш се. Но сме се локализирали тук.

9. Недостатъците за правене на бизнес в България?

Специално за нашия бранш:

- Недостиг на кадри. Става все по-конкурентно и още повече като навлизат големи компании чуждестранни като IBM, VMWEAR, Microsoft. Но примерно влизат и компании които не са толкова популярни но и самите те намират по 10-20-50 човека и той пазара не е безкраен и в крайна сметка се конкурираме за едни и същи специалисти.

- Разходите в България се покачват постоянно и то в много по-големи темпове от колкото в Германия например. Но този недостатък е неизбежен.

10. Имате ли проблеми например с корупция, институции и т.н.?

- Ние нямаме вземане даване с нито обществени поръчки, нито правим някакъв бизнес, нямаме клиенти в България, така че в общи линии досега ни е доста малък. Имаме си добри счетоводители, одитори които се занимават с административните неща. Но нямаме някаква драма нещо което да ни спъва.

Определено системата в България е тромава това всички го знаят.

11. Каква беше основната ви причина да започнете бизнес?

- Ами както споменах ние сме в бранша отдавна и се познаваме отдавна и сме работили в различни компании заедно и решихме да започнем нещо наше. Като микса е следния: Аз съм с бизнес бекграунд, другия ми партньор който оперативен е включен е техническия ни директор той е с технически бекграунд, третия ни партньор той е креативен директор. Така се получи много добър микс в 3те сфери които са ключови за една такава компания за да бъде успешна. Видяхме и възможност. Искането да се насочим изцяло към чуждестранни пазари. По ред причини:

- Цените на проектите са много по-високи от тези в България.

- Работиш за по-интересни проекти.

- По-мощни

- Заемстват се последни технологии.

- Отношението е по-различно. В смисъл ако сравняваш Българска компания клиенти с една Немска компания клиент – ами има огромна разлика. Кой как разбира нещата, материята, процесите.

12. Струва ли ти се, че ще е по-лесно или по-трудно в сравнение с когато вие сте започвали?

- Винаги има място за развиване на добри идеи според мен. Въпроса е със сигурност да решите в каква посока ще е идеята. Трябва ви със сигурност добро финансиране, защото от практиката ние работим доста със стартъпи както споменах. Дори идеята да е гениална и в един момента свърши финансирането преди продукта да е влязал в цикъл на генериране на пари, всичко пропада.

Виждали сме го и през наши клиенти и собствен опит от спинофи. Така инвестирахме в апликация за апстора, стана много добра и накрая голямата грешка която направихме е че не бяхме оценили, че за маркетинга и промотирането на тая игра се изискват от една страна големи специалисти които ние нямаме и от друга страна много големи бюджети за да може да се позиционира и съответно всичко пропадна. Т.е е важно да се преценят рисковете и до колко сте готови да ги поемете, но иначе момента е много подходящ.

13. Какво ти е мнението за тукашните инкубатори, акселератори, бизнес ангели?

- Развиват се, виждам им бюджетите които успяват да подадат към компаниите рязко нарастват. Преди 10тина години бяха много слаби по 50.000лв първа награда докато сега по 1 милион. Т.е нещата са различни много сега.

14. Мнение за предприемаческата култура в България?

- Със сигурност се развиват и в тая посока нещата. Все повече хора имат желание, интерес да опитат нещо сами. Имат идеи за реализиране. Но специално в ИТ сферата е много популярен предприемаческият елемент, поне по ми наблюдения защото съм в този сектор. За другите не знам как е положението. Нещата които ви казвам го приемайте, че е повече ИТ ориентирано.

15. Когато започвахте бизнеса имате ли някакви очаквания като например големи приходи и т.н.т.?

- Да, ние си поставяме големи цели и да се опитваме да ги постигаме. Идеята ни беше да изградим голяма компания. Хората да са щастливи, че са част от нея. Компанията да е печеливша защото за да расте ако няма приходи няма как да се случи. Затова сме и толкова много ангажиране и целите са ни високи.

16. Имате ли да получите резултати след края на проучването?

