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INNOINVEST

Co-creation better SMEs support through improving the process of investments in innovative ideas

Design Option Paper

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About the INNOINVEST project

INNOINVEST - Co-creation better SMEs support through improving the process of investments in innovative ideas is a Horizon 2020, INNOSUP-5, funded project dedicated to upgrading schemes led by innovation agencies (IA), that is public mission institutions delivering support programmes to SMEs. The four IAs, INNOINVEST partners, used the 'Twinning+' methodology (INNO PARTNERING FORUM, 2012) combining peer reviews and co-creation workshops to develop an improved approach to the support given to SMEs for access to capital for innovative projects.

Hereby document presents the results of the INNOINVEST project carried out between February 2021 and January 2022 by the partnership of science and technology parks from 4 EU countries (Poland, Germany, Spain, Estonia) involved in different roles in supporting SMEs in the capital raising for their innovative products development:

1. PPNT

Poznan Science and Technology Park, Adam Mickiewicz University Foundation, PL

PPNT runs Capital Fund, established in 2011 through the ERDF project. The fund has invested over 2 million euro in 18 start-ups in chemical, biotechnology, and IC technologies. So far, 7 exits were completed. The capital regained is used for new investments in technology start-up deals in January 2021.

PPNT runs several activities directed to SMEs, researchers, research organisations, and other organisations related to innovation, technology transfer, participation in the EU Framework Programmes, and entrepreneurship.

Over 60 innovative companies (mainly SMEs) are located in PPNT, employing over 450 people. R&D active companies use the largest office and laboratory complex in Poznan.

2. Malaga TechPark

The Technology Park of Andalucía, S.A, ES

Malaga TechPark has been specially designed to house all types of entities dealing with innovation. IT sector dominates, both in research and development and the manufacture of equipment and services, with an innovative and environmentally friendly approach. Other sectors present in the park are energy, engineering, circular economy, industrial, agri-food, biotechnology among others. With over 630 businesses, and several key agents in the Andalusian Knowledge System, such as the University and its research groups, over 18.000 employees, an area of 200 hectares with an expansion project in progress, the PTA, S.A. can be considered one of the main focuses for innovation and economic development in Andalucía.

The PTA, S.A. does not run their investment fund but collaborates with the regional partners within the area of specialized training for entrepreneurs, business innovation, providing insiders in scientific and technological fields in their business sector, workshops, events, or mobility services among others.

3. WISTA

WISTA.Management GmbH, DE

WISTA.Management GmbH, the public-owned limited liability company, develops and operates innovation sites in Berlin. The largest: the Berlin Adlershof Science City is one of the most successful high-technology sites in Germany. It is a place with more than 1 thousand companies, mostly SMEs over 18,000 employees with a turnover of around 2 billion Euros. Adlershof tenants comprise renowned non-university research institutes, six institutes of the Humboldt University.

Wista-MG operates 3 incubators and 5 technology centres with about 450 start-up companies and tech-based SMEs. WISTA does not have its own program that offers investment but operates several accelerator programs to help companies to connect to grown-up companies and to find investments

from large corporates. For example, the A² Accelerator aims to make a start where future innovation is already visible today: energy, smart buildings, communication, IT, and security. It offers start-ups the unique opportunity to develop their applications together with the programme's industrial partners.

4. Tehnopol

Tallinn Science Park Tehnopol Foundation, EE

Tallinn Science Park Tehnopol Foundation was founded in 2003 by the Estonian State Government, the City Government of Tallinn, and Tallinn University of Technology. Tehnopol smart research campus is forming one big campus area with Tallinn University of Technology. More than 230 innovative technology-based companies have found a new home at Tehnopol, including well-regarded technology companies such as Skype, Cybernetica, Starship Technologies.

Tehnopol supports the adoption of promising new technologies and accelerates the growth of technology-based companies. Tehnopol Startup Incubator helps technology-based startups to develop their business and get investments. The Business Development team helps SMEs to grow, develop new products and services and reach export markets by using the best mentors from Estonia and Europe.

Tehnopol plans to start its own investment program using the experience of the activities supporting SMEs with export advice and contacts, marketing, mentoring and coaching, innovation, new products/services, and financing.

INNOINVEST challenges and objectives

The challenge of availability of capital for innovative technology SMEs

The four science and technology parks strive to create **better local innovation systems conducive to more technology innovation introduced by SMEs, especially start-ups**. Regardless of differences in the capital market development across Europe **the access to funds for technology SMEs is suboptimal**.

The innovative SMEs, especially those who are trying to implement advanced innovative technologies have problems with finding business and financial partners. Although the corporates attitude is positive and the companies are becoming more open to cooperation with SMEs, most of the collaboration attempts fail due to the different mindsets between entrepreneurial SMEs and the process-oriented corporations that avoid risk about new technologies (World Economic Forum 2018).

The financing through VC short-term capital as well as long-term equity financing is not enough. Investors oriented on profitable exit focus on the company valuation. The start-ups need time to achieve profitability (Expert Advisory Group on Innovation in SMEs final report) and cooperation with business partners may help this. The business partners, usually corporates, may be more interested in the success of the technology on the market. Whereas financial investors may be satisfied with still promising companies to make their exit. The cooperation with the corporates can be initiated already during the investment process

Objective

INNOINVEST addresses the above-described challenges from the perspective of improving the science and technology parks acting as innovation agencies.

The main project's objective has been to increase the innovation agencies' efficiency in the field of capital investment management and financial support for innovative SMEs that are launching new innovative products/technologies (R+D) by finding tools to improve the investment process, especially by facilitating the SMEs cooperation with corporate companies.

The goal of INNOINVEST was to develop **a new approach to the investment process, that would facilitate innovative SMEs to find the business and/or financial partners**. A high-quality and fully

professional investment process can enhance also the possibilities of obtaining by SMEs not only the short but primarily the long-term capital from business and financial partners which can enhance the SMEs growth, competitiveness and facilitate their focusing on the profitability of innovative solutions.

Methodology and process applied in INNOINVEST

The INNOINVEST project applied peer review and joint co-creation combined approaches within the framework of the TWINNING+ process (INNOPARTNERING Forum, Twinning Advanced: Twinning+). The process started with the collection and analysis of the innovation investment markets in the partner's regions or countries. Four two-day thematically focused workshops comprising peer review (day 1) and design (day 2) formed a consistent co-creation process dealing with each stage of the model investment process as illustrated in figure 1 below. At each workshop the end-users i.e. SMEs were engaged in presenting their experiences. The workshops were interwoven with contacts with SMEs to obtain additional feedback for the workshop results.

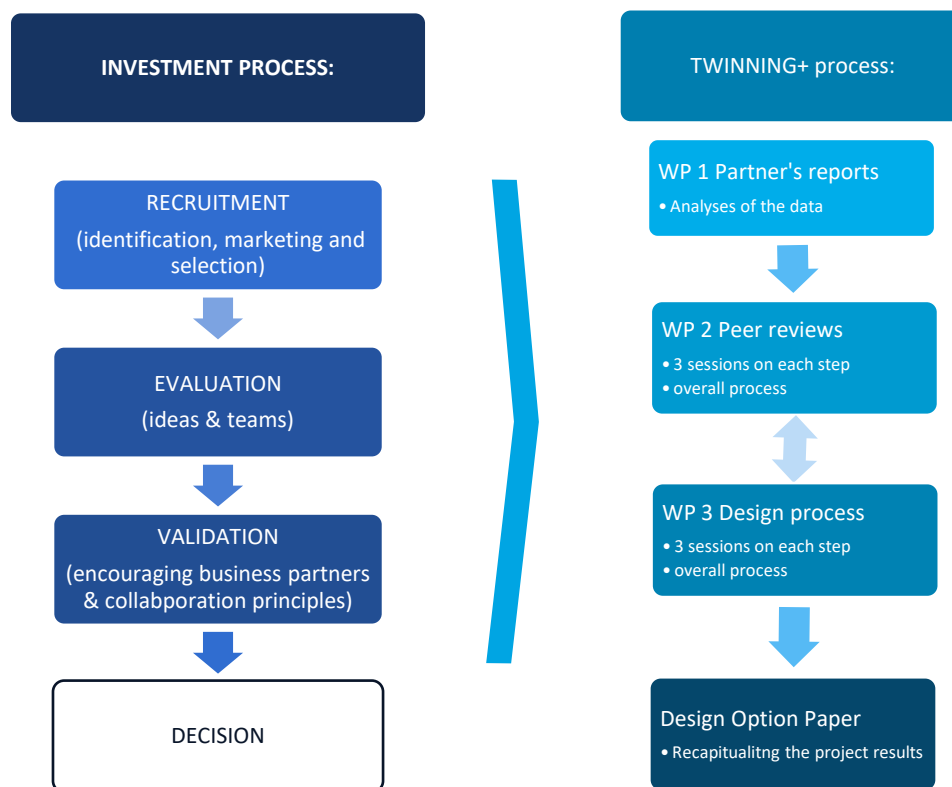


Figure 1 Interlinkages of INNOINVEST activities on the improvement of investment process leading to the DOP

More details about the methodology are included in [Annex 7. INNOINVEST learning and designing methodology](#).

Investment process

This chapter presents the results of the INNOINVEST related to the specific stages of the investment process.

Identification and selection of the investment process participants

Target groups definition

Effective SME support programmes, from the Innovation Agencies (IA) point of view, start from precise targeting of their activities to SME segments and sectors. The target group might be defined as for the technology sector, maturity, market growth potential, and other principles. See examples in the box below.

Example definitions of target groups of an investment programme

Young people, between 18 – 31 years, creative, with innovative ideas and concerns, be young people with innovative ideas. Especially:

- Students
- Techies
- Humanity students
- Digital Nomads
- Researchers
- Entrepreneurs

Target group definition by EXPLORER “Young people with ideas” programme run in Malaga

Early-stage start-ups in chemistry, biotechnology, and IT.

Target group definition by “InQbation and capital support for start-ups in chemistry, biotechnology and IT” programme run by PPNT

Start-ups in industrial technologies, digital technologies, life sciences & chemistry, and related fields, addressing complex problems and global needs.

Target group definition by “A2 Accelerator” programme run by WISTA Management

Scale-up companies with the aim and willingness to grow their businesses: double annually, through export markets and external capital. Companies that already have higher than 100,000€ annually and and/or they have raised the first, seed-stage, private capital round.

Scale-up support programme run by Tehnopol

Box 1 Definitions of target groups in the analysed programmes of INNOINVEST

Identifying the target groups in synergies with the ecosystems and strategies of the territory

None of the investment programmes run by an IA operates in a vacuum. The investment programmes are arranged within the entire ecosystem supporting the development of innovative entrepreneurship in a given territory. Selecting the target groups IAs take into account the strategies, such as smart specialisation, the level of development of the financial market, especially funds available for innovation, and the other actors of the ecosystem that could provide complementary activities for some specific target group. In the territories of the well-developed private finance market, especially VC and BA, IA may aim at niche SME groups, that do not have access to this market. While in case of lack of such funds the IAs may join forces with the private investors and streamline the funds to the most promising projects of high-level market readiness.

The IAs specifying the target strive to make the optimal match with the smart specialisation strategies, ecosystem stakeholders expertise, and interests, especially the interest of industrial partners. The experience of INNOINVESTMENT partners is that the latter is prevailing. The corporates that would be interested in testing, investment, or purchase of the new technology often are the core of the technology fields definition of the IA’s programmes.

Communicating the programme through value proposition

INNOINVEST approach considers that the support investment programme works similarly as a product on the market. The knowledge of customers and their needs is the starting point for the design of a service and a key point of creating effective communication and marketing campaigns appealing to them. The messages are outlined around the value proposition that IAs can give to the entrepreneurs at the different stages of development, thus different needs. See the box below and more details in Annex 1. Stage 1 of investment process: identification and selection of SMEs and evaluators.

Business idea stage	Value: assistance at the process of shaping the ideas into the viable business model, knowledge and advice from experienced partners, increase of the chances for market success and know-how on start-up fundraising.
Start-up stage	assistance at the process of shaping the ideas into the viable business model, knowledge and advice from experienced partners, increase of the chances for market success and know-how on start-up fundraising.
Scale-up stage	market specific consultants and matching the appropriate investors, public funds and partners.

Box 2 Example of value propositions for SME's at different stages of development

Identification and assignment of evaluators

A whole spectrum of knowledge and experience is necessary to evaluate the applications in the investment process: technology experts in the sectors of programme coverage, technology transfer, IPR, entrepreneurship support, company growth, experts in finance. The most efficient source of such expertise is a well-functioning partnership in the innovation ecosystem. IAs need to invest in long-term relationships with the potential partners to join the investment programme starting from identification of their motivation. It might be the opportunity of the programme to give them access to innovative SMEs, new technologies, or investment opportunities.

See more information about INNOINVEST results on these topics in [Annex 1. Stage 1 of investment process: identification and selection of SMEs and evaluators.](#)

Evaluation

Evaluation is an essential process for the investment programme to fulfil its mission and reduce the risk of the investment. On one hand, evaluation needs to be accurate and reliable, on the other hand, it takes time and resources of both the programme operators and the founders. Therefore INNOINVEST aimed to improve the effectiveness and the efficiency of the process so that it brings the desired outcome while optimising the time and resources. INNOINVEST claims that it is feasible and desirable from the perspective of all the parties at stake: the SMEs, the IAs and the private capital investors to create a “win-win” situation and align the process with all actors’ needs. Since the investment should serve the development of the SME, the evaluation should help all the stakeholders to assess if this end is feasible or reach.

The SMEs that are not selected for funding still should receive valuable feedback for their projects, so that they can further work on them. Testimony of an SME, the beneficiary of the investment readiness programme support this assumption. The diagnosis the SME received revealed areas that were the company's strengths and were already functioning, as well as areas in which the company did not have sufficient resources or a well-thought-out development strategy. The evaluation process gave them a picture of the company. It was under the supervision of the programme mentors that they gained experience and missing knowledge in particular areas of business operation. In addition, mentors very often provided support in acquiring further contacts to companies or persons with whom they could establish cooperation.

Criteria for founders & ideas evaluation

INNOINVEST suggests adaptation of the Product-Team-Market Fit (PTMF) method to structure the evaluation criteria:

Product-Team-Market Fit (PTMF) method¹

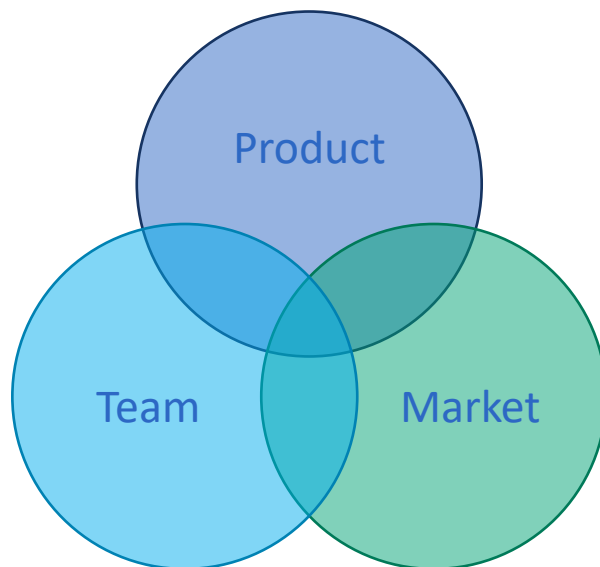


Figure 2 Product-market-team fit interrelations

The product, the market, and the team are the key factors determining the market success of the enterprises. The product should meet market requirements to achieve significant sales. These three areas interpenetrate each other, therefore in the evaluation, the relationship between them should be identified for each SME candidate in the programme. The criteria developed by the project partners for each field of the diagram have been included in Annex 2. Stage 2 of investment process: evaluation.

Evaluation of founders' teams

INNOINVEST partners' experience shows that the most challenging, which is both difficult and important, aspect of the selection of the SMEs to invest in, is the assessment of the founders' team. It is a known fact that start-ups are usually established by inventors, that have high-level competencies in technology but lack the skills and experience of the business type needed to run the company and sell the product.

The managerial knowledge that can be acquired in education or by experience in existing companies is not often also not enough for a start-up. It is because managerial know-how is focused on the optimisation of existing structures or processes. Whereas start-ups need to put the business structure up and running, then be ready to reorganise it while growing and going through different stages. Sometimes the teams are not complete, some key business people are missing and difficult to find.

In addition, the evaluation needs to take into account the founders' personalities that make the entrepreneurial traits. These traits comprise the predispositions and personal characteristics of individual members to create the most effective team possible. The stress and problems encountered may be a source of conflicts within the teams that ruin the projects they work on. The experience

¹ Source: <https://productcoalition.com/thinking-about-product-team-market-fit-ptmf-2898f418cfaf>

shows that in many cases companies' teams do not bear the weight of the start-up management and development.

The evaluation process may also include some training and coaching before the final assessment of the teams. The coaching may start from participative, i.e. engaging the coach and the team, assessment of the team strengths and weaknesses. Then the process of training and a process of team formation proceeds. It can include the acquisition of missing members and team building.

On the other hand, the training and coaching process gives an opportunity to observe the team the performance while working on the business development, their ability to take advice and make changes in their plans.

Evaluation subprocesses

The evaluation is not only about scrutinizing the candidates according to a set of criteria but also a process that helps the candidates to develop their projects to be assessed. Therefore it should be also analysed as a process, that consists of subprocesses of the investment programmes as in the diagram below. All programmes represented by the INNOINVEST partners comprise acceleration and coaching as an important part.

