

DESIGN OPTIONS PAPER









Design Options Paper

Project MEETING - MEETings for INnovation Growth in SMEs:

Enhancing collaboration with innovative startups

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Executive Summary

This paper is the final output of the project MEETING, co-funded by the Horizon 2020 Programme of the European Union. The Project was born to answer the call INNOSUP-05 – Peer learning of innovation agencies of the Programme. The main objective of the Call was that of providing funds to strengthen the ability of European innovation agencies to design and implement effective actions to support the innovation process of SMEs. All European countries are committed to provide assistance and resources to SMEs, but unfortunately the level of satisfaction of the companies benefitting from support programmes is often not adequate.

To support innovation agencies activities, the European Commission has provided a structured methodology able to exploit the potential of teamwork and peer learning. This method, called Twinning Advanced, helped project partners to systematically address the innovation support challenge designing innovative solutions, thanks to the sharing and peer-reviewing of existing good practices and to the utilisation of co-creation tools.

The project MEETING has tried to address these issues: how could innovation agencies leverage on the patrimony of skills and knowledge of innovative startups to foster innovation processes in SMEs? Is it possible to support the adoption of Open Innovation practices by SMEs to facilitate their collaboration with innovative startups? Which role could European innovation agencies play to make this happen?

To answer these questions, MEETING project partners have been involved in peer-learning activities, using the Twinning+ methodology. Through joint workshops and desk research, existing programmes consistent with the project challenge have been peer-reviewed. On the basis of good practices and strength points derived from this analysis, project partners have then tried to design an innovative action able to make working together SMEs and innovative startups, developing a model of the action. The main assumptions of the proof of concept have then been tested and validated through questionnaires and interviews with key stakeholders, whose result was condensed in this Paper.

This Design Options Paper contains all the lessons learnt collected by partners during the project. The objective of this document is to provide a useful guide containing practical suggestions and recommendations for all the innovation agencies interested in the topic of the project. The first part will be dedicated to the introduction to the topic of open innovation in SMEs, discussing some key concepts of its state of the art. The second part of the document will present some interesting initiatives and actions implemented in Europe by innovation agencies to foster collaboration between SMEs and innovative startups. In the third part the model of the open innovation initiative designed by the partners during the project activities will be described, and a set of recommendations for innovation agencies will be presented, derived from the analysis of the good practices and from the feedback collected thanks to the validation activities carried on by MEETING partners.







1. Introduction

1.1 Background

SMEs represent the backbone of European Union Economy: in 2018 there were slightly more than 25 million SMEs in the EU-28, 99,8% of the total of European companies in the non-financial business sector (NFBS). In the same year, SMEs generated 56,4% of the EU-28 NFBS value added and employed about 98 million people, accounting for two thirds of total EU-28 NFBS employment. Micro SMEs represent the largest segment of SMEs in all Member States, with a share ranging from 82% to 97.4% in 2018¹.

From these few figures it is clear that EU economic competitiveness strongly relies on SMEs ability to play a key-role on the global market. In a context increasingly characterized by the elements of the "VUCA paradigm" (Volatility, Uncertainty, Complexity, Ambiguity), innovation represents for all the companies a key factor to develop the capacity to adapt to the most important emerging mega-trends which are going to shape world economies and societies. Just to name some of them: digital revolution (Industry 4.0, digital sales, Big Data and Artificial Intelligence), evolving consumption models (sharing economy, pay-per-use economy), raising attention to the environment (sustainability and circular economy, renewable energy sources), demography transformation (aging population, emerging classes of new consumers, urbanization acceleration), globalization evolution (manufacturing re-shoring, globalization of services, local value chains).

Through the implementation of innovation processes, SMEs can pursue several objectives to strengthen their competitiveness. In fact, innovation is key to boost productivity and consequently bring an increase in wages. Even in larger SMEs, wage levels are typically around 20% lower than in large firms, reflecting lower productivity levels.² Moreover, thanks to innovation, SMEs could activate change processes to evolve their business models, adapting them to the competitive context and to customers' demand. This

² OECD (2019).







¹ European Commission (2019).

shift towards higher value-added business models is a fundamental driver to the creation of more qualified jobs and consequently to the growth of EU wellness.

In particular, accepting and winning the digitalisation challenge represent the most important driver for SMEs future competitiveness. Product differentiation and mass customization, two of the main world market trends, could help SMEs more than larger enterprises, thanks to their agility and their proximity to the customer. Getting value from emerging digital technologies, such as Big Data, Artificial Intelligence and 3D printing, is essential for all the SMEs which aim at intercepting the potential gains of this situation. Moreover, it has to be considered that digitalisation can help SMEs integrate global markets and global value chains³. On one hand, the growing fragmentation of production has offered SMEs the possibility to emerge in highly specialised niche markets, with the potential of scaling them abroad. On the other hand, digital technologies have reduced size disadvantages in international trade, lowering for SMEs some kinds of costs like those for transport services and border operations.

Unfortunately, European SMEs' innovation performance seems to be inadequate to trigger significant transformation processes able to sustain their competitiveness in the market. If we compare the share of innovative SMEs with that of innovative large enterprises (250 or more persons employed), we observe this situation:

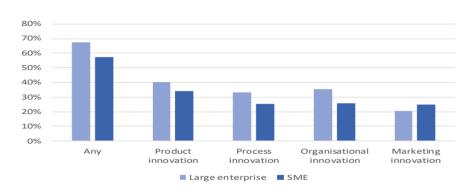


Figure 1. Share of innovating enterprises, by type of innovation and size – 2009 to 2018⁴







³ Ibid.

⁴ European Commission (2019).

SMEs introduce less new products to the market than larger enterprises, and have more difficulties to evolve their internal processes and their organisation. They are more oriented to implement new marketing concepts or strategies, but still the share of marketing innovative SMEs is not so relevant. European SMEs underperform also respect to same dimension companies of other World countries:

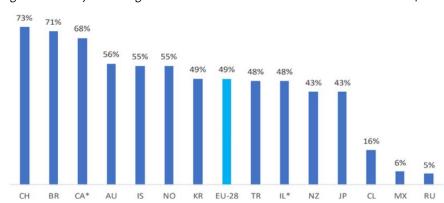


Figure 2. Share of innovating SMEs in EU-28 and other selected OECD countries in 2014-2016⁵

European SMES seem to struggle more than those of other world countries to get access to the innovation assets which constitute the key elements of the process of knowledge accumulation at the basis of each innovation process: technology, data, R&D funding, marketing intelligence, organisational models and process best practices. If access to innovation assets is critical for firms of all sizes, the challenge is particularly difficult for SMEs, which have to deal with limited financial resources, lack of internal competencies, insufficient understanding of the newest technologies, shortage of time for managers and employees for running exploration activities.

The barriers for developing innovation processes in SMEs are several, as indicated by European SMEs Associations:

⁵ *Ibid* (the countries analysed are, from left to right, China, Brazil, Canada, Australia, Iceland, Norway, South Korea, Turkey, Israel, New Zealand, Japan, Chile, Mexico, Russia).







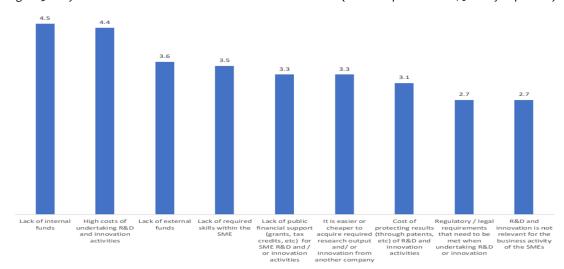


Figure 3. Why SMEs do not undertake R&D and innovation activities (1 = not important at all, 5 = very important)⁶

Due to their limited dimensions, SMEs tend to be more dependent on external sources of knowledge to integrate their internal resources and to fill their knowledge gap⁷. For this reason, *Open Innovation* (OI) seems an appropriate driver of innovation for all the SMEs, in order to overcome their dimensional limits and the structural lack of adequate funding to perform R&D activities. In fact, the OI paradigm has considerably reduced the investments needed to access innovation assets, making the innovation effort more accessible to SMEs.

Open Innovation (OI) has been defined as "a paradigm that assumes that firms can and should use external ideas as well as internal ideas, and internal and external paths to market, as the firms look to advance their technology". European Commission acknowledges the importance of building an effective Open Innovation ecosystem in the continent9. Fostering collaboration between actors of different sides, like companies, universities and research centres, is one of the main missions of the European Institute of Innovation and Technologies. Also, the Smart Specialization Strategy framework, followed by the majority of EU members, supports the process of cross-fertilization of activities and sectors, promoting the constitution of national and regional networks (e.g., Technological Cluster, Technological Districts,







⁶ *Ibid.* (the scores shown in the figure are the average of 19 survey responses from SME associations).

⁷ OECD (2019).

⁸ Chesbrough (2003).

⁹ European Commission (2016).

Digital innovation Hub, etc.) who have the role of stimulate innovation in the most strategic economic sectors of EU regions.

The key challenge for SMEs is to identify and connect to appropriate knowledge and technological partners at the local, national and global levels. Business linkages act as main channels for accessing technology, skills or for fostering data exchange and knowledge spill-overs. However, going beyond these business relations with suppliers and traditional customers can help SMEs to explore new business opportunities and to approach technologies which are still not widely adopted in their own supply chain. The world of advanced research represented by Universities and Research Centers is an important ally to foster innovation in SMEs, but another subject could play a relevant role to answer this challenge: the innovative startup ecosystem.

1.2 Innovation Support Challenge

The project MEETING wanted to design and validate new initiatives to support open innovation processes of small and medium enterprises able to strengthen their collaboration with innovative startups. These young enterprises represent one of the most important actors of European innovation ecosystem, as well as one of the most powerful sources of technology and business innovation for all traditional firms¹⁰. Thanks to the collaboration with startups, SMEs can bring inside the firm external technologies already developed, adapting them to their business models and enhancing their ability to adapt to a fast-changing competitive environment.

Moreover, the collaboration with startups and the adoption of OI practices could play a crucial role especially in accelerating the process of digitalisation of more traditional economic sectors. In fact, a great number of innovative startups have core advanced expertise in the field of ICT technologies, providing solutions that could be used by traditional SMEs to improve their business enhancing the efficiency of the processes and the effectiveness of their approach to the market. More innovative SMEs

¹⁰ European Commission (2016).







could also benefit from collaboration with startups to introduce in the market new products, thanks to the development of co-design projects able to exploit specialised competences of both sides.