- Да

Свободен разговор:

Наскоро с една шведска компания искаха да работим по гавърнмент проект, които трябва да кѓмплайват с някакви регулации и т.н.т. Тук в България се оказа че такива регулации енвайрънментъл няма.

12. Interview

1. Използвали сте бизнес ангел, разкажи повече за този опит и търсил ли си други начини на финансиране и защо избра Ангел?

- Почти не сме, защото с него от началото доста се уцелихме. При нас беше и късмет, защото се напасахме с този човек и имахме общи интереси.

Иначе по принцип за България има доста начини понеже аз ги познавам и сме работили заедно с повечето. Има 2 типа бизнес ангели в България.

- Едни които са една идея по-образовани, които разбират, че да си ангел също ти си инвеститор и трябва и да се издържиш като инвеститор.

- И такива които още не са достатъчно развити, мисленето им още не достатъчно развито. Те са хора които имат пари защото са направили някакви успешни бизнеси и все още си мислят, че да си ангел е малко кто да си собственик. Т.е при тях характерно е че искат доста големи проценти, дори често и 50%, а в същото време те не са ти съоснователи. Защото е окей някой да иска 50% от бизнеса ако дойде на работа с мен и ежедневно бутаме или пък дава много големи плюсове с които да си ги заслужи, но просто да ми каже ами окей ще ти дам едни 100к евро ама да ми дадеш 50% от компанията, тогава това е сигнал, че този човек не разбира каква е идеята на тая игра на инвеститорите, защото по този начин той буквално сам се прецаква. Тъй като при такива проценти ако дадеш още в началото на инвеститор, тогава не ти остават проценти за следващите рундове. Съответно валюейшъна много бързо спира да ти се развива защото се губи контрол бързо и следващите инвеститори ще се чувстват много несигурни. Защото ще си кажат “добре кой реално управлява тая фирма и аз с кой си говоря”?

- Хубавото е, че в последните години има положително развитие в тая посока и най-вече покрай Телерик хората се създават добри примери, които пък дават добри примери на другите ангели. Разбират, че в повечето случаи е нещо от сорта на 20%.

2. А вие използвали ли сте се от акселераторски програми, инкубатори?

- Ампеко нищо от другите неща не сме правили, приеха ни в 2 акселератора, но поради липса на време и затова, че вече доста ни акселерира бизнеса ние буквално имаме клиенти вече и търсим нови такива, все пак сме и хора с опит, та решихме да ги пропуснем тия неща защото за нас е малко загуба на време.

- Но иначе имам приятели които са минавали през различни акселераторски програми. Фийдбека зависи там. Но да кажем, че е по-скоро положителен особено за хора които нямат опит в това да изградят цялостен бизнес, концепция и т.н, определено е полезно да се ориентират.

- Ние като цяло сме и хора с опит, аз имам 2 компании зад гърба си които от 5 човека съм ги правил 40 в рамките на 2-3 години. В последната ми компания управлявах европейски бизнес в една американска дигитална агенция и имах 10 клиента които правиха по над 1млрд. оборот на година. Просто екипа които сме тук в Ампеко сме опитни, релевантно опитни все пак. Аз все още смятам че има какво да се научи.

3. Предизвикателства от страна на правителсно например ил и други пречки.

- Имаме казуси със това, че вестинг в България не може да се направи от легална гледна точка.
- Има казуси със това как инвеститор влиза в една компания която не е АД, защото ние все още сме ООД. И нямаше как инвестицията да я вкараме като капитал както по принцип би трябвало да стане и съответно тези пари да не ни се броят като приход. Защото в момента ние го прекарваме като приход поради спецификата на законодателната рамка, заради което ние дължим и данък печалба. Защото иначе другият вариант е АД, което усложнява изключително не нужно нещата.
- Така че има доста казуси с регулаторната рамка за стартър бизнесите, където е характерно с това, че има повече рундове на финансиране, външни инвеститори, трябва да има такива неща като вестинги, конвъртъбъл лоунс, и т.н.
- Има една асоциация която се бори с това.

4. Кои според теб са предимствата да правиш бизнес в България?