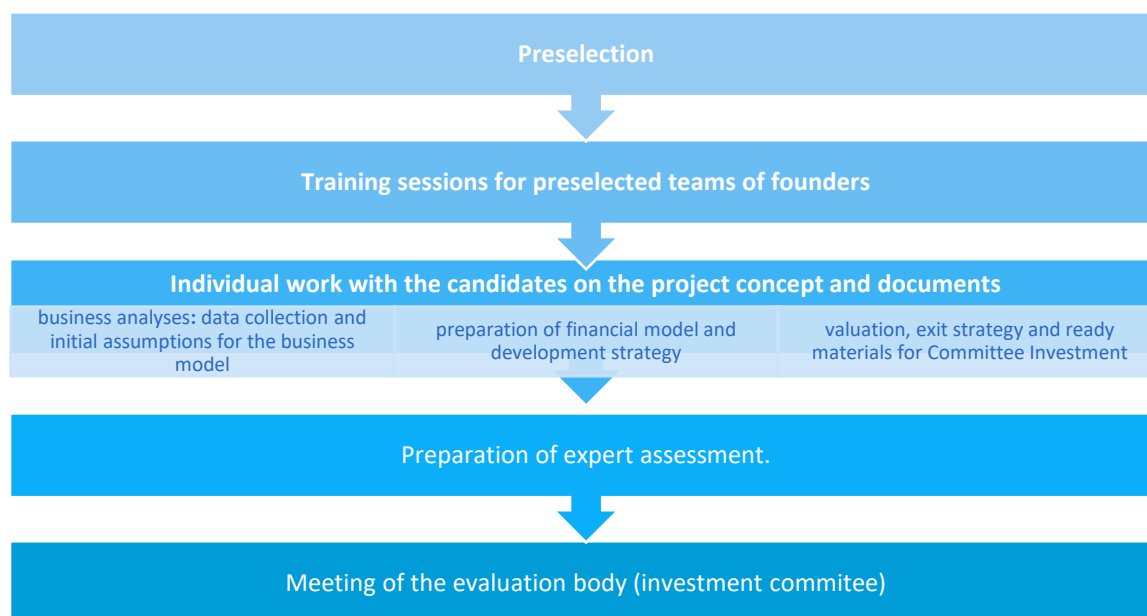


Figure 3 Evaluation subprocesses

More information on the evaluation process and criteria can be found in [Annex 2. Stage 2 of investment process: evaluation.](#)

Validation

INNOINVEST understands validation is as an element of the development of the business project before the investment decision. It consists in examining the project with corporates, mostly potential clients, and other relevant partners as for the collaboration prospects. The market feedback during the validation stage can influence reducing the risk of investment and can establish long-term (business and financial) cooperation between SMEs and corporate companies.

Although it might be fashionable for corporates to engage in collaboration with start-ups the experience shows that the different cultures of corporates and start-ups make collaboration difficult. **INNOINVEST suggests the involvement of IAs in the preparation of both corporates & start-ups for the collaboration.**

The win-win situation is possible only if the corporate has an internal agreement about its motivation to collaborate with start-ups. Some corporates develop a specific strategy and establish a dedicated team of people and resources to this end.

A good practice identified among the INNOINVEST partners are workshops for corporations and start-ups at the beginning of their cooperation to define the goals and expectations. Workshops for corporates help them to understand the programme concept, define their challenges – technologies, the specific requirements, and expectations. Experience shows that not all start-ups will succeed and bring some added value to the corporates. However, the corporates learn to manage expectations and treat participation in the validation as a low-cost, non-binding opportunity to examine the feasibility of cooperation. Through pilot projects made together with start-ups, they can learn the team mentality and make the investment volume or cost estimation.

The IAs should in their programmes focus on a limited number of strategic sectors. In each sector, they could run working groups with corporates, start-ups, and young companies to establish long-term relations. An option to consider by IAs is to provide to corporates and start-ups a platform to meet and get to know each other within a small scale, e.g. 2 week, accelerator projects.

More information on the developments of INNOVEST on validation is available in [Annex 3. Stage 3 of investment process: validation](#).

Overall process

From the point of view of SMEs (start-ups, scale-ups) the key issue in the investment process is the shortest possible time from their application to the investment decision. Moreover, they would like to see the transparency of the requirements and expectations of the institution implementing the program. They need to understand how the process of selecting their idea for financing will proceed and what are the further terms of cooperation with the investor. The start-ups would like to know all the rules before filling in the first application form. A proper understanding of both parties in this scope especially at the beginning of the investment process will help to avoid misunderstandings and unnecessary frustration.

The investment process in the case of a mature company (so-called scale-up) is more simplified and takes less time than the investment process in a start-up. This is because the company has proven its business model and generates sales revenue. The entrepreneurs expect a good understanding of their business and investment needs, clear and fair rules, and time efficiency. Experienced IAs can offer a collection of model contracts and clauses that protect both sides of the investment deal.

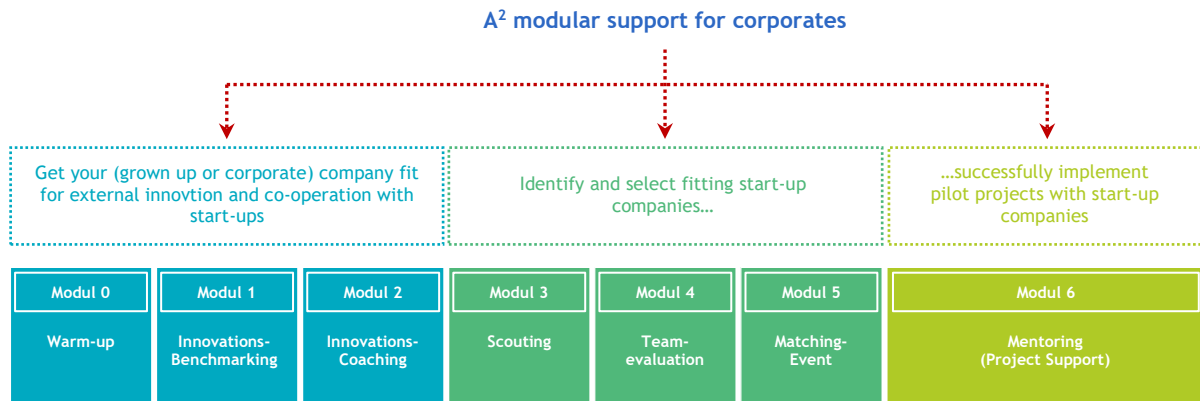
Conclusions

INNOINVEST has analysed IAs activities helping innovative SMEs (mainly technology start-ups and scale-ups) to access long-term capital and business partners. The main challenge is that the SMEs can develop in the longer perspective needed to achieve profitability. The main assumption taken by the project was that the Innovation Agency can involve the right business and financial partners in its investment or acceleration programme. These partners should be interested not only in quick exit but also in the market success of the solution. In addition well designed and professionally delivered services by IAs would also make an important input to address the challenge.

The project has revealed an important issue of non-compatibility, due to mainly to different organisation cultures, of the young technology SMEs and corporates. On the other hand, there are also cases that corporates decide to terminate running collaboration projects with start-ups when they discover that the project does not fit the corporate strategy.

Therefore there is an important role of both sides of the collaboration i.e. corporates and start-ups to make them “collaboration ready” before they are in contact with each other. INNOINVEST

recommends activities e.g. workshops for corporations and start-ups to define the goals and expectations. This way the corporates get an understanding of the programme concept define their challenges – technologies, the specific requirements, and expectations. The practice shows that specific workshops can be organised for the corporation to prepare all aspects of “open innovation” i.e. investment strategy, organisation of a dedicated team, resources, and procedures. See an example of such a programme in the box below.



Box 3 Preparation of corporates for collaboration with start-ups run by WISTA in A² acceleration programme

IINNOINVEST confirms that the equity paradox of 2004 is still valid: “investors have money but don’t find enough good projects, and, on the other hand, that entrepreneurs don’t find enough funding sources to finance their project (which by essence are good ones)” (Saublens, 2013). There are cases that a start-up participates in many investment programmes to discover in the end that the investment deal is not appropriate for them because of different expectations of the investors or unacceptable contract clauses. Moreover from the point of view of the start-ups, it is important to know the offer of the IA, the amount of capital they can rise from investment, and the conditions of the investment even before they start filling in their initial application form.

The solution that resolves above described the issues is **the important role of IAs to ensure the transparency of the whole investment process**. The IAs are the right partner to help both sides in the collaboration i.e. investors and start-ups or scale-ups to protect their interest through appropriate fair clauses. A repository of templates and clauses collected by an IA through their activities in collaboration with legal and IOR experts may be a key resource facilitating the investment programme as such, especially at the negotiation phase.

The IAs, similarly as in work with the corporates, should enquire the investors as for their expectations and deal conditions before they join the investment programme. This way they can make assure that the investors are compatible with the programme. On the other hand, the IAs can better prepare the start-ups and scale-ups to collaborate with the investors. **This way the IAs provide transparency and knowledge of the investment capital market.**

An important conclusion of INNOINVEST was brought by SMEs who reported the value they receive in the feedback generated through the evaluation process as well as through the contacts made. **Therefore the IAs should provide high-quality feedback to all SME participants of the investment programmes, including to those that had been not selected for the deals.** The feedback should provide advice on the development the SME could proceed with and, if possible, provide information and contact for other support services they can receive. The SMEs can continue work on their project and raise funding elsewhere. For IAs it makes an opportunity to continue the collaboration with the SME with other programmes or services they have on offer.

Annex 1. Stage 1 of investment process: identification and selection of SMEs and evaluators

This chapter reflects the results of workshop 1 dedicated to the first stage of the investment process.

The efficiency of any innovation support programme, not alone investment in start-ups, new ideas, new products or technologies of SME, start-s with the identification of the target group. For investment programmes, this aspect has double weight as the success of the programme largely depends on the selection of the most promising SMEs and their ideas. Thus the second aspect analysed in this chapter: the better evaluators are engaged the better selection is made.

INNOINVEST approach to improve the identification of SMEs and evaluators

INNOINVEST used the interactive exchange of information on practices and experiences of all the partners and a user-centred approach in the design of the Overall concept of identifying innovative SMEs and evaluators and then designing the marketing and promotion activities appealing to recruit them. The partners prepared a two-day workshop, divided into two parts:

Day 1: Peer review of practices of the partners

The objective of this part was to identify and analyse good practices in the partner organisations and their ecosystems, to identify issues, problems, and challenges the investment programmes must take up, to provide recommendations that would facilitate improvements. All the partners played a double role in this exercise:

- Prepared and presented the information on their programmes, so that they can be reviewed by the peers;
- Reviewed the practices of other partners and provide feedback and advice.

Design of improvements.

In this part, the results of day 1 were taken as a starting point for the design new approach to the process of the identification and selection of SMEs and evaluators as well as design marketing tools to select them. The design thinking approach was employed with the development of personas & empathy maps of the SME beneficiaries of the target groups represented in the project programmes, identification of the motivators (“pain” and “gain”) and brainstorming of messages, rough prototypes building of marketing and promotion activities appealing to recruit them (marketing approach, communication channels, and messages).

Who are the target groups of investment programmes

Analyses of the target group of the four programmes represented by INNOINVEST partners revealed 3 main segments of target groups they address and their basic characteristics.

People with the innovative idea (pre-seed)

- The team has only an idea with basic assumptions, the technological state is defined as TRL 1 or 2.
- There are no tests, no prototype, and no well-prepared business model.
- The team is looking for a wide range of support to help them to prepare the business plan. They need training related to all aspects of running a business. They also need access to financial and business partners.

- The most popular capital providers at this stage are: friends and family, business angels, incubators, or accelerators

Round "Late-seed" / „Series A“

- They need capital to complete their products (TRL8-9) and launch them on the market.
- They also need capital and access to business and financial partners.
- The programmes often focus on those entrepreneurs who have already gained some experience in running their own business, know the market they want to address, are aware of the competition and competitive products, and have a plan how to develop the innovative solution using the investor's resources.
- The idea should respond to the market needs and has the potential to scale up the business, which significantly can increase the value of the company and attract more investors/partners at later stages.
- The capital raised by a start-up in a late-seed/series A round is primarily to confirm market demand for the start-up's product on a large scale.
- This kind of financing is provided mostly by VC funds.

Scale-up companies

- These SMEs should have the revenue from selling the products on the market and be after the first round of investment.
- They need external capital to scale up their activity globally by entering new markets or applying technological solutions in other industries/market segments.
- SMEs should have a credible business model, be aware of the market competitors and have a well-qualified team.
- Series B investment is provided by Venture Capital funds, including funds that invest in later stages of development.

New methods and tools for creating effective communication

Personas as a starting point of the design

An important and key factor in preparing an investment programme offer is knowing who is aimed at our message and who we intend to attract and recruit. The precise definition of the target group will allow us to design and apply appropriate marketing and communication tools. Segmentation allows us to define customer profiles, which include sociographic, psychographic, demographic, and firmographic variables. These are largely responsible for part of the needs and are the cause of a large proportion of typical problems.

One of the tools used to precisely define our customers is the persona. A persona is a user archetype that accumulates the characteristics, skills, needs, or goals of an individual. On their basis, a value map can be drawn up, the purpose of which is to distinguish all currently important values, to organise them into categories, to rank them, and to assign categories to customer segments. In other words, the map makes it possible to create precise messages. Therefore a team working on a new product or service always sees one specific person, instead of analysing the needs of thousands of people at each step of the project process. This makes it easy for them to refer to the information they have and make informed design decisions. A detailed description of the persona should be based on previously acquired data. Only then will it be a useful tool.

By creating a persona:

- we determine who are the target groups of our project and which of them is the most important
- get to know our users better, their goals, needs, motivations

- present our findings related to the target audience to the rest of the team members, so that all share the knowledge for the best of the project work.

Creating an image of the customer allows us to take a closer look at the user emotions and feelings that accompany him/her during the process of finding, purchase decision and finally using the product (including service). This projection is called a customer empathy map and consists of the four fields to groups in insights about the persona:

- “See” field for observable phenomena external to the persona. The insights answer the question: *What does he/she see?* This field covers issues about the environment, friends, what the market offer from the user point of view
- “Hear” is also for observable external phenomena answering the question: *What does he/she hear?* The insights cover meaningful external influence: What friends say, what boss says, what influencers say
- “Think and feel” is the field about non-observable insights aiming to reflect the user mind that answer the questions: *What does he think and feel? What counts? Major preoccupations, worries, and aspirations*
- “Say and do” field is for insights on user behaviour. They answer the question: *What does he/she say and do?*

Two additional fields are for concluding the insights and listing the negative issues the user may expect to be overcome or reduced by the solution we work on as well the positive aspect the solution can bring:

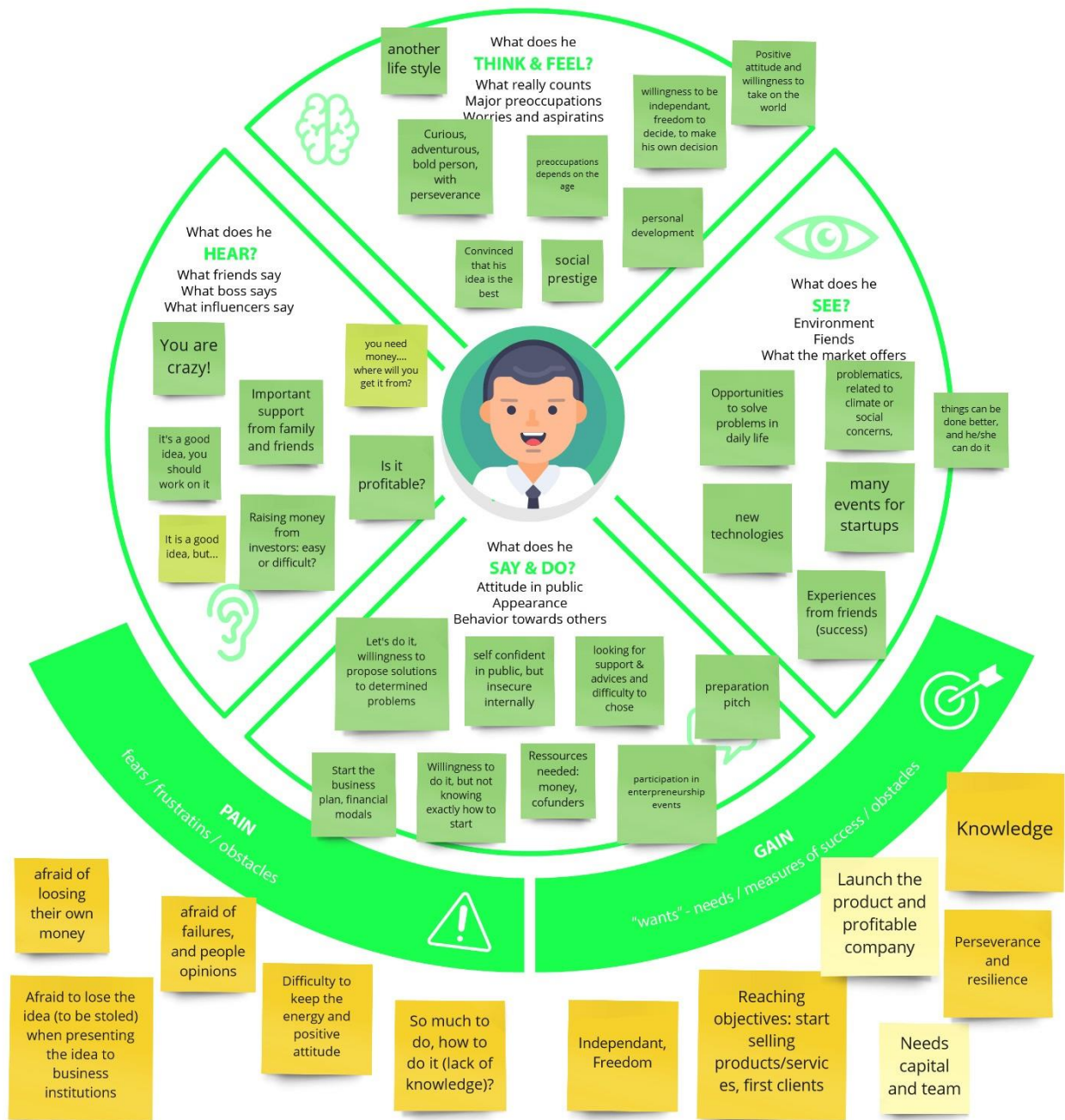
- “Gain” field is for wants, needs, measures of success;
- “Pain” field is for fears, frustrations, obstacles.

, The graphic presentation of the empathy map is given below:



During the workshop, empathy maps were developed for each persona, exemplifying the clients of the investment programmes implemented by the participants of the INNOINVEST project.