On the other hand, open innovation initiatives aimed at connecting SMEs and startups could be fruitful also for the innovative companies' side, helping them overcome their main difficulties. The main challenge for every startup is that of jumping the so-called "death valley", that is the span of time needed by the company to produce enough revenue to make the business model economically sustainable. The main reason which brings startup to failure is the lack of product-market¹¹: innovative companies develop products which don't meet market needs. Another critical point for startups is that of scaling up, that is the phase during which they are able to grow their business and become profitable, gaining a relevant market share.

Collaborating with SMEs in open innovation projects may help startups in facing these two main challenges, especially those oriented to the B2B market. In fact, SMEs represent the 99% of the total of the European companies, producing the 56% of the value added of the continent¹². On one hand, dealing with SMEs and working with them on collaborative projects could make startups better understand SMEs' needs, in order to refine their solutions during the first stages of their development. On the other hand, facilitating connections with SMES could help startups access this market, especially in the case of companies with more mature products already validated on the market. Moreover, more ambitious SMEs could also be interested in M&A operations with startups which perfectly fit their business models.

Three types of Open Innovation¹³ have been identified by academic literature:

Outside-In (Inbound) Open Innovation concerns the exploiting process of external ideas and
innovations functional to the company competitiveness. These elements must be brought in and
adapted to the firm needs, thanks to an adequate filtering process. The tools available to
companies which go under this category are several. Just to name some of them: scouting, in-

¹³ Chesbrough and Bogers (2014).







¹¹ See https://www.cbinsights.com/research/startup-failure-reasons-top.

¹² European Commission (2019).

licensing IP, university research programs, funding of external companies, collaborations with suppliers and customers, crowdsourcing, competitions and tournaments.

- Inside-Out (Outbound) Open Innovation enables enterprises to exploit the value of their own unused and underutilised assets, making them available to external organisations which can benefit from them. These assets could be sold or simply revealed to third parties, but also be the core of spin-out companies. There are many mechanisms available to enterprises also in this case. Just to name some of them: out-licensing IP and technology, donating IP and technology, joint ventures and alliances.
- Coupled open innovation combines Outside-In and Inside-Out open innovation processes: two or more partners work collaboratively to develop and/or commercialise innovations. Some mechanisms which are included in this type of OI are strategic alliances, joint ventures, consortia, networks, ecosystems and platforms.

All these Open Innovation categories are concretely implemented through different Open Innovation practises. The following table shows some of the most popular practices of Inbound and Outbound Open Innovation adopted by traditional firms¹⁴:

Table 1. Open Innovation Practices¹⁵

Open Innovation	Practices	Definitions
	Customer involvement	Directly involving customers in the innovation
	customer involvement	process
Inbound Innovation		Systematically collaborating with external
Inbound Innovation	External networking	partners to support the innovation process (e.g.,
		universities, research centres, other firms)
	Inward IP licensing	Buying or using external IP (e.g., patents)

¹⁴ Bigliardi and Galati (2016).

¹⁵ From Bigliardi and Galati (2016).







	Internet exploration	Systematically using the internet to search for innovative ideas or technologies
	Know-how acquisition	Purchasing R&D work from others
	Outward IP licensing	Selling patents licenses or know-how
Outbound Innovation	Knowledge exploitation	Making own unused innovations available to others for free
	Knowledge provision	Actively participating in others innovation projects

The involvement of innovative startups in the Open Innovation practices of traditional companies has seen a strong acceleration in the last ten years. In fact, innovative startups could play a crucial role especially in Outside-In open innovation, providing technologies, solutions and ideas to traditional companies, of all dimensions and sectors. Specific models of Open Innovation have been developed to create value for the company and for the customers through collaboration with startups.

Especially larger firms are strongly investing in OI programmes involving startups. As will be shown in *Chapter 1* of this paper, these models differ significantly in terms of resources, competences and experiences needed. Some of them seem to be out of reach for SMEs, especially if they do not leverage on competences and support of external specialised subjects, but also getting this support could be expensive and difficult for SMEs. One of the objectives pursued by the Project MEETING has been that of understanding if and how OI practices used by larger companies to get closer to startups could be usefully implemented also by SMEs. The key aspect that partners tried to focus on was figuring out the type of role that innovation agencies could play to help SMEs to adopt OI models, especially to support them to access the most dynamic innovation ecosystems.

This issue is not new for European Union innovation programmes. Several EU policies aim at facilitating the birth and the development of knowledge networks with SMEs and external subjects, including startups, to build a structured European innovation ecosystem. Nevertheless, according to the 2020 European Innovation Scoreboard, the share of innovative SMEs collaborating with other subjects is still rather low. In fact, the percentage of collaborative innovative SMEs is only 11,8% in the EU-28, dropping







to 9,3% without considering the United Kingdom. ¹⁶ In Italy, one of the project countries, the share is just 5,7%, while in Croatia and in France the share goes respectively to 9,8% and 13,4%.

The main reasons for these situations can be traced back to some SMEs' structural deficiencies that hinder the adoption of OI practices, many of which are strictly related to SMEs dimensions.¹⁷ The first and more relevant is a low absorptive capacity, defined as the ability to sense, value, assimilate and apply new knowledge for improving organizational learning.¹⁸ SMEs typically do not have the ability and the resources to support business functions focused on innovation scouting or personnel dedicated to manage outposts in key innovation ecosystems (like the Silicon Valley and Tel-Aviv in Israel) to identify useful external knowledge.

Moreover, SMEs lack personnel with the required scientific background to understand and exploit the scientific discoveries and technologies that are developed outside the company by universities, research labs or startups. In fact, external ideas and technologies need to be adapted and modified to fit in the business model of the firm, but these processes need advanced competences both technical and managerial.

Another main weakness which impairs SMEs' approach to OI is their attractiveness for external partners. For example, Universities could prefer to collaborate with more prestigious subjects such as corporates, while bigger companies could find it difficult to work with a smaller entity with inadequate processes and systems of innovation management.

Other important barriers for the adoption of Open Innovation in SMEs have been identified¹⁹, such as the difficulties in finding the right partners, cultural resistance inside the firms, cultural differences with partners, Insufficient market intelligence, administrative and legal burdens. Moreover, SMEs struggle to capture the value of their product innovation, because of their poor IP protection actions and lack of enforcement power.

¹⁹ Bigliardi and Galati (2016).







¹⁶ European Commission (2020).

¹⁷ Chesbrough (2010), p. 13-15.

¹⁸ Hossain and Kauranen (2016) from Cohen and Levinthal (1990), p. 128–152.

Any kind of initiative implemented by innovation agencies to help SMEs to adopt Open Innovation models has to consider these difficulties. Vanhaverbeke²⁰ has provided some basic elements that could be used as starting points of any design effort by innovation agencies, and that have been taken into account by project MEETING consortium:

- For SMEs, a simple way to start approaching open innovation is participating in or organising OI networks and/or developing collaborations with other external subjects;
- In order to absorb effectively the knowledge gained through the participation to these networks and to create business value, SMEs should re-organise their internal structure and processes;
- Open innovation networks need to be nurtured and supported, but above all they have to provide benefits and value for all their components.

1.3 Project Partners



Fondazione di partecipazione per l'Innovazione e lo Sviluppo Imprenditoriale (Foundation for Innovation and Entrepreneurial Development) (ISI) is a non-profit organization born in 2017 on the initiative of the Chamber of Commerce of the province of Pisa with the aim of promoting innovation process of the SMEs in the Tuscany region.

Three are the pillars of Fondazione ISI actions:

- fostering SMEs innovation process, acting as a central hub between enterprises and technical competence centres like universities, research centres and startups, promoting technology transfer and cross-fertilization through different economic sectors;
- promoting the birth of new enterprises, both traditional and innovative (startups), delivering consultancy, education and mentoring services;







²⁰ Vanhaverbeke (2017).

• strengthening the links between the business world and education subjects, through the management of regional and national projects focused on training and orientation of young people.

Fondazione ISI strongly supports the development of innovative startups, offering education, consultancy and mentoring services. Since 2003 ISI has managed the Club of Innovative, a network of SMEs and innovative startups in the territories of Pisa and Lucca that offer high technology products. Fondazione ISI promotes the development of these enterprises, providing them specialized consultancy services and business opportunities (like B2B matching events, meetings with investors).



Croatian Agency for SMEs, Innovations and Investments (HAMAG-BICRO) was founded to support the development of small and medium-sized enterprises, improving the innovation process and encouraging investments. During the 25 years of operation, HAMAG-BICRO has been consistently committed to growth and development of SMEs and crafts in the Republic of Croatia by facilitating their access to finance.

The Agency's activities include the promotion of establishment and development of small business entities, financing operation and development of small business entities by issuing loans and guarantees. The Agency's also provides financial support to innovative and technology-oriented enterprises and startups in Croatia by increasing commercialization of knowledge and awareness about the value of innovations, supporting the transfer of knowledge and technological solutions from the scientific sector to economy, promoting the establishment and development of technology infrastructure and participation in the creation and development of venture capital industry.

HAMAG-BICRO is a member of Startup Europe Regions Network (SERN) that is dedicated to scaling up startup support. The purpose of the SERN is to reinforce the links between regional authorities, development agencies, universities and associations who build and scale up startup ecosystems at regional level in Europe, promoting a culture of startup friendly regions.









Toulon Var Technologies (TVT) is a non-profit organization created in 1988 by public and private stakeholders, dedicated to support innovative ecosystems in the Var area and the Sud Provence Alpes Côte d'Azur region10. TVT gathers today more than 600 members including regional & local authorities, entrepreneurs, R&D centres, business clusters, working to promote innovation, technology transfer, and collaborative projects.

TVT Innovation is the Metropolitan Economic Development Agency of Toulon Provence Mediterranée and a Business Innovation Center located in Toulon. Its aim is to foster an efficient ecosystem in key economic sectors and help innovative entrepreneurs with business support services. Several initiatives are aimed to enhance the cross-fertilization of SMEs' traditional sector with the competences of innovative startups. TVT is very dynamic in the field of the innovation ecosystem development: it manages 2 business incubators (CRE@TVT NUMERIQUE for digital entrepreneurs and CRE@TVT INNOVATION for startuppers), one Coworking space, a Fab Lab and dedicated event spaces (La Cantine by TVT). It also offers tailored support programs for innovative entrepreneurs such as the Accélérateur by TVT, the Daily Coaching program, Social Training Camp by TVT Innovation.

1.4 Methodology

To address the project challenge, the Consortium of the project MEETING adopted the Twinning Advanced methodology, identified by the European Commission as a permanent learning mechanism for SME innovation support agencies. This methodology is aimed not only at facilitating the transfer of good practices between different subjects, but also at fostering the development of new better tools and innovation support initiatives.