- Основно много по-ниските разходи. Защото с инвестицията която ние взехме, ако трябва да го правим в Лондон ще ни трябва 5 пъти по-голяма инвестиция. И това е нещото от което на запад много се впечатляват, като разберат с колко малко пари колко сме постигнали, дори понякога си мислят, че има нещо гнило, някаква схема или измама и това което им показваме като софтуер е само някакви екрани и е измама. Защото по техни сметки този продукт би трябвало да струва много повече. Така че ниските разходи са голямо преимущество.
- Другото е, че все пак има и много таланти, говоря технически ориентирано. Защото навсякъде ти трябва програмисти, и в холандия да си пак трябва. И колкото и да са скъпи тук, пак се много по-евтини от Холандия и Англия, Дания.
- Другото, че вече има и прилично добра екосистема. Така че има достатъчно хора с които да се обменя опит. Кое е огромен плюс спрямо каквото беше преди 10 години. Защото аз когато започнах преди 15г беше трагедия, нямаше почти никой с който можеш да си комуникираш.
- И хубавото е също, че се оказва и не лош вариант да си инсорснеш, българи да ги накараш да се върнат в България, защото заплатите спрямо стандарта на живот също ни позиционират много добре. Това си е плюс за стартерите защото имат възможност да си върнат някой кадър от чужбина нали, ако все пак няма смисъл за стартера и той да остане там.

5. А недостатъците?

- И все пак регулаторните рестрикции не са и чак такъв проблем все пак.
- Най-големият проблем според мен е малкият български пазар. Трябва ако правиш сериозен бизнес да е нещо ориентирано за външните пазари.
- Другото е голям недостиг на продажби и маркетинг хора. Примерно аз за последната една година съм получил 12 предложения за партньорство и кофаундинг за компании защото водя лекции на тема ИТ продажби и помагам на други ИТ компании да си оправят продажбите. А се оказва, че всички стартери не знаят как се прави. А пък на нас ни се изисква да сме още по-добри от тези на запад, защото нямаме предимствата на това да си местен, да говориш езика и т.н. Т.е трябва да си доста по-добър от локалните там.
- Относно финансирането, в момента НЕ бих казал, че има голям казус. Особено сега по тази европейска банка дойдоха още милиони които така или иначе някъде ще трябва да ги сложат. Фондовете Илевън и Лаунчхъб разбраха, че вече не става с по 20-30к евро да се

прават нещата. Примерно вече с 50к да направиш някакво доказване на концепция и сформираме на екип си е напълно постижимо и вече при някакъв сийд раунд от 150-200к евро от всякъде можеш да разгънеш бизнес в България. Затова според мен няма кой знае какъв казус с финансирането. По-скоро хората които тръбят че има такъв казус, вероятно просто нямат идея как се продава. И те инвеститорите го виждат това и съответно затова не са много отворени да инвестират. В момента в който покажеш, че имаш хубаво мислене към пазара, нали имаш идея как да подходиш, тогава инвеститорите доста бързо са отворени. То идва и от това също, че ти като не знаеш как да продаваш, ти не можеш и да си пакетираш идеята да е продаваема, дори да е добра идея - от там се получава казус.

- И вече по-скоро бих каза, че може да има казус със фолоу-ъп финансирането. Много зависи какво и как взимаш финансиране тук. Защото когато правиш финансиране, новите инвеститори винаги го гледат така: “добре окей вие като кофаундъри, екипа нали с вас трябва да съм сигурен, че мога да работя, но аз мога и с този инвеститор който вече е в купа да мога да работя”. И тук нали някои ангели които нямат инвеститорско мислене и като си поговорят със съответно тези които ще инвестират от запад, защото ако тука си правиш сам рундовете, това бих казал те лимитира по много начини, и те като видят че този човек няма добра концепция как би било редно да се държи като инвеститор и това създава казуси. Аз съм си говорил с хора които са навътре, дори българи които са на запад, и те казват: “имай предвид, че само това че си в западна европа ти дава минус точки, и това че имаш инвеститори от региона ти дава допълнителни минуси”. Защото единият проблем е че си там, а другият е че и инвеститора ти е там. Та стартъпите трябва да мислят плана си за финансиране в следващите 2-3 стъпки и да не разчитат само на български инвеститори.