Business Idea Phase



miro

Figure 4 Empathy map for a person at the business idea phase

What does the persona SEE?	What does the persona HEAR?
<ul style="list-style-type: none"> • New technologies • Opportunities to solve problems in daily life • Important problems, related to climate or social concerns, • Things can be done better, and he/she can do it • Experiences from friends (successes) 	<ul style="list-style-type: none"> • You are crazy! • It's a good idea, you should work on it • It is a good idea, but... • You need money.... where will you get it from? • Important support from family and friends

<ul style="list-style-type: none"> • Many events for startups 	<ul style="list-style-type: none"> • Raising money from investors: easy or difficult? • Is it profitable?
<p>What does the persona THINK & FEEL</p> <ul style="list-style-type: none"> • Another lifestyle • Curious, adventurous, bold person, with perseverance • Convinced that his idea is the best • Social prestige • Preoccupations depends on the age • Personal development • Willingness to be independent, freedom to decide, to make his own decision • Positive attitude and willingness to take on the world 	<p>What does the persona SAY & DO</p> <ul style="list-style-type: none"> • Let's do it, willingness to propose solutions to determined problems • Start the business plan, financial models • Self-confident in public, but insecure internally • Willingness to do it, but not knowing exactly how to start • Looking for support & advice and difficulty to chose • Resources needed: money, cofounders • Participation in entrepreneurship events • Preparation pitch
<p>PAIN</p> <ul style="list-style-type: none"> • Afraid of losing their own money • Afraid to lose the idea (to be stolen) when presenting it to business institutions • Afraid of failures and people opinions • Difficulty to keep the energy and positive attitude • So much to do, how to do it (lack of knowledge)? 	<p>GAIN</p> <ul style="list-style-type: none"> • Independence, freedom • Reaching objectives: start selling products/services, first clients • Launch the product and profitable company • Capital needs and team • Perseverance and resilience • Knowledge

The idea promoter sees new technologies, especially in the area of the green deal and social issues. Also sees a lot of events aimed at start-ups in his/her environment and his/her friends are running their own businesses. This type of persona sees that can develop his/her idea and change the world around him/her by implementing new solutions. Gets support from family and friends, who tell him/her that his/her idea is very good and should develop it further. Sometimes there are inner voices of doubt, especially when he/she wonders how to start and where to get funding. His/her friends also ask him/her about this. Nevertheless, feels that his/her idea is the best, and he/her is adventurous, courageous and persistent. Wants to develop himself/herself further, while gaining financial independence and having the freedom to decide for himself/herself. He/she knows that developing a business will also give him/her some social prestige and is ready to act, still, he/she is looking for knowledge where to start. He/she attends entrepreneurial development events where learns that he/she needs to prepare a business plan of the company, a financial plan and a pitch deck. Although in public he/she seems confident, internally there are moments of doubt. He/she finds it difficult to maintain a positive attitude and fears the opinion of those around him/her in case of failure. He/she is also afraid of losing his/her savings and that someone will steal and market idea before him/her.

Start-ups



Figure 5 Empathy map for a person at the start-up phase

<p>What does the persona SEE?</p> <ul style="list-style-type: none"> • There is a lot of VC capital on the market • MY IDEA CAN FLY AND BRING NEW VALUES ON ENERGY REDUCTION • There are a lot of companies that have not survived their 1st year • There are grants from the public funds 	<p>What does the persona HEAR?</p> <ul style="list-style-type: none"> • You need to achieve something, you need to be active • Friends: your idea is really good • The prototype is not appreciated by the society • Spouse: We need money now, not in a year or two • Spouse: You should not risk our money • Colleagues: we need you here and the work here is fine • Don't quit your job, it gives you stabilisation
<p>What does the persona THINK & FEEL</p>	<p>What does the persona SAY & DO</p>

<ul style="list-style-type: none"> • What alternatives I have • I need money, but I might lose control of the company • I am secure with my job • This solution can bring added value to the environment and the world • Do I need to be a millionaire? • What if I fail??? 	<ul style="list-style-type: none"> • They are self-confident • They are convincing while talking about the idea • They look professional • They are too self-confident, ignore other aspects of running a company • I am ready for hard work • They are engaged in a lot of activities: to look for resources, to do things about the company. In a good and bad sense (to be just active to compensate the fear of failure)
<p>PAIN</p> <ul style="list-style-type: none"> • No financial stability when working on the start-up • The society does not appreciate the invention yet • No private life, no family life, no money • Fear of failure • There might be no 2nd chance (even legally) 	<p>GAIN</p> <ul style="list-style-type: none"> • You are the boss of yourself, there is only the sky above • You can live your dream • Becoming rich • Immaterial success - the invention is selling on the market and is appreciated • Capital can give the money for the start • Investor can give reputation

This type of persona sees great potential in the VC market, sees private investors and is aware that public funds are also available. She/he also sees that many companies do not survive the first year, but she/he is convinced that she/he will succeed and bring new value. Although the prototype solution is not appreciated by the public, she/he is convinced that the idea is the best. Her/his friends also reassure her/him, reminding to be active and involved. She/he hears concerns from the spouse, who fears the risk of losing their savings, and her/his colleagues at work, who tell him that a job offers stability and she/he should stay with them. She/he is confident at the job, but wonders about alternatives. Thinks about the consequences of her/his choices, especially failure. Feels that her/his idea will improve the world. Is aware of the need to get an investor, but fears losing control of the company. Can present her/his idea well, is confident and persuasive. Willing to work hard, she/he often engages in multiple activities: from seeking funding to operational activities in the company. This often leads to a disruption of private life, with no time for family or friends. She/he doesn't understand why the public is not enthusiastic about his invention. Instead, she/he gains independence, is a boss of herself/himself and lives her/his dream of successfully launching the product on the market, which will also bring her/him financial success. She/he is looking for start-up capital and knows that an investor will allow her/him to achieve all goals.

Scale-ups



Figure 6 Empathy map for a person at the scale-up phase

What does the persona SEE?	What does the persona HEAR?
<ul style="list-style-type: none"> • Opportunities for their products • New markets • International opportunities • Economic resources needed 	<ul style="list-style-type: none"> • Need more time and dedication, less time with family and friends • Motivation to go • Needs from new infrastructures, outsourcing

<ul style="list-style-type: none"> • Achieved results so far, development of the company • Increasing revenues • New capital means to share equities • Probability & analysis of failures 	<ul style="list-style-type: none"> • Information about new markets, trends, technology, international opportunities • Human Resources management and recruitment difficulties • Previous experiences from competitors • Let's do it • Good advice from the mentors • Accelerators programs
<p>What does the persona THINK & FEEL</p> <ul style="list-style-type: none"> • If I don't get any more finance I'm lost • Only more capital can save me, and perhaps we get more sales as well • After all these efforts should we risk giving away the control of the company • Should I look just for money or a branch investor? • What assets do I have to convince the VC capitalists • They don't trust just anybody • Perhaps grants and bank loans would do better? 	<p>What does the persona SAY & DO</p> <ul style="list-style-type: none"> • We need to prepare a brilliant pitch to convince investors • We need to improve the management and company structure • We need to find new distribution channels • We need to work on the sales and distribution • They are self-confident achieving what they have done already • We need to find international business partners • We need quality advisers, not just anybody • We should define our destiny or others will do it
<p>PAIN</p> <ul style="list-style-type: none"> • Desperate for money • After all these efforts should we risk giving away the control of the company • There are so many problems appearing daily - they should change the management structure • The costs are exploding • Difficult to find GOOD people • Difficult to find good business partners • Difficult to find a good place for the company • Difficult to find good advisers 	<p>GAIN</p> <ul style="list-style-type: none"> • Human resources and infrastructures availability • Increase motivation, and more efficient mindset of the leaders • Necessity to get money from investors • Increasing monthly recurring revenues • Success in the new markets • Profitability? • Increasing company value and capitalization • New team creation and management • Good cooperation between scale-ups and smart investors (added value) • Good contacts and networks • New knowledge, experiences, resources • Better and global visibility of the brand

This persona seeks opportunities to introduce his/her products to new international markets, which will grow the company and increase its revenues. However, he/she is aware that he/she needs new business resources to do this, including attracting another investor and changing the ownership structure of the company. Hears about accelerator programmes that help companies scale their businesses and that he/she needs to spend more time with his/her business, not with family and friends. Also hears about new opportunities, and gets advice from mentors, including the need to

increase company infrastructure and employment. Feels that only additional capital will enable him/her to achieve these goals. He/she wonders what type of investor to look for (financial or industrial) and whether he/she will lose control of the company. Or maybe it is better to use a loan or grant? He/she knows that investors don't trust all start-ups and thinks about strengths to convince them to invest in his/her company. He/she works on preparing an excellent pitch deck, improves the company's operations (management and company structure, looks for new distribution and sales channels, looks for international partners). Although he/she is confident in what his/her company has already achieved, he/she is still looking for quality advisors. His/her pains point, however, is the difficulty in attracting good employees, business partners and advisors. Although he/she is desperate for capital as the cost of doing business is very high and does not allow for growth, he/she still wonders whether it is worth diluting the company's shareholding structure. The benefit is not only the investor's money but also knowledge and employees, who will help him/her enter new markets, which will make into increased revenues and higher capitalisation of the company. It will also increase the motivation of the company's existing employees and improve the company's visibility and recognisability on the global market.

Value proposition definition based on the target group of motivators: “pains” and “gains”

The pain and gain areas are important elements of the target group analysis. These help us to understand what constitutes profit and benefit for our client, and what is a need and a challenge to satisfy. Thanks to this, we can go further and, in response to the customer's needs or problems, create a value proposition, or in other words, what we offer him. **Value Proposition** is an assertion, a declaration of satisfaction and a solution to both issues at the same time (a need and a problem). It provides arguments that are to convince customers to choose our service and all the benefits that customers get by making a purchase. The Value Proposition consists of:

- Products & Services
- Pain Relievers
- Gain Creators.

The empathy map includes the feelings of the client, especially the previously mentioned pains and gains. The relationship between these elements is symmetrical. Products & Services are used to perform tasks (e.g. achieve goals, solve problems, satisfy needs). Pain Relievers are the IA's response (in the form of added value) to the Pains the customer feels about the tasks at hand. Gain Creators, or benefit creators, are the assurances that IA's make to their customers. Whereby Gains, or benefits, are here understood broadly. As the sum of material, emotional, social gains.

The workshop prepared a value proposition template for the marketing proposition of investment programmes implemented by IA's, which reads:

Our (name) programme

helps ... (target group)

who want to ... (gains)

by ... (solution based on pains)

unlike (competitors) we (unique feature)

Then the workshop participants, based on the knowledge about their personas and empathy maps, prepared value propositions for each of them:

Business idea phase value proposition:

The draft version has been worked out at the workshop, as below:

Our programme addresses entrepreneurs to start business and having just friends, fools and family, but not sufficient money. It helps deeptech ideas to get alive, if you want to gain the world.
Our services give you the starting push!
Even if Google is bigger, we are much more smarter.

The final version, reworked on the basis of the SMEs feedback:

Our programme addresses entrepreneurs to start their businesses. We help the founders to shape their company that has chances to succeed on the market and acquire funds for development. We make partnership with many experienced organisations devoted to support of technology based start-ups.
The project creates deeper understanding and know-how on start-up fundraising and scaling process by supportive organisation, thus enhances the success rate of the tech companies to succeed on the global market.

Start-up's value proposition:

Our capital fund helps start-ups who want to raise capital and have access to networking systems (business, financial, commercial and technical partners) by offering capital and advisory consultancies, and matching them with business partners. Unlike competitors, we have good relations and access to the science environment.

Scale-ups value proposition:

Our business development programme helps innovative companies, who want to enter the new market, expand and raise capital, by market specific consultants and matching the appropriate investors, public funds and partners, unlike consulting company we get partly financed by public money and our charges are moderate.

The results of the first workshop were evaluated by selected companies 2 selected SMEs that cooperate with WISTA daily. The entrepreneurs wished to remain anonymous, hence their names have been not revealed in the report. Both companies had doubts about the clarity of the value proposition for the Idea Phase entrepreneurs. For them, such a message is too superficial and does not inspire confidence. They would like more explanations and details because, as they claim, not everyone is familiar with investment industry language and statements such as "family, friends and fools". Therefore at the second workshop, the partners reworked the proposition following the remarks.

The messages for start-ups and scale-ups was for them understandable and gaining the companies' attention. The only detail that could be added would be to specify the ratio of the shares taken up by the investor to the amount given to the start-up. This feedback is important for real-life information given to potential beneficiaries of the support programmes.

Marketing tools

Partners shared information on their experiences in reaching the target groups and the marketing tools. The analysis of peer review data revealed many similarities of the approaches, even though the target groups may differ. In the design workshop, they voted on the most efficient tools. This way a list of "Top 5" most efficient marketing tools has been compiled:

1. Articles in media

Press releases, experts' publications or interviews are among the most effective methods of communication used to increase brand awareness. Publishing more press releases more often is a good way to improve brand recognition. The articles with valuable content are key search engine optimization (SEO) tools that help investors, companies, and other target groups find out about and discover companies online. Articles are also direct communications tools that can deliver unfiltered messages to the target groups. It's important to include images, videos and other multimedia, which means you can deliver the message in more interesting ways.

The specific tools:

- a. printed daily press/news portals
- b. specialised media related to the specific sector
- c. portals dedicated to start-ups

2. Mailing

Despite the fact, new communication tools appear and social media position is on the rise, the mailing is still perceived as the most effective marketing tool. However, the most important factors are the quality of the e-mail list and targeted messages. A well-executed mailing can generate valuable leads and reduce marketing costs.

- a. from the programme owner (=science park)
- b. Mailing from the university
- c. Newsletter of science park/university

3. Promotion campaign in social media i.e. regular posts under the same label

- a. Including calls for start-ups to apply to the programme on social media
- b. Information on the science park website

Information and communication technology has been changing, with a key development of social media. Both large and small companies in every industry are now using social media as an integral part of their public relations and marketing needs. Without any doubt, social media continues to replace the traditional channels of brand promotion and communication. The posts can go viral if people start sharing them over social media networks, easily creating interest.

4. The personal relations – the information given by the science park team member

In business, it's important to build relationships with a wide range of people, including other investors, start-ups etc. To attract new clients, the agencies need to dedicate resources and invest into building strong, long-term business relationships that help people see the value and achieve their goals with a product or service. These relationships will generate returns in the future. Introducing new elements into the network will generate new perspectives, new experiences, and new contacts.

5. Events, conferences

One of the most powerful means of reaching out to the target audience is event marketing. Events can be an effective method of driving brand awareness with the audience and industry as a whole. In comparison to online marketing, it's much more resources (time, money) consuming. Unlike most other mediums, events provide the potential to connect with the right stakeholders. As events are often one of the biggest marketing expenses, it's important to apply some metrics. These include a number of registrations, reach on social media, social media engagement, mentions in online media, attributed website visits.

Evaluators

In the peer review, the partners shared their practices of the choice and assignment of evaluation tasks of the investment programme applicants. In general, the partners agree on the need to engage evaluators of a specific "palette" of backgrounds and expertise, as described below.

Evaluators categories

- **Technology experts in the sectors of programme coverage**
Employees of technology parks and partner institutions who have knowledge and professional experience in a specific technological field. Technological areas depend on the investment programmes being carried out, e.g. PSTP seeks experts in the fields of chemistry, biotechnology and ICT who will help verify the technological quality of submitted projects. They help in verifying the assumptions made by the originators, credibility, possibility and probability of implementing technology on the market.
- **Technology transfer, IPR, entrepreneurship support, company growth, technology, and knowledge transfer and leadership among others expert,**
Experts dealing with IPR and approaches to legally protect it, help to assess the current state of IPR in a project, point out weaknesses and areas for improvement, and indicate an IP protection strategy for the future company. Thanks to their involvement, the feasibility and manner of taking care of the project's know-how are assessed.
- **Business expert (company growth, sales, leadership)**
Experts helping to develop business, dealing with issues such as preparing a strategy for the company's business development and growth in value, and improving the sales, leadership and management skills of founders. They help with issues such as building or iterating a

business model, a growth and sales strategy for the coming period and financial modelling of the company.

- **Financial partners** - institutions having experience in capital investment market and trends
Financial institutions, including primarily private and public VC/PE capital funds, are involved in investment processes at various stages of company financing (investment rounds). They help to assess the potential and investment risk of submitted projects and are potential co-investors.
- **Potential clients of the start-ups**
Potential clients for the projects proposed by the originators. They are looked for among the partners cooperating with the investment programme and directly on the market. Their role is to get acquainted with the technological solution and express their opinion on the product, service - whether they would be able to purchase it and if not, why and what should be improved. They help perform market validation.

Differentiation of roles depending on the programme model:

- advise and education support for ideas (jury), investment programme (responsible decision).

Approaches to reach evaluators:

Discussing the practices of evaluators acquisition the partners agreed that it is usually related to finding and developing relations with the partners collaborating with the programme. The key issue is the definition of the motivation of the potential partner to join the programme. It might be the opportunity of the programme to give them access to innovative SMEs, new technologies or investment opportunities.

They agreed that the most effective are, personal relations and engagement in networks. It involves long time investment practice of the development of relationships within the innovation ecosystem. This means contributing to the ecosystem development, building up a reputation, taking care of expertise.

Likewise, the development of good relations with business partners is necessary and often involves a consistent approach in all realms of IA's activity.

Short term action as AIs is participating in events e.g. conferences for start-ups, where also partners are is effective but always in connection to the long term relationship building,

In a large organisation, there is a pool of relevant experts within the employee team. Their identification and mobilisation requires also investment in the collaboration between different teams and personal relations for good knowledge of internal expertise (who is who).

Annex 2. Stage 2 of investment process: evaluation

Evaluation as a second step of the innovation investment process has been a subject of workshop 2, and the chapter below is dedicated to the result of the joint work.

Evaluation is a process to assess the potential of the SME's project and team for the successful commercialisation of the innovation on the market. It is an essential process for the investment programme to fulfil its mission and reduce the risk of the investment.

The issue is that the evaluation needs to be accurate and reliable, even though cannot make a 100% risk reduction. On the other hand, it takes the time and resources of both the programme and the

founders. Therefore INNOINVEST focused on the effectiveness of the process so that it brings the desirable outcome and the efficiency, that is it optimises the time and resources.

The process can be analysed from the perspective of the final desirable effect and it is important to how this effect is understood. It is not enough to set it at the end of the investment decision and say that programme is a success when the SMEs acquire needed capital. It comes later on when the SME develops rapidly because of the capital. So even though the evaluation is a process itself it should be considered from the wider perspective as on the graph below:



Figure 7 Evaluation seen from the perspective of the ultimate goal

When looking at this process from the perspective of the SME, the investment programme owners and the coaching programmes it would be best to have this process aligned with all actors need to create “win-win” conditions.