The basic idea of Twinning Advanced is to have innovation support organisations collaboratively address a common innovation support challenge. By using their collective experience and knowledge, the agencies develop and test an approach to address the challenge in a new and better way. The result of the work is documented in a Design Options Paper that identifies and documents the implementation







options, guidelines and alternatives that the partners in the challenge have experienced and would recommend to other agencies which are interested in implementing the proposed better practice.

The project MEETING used the Twinning Advanced methodology, organising several peer-learning joint activities among partners. The project has been articulated in 3 main steps:

1. Tracking good practices

The first step of the project has been dedicated to the analysis of the existing practices of Open Innovation implemented by SMEs to collaborate with innovative startups. The partners collected several good practices looking especially at the "ecosystem level", searching for programmes or projects designed by subjects external to enterprises (innovation agencies, local institutions, central government) to leverage on the innovative startups ecosystem to foster innovations in SMEs (see *Paragraph 2.2*).

To collect the best practices in a systematic way, projects partner defined a template gathering information about the main aspects of the open innovation initiatives coherent with the project MEETING challenge²¹. Collected best practices have been then reviewed by partners during online joint workshops moderated by professional facilitators, with the objective of identifying their strengths, weaknesses and critical elements to take into account during the following design process.

2. Designing new SMEs innovation support initiative

The second phase of the project has been dedicated to the design of new innovation support initiatives aimed at fostering SMEs-innovative startups collaboration. Firstly, project partners worked individually on the generation and discussion of new ideas about possible new initiatives, considering the key elements that emerged during the first phase of the project. These concepts have been then shared, discussed and peer-reviewed during new joint workshops dedicated by the project team to the co-design of a model of an innovation support initiative aimed at fostering SMEs and innovative startups







²¹ See *Annexe* 1.

collaboration (see *Paragraph 3.2*)²². To perform this activity, the project team used appropriate Service Design tools during facilitated work sessions.

The starting point of partners' reflections was represented by the key elements of the good practices which were collected during the first stage of the project.

3. Validation and lessons learnt collection

The third phase of the project has been dedicated to the validation and refinishing of the innovation support initiative prototype. The project partners run several activities to validate the designed prototype. In particular, a group of stakeholders of the innovation ecosystems of the three partners' regions has been involved in a workshop to provide their contribution to the finishing of the initiative designed by the Consortium. Entrepreneurs, incubators general managers, innovation projects managers and technology transfer experts gave their suggestions to improve the work performed by partners. Then, an online questionnaire was sent to specific groups of SMEs and startups to quantify the interest for the initiative²³.

During this phase, another workshop has been organised by partners to discuss the results of the validation activities run by the partner. This meeting has been the occasion to collectively identify not only the strengths points of the newly designed programme, but also the weaknesses and improvement areas to address to maximize its effectiveness. The result of this analysis has been inserted in the definition of the key recommendation for innovation agencies (see *Paragraph 3.1*).

²³ See Annexe 3.







²² See Annexe 2.

1.5 Glossary

Creative Camp: Creativity Camps are workshops of ideas that provide participants with the tools to translate the results of their ideas and their creativity into innovative business ideas. Participants, together with experts in the field, are stimulated to have a critical view of their business idea, understanding its strengths and weaknesses. Professionals, entrepreneurs, and market operators are involved to interact with the participants from the beginning and prepare them for the market challenge.

Design Thinking: it is an approach to innovation that rests on the ability to solve complex problems using creative vision, management and a structured methodology. The method is articulated in 5 phases: i) Identification of the problem and thus of the objective; ii) Identification of the context (Data and key actors); iii) Exploration and search for opportunities; iv) Conception, prototyping, testing and validation; v) Implementation. Four are the main applications of design thinking²⁴: *Creative Problem Solving*, the most widespread, oriented to solve customer needs through the design of innovative solutions; *Sprint Execution*, aimed at fast developing prototypes to test on the market; *Creative Confidence*, to stimulate internal entrepreneurship in companies; *Innovation of Meaning*, used by companies to review their values, mission and vision.

Hackathon: derived from the union of the words "hacking" and "marathon", hackathons born as one- or multi-day events for computer scientists dedicated to intensive collaboration on a common project, especially in the field of software. Progressively, hackathons broadened their objectives, becoming multi-day intense events during which teams of people, often with different backgrounds, work together to solve specific challenges, delivering concrete output such as prototypes, mock-ups and presentations.

Innovation Challenge: competition proposed by companies or other kinds of organisations (like institutions, no-profit organisations) to collect innovative ideas able to solve meaningful problems, such as improving products, processes and services, bettering customer experience, evolving management practices or defining new policies. Innovation challenges are usually articulated in three main steps, starting with the challenge definition: the proponent describes what is looking for and sets the rules of

²⁴ According to the taxonomy proposed by the Politecnico di Milano: https://blog.osservatori.net/it_it/design-thinking-significato-importanza.







the competition (output requested, evaluation process, prize). Proponents could be looking for solutions with different degrees of complexity and level of development: from theoretical solutions to proofs of concept, from working prototypes to products ready to be used. Participants propose their best ideas to meet the objectives of the challenge, following the timeline set by the proponent. The final stage of the competition is dedicated to the evaluation of the ideas and the awarding of the prize, which could be represented by monetary rewards, support services to develop the ideas, and procurement agreements.

Innovation Agency: subjects that provide support services and resources to foster innovation in companies. Agencies could have different legal status and areas of specialisation: what characterised them as innovation agency is their business innovation support role, indicated as organisations' mission in their statute.

Matchmaking Events: Business-to-Business brief meetings (usually the duration is limited to 15-30 minutes) during which two enterprises can identify and start cooperation and business partnerships. Usually, matchmaking events are organised by a specialised organisation whose role is that of filtering the participants in order to facilitate the running of high-value meetings between subjects with real mutual potential interests. Matchmaking events can be named in other ways, like *brokerage events*, business speed dating, B2B meetings.

Open Innovation: A paradigm that assumes that firms can and should use external ideas as well as internal ideas, and internal and external paths to market, as the firms look to advance their technology²⁵.

SMEs: according to the EU definition of SME²⁶, small and medium sized enterprises are companies which employ fewer than 250 people and have either an annual turnover not exceeding EUR 50 million or an annual balance sheet total not exceeding EUR 43 million. Moreover, SMEs must not have access to significant additional resources, for example being owned by or linked to or partnered with a larger enterprise.







²⁵ Chesbrough (2003).

²⁶ See https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32003H0361.

Startups: according to "Europe's next leaders – the Startup and Scale-up Initiative"²⁷, startups are young companies "often tech-enabled, in general combining fast growth, high reliance on innovation of product, processes and financing, utmost attention to new technological developments and extensive use of innovative business models, as well as, often, (relying on) collaborative platforms". Innovation, scalability and fast growth are included also in the famous startup definition of Steve Blank: "a startup is a temporary organization designed to search for a repeatable and scalable business model"²⁸.

²⁷ See https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2016:733:FIN.







²⁸ https://steveblank.com/2010/01/25/whats-a-startup-first-principles/.

2. Good Practices of Open Innovation for SMEs

2.1 Collaborating with startups: Open Innovation models

One noticeable trend over recent years has been an increasing move towards Open Innovation and, in particular, collaboration with startups²⁹. Especially larger firms are strongly investing in OI programmes involving startups. In some cases, corporates have created internal units specialised in the management of these initiatives, which range from the design and coordination of engagement activities like competitions and hackathons to the foundation of internal incubators, acceleration programs and corporate venture capital. Corporates have also increasingly set up innovation labs close to high-tech clusters in strategic innovation ecosystems with a high-density of startups, with the objective of encouraging "out-the-box" thinking to foster radical innovation processes. In other cases, larger firms have preferred to adopt lighter OI models, developing strategic partnerships with external subjects specialised in incubation and acceleration services and Open Innovation programmes.

Mind the Bridge and Nesta, two innovation agencies which coordinated the Eu-funded initiative Startup Europe Partnership 2.0, have identified six main Open Innovation Models adopted by corporates to collaborate with innovative startups:

- 1. Exposure: facilitating contacts between corporates and startups through several practices, such as the organisation of dedicated events like hackathons and competitions and the provisions to startups of material and immaterial resources. The resources needed are relatively low, as well as the commitment of the corporate in the process.
- 2. Innovation Outposts: setting of outposts in innovation ecosystems with a trend spotting function, scanning interesting startups and anticipating interesting market trends. The effort needs adequate resources and specific competences.







²⁹ Mind the Bridge & Nesta (2018).

- 3. Corporate accelerators: structures which provide resources and services for the development of startups to bring them from their seed phase to the scaling up. The use by corporates of third-party accelerators is growing.
- 4. Procurement and Co-Development: using startups as providers of technologies and services, to improve corporates' processes and the benefits provided to customers.
- 5. Investment: purchasing equity quotes of the startups, in their seed phase or in a more advanced moment, in order to get exclusive access to cutting-edge technologies and other innovations. Several companies invest through Corporate Venture Capital funds, which require significant resources and expertise.
- 6. Acquisitions: acquiring startups is a way through which corporates can expand their product offers, get access to new markets or simply internalise new capabilities.

As we can see, the range of Open Innovation models adopted by corporates to collaborate with innovative startups is very extensive. These Open Innovation practices are accessible also for SMEs, as testified by academic literature³⁰. However, the volume of the resources needed to implement these models, as well as the expertise requested to run them effectively, change significantly from one model to the other. For their limited dimensions, SMEs have mainly adopted practices aimed at strengthening their exposure towards innovative startups.

The Politecnico di Milano, in collaboration with Assolombarda, an Italian business association, and Italia Startup, the Italian most important association of startups, developed a model aimed at categorising the specific initiatives implementable by SMEs to collaborate with startups. The model provides both a compass to map the Open Innovation initiatives usable by SMEs and a six-stages path that SMEs could follow to structure the evolution of this collaboration.

³⁰ Vanhaverbeke (2017), Marullo et al. (2018).