- Но хубавото е, че същите фондове Лаунчхъб и Илевън или Васко и Зарко като ангели, те разбират, че трябва да се подсури един по-дълъг период от финансиране при допълнителните рундове и така да е каже ако не можеш да си намери по-добра опция, те поемат рунда, което е супер. И затова е казано, ако ще търсиш инвеститор ангел, гледай да е от Телерик хората.

6. Според теб как може да се подобри екосистемата?

- Групово всички трябва да участват в това да се развива повече пазара и да се инвестира повече в хора с опит в продажби и маркетинг и може би продуктов мениджмънт. Защото там са най-големите дупки от страна на кадри и експертиза.

- Както каза, финансирането не е кой знае какъв казус, защото има къде да се намери финансиране.

- Също участниците в екосистемата да създават по-утъпкани пътеки по които стартъпите да могат да излизат в чужбина по-успешно. Има една добра инициатива сега има вече организация в Силикън Валея която направиха един роуд трип и един вид помага на стартъпите да направят стъпка натам. Това е ключово. Т,е тия два компонента най-вече. Ако ти ги имаш, финансиране се намира. Ако успееш да докажеш че има клиенти и можеш да ги спечелиш тия клиенти, от там нататък всеки ще иска да ти дава пари.

8. Мнението ти за предприемаческата култура.

- Понеже трябва да изчезвам, накратко. Мисля, че има на къде да се развиваме, но поне последните години посоката е положителна. Все повече се развива, все повече акселераторски програми, все повече успешни стартъпи което мисля е най-важното за да може хората да се мотивират. Има на къде да се работи, но не бих казал да съм притеснен. Има достатъчно хора които имат желание да го правят.

Appendix E. Table with all contacted companies

#	Name	Industry	Location	Year	Webpage
1	Agromo	Agriculture	Sofia tech park	2018	http://www.agromo.bg/
2	Pollenity	Agriculture	Sofia		https://pollenity.com/
3	Techno Farm	Agriculture	Sofia	2013	https://www.technofarm.bg/
4	Airlief	Cleantech			https://airlief.com/
5	Biomyc	Cleantech	Sofia	2017	https://biomyc.eu/
6	CogZum/CozZo	Cleantech		2016	
7	Lam'On	Cleantech	Sofia	2016	http://lam-on.com/
8	Narcine	Cleantech	Sofia	2016	https://www.narcine.com/
9	EnduroSat	Drones & Spacetechnology	Sofia	2015	https://www.endurosat.com/
10	CourseDot	EdTech	Sofia	2015	https://coursedot.com/
11	Open Source University	EdTech	Sofia	2015	https://os.university/
12	Worddio	EdTech	Pleven	2014	https://worddio.com/en
13	Drooble	Entertainment, gaming & events		2013	https://drooble.com/
14	Evedo	Entertainment, gaming & events	Sofia	2018	https://www.evedo.co/
15	Flipps	Entertainment, gaming & events		2011	https://www.fite.tv/
16	Rebellious Software	Entertainment, gaming & events		2015	http://www.rebellioussoftware.com/
17	Colibra	Fintech			https://colibra.io/
18	Fadata	Fintech	Sofia		https://www.fadata.eu/
19	FramFintech	Fintech	Sofia		http://framfintech.com/