Therefore at the workshop, the partners defined the process from the perspective of the three actors listing their tasks in the process and the improvement needs defining “the gains” and “the pains” have in the evaluation. The results of the three perspectives: of the SME, of the Investment programme and the coaching programme is presented in the illustrations below.

The investment and coaching programmes have been analysed by the partners based on their own experience. The SME perspective has been taken from the feedback the partners receive in their daily operations. In addition, the SME perspective has been presented by an SME, a resident of Tehnopol who participated in two rounds of funding as a start-up and as a scale-up.

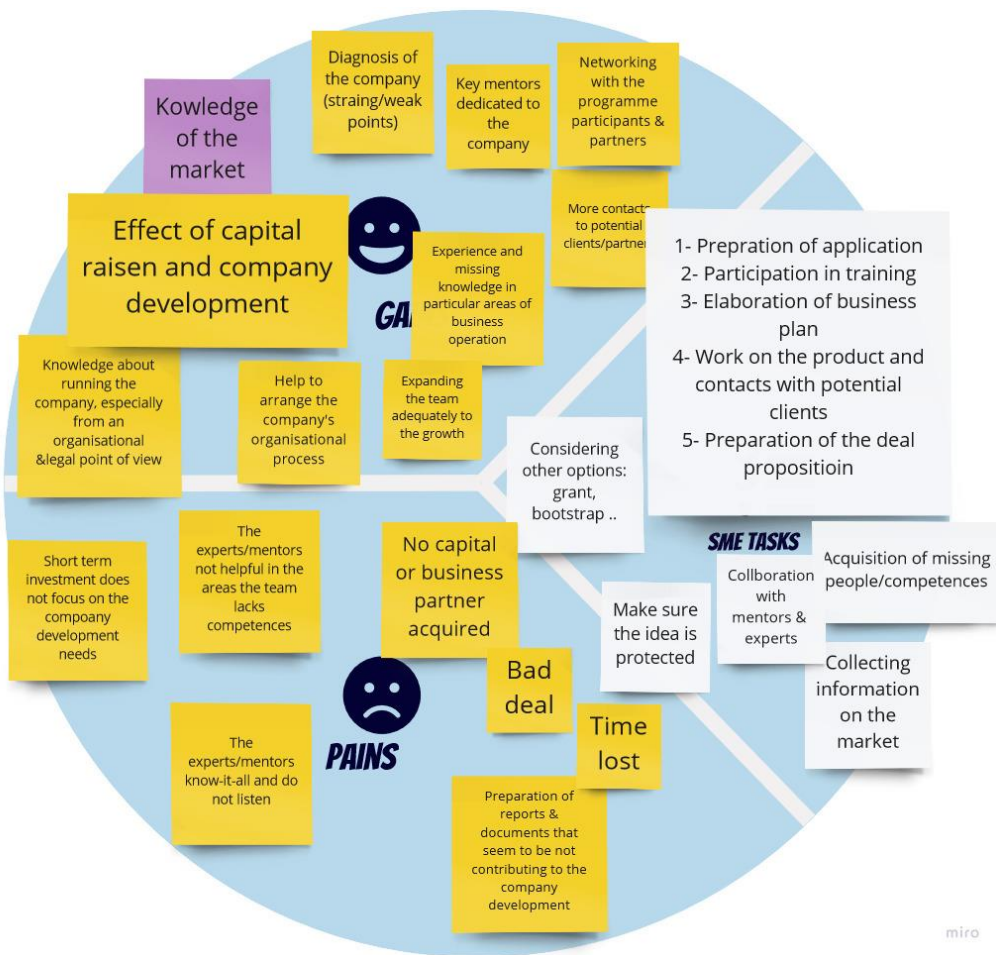


Figure 8 Evaluation from SME perspective

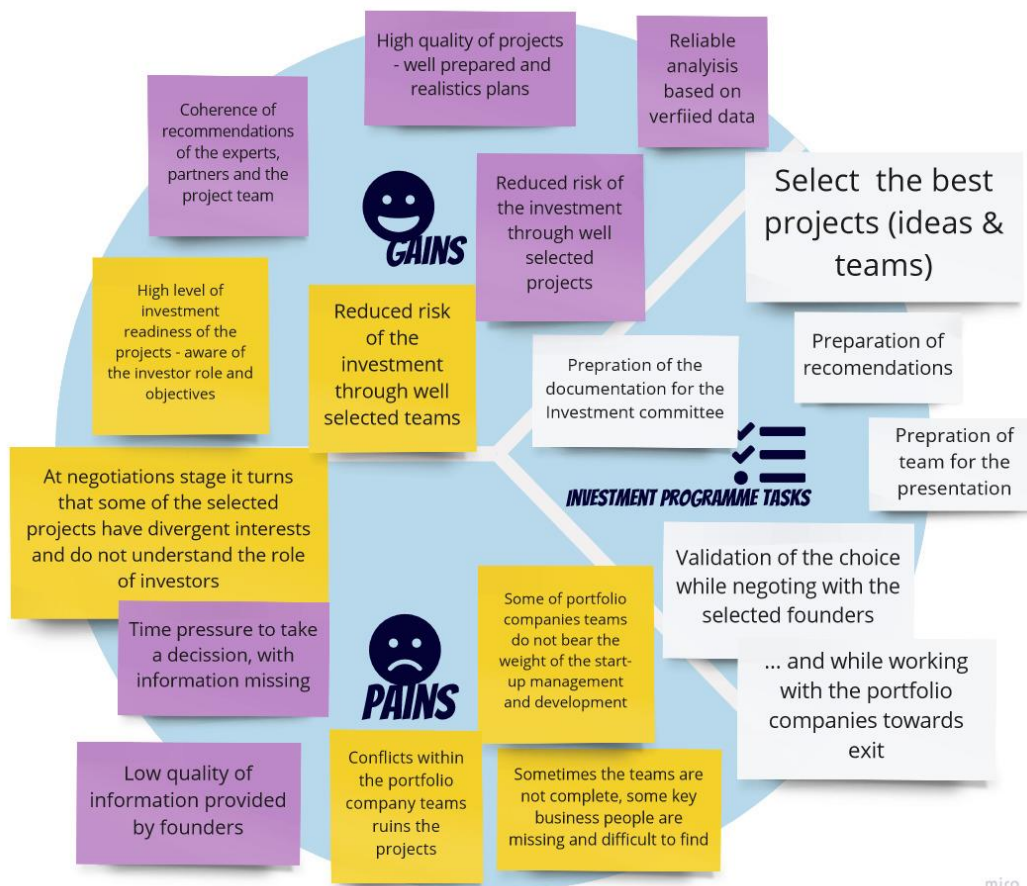


Figure 9 Evaluation from the Investment Programme perspective



Figure 10 Evaluation from the Coaching Programme Perspective

The SME shared their experience of the evaluation process. The company's beginnings are connected to Tehnopol, where they started as a start-up and went through the incubation process. The most important element that helped them develop the business to a great extent was the diagnosis of the company, which was made using a tool called Innovation Health Check. When they made this exercise the company had a product. The diagnosis revealed areas that were the company's strengths and were already functioning, as well as areas in which the company did not have sufficient resources or a well-thought-out development strategy. The evaluation process gave them a picture of the company, pointing out above all what was missing. The exercise was a basis for the assignment of experts, a kind of key mentors for the company. It was under their supervision that they gained experience and missing knowledge in particular areas of business operation. In addition, mentors very often provided support in acquiring further contacts to companies or persons with whom they could establish cooperation. This was very useful, as at an early stage a start-up has very limited resources, especially human. The founder also emphasised that as the company grows, it is important to create and monitor the sales funnel of customers and with it to increase the number of team members adequately. These are the two criteria that, according to them, determine the transition of a company from the startup phase to the scale-up phase. In the pre-seed phase, the investor gave them a lot of knowledge about running the company, especially from an organisational and legal point of view. However, this is not crucial for them at the moment, as they are at a further stage of scaling their operations to European markets and has obtained financing from a German equity fund in the amount of EUR 1.3 million.

Later in the workshop, a discussion was held to identify the key values coming out of the evaluation process for the founders of the companies.

The problematic issue was related to the later stage relations with the supervisory board, the founders had an impression that they were asked for reports and analyses is to satisfy the requirements of the investor representatives. They would prefer to see a real partner focusing on the company growing, jointly agreeing on issues and actions. The most desirable approach of the coaching and investment programs from the SME point of view is the concentration on the clients of the SME and the means to acquire them. They expect that the investor helps start-ups with contacts and advice.

Criteria for founders & ideas evaluation

INNOINVEST team structured the work on the evaluation criteria taking the approach of product-market-team fit.

Product-Team-Market Fit (PTMF) method²

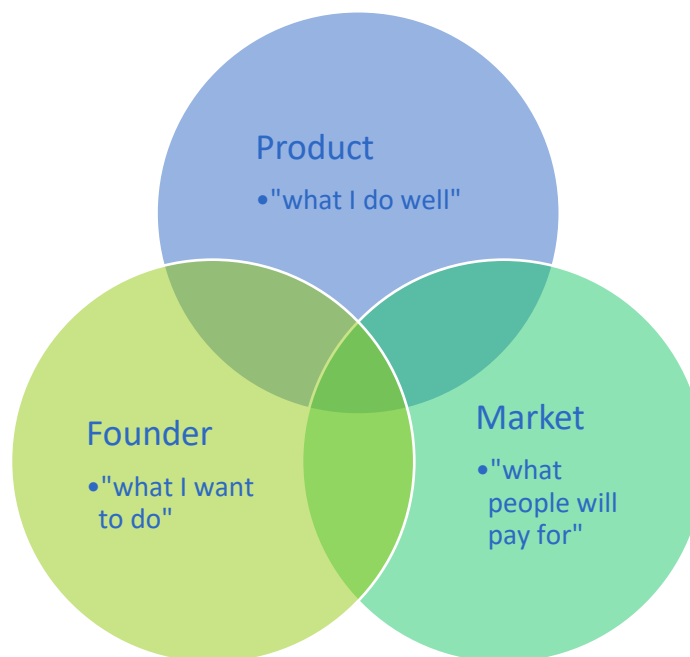


Figure 11 Product-market-team fit interrelations

The product, the market and the team are the key factors determining the market success of the enterprises.

The product should meet market requirements to achieve significant sales. But the sales and gaining successful revenue and profit will not be possible without a dedicated team. These three areas interpenetrate each other, therefore it is important to know the relationship between them.

This was also the purpose of one of the tasks at the evaluation workshop.

In three teams, we worked on the most important aspects of these three areas in the context of identifying the key factors affecting them, along with an indication of the measurability/verifiability ratio of a given criterion.

The results of the work are presented below:

Product:

- Innovativeness measured by a matrix of answers to the following questions:
 - Is the product based on global business innovation and technology trends?

² Source: <https://productcoalition.com/thinking-about-product-team-market-fit-ptmf-2898f418cfaf>

- The originality of the product – is unique? What features make it unique.
- What is the degree of IP protection – is it patentable, and which is the stage of the protection application process?
- Does the product use technology with a high potential for development?
- Stage of the product development: measured by TRL scale and additionally the track of previous projects (pilots, proof of concepts, experiments)

Product-Market

- **Product-market fit.** Potential of the product to meet the market needs:
 - Customer traction and engagement.
 - A critical mass of potential clients.
 - The product responds to a specific need (at local, national and international level)
- Ability to generate income - annual income level, justified by past indicators or well-prepared plan based on the market validation.
- Scalability of the product - the volume you can scale it (in terms of turnover or sales) Adjustable to multiple markets. Interdisciplinary market opportunities.
- Advantage over competitors - number of competitors, quantified technical specification of the product compared to competitor's as well as other market-relevant features - why the product is better than other market alternatives Is there similar products already on the market?

Market:

- The size of the market, i.e. Serviceable Obtainable Market (SOM) value the product can realistically acquire (see the box below).
- Market growth prospects (value in future years) Growing market or decreasing?
- Market barriers - measured by the time and cost of the activities to overcome the (e.g. marketing and distribution activities)
 - The genre of the market (traditional market, niche market, new market) - helps to assess the chances on the market, expected probability (percentage)
 - Market infrastructure - logistics, distribution channels, presence in the region, market type of the product (regional, national, global?)
 - Readiness of the market - is it open enough to accept a new product, can be measured as the reverse of the difficulty to enter the market (scale by the experts' assessment, the cost that need to be put to get the product on the market, the revenue you can expect)
- Competition – what are the features of the competition on the market, how much it is saturated by competitors.
- CAC (Customer Acquisition Cost) vs CLV (Customer Lifetime Value) ratio 1:3 (above/below)
- Current traction = revenue now/revenue in 3 years (30% per year)

Market-Team

- Knowledge and connection of the team to the market – the degree of the acquaintance and connection.
- The team's knowledge of the market and the clients' needs
- The team's competencies and plan to conduct sales on the market

Team

- Willingness to commit to the project e.g. capital (put your skin in the game), time availability (%), what the team did invest already

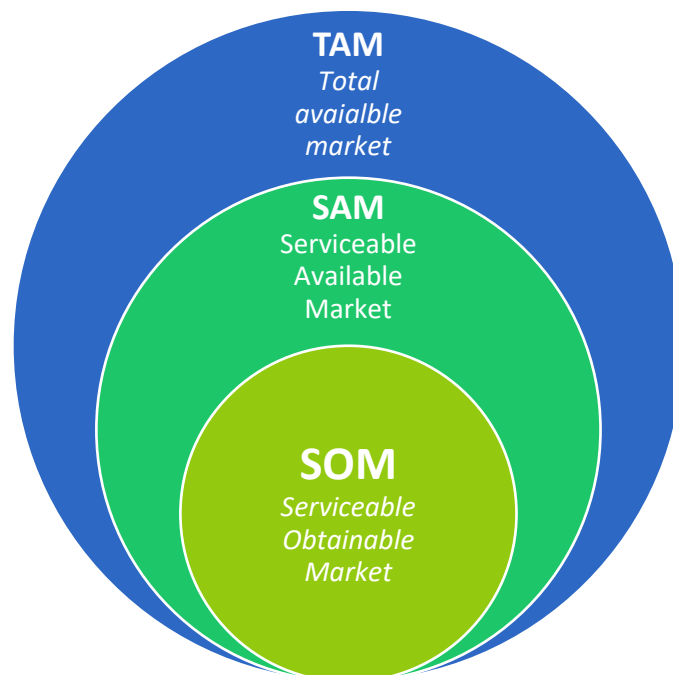
- Entrepreneurial traits – skills related to managing the activities related with gaining the market, running a company – measured by psychometric methods and features, like years of experience
 - Founders’ combined experience in the sector (10 years above/below)
 - Flexibility to different points of view for the solution of the problem
 - Openness and flexibility necessary to adapt to client needs (salesman quality)
 - Skills related to managing conflicts (communication of problems, flexibility to make compromises)
 - Project management ability
 - Leadership and team-building ability
 - Social and personal skills
- Distributions of roles, diversity and complementarity of skills and clear definition of roles
Founders’ skill-set = tech (CTO), sales and marketing (CMO), strategy and funding (CEO) – can be measured by the distance from the "ideal" composition assessed by experts)
- Culture of the team that makes it possible to adapt to growth and strategy of team building
Has the core team worked together before as a team?
- Composition of the cap-table and willingness to step aside if needed (and exit strategy)
- Mastery of English – may be important for companies aiming at the international market

Team-product

- Technology competence present in the team necessary to design develop the product, produce it physically and if applicable meet any legal requirements.

SOM vs SAM & TAM

The notion of SOM (Serviceable Obtainable Market) is important as often it is mixed by the portion of the total market or a portion of the total market the founders wish to acquire. SOM helps to understand the potential volume more realistically as on the graph below.



Box 4 Concept of SOM (Serviceable Obtainable Market)

Process of evaluation

The programmes represented by the INNOINVEST partners comprise acceleration and coaching of SMEs for investment readiness as well as a programme investing in SMEs. Analyses of the process revealed that generally, all make similar stages of the process, even though seen from different points of view. The common patterns allowed to describe the general evaluation process of the 5 stages as illustrated on the graph below.



Figure 12 Evaluation process

Pre-selection

Before the evaluation starts the SMEs must apply for the funding, and the investment programme owner selects those applications that meet the basic assumptions of the programme coded as requirements in the call. At this stage, it is important to identify those applications that reveal the potential for effective innovation commercialisation, so that the resources are used better for the analyses of the most promising ones at the later stage.

For the pre-selection, the programme uses the information provided by the applicant in:

- application form
- presentation of the project and the team in form of a jury e.g. the Investment Committee.

As good practices identified in the INNOINVEST the partners agreed that it is much useful to ask for:

- video of the team and
- video about the idea/prototype/product
- comparable quality data provided as a choice of descriptive answers representing the scale provided in the questionnaire. See examples in the box below.

Example of a questionnaire with a scale of qualitative answers

(...)

What are the profiles that make up the company's team?

The company has experts in marketing with clear knowledge in the process of acquiring clients, business experts and people with great knowledge in the technology and sector in which it is working.

- a) The team is made up of diverse profiles but they need or some of the members would need specific training in marketing, finance, leadership or technology.
- b) The team has very specific profiles and needs to diversify them or is in the process of doing so.

What is the experience of the founders in the market that you are working with?

- a) At least one of the founders has a lot of experience with very technical knowledge of how the market works. You have a network of contacts in the market that you are working on.
 - b) At least one of the founders has some experience (5 years) in the market that is being worked on but still has to build a solid network of contacts.
 - c) Some meetings with industry or market experts to facilitate contacts.
- (...)

Box 5 Example questions and cafeteria of answers related to founders in the acceleration programme. Source: Application questionnaire in "SCALE-UP 2021" programme of Andalusia (translation from Spanish)

Training

Training sessions allow providing the formation of a group of preselected founders so that they can upgrade their projects for the selection. At the same time training helps to prepare better the founders for the execution of the projects and generally manage their business in the later stage, when they use the funding obtained through the investment. This way the chances for commercialisation is higher.

These sessions are given by experts and professionals in matters of interest for the participating companies. While the specific content of the sessions determined after the need's analysis carried out to companies, the a priori subjects are market analyses, IPR, business model, formal aspects of running a company, financing and investment (preparation for pitching sessions, collaboration with the investor, develop of the team collaboration, business scalability and growth strategy), among others.