EXPERIMENT STRUCTURE THE COLLABORATION INNOVATION HUB LOCAL ECOSYSTEMS CORPORATE VENTURE CAPITAL INTERNAL INCUBATOR RESOURCES EXTERNAL INCUBATOR SPONSORSHIP INVESTMENT ON SELECTED **NEEDED** STARTUPS PREPARATION JOINT VENTURE & STRATEGIC ALLIANCES FOR A STARTUP AS PROVIDER SUCCESSFUL COLLABORATION **EXPERIENCE** INNOVATION CONTESTS NETWORKING & SCOUTING EXECUTIVE COURSES ACADEMIC WORKSHOP SEMINARS CONFERENCES

Figure 4. Open Innovation Models³¹

INVESTMENT IN OPEN INNOVATION PROJECTS

The evolution process shown in *Figure 4* needs adequate resources and competences, as well as a strategic vision able to integrate Open Innovation practices in SMEs' businesses. Several Open Innovation practices can be implemented by SMEs during each stage of the path, using only their own resources or getting help from external specialised subjects:

- Learn and Explore: the first stage of the virtuous path is dedicated to the training: courses, seminars and workshops are seen as important occasions to develop new competences, to contaminate the enterprise and to start opening it towards innovation trends;
- 2. Research and Engage: the second stage is dedicated to the building of a first contact with startups, through scouting and networking activities, aimed at identifying subjects potentially able to support SMEs' business. The initiatives more commonly implemented during this phase are matchmaking events, brief meetings during which two enterprises can identify and start evaluating possible cooperation and partnership opportunities;

³¹ Adapted from Assolombarda (2019), p. 29.







- 3. Experiment: during the third phase SMEs start concretely to implement collaboration projects involving startups. In this phase the initiatives do not involve only one identified startup, but rather they are aimed at engaging more potential partners in order to find the right one, coherent with SME needs. The initiatives more commonly implemented during this phase take the form of innovation challenges, competitions involving external teams of solvers of business problems identified by SMEs. Startups could also be used as "one-shot" suppliers, as a first step to test specific innovative solutions;
- 4. Establish the Collaboration: during the fourth phase SMEs consolidate their relationship with startups, building business relationships with them. These could be more or less costly, ranging from procurement (startups become supplier of the SME), joint venture and strategic alliances (the two sides work together towards specific objectives, like the development of a new product), investment (SMEs buy some equity of the startup to sustain their scale up on the market);
- 5. Structure the Collaboration: if the previous phase was dedicated to the building of collaboration with one or more startups for specific purposes, during the following stage SMEs allocate resources to insert in their strategic framework the implementation of Open Innovation aimed at continuously looking for strategic partners among startups. Corporate Venture Capital and internal incubators are the most common tools adopted to structure this collaboration. For their expensiveness and complex management, these practices are mainly implemented by corporates, even if SMEs have the possibility to leverage on some external partner to externalise the processes (e.g., sponsoring external incubators to have a stable contact with startups);
- 6. Create the Ecosystem: in the last stage of our model SMEs act as innovation enablers, playing a central role in the construction of local or national innovation Hub and innovation ecosystem, networks of subjects of different nature (corporates, SMEs, startups, universities, research centers, institutions) with the objective of creating synergies and contamination to promote the innovation of businesses and communities.







As discussed in the *Introduction* of this paper, SMEs present several structural elements which impair their ability to run Open Innovation practices. Financial and economical constraints represent the most important factor that makes it difficult for SMEs to sustain large investments in expensive Open Innovation structures, such as corporate accelerators, venture capitals or innovation hubs. However, as highlighted by the academic literature, the simplest way to start approaching Open innovation for SMEs is that of participating in Open Innovation networks developing collaborations with other external subjects.

In the last years, thanks also to the contribution of EU support programmes to innovation processes in SMES, the number of innovation agencies which launched initiatives to promote collaboration between SMEs and other subjects like innovative startups has grown. These agencies are working as fundamental enablers of synergies involving traditional firms and new enterprises, acting as Open Innovation networks builders. As we will see in the next paragraphs, the Open Innovation models replicated by innovation agencies are several.

2.2 Good Practices reviewed

Project MEETING partners carried out a scouting activity to identify good examples of Open Innovation initiatives aimed at strengthening collaboration between SMEs and innovative startups. During this task, the partners adopted an innovation ecosystem perspective, searching for programmes or projects designed by subjects external to enterprises (innovation agencies, local institutions, central governments) more than for initiatives realised by single SMEs. Although the research results are not exhaustive and don't take into account all the initiatives implemented around the world, the practices collected represent an interesting sample able to show which are the Open Innovation practices more adopted by innovation agencies to make SMEs and innovative startups work together.

In the following table is reported a synthesis of the practices collected during the scouting activity³²:

³² For a full description of the practices collected, see the forms reported in Annexe 1.







Table 2. Open Innovation Practices collected by Project MEETING Consortium

N.	Name of the Initiative	Country	Overview	Subjects Involved
1	Ti presento una startup	Italy	Innovation initiative that wants to facilitate meetings between startups and traditional businesses companies	Business Association, members
2	ZICER Startup Factory	Croatia	Programme aimed at developing startups and new enterprises thanks to training and consultancy services	Institutions, innovation agency
3	Circularity goes Digital	Italy	Open innovation initiative that wants to foster the development of circular innovation projects in Italian companies, through collaborations with innovative startups	Private innovation agency, corporates
4	Business meets innovation	EU	Initiative aimed at fostering matching processes between business needs and innovative startups' solutions	Business Associations, corporates, private and public innovation agencies







		•		
5	Ocean Hackathon	France	Open Innovation challenge involving teams in 48 hours non-stop work in response to the challenge of producing an innovative project that included a demonstrator able to use the varied marine and maritime data provided	Technopoles, universities, private and public innovation agencies
6	Drone Tech Challenge	France	Open Innovation challenge for the Design of a swarm of marine drones	Public innovation agency, corporates
7	Bizhack Hackathon	Croatia	Open innovation virtual hackathon focused on solving problems of entrepreneurial ecosystem to create a more supporting entrepreneurial environment in Croatia	Chamber of Commerce, private and public innovation agencies
8	Venti di innovazione	Italy	The initiative puts in contact SMEs with specific business challenges to solve and innovative startups able to provide technological solutions. The best solution is implemented within an innovation project co-designed by the startup and the SME	Innovation agencies (Technological Park)







9	Leather Innovation Challenges 2025	Italy	The initiative is a call for proposals to collect ideas and innovative solutions for the innovation and development of the tannery industry	National Research Institute, private and public innovation agencies
10	Call 4 Ideas	Italy	Call 4 Ideas is a programme aimed at fostering innovation processes in the contact centres industry leveraging on the innovative solutions provided by startups. The initiative offers an acceleration programme for startups and entrepreneurship, funded by traditional companies	Business associations, private innovation agencies
11	Open innovation matching	Italy	Pilot initiative which aims at facilitating matchmaking meetings between startups and mid-caps ³³	Private innovation agency, EU Agencies
12	Innovation RumpUp	Italy	The Innovation RumpUp is a structured path of training and consultancy dedicated to SMEs to strengthen their competences on digital technologies	Business associations, Innovation agencies (Technological Park)

 33 Middle capitalisation companies with between 250 and 3000 employees.







13	PITCCH Project	EU	European project aimed at fostering collaborations between corporates and startups/SMEs with innovative solutions to their business challenges	Innovation agencies, EU Commission
14	BlockStart Project	EU	European project aimed at supporting the development and the adoption of blockchain-based solutions by SMEs	Innovation agencies, EU Commission

2.3 The Key Components of the Existing Good Practices

As said before, the set of initiatives collected by MEETING partners is not exhaustive and does not take into account all the programmes implemented around the world. However, it is possible to draw a first partial conclusion: the initiatives of open innovation aimed at fostering collaboration between SMEs and startups are still relatively few. Several projects analysed by the Consortium focused their activities to facilitate partnership opportunities between Corporates and startups and innovative SMEs.

In some cases, these projects were directly co-funded by Corporates and belong to the toolbox of open innovation practices used by larger companies to collect some external ideas (see for example the *Business meets innovation* initiative). In other cases, the actions were implemented under the direction of institutions and no-profit innovation agencies to support innovation processes in the EU economy towards key technologies and/or key industry macro-trends (see for example respectively the initiatives *PITCCH Project* (13) and *Circularity goes Digital* (3)).

The kinds of organisations that act as innovation agency coordinating the initiatives are manifold, ranging from private or public bodies specialised in providing support activities to SMEs to business associations and startup ecosystem organisations like technological parks and incubators/accelerators. This







multiplicity of actors involved shows that the interest towards the theme of open innovation in SMEs and the awareness of its potential to help SMEs strengthen their competitiveness is widespread.

Some projects directly addressed the challenge of fostering collaboration between SMEs and startups. The following paragraphs will synthesise the main elements characterising the reviewed good practices, considering their *Service Delivery Systems* and the kinds of open innovation model which they intend to replicate.

Open Innovation Models

Using as reference the framework presented in section 2.1, we can see that the initiatives of open innovation analysed positioned themselves on different steps of the path towards a structured collaboration between SMEs and startups (see *Figure 4*):

Table 3. Classification of the Open Innovation Practices collected by Project MEETING Consortium

N.	Name of the Initiative	Open Innovation Model	Activities
1	Ti presento una startup	Research & Engage	Networking and Scouting
2	ZICER Startup Factory	Research & Engage	Networking and Scouting
3	Circularity goes Digital	Research & Engage Experiment	Networking and ScoutingProcurement/co-development
4	Business meets innovation	Experiment	Innovation Contest
5	Ocean Hackathon	Experiment	Innovation Contest
6	<u>Drone Tech Challenge</u>	Experiment	Innovation Contest







7	Bizhack Hackathon	Experiment	Innovation Contest
8	Venti di innovazione	Experiment Establish the collaboration	Innovation ContestProcurement/co-development
9	<u>Leather Innovation</u> <u>Challenges 2025</u>	Experiment Establish the collaboration	Innovation ContestProcurement/co-development
10	Call 4 Ideas	Experiment Establish the collaboration	Innovation ContestInvestment
11	Open innovation matching	Research & Engage Establish the collaboration	Networking and ScoutingProcurement/co-development
12	Innovation RumpUp	Learn & Explore Establish the collaboration	Learn and exploreProcurement/co-development
13	PITCCH Project	Experiment Establish the collaboration	Innovation ContestProcurement/co-development
14	BlockStart Project	Experiment Establish the collaboration	Innovation ContestProcurement/co-development

Three main groups of initiatives could be identified, according to the kind of open innovation model implemented by innovation agencies to link startups and SMEs:

• Research & Engage initiatives: the first group includes a set of innovation support initiatives (n. 1-3) aimed at building a first contact between SMEs and startups through the organisation of meeting opportunities. The innovation agencies act as scouts of innovative companies which could offer valuable solutions for specific targets of SMEs. Startups and SMEs are involved in B2B meetings and matchmaking events³⁴, during which startups present their company and SMEs enter in contact with innovative technologies. However, supporting follow-up activities are not provided to companies to help them in deepening their reciprocal knowledge.