20	EvroTrust	Fintech	Sofia	2015	https://www.evrotrust.com/landing/en
21	iuvo group	Fintech			https://www.iuvo-group.com/en/
22	Jarvis	Fintech	Sofia		https://www.jarvis.exchange/
23	Klear	Fintech	Sofia	2015	https://www.klearlending.com/en
24	Limepay/LimeChain	Fintech	Sofia	2018	https://limepay.io/
25	Payhawk	Fintech	Sofia Campus X		https://payhawk.io/
26	Reloyalty	Fintech	Sofia	2015	https://reloyalty.com/
27	QaiWare	Fintech	Sofia	2011	https://www.qaiware.com/
28	TokenGet	Fintech	Sofia Business center	2017	https://tokenget.com/
29	WeiDex	Fintech	Sofia	2018	https://www.weidex.market/welcome
30	XeniaSolutions	Fintech	Sofia		https://xenia-solutions.com/
31	Gtmhub	HR Tech	Sofia	2015	https://gtmhub.com/
32	Hire Heroes	HR Tech			https://hireheroes.bg/
33	Nobli Hire	HR Tech	Sofia	2018	https://noblehire.io/
34	Wetonomy	HR Tech			http://wetonomy.com/
35	Excitel (russian company)	IoT & Smart City		2013	https://excitel.net/en
36	Loren Networks	IoT & Smart City	Sofia		http://lorennetworks.com/
37	Playground Energy	IoT & Smart City	Sofia tech park	2012	https://www.playgroundenergy.com/
38	Aero-sight (aviation)	IoT & Smart City	Sofia	2016	http://aero-sight.com/
39	ApiHawk (Telecommunications)	IoT & Smart City	Sofia	2014	https://www.apihawk.com/en/

40	CoBuilder (construction)	IoT & Smart City	Sofia	201 3	https://cobuilder.com/en/
41	FitSys	IoT & Smart City	Sofia	201 5	https://fitsys.com/bg
42	HyperAspect	IoT & Smart City	Sofia	201 7	https://hyperaspect.com/
43	Orderadmin (logistics)	IoT & Smart City		201 6	http://www.orderadmin.eu/
44	South Gate Tech	IoT & Smart City	Sofia	201 8	https://southgate.tech/
45	Transmetrics	IoT & Smart City	Sofia	201 3	https://transmetrics.eu/
46	A4everyone	Marketing & Data Analytics	Sofia	201 5	https://www.a4everyone.com/
47	Browswave	Marketing & Data Analytics	Sofia	201 2	https://browswave.com/
48	Democles Analytics	Marketing & Data Analytics	Sofia	201 8	https://www.damoclesanalytics.com/
49	FocusVision	Marketing & Data Analytics	Sofia		https://www.focusvision.com/
50	Humans in the loop	Marketing & Data Analytics	Sofia	201 7	https://humansintheloop.org/
51	Imagifinity	Marketing & Data Analytics	Sofia		https://www.imagifinity.com/
52	Ocenime	Marketing & Data Analytics	Sofia	201 8	https://ocenime.bg/
53	QuarkVR	Marketing & Data Analytics	Sofia	201 4	https://www.quarkvr.io/
54	Ubitrack	Marketing & Data Analytics	Sofia	201 8	http://ubitrack.eu/

55	Bioseek	Medtech & Healthtech	sofia	2017	https://www.bioseek.eu/us/eng/research/home
56	EuroPATC	Medtech & Healthtech	Sofia, Serbia	2015	https://europatc.com/
57	FindMeCure	Medtech & Healthtech	Sofia	2016	https://www.findmecure.com/foundation
58	Healee	Medtech & Healthtech	Sofia		https://www.healee.com/en/privacy-policy
59	Iris	Medtech & Healthtech	Sofia	2015	https://iristech.co/
60	Micar 21	Medtech & Healthtech	Sofia	2016	http://micar21.com/
61	Appizo	Platforms for Developers & IT	Sofia	2014	https://appzio.com/
62	Botron Software	Platforms for Developers & IT	Sofia	2012	https://www.botronsoft.com/
63	Glue42	Platforms for Developers & IT	Sofia		https://glue42.com/about-us/
64	HyperScience	Platforms for Developers & IT	Sofia	2014	https://www.hyperscience.com/
65	Kanbanize	Platforms for Developers & IT	Sofia	2012	https://kanbanize.com/
66	StorPool Storage	Platforms for Developers & IT	Sofia	2011	https://storpool.com/
67	Amatas	Platforms for Developers & IT	Sofia		https://amatas.com/