Individual work with the candidates on the project concept and documents

This stage may take as long as six months and comprise three main aspects:

- business analyses: data collection and initial assumptions for the business model
- preparation of financial model and development strategy
- valuation, exit strategy and ready materials for Committee Investment

The work with the founders consists in regular meetings with the assigned Coordinator, business advisory conducted by external and internal experts, workshops and individual teamwork. This process may take less time, its speed depends on several factors: the quality of the material that startups provide us with, the effectiveness of communication and the availability of startup team members for individual meetings with experts, and the availability of external and internal experts.

The objective of this stage is to verify the business and financial assumptions of the proposal to facilitate the right investment decision.

The process should be scheduled along with a structured plan of activities steps.

Organizational meeting – we present how the process of the evaluation will be conducted, what are the objectives, and how crucial is the smooth cooperation with applicants on the business plan. The founders receive also the list of information that they should prepare and they have the assigned Coordinator who presents them the individual schedule of work. We also try to verify their consulting needs and on the basis of this we set up the framework of the collaboration.

Work in progress - After receiving the information- Internal experts in cooperation with the originators prepare technological analysis, market analysis, team analysis and business model of the venture.

Meetings with external and internal experts- we arrange also meetings with external experts based on the verified business needs of a given project. In agreement with the coordinator, each project is assigned experts to act as key-mentors

The role of the key mentors is to provide constant insights into the progress of the companies and understand if the directions set are suitable for the companies.

The results of the first step are completed analyses regarding market, technology, team and their roles and business model.

Meetings – experts with the founders discuss the assumptions connected with the financial model (the volume of planned sales of products/services and their prices, cost, finance expectations, etc).

Work in progress: the founders prepare the financial model and a development plan for the company for the next 2 years with the definition of the milestones in cooperation with the experts.

The results of the second step are accomplished financial model and development and strategy plan.

Internal experts prepare the valuation of the company and exit strategy and we consult the results of the work with our external Experts (financial and business partners). Their crucial feedback we present to the teams to give them the chance to relate to it and improve their business plans.

Preparation of expert assessment and recommendations for the Investment Committee

The investment programme may involve both experts who did not participate in the coaching process as well as the mentors and the team, who have worked with the founders of their business plan, the valuation and exit strategy. The experts are asked to provide the assessment and recommendation on the product, business idea and the founders within their expertise aspects. Usually, the experts have a background in finance or the specific technology of the business sector.

Meeting of the Investment Committee

The documentation developed in the evaluation process i.e.:

- Business plan, the valuation and exit strategy
- Validation report
- Expert's and project team recommendations

Are proved to the members of the Investment Committee, so that they can review them before the meeting. The meeting itself comprises the founder's presentation of the results of the work in front of the Committee, further enquiries of the members explained by the founders on the spot. Later on, there is a discussion of the members' conclusions from the review of documents and the presentation. As a result, the Committee agrees on the final investment decision.

Evaluation of founders' teams

The important aspect of the selection of the SMEs to invest in is the assessment of the founders' team. Well known issues that the partners share are related to the fact that start-ups are often established by inventors, that have high-level competencies in the technology, the products, often even know the market. However often they do not have the skills and experience of the business type needed to run the company and sell the product. Sometimes the teams are not complete, some key business people are missing and difficult to find. The managerial knowledge that can be acquired in the education or experience in managing existing companies is not often also not enough for a start-up as it is often focused on optimisation of existing structures or processes. Whereas start-ups need to put

the structure up and running, then be ready to reorganise it while growing and going through different stages.

Important are the founders' personalities that make the entrepreneurial traits. The success of the investment process depends to a large extent on the team that will form the company. Its members will work together in very different circumstances, not always favourable or friendly to the start-up. Therefore, it's very important to know the predispositions and personal characteristics of individual members to create the most effective team possible. The stress and problems encountered may be a source of conflicts within the teams that ruin the projects they work on. The experience of the partners is that some of portfolio companies teams do not bear the weight of the start-up management and development.

In addition, the investment programme needs to make sure that the founders are aware of the investor role and objectives and agree with the investor expectation to grow the value of the company to make a profitable exit.

Therefore the evaluation of the team takes the form of the assessment of the team strengths and weaknesses, but also training and a process of team formation: acquisition of missing members and team building.

The areas to focus on the founder's evaluation identified by partners include:

1. The competencies of the team members

The competencies needed in the company include the expertise related to the product and the technology. Sometimes the inventor may be an expert representing only a part of the technical knowledge needed to deliver the product, therefore completeness within this area needs to be checked and the plan to manage missing expertise needs to be made e.g. through outsourcing. The founders need to know the market they plan to operate. Either they have already worked within the market, have some contact there or need to plan on how to enter the market through e.g. a business partner, sales team with sales skills. The company needs to have people who can manage the operations of the company, planning and execution of all tasks as well as manage the necessary formal processes needed for accountancy, paperwork for the tax office and investor relations. For the success of such activities, it is good for the founders to have at least one person with at least some business experience. Therefore the investment programmes may assess the track of the founders of running a company or work in the specific business sector.

2. Team set-up as for the clear roles members take in the team.

The team members bring their specific competencies to perform the roles needed to achieve the common purpose. It is important for the team that all roles needed to achieve the goals are performed with the people with the right aptitudes and personalities. Therefore for the team building and team assessment the concept of roles by Michael Belbin is often used. The partners agree that the assessment based on this concept can be incorporated into the founder's evaluation.

Belbin's team roles

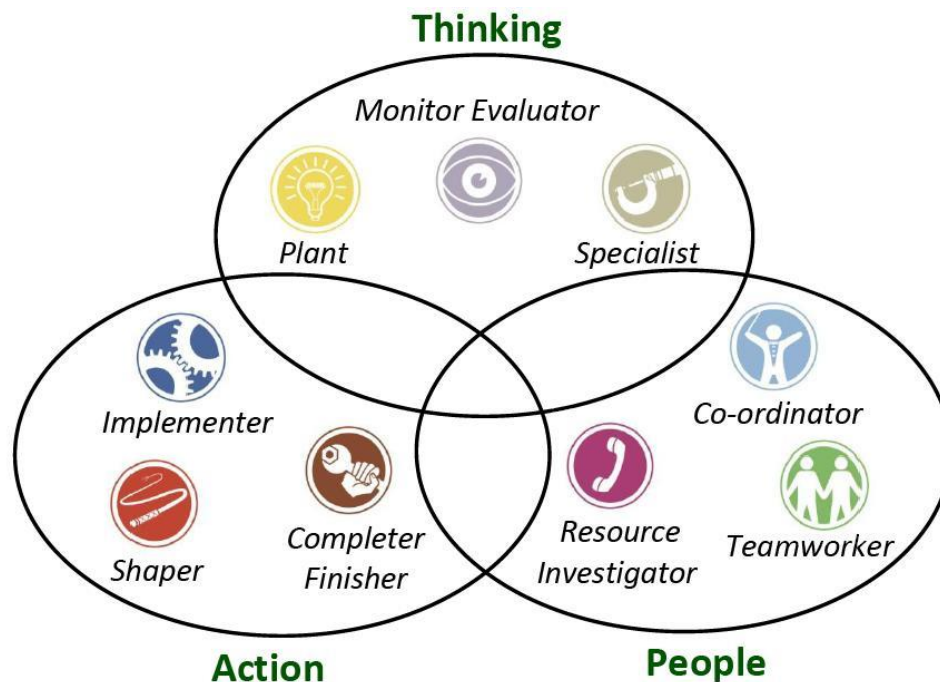
The method was developed by Meredith Belbin in 1981, has become one of the most accessible and widely used tools to support team building. The team roles were designed to define and predict the potential success of management teams, recognising that the strongest teams have a diversity of characters and personality types. Helps the team to understand ways in which it could improve performance.

Belbin describes a team role as "a tendency to behave, contribute and interrelate with others in a particular way." The team roles describe a pattern of behaviour that characterises one person's behaviour in relationship to another in facilitating the progress of a team. An individual's team role is established through a 'Self Perception Inventory', a questionnaire

designed to establish your preferred way of working in a team environment. The questionnaire is available online or via Belbin's book. Every team member fills in a form with questions about their tasks and how they carry out those tasks. Each answer is assigned points. The points are then added up and based on these points the appropriate lead role for the person and supporting roles are assigned. One person usually has one lead role and 1-2 supporting roles.

Belbin describes 9 roles. There are 3 action-oriented roles - Shaper, Implementer and Completer Finisher; 3 people-oriented roles - Co-ordinator, Teamworker and Resource Investigator and 3 cerebral (thinking) roles - Plant, Monitor Evaluator and Specialist.

3 groups of team roles



Source: <https://www.belbin.com/>

It should always be remembered that the tool helps to describe an individual's 'preferred' team roles and is designed to indicate how you would ideally operate in a team environment. Strength in one team role is often at the expense of what might be seen as a weakness in another context.

An ideal team should ideally have a healthy balance of all 9 team roles. Strong teams normally have a strong coordinator, a plant, a monitor evaluator and one or more implementers, team workers, resource investigators or completer finishers. Team roles tend to develop and mature and may change with experience and conscious attention. If a role is absent from the team, then it is often filled by someone who has not recognised this role as a dominant one. The team should share their team roles to increase understanding and enable mutual expectations to be met.

Box 6 Team roles assessment using the M. Belbin's method

The method is recommended because it allows determining the predisposition of the originators to perform specific roles in the project (e.g. CEO, salesman). Thanks to this method, the investor can verify whether the team creating the company is complementary and ready to implement the project.

3. Entrepreneurial traits and soft skills related to team persisting the stress and insecurity, agreeing on joint objectives, communication, conflict resolution,

The soft skills and personal predispositions for team cooperation are difficult for the investment programme to evaluate. The partners discussed this as an important issue seeing two options. One option is outsourcing the assessment to the specialists in personal assessment and psychometry, asking them to adapt their methods to the start-up specificity. The other option may be that the programme constructs their questionnaires using the approaches known in the HR recruitment and assessment, i.e. personality qualities needed for the entrepreneurs.

4. Team development strategy and awareness of the need to continue the team-building process while growing the company.

Team building is a never-ending process, it is not enough that people with the right competencies take specific roles in the team. The team is created by shared values, positive relationships, mutual trust, good communication, readiness to take additional effort, conflict prophylaxis and resolution. If these qualities are not nurtured the team spirit may disappear. For the investor is not possible to examine the team's attitude and awareness of the team building importance. However, training may be given while working on the teams' roles and the attitude to the subject of team collaboration may be observed. The observation results can be discussed with the founders to make the final assessment of this quality.

Methods of ideas evaluation

Technology analysis

The investment programme needs to check the potential competitive advantage of the innovative product of the SME in terms of its position in the technology trends. The assumption behind it is that a product that lies within the visible trends of technologies being developed is easier to predict its chances for success. The technology analysis also helps to assess the maturity of the technology as for feasibility to deliver the product.

The method recommended is Patent Landscape Analysis

Patent Landscape Analysis

The patent landscape analysis is a tool supporting the decision-making process in terms of both protection of the invention and market development. It indicates the most active players and countries of patent activity in a given field. This, in turn, allows the market potential of the solution to be determined and its potential buyers to be identified. The analysis is the starting point for the preparation of a patent protection strategy for an invention.

The analysis of the patent landscape helps to determine the sales potential of the invention on the domestic and foreign market as well as competitive threats from other companies. One of the elements of the patent landscape analysis is also the identification of potential licensees.

Box 7 Patent landscape analysis

Overall SME development potential analysis and weak points identification

It is good to take a holistic analysis of the SME that reveals the potential for the development of the SME in many aspects as well as identifies weak points that the SME needs to improve. Such an analysis is not recommended as directly an evaluation for the purpose of the investment programme decision but more as a starting point for the advisory support in the individual work phase. The partners use EU wide instruments for such analyses such as Innovation Health check, SME Empower and Improve. Their

benefits rely on the structured approach and comparable results. Partners have good experience in using the first of the above-mentioned tools.

Innovation Health Check

The methodology used in Enterprise Europe Network, Tehnopol implements as developed described by Lean Business Ireland. This is used to validate the main aspects of the SMEs to take on the development sprints, export markets, fundraising etc. The tool is implemented in the process comprising the company aspects as in the graph below:

Innovation Culture	Understanding the Business	Strategy	Structure	Capability & Resources	Processes
1.01 Innovative Environment & Motivation 1.02 Ambition to Grow 1.03 Leadership 1.04 Management Style 1.05 Openness and Attitude to Change 1.06 Learning from Successes and Mistakes 1.07 Risk Tolerance 1.08 Employee Recognition	2.01 Understanding the Customer 2.02 Customer Information 2.03 Capturing Customer Feedback 2.04 Keeping Abreast of New Technologies / Developments in the Market 2.05 Segmenting the Market 2.06 How Does the Company Market Its Product & Services? 2.07 Customer Potential 2.08 Competitor Information 2.09 Analysing Competitive Advantage 2.10 Service Innovation	3.01 Company Objectives and Goals 3.02 Future Market Focus 3.03 Defined Business Model 3.04 Strategic Planning 3.05 Innovation Strategy in Business Plan 3.06 Use of Strategic Tools in Innovation 3.07 Commitment to Ideas Generation 3.08 Project Outcome vs Targeted Gain	4.01 Cross-Functional Teams 4.02 Ownership / Empowerment 4.03 Organisation of Resources 4.04 R&D Structure 4.05 Knowledge Capture and Sharing 4.06 Effective Communication & Use of Tools 4.07 Intellectual Property (IP) Management	5.01 Staff Innovation Skills 5.02 Managing the Capability Gaps 5.03 Discipline 5.04 Fire Fighting 5.05 Innovation Budget 5.06 Devolved Responsibility for Small Projects 5.07 Projects - on Time and Within Budget	6.01 New Idea Generation 6.02 Project Screening & Selection Process 6.03 Implementation and Commercialisation 6.04 Measurement of Innovation Success 6.05 "Time to Market" Performance 6.06 Continuous Improvement 6.07 Balance Between Portfolio of Projects and Resources 6.08 R&D Linkages 6.09 Use of Business Tools in Innovation 6.10 Idea Management System 6.11 Effective Project Management 6.12 Post Project Review

Source: www.leanbusinessireland.ie.

Box 8 Innovation health check tool

Business model and financial plan

All programmes need to evaluate the structure of the business setup. All partners use the popular approach of **Business Model Canvas** is helps to visualise the relationships of the most important aspects of the functioning of the company on the market. They also discuss the need to use the popular BMC for further specification of the business plan that makes the plan well quantified and reliable. One of the inspiring aspects of approaching the issue is the use of the indicators as Customer Acquisition Cost (CAC) and Customer Lifetime Value (CLV) and the ratio between these two. These factors are often omitted or underestimated in financial planning when the founders focus on the cost of the product itself and make a prediction of sales.

Good practices of evaluation approaches and tools

During the discussion, workshop participants shared their experiences about practices and tools in the evaluation process. Comparison of the partners' good practices revealed common patterns, that can be generalized as useful universal approaches. Worth mentioning are also some distinct practices, that could be inspiring for other partners' programmes.

Universal approaches

Among the first group of approaches as very functional for the efficient evaluation is a **specific industrial focus of a programme**. For example, PPNT is focusing on chemistry, biotechnology and IT, WISTA's one programme on advanced materials (inorganic and polymers) for PTA's programme is

focused on EU market internationalisation. Such a set-up helps to organise higher quality of evaluation as the projects are more comparable. What is the most important, selection of the focus is based on the collaboration with experts in the field and business partners, who can better assess the product and market potential in their sectors?

Similar to the specific focus is the good practice of the **engagement of partners in the ecosystem** to participate in the programme, and in the consequence in the evaluation. It helps not only to reach out to the potential beneficiaries as described in the previous chapter but also to make a larger pool of experts for a better quality of evaluation. These experts can act as mentors to work with the founders in the development of their projects for investment. They can also provide support at a later stage of the life of the start-up. Such experts become a source of knowledge and experience in areas that the company still lacks.

Similarly, it is also good practice to provide to the SMEs the involvement of the investor or corporate partner in the life of the company at subsequent stages. It is very often stated that startups need so-called smart money, i.e. not only capital support but also added value, e.g. the investor's experience in a given industry, the use of his knowledge and contacts or raising the image and credibility of the start-up on the fact of having a given investor. This type of relationship, therefore, builds the position of the start-up on the international market and can help in obtaining further funding for the development of the business, while allowing the investor to exit from the investment.

A specific variation of such a partner collaboration and diversity of expertise used for an evaluation is a PPNT good practice to form an **interdisciplinary investment committee** that can assess from different points of view, e.g. financial, technology, market, the feasibility and development prospects of the product (in which industry it intends to operate, what is the business model and what revenues are forecast for the next 2 years of operation, can the intellectual property rights be protected, etc). The broader the view of a project, the greater the chance of avoiding investment failure

Specific solutions

The partners have had a special interest in the practices related to the team evaluation process, as often it is the team that prevails on the success or the failure of the projects. It is important to remember that behind every market success of a project there is always a motivated and well cooperating team. All the partners have criteria related to the competencies and experience of the founders, the complementarity of the team, awareness of missing competencies as well as openness to adaptation and flexibility in action, etc. However, the approaches to assess them are not yet satisfactory to the programme owners. A specific good practice of approaching this problem has been recognized in Tehnopol's **criterion of coachability** criterion. It checks not only the founders' predisposition to take advantage of the coaching programme, but also helps to assess the team's ability to adapt to changes that may be necessary for the life of the company. The criterion is assessed by the key mentors who work individually with the start-ups and observe their ability to take up advice and be ready to develop on it.

Some interesting practice of PTA is asking the applicants to prepare a **short video** about the project and the team, which, in addition to the completed questionnaire, completes the picture of a given project and allows the jury to more easily understand the assumptions and assess the potential of the team. In addition, the presentation or film should be prepared **in English**. Nowadays, start-ups have to be prepared to operate on an international scale from the very beginning of their activity. Most often, this is due to a too-small domestic market of solution receivers. In other cases, scaling is a natural next phase of the company's development, so the ability to be fluent in English facilitates not only contact with contractors or customers, but also with investors who finance the next stage of the start-up's

development. It is therefore crucial for a start-up to participate in national and international events such as investment forums where they can present their solutions and generate investor interest.