³⁴ See Glossary, p. 18.







- Experiment initiatives: the second group encompasses initiatives (n. 4-7) which adds a further step to the previous. SMEs and startups are encouraged to work together on common interest fields, so that SMEs could start experimenting with this kind of collaboration. The most common type of activity organised during these initiatives is that of the *innovation challenge*³⁵ (or innovation competition): SMEs propose business problems and innovators are requested to propose solutions to them. In some cases, solutions must be built together during hackathons or other kinds of co-creation events; in other cases, solutions are customisation of products already offered by startups based on the challenger's needs. These initiatives end with the awarding of the winning project: the challenger chooses the best solution and the kind of reward. Eventual follow-up activities aimed at implementing the best solution in the SME's processes are not included in project support activities, but they are let to the initiative of the single SME.
- Establish the collaboration initiatives: the third group is composed of initiatives (n. 8-14) which offer a more structured set of innovation support activities, aimed not only at fostering the meeting between SMES and startups, but also at helping them to concretely implement collaborative projects. The final output of these initiatives could be pilot projects implemented by SMEs, innovative products co-developed by SMEs and startups, procurement agreements for the purchase of solutions or qualified consultancy services on technical aspects. The experimentation activities are followed by some kind of agreement among the parties to regulate the collaboration conditions. During these projects, the innovation agencies provide time and resources to drive SMEs to work with startups in the medium-long term, going beyond the time frame of the single initiative.

This last group of initiatives have as objective that of giving birth to concrete forms of collaboration. The following table synthesises the key support activities implemented during these projects:

³⁵ See Glossary, p. 18.







Table 4. List of "Establish the Collaboration" initiatives collected by Project MEETING Consortium

Name of the Initiative	Innovation Agency	SMEs-Startups collaboration activities
Venti di innovazione	Polo di Navacchio (technological park and startup incubator/accelerator)	The core initiative is an innovation challenge proposed by single SMEs to solve their specific business problems. Innovative startups are requested to propose their innovative solutions, working on the information provided by SMEs to contextualise the challenge in their specific business processes. Once the winner of the challenge is chosen, the challenger SME and the startup work together to implement the solution defining a roadmap with a one-year limit duration, supported by an IP agreement and by project management resources provided by the innovation agency which manages the initiative.
Call 4 Ideas	AssoContact (business association)	The innovation agency managing the initiative identifies several innovation challenges for a specific business sector (contact centres industry). Start-ups and young entrepreneurs are requested to present their innovative solutions, which will be evaluated by a commission composed by experts in start-ups development and contact centres' industry.







		The three winners of the call are invited to participate in a six-months acceleration programme aimed at developing the company, refining the solution, and entering the market. The acceleration programme is funded by a group of SMEs of the contact centres sector, which reserve the option of investing in the accelerated companies buying a 10% share of their equity.
Open innovation matching	Mind the Bridge (private innovation agency specialised in Open Innovation)	The initiative was funded by EU DG Grow with the support of EASME with the objective of promoting open innovation processes in a specific target group of companies, the midcaps (medium capitalisation companies with 100/150€ M revenues). They received a dedicated assessment to identify strategic objectives and were involved in matchmaking meetings with startups, identified after a scouting activity performed by the innovation agency which managed the initiative. After the matching events, mid-caps and startups are supported to define possible collaboration paths, thanks to the resources made available by the innovation agency which manages the project.
Innovation RumpUp		SMEs are driven through a structured exploration journey in the open innovation world. At the start, training sessions are offered to provide to companies' executives a general education on digital technologies and their impacts on







		companies and business models. Lecturers include
		founders and staff of innovative startups.
	Como Next	·
	(technological park	Then, SMEs get an assessment of the digital readiness of
	and startup	the company, obtaining a roadmap of pilot projects that
	incubator/accelerator)	could be implemented to strengthen the competitiveness
	,	of the company adopting digital technologies. Auditors
		include staff of innovative startups. After the audit, SMEs
		could decide to implement one or more of the projects
		included in the roadmap, collaborating with the innovative
		startups which realised the audit or choosing other
		technology providers. The entire process is coordinated
		and monitored by the innovation agency.
		, G ,
		The Project is dedicated to fostering the adention of
		The Project is dedicated to fostering the adoption of
		blockchain-based solutions by SMEs. These are requested
		to apply to an Open Call with a business challenge which
	Bright Pixel, Civitta,	could be addressed by Distributed Ledger Technologies. Then most interesting challengers are matched with
	F6S (private	startups able to provide solutions and must work together
<u>BlockStart</u>	innovation agencies	to develop of a proof of concept.
<u>Project</u>	specialised in	to develop of a proof of concept.
	supporting startups)	The best projects are funded to be developed within a 4-
	sapporting startaps)	months roadmap. Once the project is completed, SMEs are
		supported to adopt the final product, completing a pilot
		project able to demonstrate a TRL of level 8-9.
		p. o, cor able to demonstrate a file of level o 3.
	I	







In all these initiatives innovation agencies act as SMEs' external innovation units, carrying on a range of different activities (identification of innovation needs, scouting of SMEs, organisation of open innovation events, innovation projects management) which in Corporates are usually implemented by internal innovation departments. The more structured initiatives are delivered to concretely build collaboration between SMEs and start-ups. In the next paragraph we will see which are the common elements that characterise the Service Delivery Systems of the innovation initiatives collected, that is the way with which support activities are defined and offered to SMEs.

Service Delivery System

According to the model defined by the EU Commission, a Service Delivery System is composed of three key elements: target groups, framework conditions and organisations, and process.

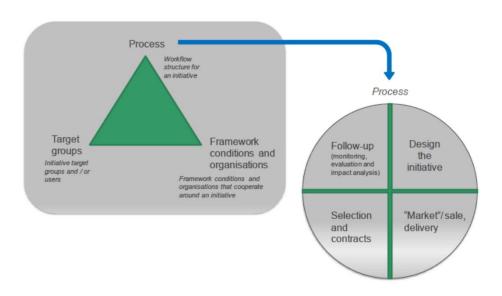


Figure 5. Service Delivery System³⁶

³⁶ From ec.europa.eu/easme/sites/easme-site/files/Paper-Twinning-advanced-methodology.pdf, p. 3.







Target Groups

For their inner nature, open innovation initiatives involve a multiplicity of different groups of subjects, with the objective of creating fruitful connections among the different actors. The specific objective of the scouting activity performed by project MEETING partners was that of finding initiatives which foster innovation in SMEs, activating dynamics typical of Inbound Open Innovation. In this scenario, SMEs are helped by innovation agencies to bring inside their structure ideas, products, solutions, technologies offered by innovative startups.

Using the target group point of view, we can distinguish between three different groups of initiatives:

- Initiatives organised in collaboration with SMEs or SMEs representatives: the main target group is that of innovative startups: innovation agencies have the role of finding startups able to meet the needs of SMEs, coordinating supporting activities to build collaboration among these two sides. However, these initiatives also target other groups of stakeholders of the Research and Innovation domain, like universities, students, research centres. Business needs are the main driver of these kinds of projects. This type of initiative is the most popular, including all the innovation competition initiatives.
- Initiatives organised in collaboration with startups or startups' ecosystem stakeholders: the main target group is that of SMEs: innovation agencies have the role of finding small companies interested in following an innovation path. These initiatives follow a "innovation push" logic: SMEs are invited to pursue innovation to strengthen their competitiveness, providing at the same time a market opportunity to startups. See for example the Innovation RumpUp (12). Initiatives targeting SMEs usually do not set any admission criteria, except the dimensional one or a general request to have a company culture open to innovation.
- Initiatives organised autonomously by innovation agencies: these initiatives addressed both SMEs and innovative startups, following an open format aimed at selecting interesting companies of both sides to give birth to interesting collaborations. See for example the BlockStart Project (14)







and the *Open Innovation Matching* (11) initiatives. Admission criteria could be set to select only companies working in a specific sector or towards specific technological innovations.

Framework conditions and organisations

All the initiatives are inserted in a European policies framework aimed at promoting innovation in SMEs, as testified also by the Horizon 2020 programme. With different degrees and actions, all EU countries elaborated programmes going towards this direction, supporting on one side the birth and development of innovative companies and building on the other side an innovation ecosystem fostering innovation in SMEs, especially thanks to the digital transformation.

As said before, open innovation is a collaborative process which engages different actors. It is not surprising then that innovation agencies rely on the collaboration of different organisations to deliver their support programmes to companies. In particular, innovation agencies collaborate with subjects able to provide connections with SMEs, thanks to their daily activity, and with organisations providing technical expertise on innovation management and technology transfer processes. From the analysis of the open innovation initiatives emerge 6 categories of stakeholders which provide their support to European innovation agencies:

- Business associations: have a key role in many initiatives, playing different functions. In some cases, they are co-organisers of the projects, helping define or directly represent the innovation needs of SMEs, especially in innovation contests aimed at solving sector-specific challenges. In these initiatives business associations provide internal resources, like personnel to implement activities or funding to facilitate the participation of their SMEs. In other cases, business associations support innovation agencies in promotion activities, thanks to their proximity to the companies they represent.
- Startup ecosystem organisations: have a key role in supporting innovation agencies in engaging startups, promoting their initiatives within their network of innovative companies. They could also provide supporting services, like scouting and training.







- Corporates: in some of the initiatives analysed, they are directly involved as challengers looking for innovative solutions from the startups ecosystem. However, in projects dedicated directly to SMEs, they act as sponsors, using the initiatives to gain visibility through the provision of goods and services to run it.
- Institutions: support the initiatives economically, usually providing funding to the innovation agencies to implement their programme or directly financing (partially or completely) the participation to the programme of SMEs and startups. Public bodies at local, regional or national level and other organisations like the Chambers of Commerce fall under this category.
- Research and education organisations: are involved as potential solvers of specific innovation contests and to promote the initiative at their spinoff companies. Fall under this category Universities and research institutes.
- Other innovation agencies: provide technical support to innovation agencies, which trust them to perform specific tasks of their programme, like mentoring and training services, project management, technical evaluation.

Process

It is possible to distinguish four main categories of activities which structure the delivery process of open innovation initiatives: design, marketing, implementation and follow-up. From the analysis of the good practices several patterns uniting the different projects emerged:

<u>Design</u>: the designing of the activities always involves several different subjects, following an open process. In fact, innovation agencies have to collect needs from stakeholders to focus on the challenges that a specific business sector or ecosystem wants to address and to start involving them since the first phase of the project. The degree of engagement of external stakeholders in the planning activity depends on the level of commitment they have in the implementation activities.