68	Documaster	Platforms for Developers & IT	Sofia		https://www.documaster.com/en/
69	LogSentinel	Platforms for Developers & IT	Sofia		https://logsentinel.com/
70	Recheck		Sofia, Limburg, NL	2016	https://recheck.io/
71	15toGo	Travel & Hospitality	Sofia, Dublin	2018	https://15togo.com/
72	Lock Trip	Travel & Hospitality	Sofia	2017	https://locktrip.com/
73	Inspirit	Travel & Hospitality	Sofia	2010	http://inspirit.bg/
74	Accedia	Travel & Hospitality	Sofia	2012	https://accedia.com/
75	Amexis	Travel & Hospitality	Sofia		http://www.amexis.net/
76	Bulcode	Travel & Hospitality	Sofia	2016	https://www.bulcode.com/
77	Childish	Travel & Hospitality	Sofia	2018	http://www.childish.eu/
78	Centroida	Travel & Hospitality	Sofia	2017	https://www.centroida.ai/
79	DevriX	Travel & Hospitality	Sofia	2011	https://devrix.com/
80	Donatix	Travel & Hospitality	Sofia	2016	https://donatix.net/
81	FutureSoft/ITID O	Travel & Hospitality	Sofia		https://itido.eu/
82	GlobalizeIT	Travel & Hospitality	Sofia	2018	https://globalizeit.tech/
83	HeleCloud	Travel & Hospitality	Sofia, London	2016	https://www.helecloud.com/
84	Haemimont	Travel & Hospitality	Sofia Hitech Park	2003	https://www.haemimontgames.com/

85	Infoleven	Travel & Hospitality	Sofia	2015	https://www.infoleven.com/
86	IteraFlow	Travel & Hospitality	Sofia	2013	http://iteraflow.com/
87	ITGix	Travel & Hospitality	Sofia	2015	https://itgix.com/
88	Melon	Travel & Hospitality	Sofia	2013	https://melontech.com/
89	OSI	Travel & Hospitality			https://www.objectsystems.com/
90	TechHuddle	Travel & Hospitality	Sofia	2012	https://www.techhuddle.com/
91	TriXir	Travel & Hospitality	Sofia	2012	https://www.trixir.com/
92	ZingaSoft	Travel & Hospitality	Sofia, Plovdiv	2015	http://www.zingasoft.com/
93	Begital	ERP, CRM and project management	Sofia	2017	https://www.bg.digital/
94	BGOcloud	Hosting providers	Sofia	2015	https://www.bgocloud.com/
95	ICN	Hosting providers	Sofia		https://www.icn.bg/
96	Oblak BG	Hosting providers	Sofia	2014	https://oblak.bg/
97	ToolDomains	Hosting providers	Sofia	2013	https://tool.domains/
98	Belayer	Legal, Business, Financial Consulting	Sofia	2017	https://belayer.bg/
99	LegalTrek	Legal, Business, Financial Consulting	Sofia	2013	https://legaltrek.com/
100	ScaleIn	Legal, Business, Financial Consulting	Sofia	2014	https://www.scalein.bg/

10 1	Droxic	Marketing, Design and Advertising	Sofia	201 2	https://www.droxic.com/
10 2	Gomba Shop	Marketing, Design and Advertising	Sofia	201 3	https://www.gombashop.com/home.html
10 3	Interactive Share	Marketing, Design and Advertising	Sofia		https://interactive-share.com/en
10 4	Methodia Web	Marketing, Design and Advertising	Sofia	201 1	https://www.methodiaweb.com/
10 5	Microweber	Marketing, Design and Advertising	Sofia		https://microweber.com/
10 6	Optymistica	Marketing, Design and Advertising	Sofia		https://optimystica.com/seo-and-google-marketing/
10 7	Raz.bg	Marketing, Design and Advertising	Sofia		https://raz.bg/
10 8	Xplora.bg	Marketing, Design and Advertising	Sofia	201 5	https://xplora.bg/
10 9	3D BG PRING				
11 0	Printivo				
11 1	AgroRegal				
11 2	Dorst Brewing		Sofia	201 7	http://dorst.bg/en/home/
11 3	Navigato DEXMKT	blockchain	Sofia	201 5	http://navigato.io/
11 4	Aeternity	blockchain	Sofia	201 7	https://www.aeternity-ventures.com/
11 5	CleanTech	blockchain	Sofia tech park	201 1	https://cleantech.bg/
11 6	Cee Block	Blockchain		201 8	https://ceeblock.eu/
11 7	Mimirium	Blockchain	Sofia, Varna	201 8	https://mimirium.io/