Annex 3. Stage 3 of investment process: validation

The chapter below presents the results of the project third workshop dealing with not always present but important stage of innovation investment process i.e. validation.

INNOINVEST understands validation is as an element of the development of the business project before the investment decision. It consists of checking it with corporates, mostly potential clients and other relevant partners as for the collaboration prospects. The market feedback during the validation stage can influence reducing the risk of investment and can establish long-term (business and financial) cooperation between SMEs and corporate companies.

To define the ways of cooperation between corporate companies (business partners) and SMEs to encourage corporates to participate in the investment process some qualitative insights have been collected through IDI (individual in-depth interviews). The objective was to get an understanding of the potential business partners motivations and experiences. Having a better insight of these was a basis for working out improvements in the processes validation partner acquisition as well as reorganising the validation process for better quality feedback provision to the beneficiary SMEs. The validation can be also a good start of cooperation between the SMEs and the potential business partners.

Each partner has made a minimum of one IDI. The methodology provided some protocol (see the box below) for the interviewer, however, full flexibility has been given as for using the questions or following the natural flow of the conversation, provided that the answers for the main questions were given.

Protocol

1. **Introduction** – ca. 3-5 minutes:
Introduce yourself, the objective of the interview, communicate the rules:
 - Recording – you need consent
 - Confidentiality - of the personal data, de-personalisation of information collected, use only for the project, the recording will be used only for making better notes of conclusions
 - Timing – the interview will last ca. 45 min., you do everything to keep the time limit
2. **Warm-up** - 5-15 minutes
Tell me about the role you have had in collaborating with start-ups, scale-ups
3. **Main interview** – 25-35 minutes:
 - What have been your motivation to participate in the validation process of start-ups/scale-ups;
 - What is company policy towards start-ups, scale-ups?
 - How the decision to participate in the validation was taken?
 - What are the gains you have expected to get?
 - What should we know about your company structure or way of working to understand how you participate in the validation?
 - What did you manage to achieve?
 - Which of the expectations were fulfilled or nearly fulfilled?
 - What you have gained from the validation?
 - What were the important circumstances that made it possible?
 - How important are those gains to you/your institution/company?
 - What did you fail to achieve?
 - Which of the expectations were not met?
 - Why these aims were not achieved?
 - How important were these aims to you/your institution/company?
 - What should be done differently?
 - What was missing? What was unnecessary?
 - What changes do expect from the partners?
 - What your institution would have made differently?
 - Any other recommendations for similar programmes?
4. **Wrap-up** – 2 minutes

Give appreciation for the insights given and the time devoted. Tell that the information and opinion collected in the interview (along with those made by other partners) will be used to design improvements in the innovation investment programmes in 4 countries.

Box 9: Protocol for Individual In-depth interviews

Insights from the interviews with validation partners

From the start, it is difficult for corporations to find direct value from cooperation with start-ups. The easiest and fastest way to use such collaboration as a public relations concept to make a fashionable PR campaign. In such case, it may happen that the collaboration is led by the PR department while the corporate decision-makers do not believe in the power of the start-up solution. This means that the corporate does not see any threats or potentially significant benefits in it. An example of such a situation can be given as the *Just drive* application that allowed drivers to tank their cars at fuel stations without visiting a cash desk. The corporation running a network fuel station made a campaign with a start-up delivering the app. But when the internet has gone crazy about this application, the media have joined, they got the awareness of the consequences of introducing the application, as a result of which the driver does not make additional purchases at the station, but only pays for the fuel itself and drives away. The decision-makers have realized that they may have given up control over an important fuel sales channel soon, which also carried another threat - no customer at the transaction point. This shows **that corporates are not interested in testing solutions that may disrupt their core business.**

An experienced Polish start-upper and now investor himself claims that no one can duly assess the real value of a new idea. A catchy idea may acquire substantial investment not because it answers the real need of customers but just because it may look good in the media and in consequence it will be easier to make a profitable exit quickly. *Then I come to the investor with an idea, and he says: "Listen, no matter what you do, I don't care, as long as your start-up is cool in the media. Cool and sells well to other investors because then my 10 million will become 100 million".*³

Some of the more experienced in co-investment corporates are aware of the value they receive in participation in the validation as they can count on the selections and assessments of other partners and this way can lower the risk of their investments. For example, an Estonian corporate says that if the minimum validation is done mostly by angels and VCs, it helps to keep their risks lower. Therefore they only invest in pre-validated syndications. They say that young companies should be validated before they are matched to corporations – the technical and business sides should be taken care of.

Collaboration is even more difficult when the **two different cultures and structures meet**. On the side of the corporation, several people work on such a partnership - some negotiate, others decide, and yet someone else finally signs the documents (management board). Start-ups, when working on a contract, often do not have contact with all links in this process and the event of a personnel change or purely "weather" change, the contract ceases to apply or suddenly raises doubts, which puts start-ups in a very uncomfortable situation.

Some partners of INNOINVEST have long-term collaboration with corporations. The partners help their corporate partners to be better prepared for the collaboration with start-ups. The corporates say that it is good to prepare a clear strategy and manage expectations. One of the Tehnopol partners from the traditional sector is interested in start-ups and scaling companies because they feel that the businesses, they run are quite stable and some extra opportunities, in terms of business, can be found via the collaboration with tech-sector companies. Right now, the main interaction with scaling companies have been mostly through using the tech solutions in their processes and also, they have

³ Interview in Polish portal: „Jak wydaliśmy miliardy na innowacje: Stworzę portal dla kotów i to będzie żarło" (How we spent billions on innovation. "I will create a portal for cats and it will be hot") <https://next.gazeta.pl/next/7,151003,27394539,jak-wydalismy-miliardy-na-innowacje-stworze-portal-dla-kotow.html>

invested in 4 start-ups/scale-ups. There is no good approach to collaborating with companies but together with Tehnopol, the corporation starts to build up an appropriate investment strategy and models how to work together with angels, VCs, start-ups and scale-ups. Some partners decide to create a **specialised unit for such collaboration within the corporation structures**, like one of the Tehnopol partners who has their start-up unit in-house. The unit consists of 4 people who can manage collaboration projects together with scale-ups and start-ups. Normally they have around 10 external companies annually that they try to onboard with the focus on building joint products/services (providing more value-added to existing customers) or using the products to make processes more efficient and enhance the customer relationship. They also run an in-house acceleration program to onboard external companies but also provide their teams with the opportunities to create spin-offs. The validation on business prospects is done in two stages – technical validation and ROI based validation. This process is conducted by the start-up team taking a basic due diligence methodology.

The experience in start-up and scale-up collaboration made them aware that this activity takes a lot of time and effort. However, this is a kind of non-monetary investment to have “the wheel spinning”. That means that only some of the collaborations will bring some desirable effect while others will fail. That is why they think that there should be a structured way of how the external partnership deals are handled in the organisation, with all legal and decision-making processes that are attached to that.

Malaga TechPark partner has collected information on motivations of the corporate companies to participate in the validation processes in the most popular acceleration and investment process. Within open innovation programs, they are interested in the acquisition of new technology solutions that solve current challenges in the digital transformation strategy of the corporates or Industry 4.0 projects. This way the collaboration with start-ups supports the technological leadership of the corporates and helps to explore new ideas with potential partners. In addition, they see a chance that collaborating with start-ups to develop **increased differentiation** or new markets. The partners of PTA acceleration programmes remarks show that they prefer focusing on the start-ups that represent the sector they work in and have a good number of projects to select from. Therefore it is easier to convince the corporates to participate in the programme if it is well defined thematically.

WISTA talks with the corporate partners revealed that the validation makes are low cost, non-binding opportunity to examine the feasibility of cooperation. Through a pilot project, they can learn the team mentality and make the investment volume or cost estimation. This helps to prevent misunderstandings and failures related to that. They value also the involvement of their own employees in collaboration for exchange of experience on content issues of the new solutions. Some more specific motivations are related to the possibility to watch the technology trends, find needed innovative products, access to new target groups or close competence gaps in a specific technology.

The third workshop was combined with a major event of Malaga innovation ecosystem “Greencities – urban intelligence and sustainability” that gathered over a thousand participants presenting the point of view of municipalities, financing institutions, research and companies, both corporates and SMEs, including start-ups. This way the INNOINVEST discussions could be widened by the views of outside actors.

At the very workshop, the partners have shared their learnings to find common traits and structure the insights. They have been agglomerated into three groups:

- Insights on motivations of the validation partners, both corporates and financial investors to participate in the investment programmes;
- Existing well-functioning practices on the side of the INNOINVEST partners, their programs or validation partners that are worth being propagated;
- Barriers or issues in the validation process that need to be taken up to improve the programmes.

These groups are shown on the diagram below:



Figure 13 Validation partners motivations, issues and good practices

Improving the validation process

Having analysed the good practices, motivations and barriers for corporates and start-up collaboration in the validation the partners brainstormed ideas for improvements. Some improvements address the same issues, that is why the diagram below groups all of them together.



Figure 14: Ideas for improvement of collaboration with validation partners

The improvements contribute to reshaping the validation process to make it more effective and beneficial for both sides: start-ups and corporations as in the diagram before.



Figure 15: Stages of investment process the validation aspects need to be introduced

Preparation workshops

The whole process requires the preparation of both sides of the collaboration so that they to define the goals and expectations.

Workshops for corporates help them to understand the programme concept, define their challenges – technologies, the specific requirements and expectations. The practice shows that specific

workshops can be organised for the corporation to prepare all aspects of “open innovation” i.e. investment strategy, organisation of a dedicated team, resources and procedures.

Selection

The representatives of the corporates and investors can participate in the review of ideas to express their opinions and expectations for the specific projects.

Mentoring & coaching

While matching the start-ups or scale-ups with the mentors and coaches the representatives of corporates can participate in the mentoring and coaching programme. However the programme needs to balance the influence of the corporation, which may steer the project to directions suitable for the corporate vision but not necessarily the best for the project, with outside experts advice and steering.

Evaluation

The representatives of corporations and investors should participate in the presentations of the start-up or scale-up plans developed with the mentors and coaches. This participation will verify the interest of the corporates in the projects.

Pilot

For the positively evaluated projects that may still need some proof of concept, a pilot can be organised to test the solution in the corporation. This way the final decision can be made on investment or B2B collaboration.

Annex 4. Overall investment process from the SME point of view

Hereby chapter presents the results of the fourth workshop concluding the project process. The partners worked on the entire innovation investment process incorporating all improvements worked out and then discussed the application of the project result in their settings.

To get the general overview of the improvement in the investment process the partners defined the process in canvas being an adapted Customer Journey and Service Blueprint method.

All the steps of the process the SME (start-up or scale-up) undergoes from the realisation of the fundraising need to the investment acquisition were covered. These steps have been described in the previous chapters as:

- Identification (which in the Customer Journey reflects the *Awareness step*,
- Selection – this step from the “customer” point of view could be named “application”
- Evaluation
- Validation.

The whole process can be closed by the decision step, which of course does not stop the investor relationship aiming to the investor exit.

The canvas were filled in 4 layers:

1. **Actions** taken by the “customer”, i.e. start-up or scale-up founders, while participating in the process;
2. Their **expectations** and thoughts while taking them,
3. The “**touch points**”, which constitute the physical items when the “customer” meets the investment and support process

4. **Support process** in which indicate the activities and improvements related with the process that would better meet the “customer” needs and expectations.

Two different processes were defined for two different kinds of SMEs: start-ups and scale-ups.

These two processes are presented in the diagrams below.

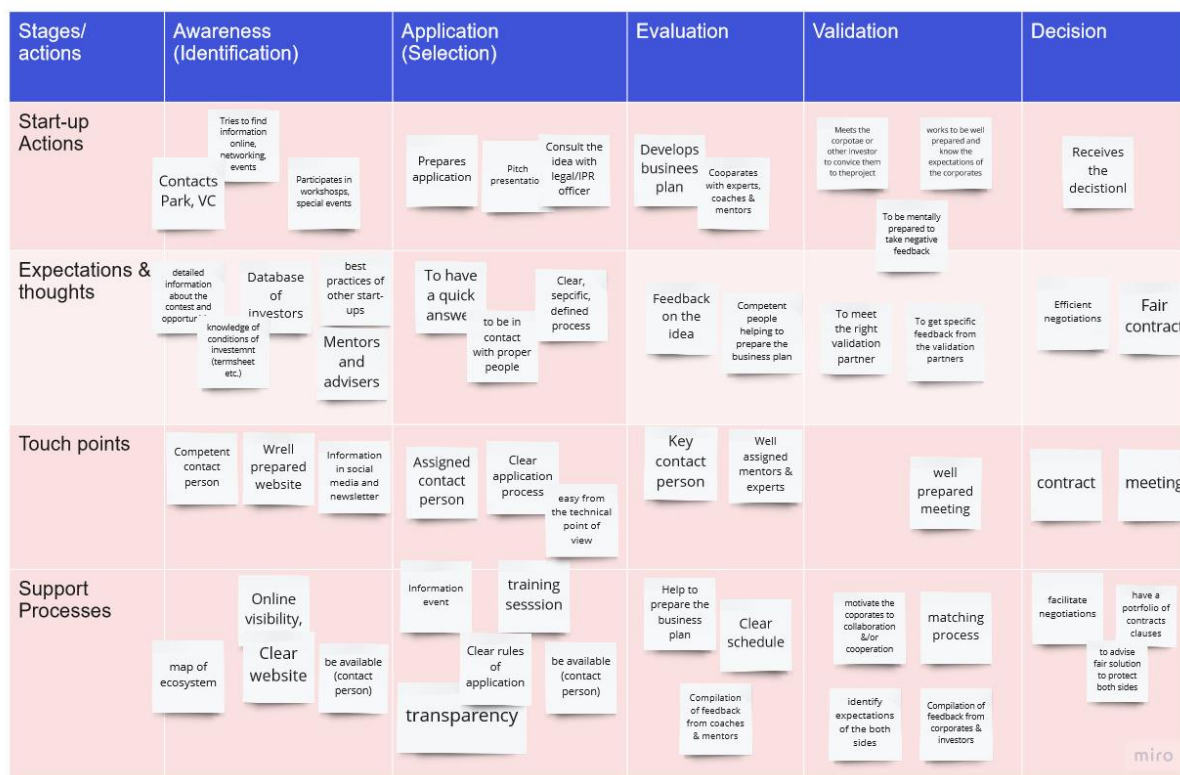


Diagram 1 Investment and support process for START-UPS

Summarizing the investment process from the perspective of the start-up's needs, we have noticed the following key aspects that the originators pay attention to in terms of their expectations and actions taken. It is a starting point to indicate what actions should be taken by institutions responsible for the implementation of investment programs.

From the point of view of start-ups, the key issue in the investment process is the transparency of the requirements & expectations of the institution implementing the program. They need to understand how the process of selecting their idea for financing will proceed and what are the further terms of cooperation with the investor. The start-ups would like to know all the rules before filling in the first application form.

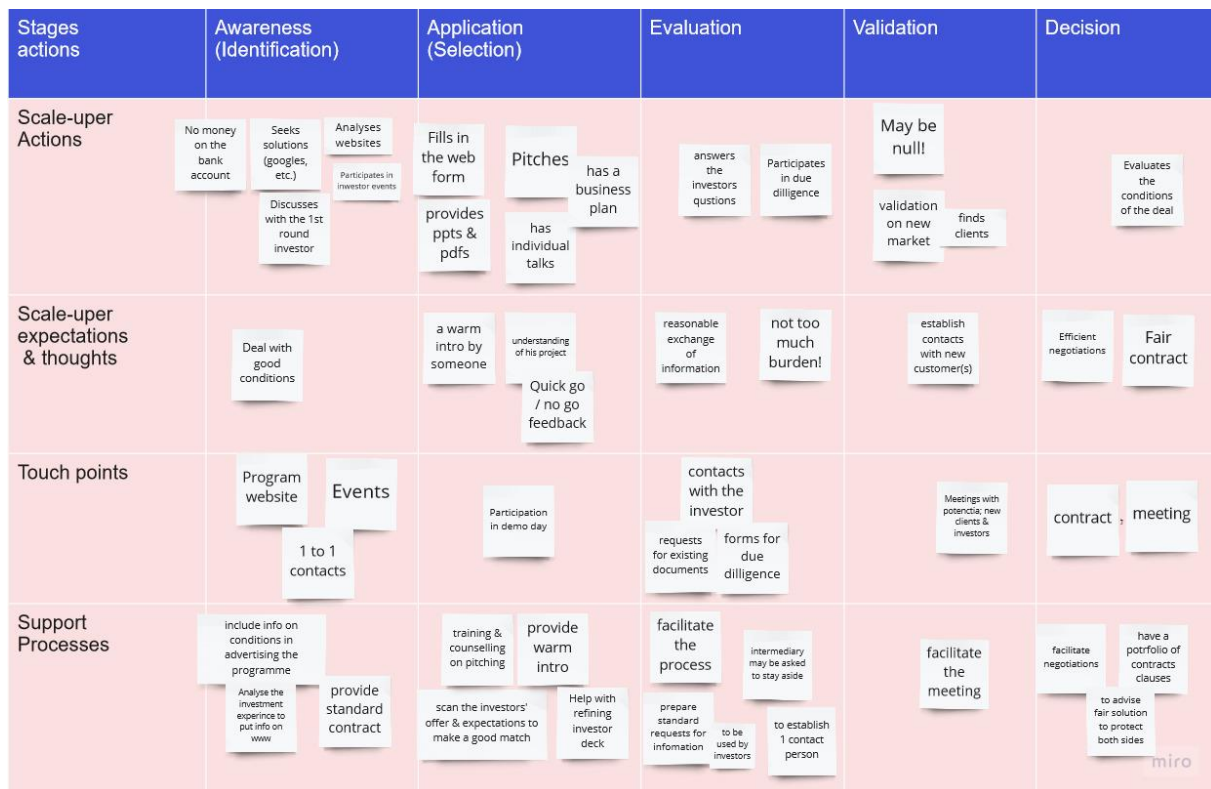
A proper understanding of both parties in this scope especially at the beginning of the investment process will help to avoid misunderstandings and unnecessary frustration.

By participating in the investment process, the start-up founder expects support from the institution in terms of arranging a given idea from the business side and contacting partners.

Proper preparation of a given company for the activity in terms of awareness of cooperation with investors and all aspects related to running a company is crucial. A given company often expects, apart from capital and contacts, access to experts who will help them, for example, in setting up a business model, help with IPR, or help to complete a team.