<u>Marketing</u>: for the promotion of the initiatives, innovation agencies rely mainly on their networks of stakeholders, including the same subjects that provide their help in the designing phase. The







communication mixes traditional and digital channels and tools, like press releases for online and offline newspapers, dissemination events to present the opportunities offered by the initiative, generalist and innovation-focused social networks, blogs, institutional web-sites of project partners.

One key marketing aspect defined with high attention by innovation agencies is the kind of funding scheme used to foster the participation of companies. Lack of adequate internal resources in terms of personnel, funding and time represents an important impairing factor for innovation in SMEs. Employing these resources to participate or organise an open innovation project represents an investment which many SMEs are not able to afford or to decide to complete. At the same time, also innovative startups do not have adequate resources to use, especially during their seed phase.

For these reasons, innovation agencies have generally designed initiatives without entry fees for SMEs and startups, in order to facilitate their participation. We can see this situation especially in the *Research* & *Engage Initiatives* and in the *Experiment Initiatives*, focused on backing SMEs during the first steps of their path towards open innovation. The costs for the organisation of matchmaking events or innovation contests are generally sustained completely by innovation agencies and eventual sponsors or other stakeholders interested in the initiative results.

For the *Establish the collaboration initiatives* the funding schemes chosen by agencies are various and depend on the complexity of the initiatives and on the expected outputs. For this kind of projects, cofinancing is usually requested to SMEs to be supported during the project activities, even if innovation agencies generally try to keep the cost for SMEs as low as possible to facilitate them. In structured collaboration building initiatives the benefit for SMEs is clearer than those deriving from Exploration or Research activities, being represented by concrete outputs like prototypes, new products or improved processes that should have usefulness in time.

<u>Implementation</u>: the execution of the project always starts with the selection of the targeted enterprises. The complexity of this process is proportional to that of the innovation initiative. For the simpler ones a registration of the participants is enough. Conversely, matchmaking events, innovation contests and other output-oriented initiatives usually adopt two kinds of procedures. The first one is the scouting of the companies in line with the project objectives: the innovation agencies, autonomously or in collaboration with other expert organisations, select the companies able to offer solutions, products or







competences useful to solve a specific challenge or to give their contribution to foster innovation. This procedure is used especially in initiatives targeted to innovative startups. The second kind of procedure is that of the open call: an advice is published to collect proposals or applications from startups and/or SMEs, then these applications are evaluated following specific evaluation criteria.

After their selection, startups and/or SMEs are inserted in the innovation support path proposed by the initiative. Analysing the articulation of the core activities, it is possible to distinguish between "one-shot" initiatives and more articulated projects. The first ones have a limited duration and have their main focal point in a single event, like a matchmaking event or a single-day hackathon to co-develop innovative products. In this case, innovation agencies dedicate their time to the preparation and management of the event and to the selection of the companies.

The second category of initiatives requests a supplementary series of tasks which must be performed by innovation agencies. First of all, lasting projects need the implementation of monitoring activities, aimed at checking the progress of the project towards its objectives. Secondly, this type of projects is characterised by a higher proximity between innovation agencies and startups and SMEs, which need to be supported during the different phases of their collaboration (for example, in co-design projects, companies could be supported from the definition of the agreement and their IP rights to the execution of more specific R&D tasks). Finally, these initiatives usually comprehend a set of different services which is delivered to companies (training, consultancy) directly by innovation agencies (using their own resources) or by external experts (which must be selected, contracted and coordinated).

<u>Follow-up</u>: this kind of activities are realised after the ending of the project and of the core implementation activities. In the majority of the cases analysed, follow-up is not explicitly included in the initiatives' outline: the projects end with the reaching of their final outputs, but eventual capitalisation activities aimed at maximising their impact are not clearly stated. An exception is represented by EU cofunded projects, that include dissemination and capitalisation activities which go beyond the end of the project. These activities are usually mainly represented by informative events that share project results.³⁷

³⁷ Given the proximity in time with respect to the MEETING project of all the initiatives analysed, the Consortium is not able to determine if follow up activities have been implemented by innovation agencies to capitalise project results and lessons learnt, for example refining the design of an initiative to re-propose it.







3. Designing a new SMEs innovation support initiative

3.1 Key Takeaways from the Existing Good Practices

The materials collected during the MEETING project show an increasing interest of the innovation ecosystems of different European countries towards the promotion of open innovation processes in SMEs and the building of collaborations with startups. However, three main limits to this perspective have emerged. The first one concerns the groups of traditional companies targeted by the main innovation support initiatives analysed: several projects are still focused on corporates and larger enterprises. The main reasons for this approach are that corporates have more resources dedicated to innovation, are more used to collaborating with external subjects, have competences and internal structures dedicated to clearly identify innovation needs.

The second limit refers to the other side of the collaboration: many initiatives are oriented to involve not only innovative startups as solutions providers, but a wider range of subjects, like more mature SMEs, universities and research centres. If this approach seems more than reasonable to increase the probability of finding appropriate solutions to the innovation needs, on the other side it shows that the promotion of startups' scale up is not the priority of these initiatives.

The third consideration is that structured initiatives aimed at building strong collaborations between SMEs and startups are still few. As we have seen, *establish the collaboration* initiatives represent only a part of the projects developed by innovation support organisations. This situation could be traced back to two main reasons. The first one is SMEs' congenital lack of time: it is difficult to ask them to allocate personnel on exploration activities not clearly connected to core business processes. The relevance of capacity building activities like training, consultancy and networking is often overlooked by SMEs management because these activities take time off from everyday operations.

The second reason is the expensiveness of the more structured initiatives: providing support services and funding to foster the birth and the implementation of collaborative projects requests to innovation agencies significant financial and human resources. The economic sustainability of the initiatives is not easy to assure: on one side, asking SMEs and startups to pay entry fees could hamper their participation,







compromising the effectiveness of the initiative; on the other side, third parties like business associations could provide their financial help, but they could have strategic priorities different from that of open innovation. For this reason, national and european programmes supporting innovation in SMEs have a crucial role in open innovation practices development.

On the basis of the materials elaborated during the analysis and the peer-review of the practices collected, project MEETING Consortium identifies several key elements which could be considered as recommendations for innovation agencies interested in the organisation of support initiatives aimed at strengthening collaboration between SMEs and startups. These suggestions have been organised in a canvas elaborated by partners (see Figure 6) which condensed the pillars of the Service Delivery System model (see Figure 5) and some fundamental components of any open innovation initiative.

Objectives

Target Groups

Meet.In.G

METINGS for Minovation Model

Funding Scheme

Partners

Process

Figure 6. Canvas representing the Key Elements of open innovation initiatives

Project MEETING partners used these key elements to design the model of open innovation initiative which will be presented in *Paragraph 3.2*. The description of the elements which will be provided in the







next pages has been refined and integrated according to the feedback received by MEETING partners from the stakeholders involved in the project labs and from the companies interviewed.

Objectives

1. The general objectives of any innovation support initiative must be that of addressing one or more main barriers to innovation which companies, especially SMEs, meet in their activities. These barriers are well known and have been identified by several studies and analysis³⁸, and generally are strictly linked to SMEs constitutive structure. The two main kinds of barriers usually indicated by SMEs are financial barriers and knowledge/competences barriers. As shown several times in this document, small companies have few financial resources to invest in innovation activities. The scarcity of funding is also a relevant problem for all the startups, especially in their pre-seed and seed phases: insufficient links with finance providers like business angels and venture capitals are often indicated as the hardest obstacle to overcome by these innovative startups.

On the other side, also the lack of access to skills and qualified staff heavily impairs innovation capacities of smaller companies. SMEs often are not able to identify and follow the main technological and business trends and to collect and use external information to improve their own business. We referred to this problem as weak "absorptive capacity". A situation which is intensified by the augmented complexity of the competitive scenario (increased complexity of products and services, growing emphasis on green/sustainable innovation, faster innovation cycles, longer value chains).

2. Strengthening the collaboration between SMEs and startups could be considered the general objective of the projects aimed at making these two sides work together. The main impacts of this kind of initiatives are especially two: fostering innovation processes in SMEs and at the same time helping startups to increase their market and/or refine their solutions. However, more specific objectives must be set. These objectives should be operative and measurable, in order to

³⁸ See European Commission (2021). The main barriers identified in the study can be synthesised in 7 main groups: i) financial barriers, ii) lack of skills / qualified personnel, iii) bureaucratic barriers, laws, standards and regulations and difficulties in managing IP, iv) lack of external partners and possibilities of collaboration, v) barriers related to the organisational level, vi) lack of knowledge, vii) market constraints.







be clearly communicated to the target groups (e.g., "support X SMEs in developing new products", "help Y startups refine their solutions", "provide xxx€ funding for xxx projects"). In this way, interested SMEs and startups can easily understand the value for their business of the initiative proposed.

3. Open innovation support initiatives are structurally aimed at supporting different target groups of companies, like SMEs and startups. However, to maximise their effectiveness and the use of resources, they should balance the different needs of SMEs and startups. On one hand, SMEs are interested in innovating their products, services, business models, through the adoption of innovative solutions offered by startups that should be already mature and customisable for their needs. On the other hand, startups are oriented to develop their company and to build their solutions for a wider market, rather than on specific innovation challenges proposed by SMEs that risks to be strictly company-related. An effective open innovation initiative should consider both these *desiderata*, without reducing the mutual benefits that open innovation is able to bring to the involved target groups. SMEs' needs should always be collected to define the scope of the initiative, while startups should be supported not only on product development, but also with capacity building activities aimed at laying the foundations for their scale-up.

Target groups

- 1. It is not easy to identify objective elements able to clearly qualify the groups of SMEs more suited to be successfully engaged in the open innovation initiative. Standard dimensional criteria like the turnover and the number of employees could be useful to have a first idea of the company structure, but cannot represent indicators of the propension to innovation of a company. Smaller enterprises could be much more dynamic than medium ones, as well as companies with lower revenues could be at the start of their scale up. For these reasons, if any selection criteria would be set at the start of the initiative, they should be more related to understanding the motivation laying behind their interest in participating in the project and their innovation propension.
- 2. The initiative should be focused on specific domains (e.g., digitalisation, Industry 4.o, sustainability, circular economy) and specific sectors (e.g., fashion industry, retail, food chain).







Selecting specific domains coherent with the main trends that are shaping the market could help SMEs to embrace transformation processes to improve their competitiveness and their chance to survive in the medium and long term. Focusing the activities on specific sectors facilitates the identification and the clustering of SMEs needs and the scouting of innovative solutions more adequate for each industry. Moreover, also the selected startups would be more homogenous and characterised by similar needs (product development, technology, distribution channels) that could be addressed by innovation agencies, providing them capacity building services. What is really important to remark is that SMEs and start-ups must be selected really carefully to create valuable connections among them.