11 8	BlockChain.bg	Blockchain	Sofia		http://3dbgprint.com/
11 9	Hack	Blockchain	Sofia	201 6	https://hack.bg/
12 0	Niquid Tech				-
12 1	Generator	coworking space	Sofia		http://www.generatorsofia.com/
12 2	Networking	coworking space	Sofia	201 7	https://www.networking.space/
12 3	Qubiqo	cleantech	Sofia		https://qubiqo.com/en/
12 4	Initlab	coworking space	Sofia		https://initlab.org/
12 5	Malkite5	coworking space	Sofia	201 5	http://www.malkite5.com/
12 6	Edit.bg		Sofia	201 6	http://edit.bg/
12 7	Metrilo	internet	Sofia	201 4	https://www.metrilo.com/
12 8	Infograffiti		Sofia	201 4	http://infograffiti.info/
12 9	BoomMakers		Sofia		http://boom-makers.com/
13 0	Vangavis		Sofia		http://www.vangavis.com/
13 1	Dronamics		Sofia		https://www.dronamics.com/
13 2	Pro Drone sys		Sofia	201 5	http://prodronesys.com/
13 3	FragaX	Aviation & Aerospace	Yagodov o	201 6	https://fragax.com/
13 4	Ucha.se	Edtech	Sofia		https://ucha.se/
13 5	Career Revolution	edtech			https://career-guide.company/
13 6	Vedamo	E-learning	sofia	201 4	https://www.vedamo.com/
13 7	Meta Reading		Sofia		https://metareading.com/#/
13 8	uchi.bg	Edtech	Sofia		http://uchi.bg/

139	Shkolo.bg	Edtech	Sofia	2016	https://www.shkolo.bg/
140	Rosey's mark	Events, entertainment, gaming	Sofia	2012	https://roseysmark.com/en/
141	36 monkeys	Events, entertainment, gaming	Sofia		https://www.36monkeys.org/
142	Comicon	events, entertainment, gaming			https://www.comiccon.bg/
143	Nemesis	events, entertainment, gaming	Sofia	2012	https://www.nemesis.io
144	Easy Exhibit		Sfia		http://easy-exhibit.com/
145	Sinnova				
146	Dextophobia	Fintech	Sofia		http://dextrophobiarooms.com
147	Phyre	Fintech	Sofia	2016	https://www.phyreapp.com/
148	Healthy Bars	HealthTech	Sofia	2014	http://healthybars.eu/
149	Ancestral Superfoods	Healthtech	Sofia	2018	
150	Prosfitt	Healttech	Sofia	2013	https://prosfitt.com/
151	Healthsorce		Sofia		
152	Easywayfit		Sofia		http://easywayfit.com/
153	Endeavor				
154	Despade	innovative services	Sofia		http://www.despade.com/
155	JV Pro Consulting	IT & Business Consulting services	Sofia		http://www.jvpro.eu/en/

15 6	Bulsource Consulting LTD	IT & Business Consulting services			http://bulsource.com/
15 7	MB Consulting		Sofia, Campus X		https://mb.consulting/#
15 8	Cloud Faces	IT & Business Consulting services			https://cloudfaces.com/
15 9	360 solutions ltd	IT & Business Consulting services	Sofia	2013	http://360solutions.bg/
16 0	Consendo	IT & Business Consulting services		2018	https://consendo.bg/
16 1	Move.bg	IT Platform	Sofia	2013	https://move.bg/
16 2	Ampeco	IT Platform	Sofia	2018	https://www.ampeco.global/
16 3	Kojto	IT Platform	Sofia		https://www.kojtoltd.com/
16 4	Parknshare	IT Platform	Sofia	2018	https://parknshare.bg/
16 5	Symbol Media group	Marketing, design and Advertising	Sofia	2012	https://symbolmg.com/
16 6	Regnum	Marketing, Design and Advertising	Sofia		https://www.regnum.bg/
16 7	Conversion Century	Marketing, Design and Advertising	Plovdiv	2016	https://conversion-century.com/
16 8	Markademics	Marketing, Design and Advertising	Sofia	2017	https://markademics.com/
16 9	Zara Lab	R&D center	Stara Zagora		https://www.zaralab.org/