In addition, for a start-up founder, constructive feedback on a given idea/technology is also important. Even if it is not possible to obtain funds, awareness of the opinion from the market about the idea and what needs improvement is crucial.

Therefore, the role of the validation process, understood as market verification of an idea thanks to the company's contact with potential clients, is so crucial in the entire investment process.



The investment process in the case of a mature company (so-called scale-up) is more simplified and takes less time than the investment process in a startup. This is because the company has proven its business model and generates sales revenue. Funding from an investor is needed to scale the business (e.g. enter new markets, expand machinery, etc.). The investor assesses the potential of the company based on the pitching and due diligence process. Very often market validation doesn't occur because the company has shown that it can make money from the offered product/service and has implemented it on the domestic market. In addition to investors' money, scale-up seeks contact with new customers and therefore very often selects investors from the industry in which it operates.

SMEs sharing their experiences of the investment process

At the workshop, two SMEs shared their experiences in participating in acceleration and investment programmes. Both revealed fluency of the "investment market" language, which they gained by the work with the intermediaries and investors.

One of the entrepreneurs has participated in several acceleration programmes while working on their innovative product. Each of the programmes offered the preparation of their products and presentation to the investors, but in many cases, they did not find a good match with their needs. It turned out that investors benefiting from public co-funding have their regulations as for the stage of the product and the purpose to use the funds as e.g. R&D works and the product was on a different stage. The private investors on the other hand proposed contracts with clauses unacceptable for the founders, e.g. severe penalties, including taking over the IPR for the solution, for not reaching a milestone in the development process.

On the other hand, they claimed important added value of such programmes in the meeting of other SMEs or potential partners, who brought some important inputs to their solution or business model development.

The lessons learnt from the talks with the SMEs were discussed and the practical application was developed as presented below.

Improvements to implement analysing the SME's experiences

Start	Stop	Continue
<ul style="list-style-type: none"> • Better understand the specific investment needs of each company <ul style="list-style-type: none"> ○ <u>When</u>: at each stage of the investment process ○ <u>How</u>: formulating the offer from the ultimate beneficiary point of view, developing the form for application, in the individual work at evaluation, matching with validation partners 	<ul style="list-style-type: none"> • Too long processes: evaluation & negotiations of the contract <ul style="list-style-type: none"> ○ <u>When</u>: preparation of investment rounds, then at each stage of the investment process ○ <u>How</u>: planning and communicating the deadlines in the promotion of the investment rounds, putting the deadlines in the investment readiness contract 	<ul style="list-style-type: none"> • Raise competencies of SMEs to function in “the world of investors” <ul style="list-style-type: none"> ○ <u>When</u>: at each stage of the investment process ○ <u>How</u>: publicity of the knowledge through blogs, case studies, workshops; individual coaching for the founders
<ul style="list-style-type: none"> • Help the SME to get a good negotiation position <ul style="list-style-type: none"> ○ <u>When</u>: in marketing, training and coaching ○ <u>How</u>: marketing content explaining the roles of investees and investors 	<ul style="list-style-type: none"> • Unfair clauses of the investment contracts <ul style="list-style-type: none"> ○ <u>When</u>: preparation of the investment round, negotiations of with investors (especially external) ○ <u>How</u>: a repository of standard contracts and clauses with comments from practitioners, through exchange with the INNOINVEST partners 	<ul style="list-style-type: none"> • Contacts with potential collaboration partners and other founders <ul style="list-style-type: none"> ○ <u>When</u>: at the evaluation & validation process ○ <u>How</u>: an individual approach based on the specific profile of the project
	<ul style="list-style-type: none"> • One project participating in many accelerating programmes before the right investor is found <ul style="list-style-type: none"> ○ <u>When</u>: preparation of the investment round; evaluation stage, validation stage ○ <u>How</u>: rules that accept the graduates of other accelerators to a later stage, shorten the coaching process for well-prepared projects, make sure that the projects match the interest 	

Annex 5. Partners’ action plans to implement the INNOINVEST lessons learnt

Having different starting points into the project the partners have translated the overall investment process improvements and the results of feedback reports into their practical activities. While PPNT runs a whole programme, Malaga TechPark and Tehnopol plan to initiate them in near future. WISTA runs an acceleration programme matching start-ups (SU) and industrial partners and together with other ecosystem partners makes an entrance for the beneficiaries to access the capital.



Figure 16 Process of A² acceleration programme translated to INNOINVEST investment process

Action Plan for PPNT

Organization name and address: Poznan Science and Technology Park of Adam Mickiewicz University Foundation
 ul. Rubież 46, 61-612 Poznań, Poland
 T +48 61 827 97 00 F +48 61 827 97 01
 email: ppnt@ppnt.poznan.pl
www.ppnt.poznan.pl

Type of organization: Foundation

Main mission: PSTP mission is to stimulate collaboration between science and industry to activate regional development via innovation, technology transfer and international cooperation

Overall plan at the project start to improve the processes of the Capital Fund of the Poznan Science and Technology Park so that the satisfaction of SMEs beneficiaries increases while at the same the risk of the Fund is lowered.

Action No.	Action Name and description	Responsible
Identification and selection of SMEs and evaluators		
1.	The offer improvement 1: Engage Business Angels to collaborate with PPNT Investment Programme	
1.1.	Contacts with BA Associations	Head of the Capital Investment Team
1.2.	Preparation of collaboration offer tailored to the Association interests	

Action No.	Action Name and description	Responsible
	Talks with the Associations	
1.3.	The partnership agreement or participation in the Association	
2.	The offer improvement 2: Better integrate the investment activity with the PPNT activity	
2.1.	Analysis of the PPNT activities that would make synergies with the investment programme	Capital Investment Team
2.2.	Working groups to prepare integrated offer and processes related to customer relations	Team leaders of relevant activities
2.3.	Launching the new offer	Capital Investment Team
Evaluation process		
3.	Inclusion of coaches on the team building to ensure the compatibility of the team and develop the skills on team criterion	
3.1.	Recruitment of coaches Use of contacts and relationships in all activities of PPNT Preparation of the offer for coaches and reaching collaboration agreements	Capital Investment Team in collaboration with other teams
3.2.	Preparation of coaching programme Work with the coaches	Capital Investment Team with the coaches
3.2.	Launch of the coaching programme	Team leaders of relevant activities
4.	Incorporation of a new criterion of the team related to the openness to take advice and flexibility to make changes Based on Tehnopol good practice of the “coachability” criterion	
4.1.	Elaborate the criterion description Including the procedure related to the coaches opinions	Capital Investment Team with the coaches
4.2.	Update the programme regulations related to the evaluation process	Capital Investment Team
Validation process		
5.	Analyse the needs of investors to reach the same target group of candidates	
5.1.	Identification of investors that would make synergies in the validation process and be co-inventors	Capital Investment Team
5.2.	Meetings with investors to identify their expectation Collection of information and the analysis	
5.3.	Make adjustments in the investment programmes i.e. change of the promotion actions to reach the relevant target groups	
6.	Activate corporates in the validation process through a new service of “open innovation workshops The workshops for corporates will help to get their understanding of benefits and the need for preparation for working with start-ups. They should realise the value of access to talents, not only to investment opportunities or new technologies	

Action No.	Action Name and description	Responsible
6.1.	Analysis of Good Practices of Tehnopol and Wista Collection of more detailed material (e.g. agendas and offers) from the partner Transferability analysis	Capital Investment Team
6.2.	Preparation of the workshops offer Preparation of agenda Allocation of PPNT experts and development of workshop content	Capital Investment Team with selected experts
6.3.	Recruitment of corporates and implementation of the workshops Individual contacts with the corporates that have been already in collaboration with the PPNT	Relevant contact persons
6.4.	Follow-up contacts to invite the corporates to participate in validations of the investment programme of PPNT	Capital Investment Team

Effects and their measurement

Effect	Effect indicator	Measurement procedure
SME satisfaction	Increase in SMEs' satisfaction	Survey every application round – an increase the average satisfaction
Improved ecosystem	Increase of investors and corporates in the programme	Number of investors and corporates at each application round
Improved preparation of founders' team	Assessment of team readiness	Increase of average assessment of teams that went through team-building process at each application round

Action Plan for Málaga TechPark

Organization name and address: Málaga TechPark, Calle Marie Curie, nº35 – 29590 Málaga - Spain

Type of organization: Technology Park

Main mission: Málaga TechPark has an important role in the local and regional ecosystem of the Technopolis, very strong actors, such as Chambers of Commerce, Regional Government, City Council, or Universities, who are experts in different and complementary fields, are dedicating their activities to run such programs, and Málaga TechPark is cooperating with them, bringing its know-how. Málaga TechPark is not running actually its own investment program, but instead, the actual strategy of the park is to collaborate in the design and implementation of investment programs together with actors from our ecosystem such as the University of Málaga, the City Council or more recently the Association of Science and Technology Parks of Spain (APTE). Joining forces with these entities enables to maximise the resources available and reach together greater impacts

Overall plan at the project start: to strengthen the activities run within the ecosystem so that they are more effective in the development of start-ups and scale-ups, though strengthening the deal flow as well as the introduction of investment opportunities for the SME founders.

Objective of the Action Plan:

**Strengthening the investor’s and corporates’ engagement in the start-up ecosystem through a pilot:
APTE EMPRENDE: STARTUP IDEATION AND ACCELERATION PROGRAM**

APTE EMPRENDE is a national initiative coordinated by the Association of Science and Technology Parks of Spain (APTE) that includes a set of programs designed to promote the creation and growth of new technology-based companies. 10 Science and Technology Parks, including Málaga TechPark, are going to participate in a first pilot edition, which will detect more than 100 technology-based business ideas and accelerate 32 future Startups. This program is based on the methodologies implemented by La Salle Technova Barcelona and the Madrid Science Park.

Timing: 1-year pilot program with the possibility of being extended over time- implementation foreseen in 2022 (detailed schedule to be defined with the main actors)

Location: 10 different science and technology parks from Spain (Asturias, Basque Country, Andalucia, Cantabria, Catalonia, Galicia, and Madrid)

Activities foreseen:

Action No.	Action Name and description	Responsible
Identification and selection of SMEs and evaluators		
1.	RECRUITMENT AND SELECTION OF CANDIDATES	
1.1.	Recruitment of the founders, <u>Include the promotion of the mindset of growing own companies instead or early sales of business</u>	Málaga TechPark
1.2.	Evaluation of the candidate	
1.3.	Selection of the candidates	
2.	APTE TT (TRAIN THE TRAINERS): Training for the future trainers on the Candy Innovation Model Methodology and the Lean LaunchPad Methodologies (LLP) Include the training for investors and corporates that they are ready to cooperate with the start-ups Include the training of start-ups so that they are ready to collaborate with the investors and corporates.	
2.1.	Implementation of the training phase for trainers	APTE
2.2.	APTE START	
2.3.	Implementation of a Pre-Accelerator Program for entrepreneurs	Málaga TechPark
3.	APTE LAUNCH	
3.1.	Implementation of an Accelerator Program for entrepreneurs	Málaga TechPark
4.	APTE CENTRAL: to guarantee the implementation and monitoring of the program, a committee will be constituted to systematize and harmonize the processes and implementation of APTE Start and APTE Launch. Likewise, this activity will include the training of all the Parks through APTE TT (Train the Trainers) with 2 members from each of the 10 Parks involved in the program	

Action No.	Action Name and description	Responsible
4.1.	Implementation and monitoring of the program	APTE, the Madrid Science Park and La Salle Technova Barcelona
Evaluation process		
5.	Final Pitch of the participants for business Angels, seed investors and facilitators in Deep tech investment	
5.1.	Demo Day	Málaga TechPark
Validation process		
6.	<p>The actions will be complemented with the training of 40 investors and the creation of an Investment Community of Business Angels in the environment of the Innovation Ecosystems of the Parks to finance entrepreneurial initiatives in the earliest phases and connect them with venture capital funds and exit plans.</p> <p>The training of the investors is structured in five modules through which potential investors will deepen throughout the entire process of investment in entrepreneurial projects: philosophy of a Business Angel and own experiences, sources of deal flow and qualitative analysis, methods of evaluation of companies with practical cases, legal and administrative aspects of the investment and finally monitoring and exits plans of the investees.</p>	
Decision		
7.	If the financial partners or corporates the PTA will take shares (equity) or get a fee for the successful deal.	
7.1.	Prepare the offer that will be used in the acquisition of partners: investors and corporates	Málaga TechPark
8.	Prepare and offer the model contracts. Inspiration from the INNOINVEST partners will be used.	
8.1.	Demo Day	Málaga TechPark

Effects and their measurement

Effect	Effect indicator	Measurement procedure
More opportunities for investment and collaboration with corporates for the local start-ups and scale-ups	Increase of investors and corporates in the programme	Number of investors and corporates at the pilot
Sustainability of the scale-up investor & corporate programme	The continuation of the programme	Number of investors, corporates and start-ups in the joint project
Improved investment readiness of start-ups	The deals made with the investors and corporates	Number of deals in the pilot and then every year
Improve program capacity to evaluate the start-ups better	Long-term cooperation with the corporates	The average number of years the corporate stay with the programs

Action Plan for WISTA

Organization name and address: WISTA MANAGEMENT GmbH
 Rudower Chaussee 17, 12489 Berlin, Germany
 T +49 30 63922200
 email: pr@wista.de
www.wista.de

Type of organization: state-owned company
Main mission: Strengthening the economic situation of Berlin by creating frameworks to foster the rapid growth of start-ups and established companies and to set up and run modern technology centers. WISTA offers adequate conditions for the work of scientists and researchers as well as a cooperative environment driven by science and technology.

Overall plan at the project start to reflect on the processes of the A² innovation program (WISTAs Start-up/Corporate Collaboration program) to identify pain points regarding the scalability of the program.

Action No.	Action Name and description	Responsible
Identification and selection of SMEs and evaluators		
1.	Cooperation with consultancy companies to approach the grown-ups	
1.1.	Identify possible consultancy companies	A ² Team +external Consultant (advisor)
1.2.	Define the cooperation concept and benefits for both parties	
1.3.	Approach and get feedback	
2.	Use an indirect acquisition strategy Make use of the new modular structure of the program and emphasise the promoting of single modules or bundles of modules. That's how we'll address a higher diversity of grown-ups and create smaller but more activities respectively visibility.	
2.1.	Redefining the value proposition based on our core USP	A ² Team
2.2.	Analyse the current modular concept and identify core bundles	
2.3.	Identify possible grown-up and multipliers as first target group to test the strategy.	A ² Team + TGZ Department
3.	Outsourcing of Start-ups scouting through the purchase existing databases	
3.1	develop a clear profile of Tech-sectors and Keywords	A ² Team
3.2	Online screening for providers and collection of quotations	
3.3	Plan the integration in the WISTA-CRM system	
Evaluation process		

Action No.	Action Name and description	Responsible
4.	Set up new cooperation between A² and INAM programs with a focus of widening the spectrum of SU-Support by adding the dimension of investment into Start-ups.	
4.1.	Brainstorming with INAM Team	A ² + INAM Teams
4.2.	Evaluate possible activities and approaches	
Validation process		
5.	Changing the language of the program to English to reach a broader audience	
5.1.	Re-evaluate and select suitable offer for English speakers	A ² Team
5.2.	Adapt all needed materials: website, documentation, presentation, contracts etc...	
5.3.	Web search for multiplier outside Germany and define target group	
5.4.	Make cooperation with initiatives and multipliers outside Germany	

Effects and their measurement

Effect	Effect indicator	Measurement procedure
Visibility	Increase the awareness of the A ² program	Number of posts on social media and the screening of the reactions
Effective acquisition	Increase the number of paying grown-ups	Number of new participants (Start-ups and Grown-ups)
Internationalization	Setting up an adequate network	A number of relevant activities, interactions, and collaborations outside Germany.

Action Plan for Tehnopol

Organization name and address:	Tallinn Science Park TEHNOPOL; Teaduspargi rd. 6/1, Tallinn 12618, Estonia, www.tehnopol.ee
Type of organization:	Foundation
Main mission:	Unlocking the growth potential of technology companies. To provide growth supportive services for start-ups, scale-ups, and provide innovation services for corporations.
Overall plan at the project start	To discover the opportunities to launch an early-stage investment fund to start-up companies; to find opportunities to provide better capital matchmaking services for scaling companies; to find methodologies to encourage more corporate VC formations.

Action No.	Action Name and description	Responsible
Identification and selection of SMEs and evaluators		
1.	Engage business angels, potential LPs and public capital to form a joint, evergreen, investment fund for early-stage startup companies (pre-seed and seed).	
1.1.	Collaboration with BA organizations	Head of Startup Incubator
1.2.	Collaboration with public stakeholders to find suitable funding schemes to be used	
1.3.	Providing a business plan of the fund for Tehnopol founders and preparing the set-up for Supervisory Board approval	
2.	Engage more relevant VC-s to be matched with scaling companies, including fundraising services to the core set of services of Tallinn Science Park Tehnopol	
2.1.	Customer feedback and mapping the expectations	Head of Business Development Services
2.2.	Building up a sustainable link to field-specific VC-s and business angels	Head of Services
2.3.	Service set-up, including methodologies to grant the investor readiness, legal support, and deal structure support	Head of Business Development Services
Evaluation process		
3.	Bringing more hands-on investors (private sector) to early-stage fund setup and decision-making processes. Setting up a Fund Manager, including relevant and creditable staff.	
3.1.	Advisory and evaluation board formation	Startup Incubator team
3.2.	GP formation, including representatives of funds	
3.2.	Fund and decision-making process set-up	
4.	Building up a pool of external experts to facilitate the investments between scaling companies and relevant VC funds	
4.1.	Building up vendor due diligence capacity	Head of Business Development Services
4.2.	Bringing in at least 10 field specific investment specialists to evaluate the cases and prospects	
Validation process		
5.	Meeting with all the relevant stakeholders (public-, private sector) to validate the formation of early-stage fund + validating the market need of the capital (startups)	
5.1.	Validating the need of the fund with public sector	Head of Startup Incubator
5.2.	Validating the opportunities of capital engagement with the private sector	
5.3.	Aligning the fund strategy with start-up expectations	
6.	Validating the VC readiness and expectations on establishing deal-flow agreements and establishing first case studies	
6.1.	Field-specific VC meetings, with the critical pool of 20-30 established funds	Head of Business Development Services

Action No.	Action Name and description	Responsible
6.2.	Service set-up validation with field-specific scaling companies	
6.3.	First pilot deals as part of Ternopol's core set of services	

Effects and their measurement

Effect	Effect indicator	Measurement procedure
Complete support for start-ups	Establishment of investment funds	Funds raised in each batch in euro
Sustainability of the programme	Funds' profitability	Return on investment in euro
Better access to capital for start-ups-scale-ups	Number of companies that received capital The sum of euro invested	Per each batch

Annex 6. Investment in innovation market in the represented regions

Below is the main result of the innovation investment markets in their regions or countries represented by the partners. Even though the partners work in different environments the challenges identified at the project start are to be addressed in all of them.