3. SMEs lack time and specific competences to properly explore potential innovation needs to catch up major market and technology trends. For this reason, more traditional companies may be not aware of what they require to improve their competitiveness. One of the main challenges which innovation agencies have to face is that of helping SMEs to bring out their business needs. This aspect must be considered to foster participation in the open innovation initiative of a wider range of SMEs, especially those less familiar with innovation activities. To make this happen, it is very important to provide to SMEs some preparatory activities at the start of the open innovation support programme, with the objective of raising awareness about the strategic relevance of specific themes like digitalisation and sustainability. Training sessions, case studies presentations and study visits to best-in-class companies and facilities could be appropriate tools to be used in this phase.

Open Innovation Models

1. The choice of the open innovation model to adopt is obviously strictly related to the objectives set at the start of the initiative. As we have seen, there are different viable possibilities characterised by different levels of complexity, and then of resources needed in terms of budget, time and competences required to provide innovation support services (scouting, mentoring and coaching, project management, R&D). Before launching their projects, innovation agencies should carry on a deep analysis of the context, defining the budget, planning in advance the







activities to complete and identifying the most suitable actors able to provide their economic and operative support to the initiative. More structured open innovation models are able to create a higher impact for their target groups, proportionally to the resources allocated for their implementation. As we have seen, *Establish the collaboration* initiatives provide a set of support services both for SMEs and startups, producing valuable outputs which could be used by the companies also after the project, such as pilot projects, prototypes, assessment reports. In some cases, startups could also benefit from acceleration services aimed at supporting the growth of the company. Innovation agencies should be ambitious in the deployment of their action, aiming at building relations between SMEs and startups, making them work together on concrete projects.

- 2. A gradual approach could be the most appropriate to minimise the risk of misallocating resources due to a scarce participation of SMEs to the initiative. Before working on promoting collaboration projects between SMEs and startups, it could be useful to provide some preparatory and less time-consuming activities to the companies, combining different open innovation models or putting them in sequence with different initiatives. Networking, B2B events, free training and workshops could be used to create awareness about innovation needs and trends and collect feedback by stakeholders and companies, representing a first step towards more structured activities. These initiatives should be open to a group of companies as large as possible without restrictions to the participation. However, these activities should be focused on specific innovation domains and economic sectors.
- 3. Another element to consider in the selection of the open innovation model to implement is the kind of economic sector addressed. For some sectors, especially the more technology-intensive ones such as manufacturing, it would be easier to "establish the collaboration" to support projects to develop new products or to improve processes. In fact, these sectors are structurally more innovation-oriented and a R&D unit is generally present inside the firms, at least in medium sized companies (50-249 employees) and in more structured small companies (10-49 employees). This kind of SMEs has personnel which could be involved in innovation projects to co-develop







prototypes or pilots with startups and other external experts. On the contrary, some more traditional services sectors, such as retail and tourism, are less technology-oriented and are represented mainly by micro companies (less than 10 employees). To address these target groups, it may be easier to introduce them to the different innovation domains through specific awareness building activities. Then, SMEs could be introduced to some "experimentation" activities aimed at building one-to-one collaborations with startups, for example helping SMEs to adopt specific innovative solutions, in line with their needs, thanks to funding and support services.

Funding Scheme

- 1. To facilitate the participation of companies to the open innovation initiatives, innovation agencies should try to maintain the costs to be sustained by SMEs and startups as low as possible, giving them the opportunity to freely access through appropriate funding the support services offered. In fact, financial barriers represent the main obstacle to innovation which SMEs have to face³⁹. The funding scheme to be used depends on the kind of open innovation model implemented in the initiatives. Less structured, "one-shot" initiatives like B2B meetings, basic training sessions, hackathons, could be entry-free, usually representing a first approach to open innovation by SMEs. For more structured, time lasting initiatives like development of pilot projects, prototypes, introduction of solutions in business processes, support services should be coupled with the provision of funding aimed at covering, totally or partially, the cost sustained for innovation by SMEs in terms of personnel, raw materials and investments.
- 2. Grants and vouchers seem to be the most appropriate means to be used as funding schemes, providing financial resources to companies which successfully complete their innovation projects. The SMEs and the startups interviewed by MEETING partners validate this element, recognising in vouchers covering part of the costs of the innovation projects the most useful funding scheme to help them invest in innovation. Other types of funding identified by partners as viable options

³⁹ See European Commission (2021).







already used in other innovation support initiatives, such as vouchers to cover the intellectual property of project outputs, in-kind contribution for technical support to the project implementation, have not met the same interest of SMEs. An interesting form of funding scheme which is seeing a growing use especially in European Commission co-funded projects is that of the *lump sum*. According to this scheme, SMEs are provided with funding once they submit the requested output and demonstrate to have met the objectives agreed with innovation agencies, without the need to provide cost invoices or time sheets. This mechanism simplifies the funding awarding procedure and significantly reduces the bureaucracy burden on SMEs.

3. Monetary incentives are surely important to facilitate the participation of companies in open innovation initiatives. However, also immaterial benefits have a fundamental role in increasing the perceived value of the support activities provided to SMEs by innovation agencies. As stated by different stakeholders interviewed by the MEETING Consortium, through their participation in public events and external projects, SMEs and startups are always looking also for networking opportunities to broaden their contact lists and to gain visibility in the ecosystem. For this reason, innovation agencies should dedicate great attention to communication activities, in order to increase the attractiveness of the initiative leveraging on immaterial benefits it may deliver. Investing time and resources on a communication strategy which recognises the importance of local dimension could also facilitate the dissemination and the replication of the results in other SMEs. In fact, SMEs are usually inserted in locally based networks of suppliers, customers and competitors built mainly on informal and personal relationships. Word of mouth plays a crucial role in communication activities between the different actors. Entrepreneurs are used to exchanging information and experiences about their business and, when this process is hampered by competition logics, they give maximum attention to collecting information about the actions of other similar companies. Giving visibility to successful innovation projects could foster emulation by other companies belonging to the same sector which have to deal with the same challenges.







Partners

- 1. Different stakeholders should be involved by innovation agencies as partners of the initiative to facilitate the participation of both SMEs and startups. On one side, business associations (which usually represent homogenous economic sectors) could act as facilitators for their SMEs. On the other side, incubators, universities and tech parks could promote the initiative inside their networks of startups and spinoffs. However, these organisations should be involved from the design phase of the initiative, providing their suggestions and indications. Due to their proximity to the target groups, business associations and innovation ecosystem actors could bring out their main needs, as well as strengthen the credibility and the relevance of the initiative.
- 2. An early involvement in the initiative may raise the chances that external stakeholders linked to the target groups could provide resources, both financial and operational, to implement the initiative. However, innovation agencies should also consider involving other important actors which may act as sponsors of the initiative to cover part of the costs. Moreover, sponsors could also contribute with other types of support, such as mentoring or free access to resources like software, facilities, and in-kind contributions. Corporates could be good sponsors, being interested in a further development of their market share in the SMEs segment (e.g., corporates offering enabling technologies solutions such as ICT could be interested in promoting their products) or in a general advancement of the smaller companies of their territories and markets to create wealth. Other sponsors could be found among institutions, finance players (banks, funds), universities and research centres.
- 3. An element which could facilitate the success of an open innovation initiative is that of leveraging on an existing innovation community, that is a network of companies and other actors already connected by a shared interest for innovation and collaboration activities. The existence of such an ecosystem may help innovation agencies to engage SMEs and other companies which are already characterised by an open mindset. In case this condition is not met, as said before innovation agencies should work on some preparation activities aimed at raising companies'







awareness on specific innovation topics. More ambitious initiatives should be interested in creating long-lasting impacts on entrepreneurial ecosystems. As suggested by already existing good practices, some open innovation initiatives have among their objectives that of creating "open innovation communities", fostering meeting opportunities and the exchange of information between all the companies involved in the project, even if they did not work together. The creation of these virtuous dynamics could strengthen SMEs innovation processes also after the end of the initiative, as well as create a friendlier environment for further open innovation projects. The challenge for innovation agencies is that of creating a "community of practices" on open innovation.

Process

- 1. Several suggestions concerning the implementation process have been already inserted inside the previous sessions. However, some peculiar indications concerning the operational activities needed to execute the project could be added. The first one regards the importance of a shared preparation: the planning of the activities should be as inclusive as possible, following a co-design process. Main stakeholders should be involved in preparatory meetings to collect their indications and, if interested, a role in the initiative should be proposed to them, sharing objectives and work plans. Moreover, a deep analysis of the key competences needed to implement the initiative should be completed, in order to understand which kind of external expertise is needed (e.g., mentoring of startups, facilitation and co-design techniques, product technical development). External experts could be involved in the planning and definition of the activities.
- 2. In fostering innovation in companies, owners and executives play a crucial role. Projects sponsored by C-level managers have more probabilities to succeed: resources are requested and allocated in an easier way, personnel are more motivated to reach objectives, strategic purpose is assured in the medium and long terms. All these aspects gain even more relevance in SMEs, where decision making is concentrated in few hands. For these reasons, open innovation

⁴⁰ See Wenger-Trayner (2015).







initiatives promoted by innovation agencies should engage directly SMEs' owners and executives which have decisional power in innovation contests. They should be involved to become internal sponsors of the initiative, committing the company to its success. Innovation agencies have to find a way to directly enter in contact with them, something which is less difficult in local contexts where informal relations and word of mouth characterise business communication.

- 3. To catch SMEs' and startups' interest it is very important to provide them a clear and effective picture of all the main elements of the proposed initiative: objectives, target groups, timeline of the activities, funding. This last aspect must be especially stressed, being it the main lever which innovation agencies have to stimulate companies' curiosity. A clear communication should be maintained along all the project duration, giving to the companies all the information they need and a clear timeline of the activities to be completed.
- 4. It is always challenging to communicate to SMEs the contents and the opportunities of specific support initiatives which are not clearly related to their everyday operations. A strong effort is needed to promote the initiative, orchestrating a multi-target and multi-channel communication. SMEs and startups need different communication strategies to be properly addressed, mixing more traditional tools (public events, meetings with stakeholders, press releases, web site) with digital marketing ones (social networks, online advertising, search engine optimisation).
- 5. Time is among the most scarce and valuable resources which SMEs have. Innovation agencies should dedicate maximum attention to optimise as much as possible, adopting a lean approach. All *muda* (not productive activities) should be eliminated, keeping always in mind the value generated for the target groups of the initiative. Any formal procedure or bureaucratic aspect should be simplified and minimised to facilitate participation of SMEs and startups. The possibility of providing support for SMEs and startups in case an application process has been planned should be considered to facilitate their access.
- **6.** Follow-up activities play a crucial role in monitoring and maximising the impact of the initiative, so they must be well planned and executed by innovation agencies. Disseminating the results is







essential to share success stories and to show the benefits gained by SMEs and startups participating in the initiative. Best case companies could become ambassadors of the initiative, fostering emulation processes in other companies. For this reason, after the end of the project, innovation agencies should keep in touch with the beneficiaries to understand if and how they further developed their innovation activities and their open innovation practices. An assessment of the satisfaction reached and a collection of the feedback from target groups should always be conducted to improve future projects and possibly refine the format proposed.