17 0	Flat Manager			201 7	https://www.flatmanager.bg/
17 1	VP consulting	Service company			http://www.vp-consulting.org/
17 2	Reguligence	Service company			https://reguligence.com/
17 3	Transcapital	Service company			https://transcapital.bg/
17 4	Betapeak	Service company		201 6	https://betapeak.com/
17 5	ClaimHelp	Service company	Sofia	201 7	https://www.claimhelp.eu/en/
17 6	Igreet	Service company	Sofia	201 5	https://www.igreet.co/
17 7	imagga	service company			https://imagga.com/
17 8	Batteryland	Service company		201 4	https://batteryland.bg/
17 9	HalfBike	Smart Cities		201 4	https://halfbikes.com/
18 0	Hancyring	Smart Cities		201 8	https://www.hancyring.com/
18 1	Melissa Climate	smart Cities		201 4	https://seemelissa.com/en
18 2	Energomonitor	Smart Cities		201 7	https://www.energomonitor.com/
18 3	InnoLed	Smart Cities			https://www.innoled.eu/
18 4	Farmshopping	software		201 2	https://www.f6s.com/orelsoft
18 5	webminds ltd	software		201 3	https://webminds.bg/
18 6	NoLimit Studio	software	Sofia	201 4	http://www.nolimit.software/
18 7	Gaida.ai	Software	Sofia	201 7	www.gaida.ai
18 8	Digimark Ventures	startup investing	Sofia	201 5	http://www.digimarkventures.com/
18 9	Elando	Software	Sofia	201 6	https://www.elando.bg/

19 0	Valari ltd	software	Sofia	201 8	https://valari.io/
19 1	BusinessUp		Sofia		
19 2	Hopper			201 5	https://www.hopper.com/
19 3	Black Peak Capital	VC fund	Sofia		
19 4	Metasoft				https://metasoft-ltd.com/
19 5	the edge	R&D center			https://theedge.solutions/about-us/
19 6	Out2bound		Sofia	201 6	https://out2bound.com/
19 7	JA Bulgaria		Sofia		https://www.jabulgaria.org/
19 8	EIT Digital	digital education	SOFIA	201 0	https://www.eitdigital.eu/
19 9	Krepej accessories	retail	Sofia		https://krepej.me/en-index-index-0.html
20 0	ScienceUp	education	Sofia		
20 1	Gemseek	Data Science	Sofia. Amdsterd am	201 1	data-driven insights for sales and retention
20 2	Domestina			201 3	https://www.domestina.bg/en
20 3	Digital Marketing Group bulgarai		Sofia	201 4	https://www.digital-marketing.bg/
20 4	Kukurqk	Education	Stara Zagora	201 8	http://www.kukuryakschool.com/
20 5	Comstream	web development	Sofia		http://comstream.se/home/
20 6	co2cards			201 6	https://co2cards.com/
20 7	Escreo		Sofia	201 5	https://escreo.com/bg
20 8	Saorsa		Sofia		http://saorsa.bg/

209	motion software		Sofia	2015	https://motion-software.com/
210	Bithope		Sofia	2014	https://bithope.org/
211	ToBeCode		Sofia	2015	https://tobecode.com/team
212	Futurist labs			2014	https://futurist-labs.com/
213	Nasekomo	food from insects		2017	http://www.nasekomo.life/
214	Biodit	biometrics	Sofia		https://biodit.com/
215	MedicHome		Sofia	2017	http://medichome.com/en/
216	ConnectoAi				http://connecto.ai/
217	Claimcompass		Sofia	2015	https://www.claimcompass.eu/en/
218	NovaMining		Plovdiv	2017	