SME innovation investment ecosystem in Poland

Cooperation between corporations and startups in Poland has become increasingly common and popular over the last 5 years. Many acceleration programmes have been created, especially those created and coordinated by large state-owned companies, such as PKO Bank Polski or PKN Orlen.

The number of Polish start-ups ranges between 4300 and 4700 companies, 60% of which are exclusively from the IT/ICT sector. 65% of all start-ups are located in five cities (Warsaw, Wrocław, Kraków, Lublin and Tricity), the largest start up ecosystems in the country, where more than half of all Polish technology companies operate today. Unfortunately, the potential of some of the larger Polish cities, such as Poznań, Łódź or Katowice, has been gradually decreasing over the past years.

Long and short-term investment in SMEs

In 2019 there were 130 active venture capital funds in Poland, which is 40% more than in 2018, with half of them starting their investments mainly using EU funds. It is now much easier to raise a seed round of €250-500k than it was a year or two ago thanks to state actions (i.e. PFR/PARP/NCBR) stimulating the ecosystem with public funds.

The leader is the Polish Agency for Enterprise Development (PARP), whose support has already been used by a third of Polish start-ups (32%). Financing from another state institution, the National Centre for Research and Development (NCBiR), has been used by 16% of start-ups. One in four declares that they had the opportunity to use the help of a national accelerator, one in five received funding from a Polish venture capital fund, and 15% were provided with support from a domestic business angel.

Strategic investors have surprisingly little importance on the Polish start-up market (3%). At the same level are bank loan support, academic incubators and crowdfunding, which is still of marginal importance in this segment.

Foreign support turns out to be less popular than domestic support, although it is this path that should be considered by entities with global aspirations. The percentage of entities financed by foreign business angels, VC funds or accelerators fluctuates around 3-5%.

Start-ups using external funding most often have one such round behind them (33%). The number of start-ups, which managed to get two rounds, is currently 8%, and 3% of respondents indicated three rounds. The same percentage of startups declares that they had the opportunity to raise at least four rounds of financing in their history.

Obtaining funding at the level of PLN 1-2 million is the most frequent (24% of respondents). One-fifth of them raised between 500 thousand and 1 million PLN. The sum exceeding PLN 10 million of financing in all previous rounds was achieved by 13% of start-ups. Comparing this data with the data from previous years, it can be seen that every year there are more entities in which larger sums are invested - in 2018, only 6% of start-ups declared that they had raised a sum of funding exceeding PLN 10 million. In 2019, it was over 9%. These amounts may not be too impressive when we compare them to Western markets, but the numbers prove that Polish companies once operating at the seed stage are growing and entering the next levels.

In 2019, 10% of VC-backed start-ups raised more than €2.5 million in rounds. Yet 75% of VC-funded start-ups raised less than €1 million

In 2019, the value of venture capital investments in Poland exceeded €250 million, the highest amount of investments in the last decade! Polish startups and their technical talent (250 thousand programmers - the largest number in the CEE region) are attracting more and more foreign funds that co-invest with local investors. We have access to several accelerator programmes that focus on connecting start-ups with corporate partners while providing them with equity-free grants of €50k, mentoring and support to build traction among institutional clients. There are also 5 "Poland Prize" accelerators that facilitate a "soft landing" for founders from abroad.

The average Polish start up raised around 30% more funds in 2019 than in 2017. Among investors, venture capital funds supported by government programmes, managed by NCBR and PFR, whose number is growing the fastest, make their presence felt most strongly. However, local business angels are also increasingly visible in the capitalisation tables, and the participation of private investors from abroad is also becoming more common.

The number of A rounds worth PLN 3-10 million between 2017 and 2019 increased by as much as half.

Poland is undoubtedly the leader of the CEE region - whether in terms of the total value of deals involving VCs over the past few years or the number of startups on our market.

Today, we can be proud of players such as Docplanner (which raised €126 million), Brainly (€60 million), Booksy (€45 million) - each of which has raised the largest rounds so far in 2019, and a whole group of start-ups that are building an international business.

Polish start-ups can increasingly count on funding from foreign Venture Capital funds, and the level of investment has increased nearly five times since 2015. Due to the nature and young age of Polish start-ups, early rounds of funding (Seed, Round A) dominate, which, according to the PFR and Crunchbase report, have totalled over \$700m in 823 rounds over the past 7 years, averaging \$850k in funding per round.

According to the Dealroom and PFR report, more than 800 funding rounds have been conducted in our country since 2013.

Sources:

<https://pfr.pl/aktualnosci/wartosc-inwestycji-venture-capital-w-polsce-w-2019-roku.html>

<https://www.startups2020.startuppoland.org/>

https://www.parp.gov.pl/storage/publications/pdf/Startupy-w-Polsce---raport-2019_200117.pdf

<https://impactcee.com/finance/2020/wp-content/uploads/2020/10/Polskie-startupy.-Raport-2019-1.pdf>

SME innovation investment ecosystem in Spain

In Spain, SMEs represents 99.8% of the companies, over 62% of the Gross Value Added (VAB) and 66% of total business employment. Specifically, 46% of enterprises are SMEs with employees, employing more than eight million workers, which represent 53.30% of the total business employment. Its relevance implies that any policy aimed at improving the country's positioning in the global economic environment considers SMEs as a priority.

Long and short-term investment in SMEs

According to the Spanish Bank, nearly 6.000 investment funds are registered in Spain. Private equity and venture capital investment in Spain hit a record high of €8.5 billion in the last financial year, according to Spanish venture capital and private equity association ASCRI (Asociación Española de Capital, Crecimiento e Inversión).

Data from the association shows that, in 2019, there were more than 680 **private equity and venture capital transactions in Spain**. International funds accounted for 80.7 % of the total investment volume, after making a total of 115 investments. **Private national investors** closed a total of 475 investments, while public national investors closed 90 investments, according to the association. The middle market recorded a historic high, with an investment of €1.9 billion across 69 transactions. A total of 84 % of the investments involved an equity contribution of less than €5 million. Meanwhile, there were 18 mega deals (transactions of over €100 million), according to the association, with a total value of €5.8 billion (or 68.4 per cent of the total value). Buyouts accounted for €3.4 billion of the investment (across 71 deals), while in the growth capital investment sector, 77 deals were completed for a total value of €750 million.

Venture capital funds made investments with a total value of €737 million across 517 transactions in 2019, of which 79 deals were closed by international venture capital funds, 362 by national venture capital funds, and the remaining 76 by public funds. The sectors that recorded the highest volume of investments were **energy and natural resources** (21 %) and consumer products (12.7 %). In terms of the number of deals, the most important sectors were IT (293 investments), consumer products (68) and healthcare (60).

Meanwhile, **funds raised by national private capital firms** totalled €1.8 billion, which ASCRI said, highlighted the “increased interest shown by institutional investors in the Spanish private capital sector”.

ASCRI estimated the 2019 divestment volume to be in the region of €2.3 billion after the closing of 258 transactions – 46 per cent of the total volume was divested through “sale to another private equity entity”, 14 per cent through “stock repurchase” and 12.5 per cent via “sale in the stock market”.

According to the ASCRI president, it is the first time that Spain has recorded results within the European average in terms of annual investment relative to GDP. Even though the majority of investments have been made by international managers that see the great growth potential of Spanish companies, the maturity of the middle market sector is worth noting, where the leadership positions are taken by local managers and a dynamic venture capital ecosystem that is amongst the most important in Europe”.

Example: In Spain, in the last three years (2018-2020) several companies have sneaked into the Top5 of the main exits: Idealista (1,321M), AlienVault (500M) and Freepik (250M). Only all three sales exceed 2 billion euros.

Sources:

- <https://industria.gob.es/es-es/Servicios/Paginas/marco-estrategico-politica-PYME.aspx>
- <https://www.leadersleague.com/en/news/private-equity-and-venture-capital-investment-in-spain-hits-record-high>

SME innovation investment ecosystem in Estonia

In recent years Estonia has gained some fame globally as a digital nation and successful start-up country – and not vain: as of today, Estonia is one of the top countries in the world when it comes to the number of unicorns per capita. This has increasingly brought international investor interest toward the Estonian ecosystem and SMEs (mostly start-ups in this case) and much widened the financing options for the early stage rapid-growing companies. With this attention also some multinational corporate's investment arms have been activated in the country, seeking suitable investees or acquisition targets.

Long and short-term investment in SMEs

Estonia is generally a very bank-centred economy when it comes to financing companies. It applies both to corporations and SME-s (not to start-ups, though). Corporates' financing sources are much wider in theory, but very often they turn to bank financing because somehow it has turned out to be one of the most competitive sources of financing so far in Estonia. It has to do with a relatively strong banking sector that developed in Estonia early after regaining its independence – thanks to well-capitalized well-run Nordic banks entering Estonia and consolidating its banking sector.

Wider capital markets have only recently started to develop along with the accumulation of capital in the hands of local market players, institutional investors (this includes pension funds), private retail investors (including business angels), family offices, private equity funds, hedge funds, VC bureaus (to this date much supported by EU funding schemes) etc. The crowdfunding platforms also play important role in developing capital markets, especially for the early-stage companies with minimum or no collaterals.

Direct investments on the vector: from corporates to SME-s form a very tiny part of the total invested in the SME-s in Estonia yearly. Corporates in Estonia, especially if they are foreign-owned, do not usually have an investment arm present in the country (rather in HQ, elsewhere) and local officials very often do not have the mandate to pursue investment activities.

Source: <https://investinestonia.com/business-opportunities/>

SME innovation investment ecosystem in Berlin

Berlin is Germany's capital for start-ups, around 40,000 business start-ups per year, ca. 500 new techs. In addition, Berlin is developing into Germany's fintech hub: 34.8% of all fintech companies in Germany are based here. The ecosystem is rich, there are numerous incubators, accelerators and coworking spaces. The city itself is engaged in attracting start-ups from around the world.

Long and short-term investment in SMEs

Berlin is also a place to be in Germany to attract investment, the city was the place 58 % of the venture capital invested throughout the country in 2020. Berlin is also the hub for tech investments. The

volume of venture capital in Berlin in 2020 was 3.1 billion euros. In 2020 278 start-ups received funding, there were 314 deals, which made 42% of those in the country. (Ernst & Young, 2021)

SMEs (including start-ups and scale-ups) have access to numerous public and private sources of funding. **Loans** of up to EUR 10 million to finance company takeovers and growth and to pre-finance contracts in co-operation with the applicant's bank.

Loans of up to EUR 250,000 to finance start-up and growth also as direct loans. There are variable loan terms with an initial grace period

An important actor in early-stage investment is a public-private partnership of the High-Tech Gründerfonds (HTGF).

HTGF invests in high-tech start-ups from the fields of digital tech, industrial technology, life sciences, chemistry or a related business area. In total, HTGF can invest 3 million euros across all financing rounds – and, HTGF has open doors. So far, almost 3.0 billion euros of capital from external investors have flowed into the HTGF portfolio.

HTGF invests venture capital in high-tech start-ups, thereby helping to close the financing gap that exists in this early-stage segment. HTGF is Germany's most active and largest early-stage investor and is aimed at young, innovative high-tech start-ups from all industries. Investments are made in start-ups that are no more than three years old and into which no more than EUR 500,000 in equity, silent partnerships or convertible loans have previously flowed.

HTGF invests either alone or with partners using convertible loans or through the purchase of company shares. HTGF initially provides the high-tech start-up with up to 1,000,000 euros. A personal contribution is not necessary, but desirable. A total of up to three million euros equity is available per company.

Annex 7. INNOINVEST learning and designing methodology

Workshop 1 Identification of SMEs, evaluators and designing marketing tools to select them.

The content of both peer review and design was dedicated to the overall concept of identifying innovative SMEs and evaluators and then designing the marketing and promotion activities appealing to recruit them. The characteristics of both target groups were developed:

- SMEs: the crucial aspects of the proposed solutions, entrepreneurial traits of founders, the profile of the company,
- Evaluators: previous experience in assessment of innovative solutions/technologies, specific knowledge background and business experience.

Based on this a new approach has been developed that improves promotion and marketing activities, including methods of reaching out to both target groups, communication channels and messages.

Workshop 2 Improvement of the business evaluation process

The workshop focus was on two aspects:

- Evaluation of solutions to design methods and tools to carry out the process of evaluating the SME's ideas i.e. products combined with the business and financial model, market and technological aspects, strategy etc.
- Evaluation of founders for designing methods and tools to carry out the process of evaluating the management staff (their skills and abilities to implement the solution to the market).

Workshop 3 Improvement of the validation process

The workshop content focused on finding the best ways of getting the business partners who support the validation processor may also co-finance the investment (short-term and primarily long term equity funding).

This is crucial to get feedback about the solutions from the market (from potential clients) during the investment process when we can assess whether it is possible to adapt the product to the market expectations or not. The market feedback can influence reducing the risk of investment and can establish long-term cooperation with SMEs, resulting in the development of the SMEs, and thus achieving a satisfactory return on investment by the fund.

The partners shared their experience on the facilitation of cooperation between corporate companies (business partners) and SMEs to encourage corporates to participate in the validation stage. The important element was to define benefits and the marketing activities appealing to attract business partners.

Workshop 4 Actions plan and effects measurement

At the workshop, the partners discussed the new approach to the investment process created during previous workshops and worked out the final shape of the whole investment process. Moreover, they discussed each partner individual plans to implement lessons learnt in their activities for SMEs.

Peer review approach in INNOINVEST

The key assumption for the peer review was that all 4 INNOINVEST partners were equal peers that would support each other in mutual analysis of the partners' investment programmes and activities, provide hands-on feedback and advice.

Schedule of the peer review sessions:



The objectives of peer review were

- to identify and analyse good practices in the partner organisations and their ecosystems, that will be an inspiration for other innovation agencies, including the INNOINVEST partners,
- to identify issues, problems and challenges the investment programmes must take up,
- to integrate the peer review results in the co-creation of the new approach to be developed in the project,
- to reflect on the drivers and barriers of each partner plans on the adoption of the new approach,
- to facilitate improvements in the partners' activities related to the project subject.

All the partners made a peer review team analysing the current partner practices, tools, resources and plans for the future regarding the investments process to reduce the risk and improve the quality of

professional services for SMEs. After each session, the feedback report including specific recommendations for each partner was prepared.

For each session, dedicated to a specific topic as described above, each partner took a role of:

- a reviewed partner, providing in advance information about their practices and plans filling in common templates and presenting this information at the session;
- a reviewer providing feedback: opinions and advice.

An important role had a moderator, from the PPNT project team, who was devoted only to this role each session.

Structure of each session

1. Presentation of each partner experiences and challenges followed with questions and answers sessions. *The host had 20 minutes + 10 minutes Q&A, 3 other partners had 15-minute presentations followed by 10 minutes of Q&A*
2. The presentations were followed by a 20-minute discussion on good practices spotted in partners' activities
3. A *20-minute* session dedicated to the identification of weaknesses and challenges when each partner focused on a given another partner (e.g. WISTA focused on PTA, PPNT – on WISTA, Tehnopol - on PPNT and PTA – on Tehnopol).
4. Two similar sessions of 25 minutes of two partners teamed up to brainstorm solutions for challenges identified (e.g. round 1: PTA with PPNT on PPNT; Tehnopol with WISTA on WISTA; round 2: PPNT with Tehnopol on Tehnopol and WISTA with PTA on PTA)
5. Summing up of the session conclusions – *15 minutes*

On the second day of the workshop, the partners continued the work within the design thinking process. The overall concept used for the process is presented in the table below.

INNOINVEST design framework methodology

Workshop's theme	Objectives	Methodology and tools	Results
1. Identification of SMEs, evaluators and designing marketing tools to select them	<ul style="list-style-type: none"> design a new approach to the process of the identification and selection of SMEs and evaluators design marketing tools to select them 	<p>Design thinking approach:</p> <ul style="list-style-type: none"> development of personas & empathy maps of the “ideal SME beneficiary” and “ideal evaluator”, identification of the motivators (“pain” and “gain”) brainstorming of messages, assessments of communication channels for the messages and target groups 	<p>The overall concept of innovative SMEs and evaluators identification</p> <p>Concepts for marketing and promotion activities appealing to recruit them (marketing approach, communication channels and messages)</p>
2. Evaluation process	<ul style="list-style-type: none"> design a new approach to the evaluation process: <ul style="list-style-type: none"> solutions founders / teams 	<p>Design thinking approach:</p> <ul style="list-style-type: none"> definition of “preferred” value proposition seen from the investor perspective (<i>value proposition canvas</i>) rough prototypes of the solutions (criteria and assessment approach) 	<p>Criteria, methods and tools for evaluating solutions</p> <p>Methods and tools for evaluating the management staff (skills and capacity to introduce the solution to the market)</p>
3. Validation process	Finding the best ways of getting the business partners	<p><u>Before workshops:</u> individual in-depth interviews (IDI) with the stakeholders (engaged in validation or potential partners)</p> <p>Design thinking approach:</p> <ul style="list-style-type: none"> analysis of IDIs: grouping the conclusions, definitions of benefits “gains” brainstorming of improvements of the validation processes focusing on encouraging the validation partners to engage in the process 	New or improved activities engaging the business partners in the validation process
4. Actions plan and effects measurement	Consolidation of the improvements designed in workshops 1-3 into an overall process	<p>Design thinking approach using adapted the customer journey tool and services blueprint:</p> <ul style="list-style-type: none"> description of the investment process in the frame of the adapted tool 	The final shape of the whole investment process

		<ul style="list-style-type: none">• elaboration of layers concerning the SME activities, the support activities and the touchpoints, including the improvements	
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