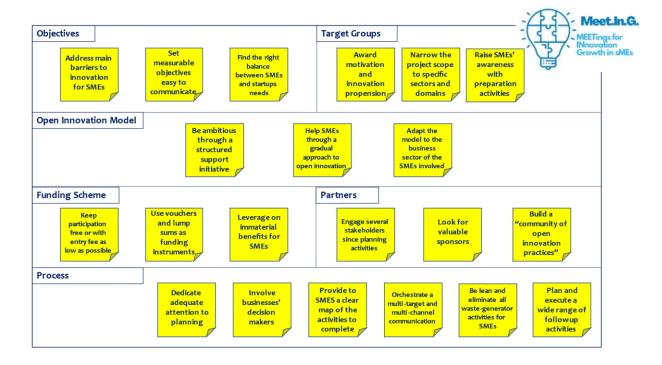


Figure 7. Project MEETING recommendations summary

3.2 An Innovative Model of Open Innovation

Based on the elements presented in the previous paragraph, MEETING partners elaborated a model of open innovation initiative aimed at supporting startups and SMEs partnerships⁴¹. The model proposed aims at reaching the following objectives:







⁴¹ See Annexe 2.

- Foster an innovative support path for better open innovation practices between SMEs and startups;
- Elaborate a common methodology that could be discussed and tested by the different ecosystems and partners;
- Find a way to engage a community of practice on open innovation with SMEs and startups;
- Help the sourcing, co-creation and funding of new innovative products and services;
- Consider the impact and sustainability aspect of the path and its results;
- Design an initiative that could be easily replicated with the European ecosystem.

The model "Open Innovation Path" was discussed and peer-reviewed during the working labs of the project organized with the partners and the different invited stakeholders. This work enabled the Consortium to identify the strengths but also the improvement needed on the process to be able to disseminate the results with key recommendations. Four key steps were designed to structure the innovation path, each one dependent on the previous one to make sure that the overall process was efficient:

<u>Phase 1: Find and Explore</u>: the first stage is focused on the building of a community of practice on open innovation, by sharing knowledge, identifying and involving the different key stakeholders, and establishing a shared governance of the activities.

<u>Phase 2: Engage the community and select the projects</u>: the second stage is finalised to inform, scout, and select the groups of SMEs and startups to engage them in the process of open innovation by establishing their collaboration.

<u>Phase 3: Development Phase</u>: the third phase is dedicated to the incubation of the collaborative projects implemented by the teams composed by SMEs and startups, through the delivery of a set of support services necessary for the validation and implementation of the projects roadmaps.

<u>Phase 4: Sustainability Plan</u>: the last stage is focused on the elaboration of the sustainability strategy of the initiative, aimed at guaranteeing long-term impacts through the capitalisation of the results, thanks to adequate impact analysis, dissemination activities, and promotion of results.







In the next four sections, each phase and the relative methodologies are reported.

Phase 1: Find & Explore

This phase is the first step to generate interest and start bidding together a *community of practice* on open innovation. The notion of "community of practice" was developed by Jean Lave and Etienne Wenger⁴² on the basis of a social theory of learning. It concerns groups of people who share an area of interest and engage in interactions and activities that produce knowledge sharing and resources that affect their practice. Working on building a community of practice in innovation ecosystems dedicated to open innovation practices would help to lay the foundation for interactions between stakeholders and promote the necessary knowledge sharing to engage participants. Innovation agencies must play a part in the coordination of the "Open innovation community of practice" to bring together the members and foster interactions, support collective learning and the sharing of resources.

The main activities that must be considered in this phase are linked both to the emergence of the community of practice and to the establishment of the governance of the open innovation initiative:

- Create a dedicated community of practice on open innovation by engaging the local innovation and entrepreneurial ecosystems into networking events and meetings to help identifying the key stakeholders and defining the target groups of SMEs and innovative startups to involve in the innovation support initiative (e.g., retail industry, ICT, traditional SMEs, ...).
- "Explore" with co-creation workshops aimed at sharing a vision, defining the innovation challenges to address, creating awareness on innovation trends and potentialities. The innovation challenges could emerge directly from SMEs and business association's needs ("bottom-up" approach), or from a strategic analysis of the main technologic and economic trends (e.g., circular economy, Industry 4.0, Artificial Intelligence, ...) which should be addressed by local and European companies ("top-down approach").

⁴² See Lave and Wenger (1991), Wenger (2000).







• Create the governance of the initiative, setting up a steering committee and an efficient multistakeholders communication. In this phase the most suitable collaborative tools should also be defined, like online platforms (e.g., Discord, Slack, Teams, ...) and project management applications (e.g., Trello, Basecamp...).

Phase 2: Engage the community and select the projects

After structuring the community, the idea is that of engaging its components in the open innovation activities within a structured "open innovation path". An interesting way to do so is publishing call for proposals, often used by innovation agencies and other subjects in the undertaking of regional and continental policies and to select the beneficiaries of support policies. Calls for proposals enable agencies to target the users on a specific action with a defined agenda. The main elements of the second phase of the open innovation initiative are then the publication of the calls for application for SMEs and startups and the selection of the collaborative projects to support.

For the first one, two different approaches are possible: SMEs will submit their challenges and ask for startups to offer a solution to it ("bottom-up" approach) or SMEs express their interest of working with startups to co-develop technological services or tools able to solve more general strategic challenges which are shared by whole sectors and industries ("top-down" approach)⁴³. At the same time, the call for innovative startups is finalised to make them present a description of their technical know-how and of

⁴³ During the workshops of the MEETING project, the partners elaborated two different models of open innovation support initiative. The first one, called "Bottom-up Model", aims at helping SMEs to solve their business innovation challenges, like develop a new innovative product, or improve an internal process thanks to service and/or technological innovation. The central role of innovation agencies is that of selecting SMEs with innovation challenges to solve and start-ups able to provide solutions to them, fostering their matching to create consortiums aimed at developing pilot projects. The second model, called "Top-down Model", is more focused on the startups side because it aims at helping them to build innovative solutions based on more general sector or technological challenges. SMEs are involved in two different moments: they provide some feedback on the possible application of the solutions in their business and then are supported to adopt them. The key role of innovation agencies is that of identifying key challenges/technologies/sector needs strategical for SMEs development, identifying best innovative start-ups to support in these domains and identifying SMEs interested in adopting innovative solutions. MEETING partners worked on a synthesis of the two models, considering that the possibility to choose between the "bottom-up" or "top-down" approach depends on the innovation ecosystem and the local stakeholders' experience.







the innovative solutions offered to solve the proposed challenges. To facilitate the participation of both target groups, the selection should be as "liberal" as possible, aimed at measuring elements such as the motivation to join the innovation support path, the innovation potential, and the coherence with the industries and technological domains identified during *Phase 1*.

Once the participating SMEs and startups are identified, open innovation events like *Creative Camp* or *Hackathon* would be organised to foster the collaboration between the two groups of companies. These events can enable stronger matchmaking activities between challengers and innovators, supporting team building and an effective matching of the business needs of SMEs with the technological expertise of startups. The result of the innovation events will be the creation of teams of one SME and one startup, which will work on one proposed challenge. During the innovation events, each team will realise a mockup of their solution with the help of mentors while applying the *Double-diamond* design thinking process (with its key steps: research, define, ideate, prototype, iterate and validate) for the brainstorming of the ideas, the development of the solution and its validation. At the end of the process, each team will present their project during a pitch competition, during which the best projects are selected by a jury of professionals according to qualitative evaluation criteria like innovativeness, technology readiness, business impact. Only the best projects with an adequate qualitative score will have the opportunity to access the following phase.

Phase 3: Development Phase

The third phase is dedicated to sustaining the development of the best collaborative projects thanks to a set of supporting activities coordinated by the innovation agencies involved in the initiative. The output of this phase will be a prototype of the innovative solutions to the challenges identified during the previous phases. As the first step of the development phase, the selected teams of SMEs and startups will get help to define their projects roadmap, during one-to-one meetings with the steering committee of the initiative. A work plan, as well as a timeline and a set of business and technical objectives to be reached within the end of the project, would be defined.

Then, the teams will receive a set of supporting services aimed at helping them to successfully implement their collaborative projects. These "incubation" services comprehend capacity building activities, like







workshop training aimed at reinforcing companies' knowledge on innovation trends, technical services offered by experts, such as product development support, IP and innovation management consultancy, and coaching, and project management assistance. At the end of their roadmaps, every team which successfully implements its prototype and meets the expected objectives will get access to funding.

MEETING partners hypothesise two main different kinds of funding schemes. The first one is that of lump-sum: successfully teams could receive a fixed amount once they submit their final deliverable (i.e., the prototype), showing the achievement of the expected objectives. In this case, SMEs and startups have to complete their project leveraging on internal resources and getting maximum value from the supporting services delivered by the innovation agencies. A second kind of funding scheme is that of the innovation vouchers: SMEs and startups get reimbursements for the purchase of external services and resources needed to implement their projects. In this case, the support activities offered by innovation agencies are less decisive to realise the prototypes, since they can be combined with other resources. In this scenario, innovation agencies may focus their activities especially on support services like project management, objectives focalisations, and orienteering.

In both cases, to facilitate companies' participation and ease their financial burden, a first instalment of the lump sum/voucher could be released to companies at the start of the development phase. The quantification of the funding for the teams is not an easy task and depends on several variables, like the complexity of the output requested, the kind of technology needed, the dimension of the SMEs involved in the initiative. At the same time, innovation agencies should consider the types of internal technical expertise which could be offered to companies: higher is the innovation agency expertise, greater could be the amount allocated to funding. Anyway, to raise the attractivity of the innovation path towards the companies, allocate a significant amount of the available resources on the funding side could be the best choice, in order to provide lump-sums or vouchers with a unitary value reaching the symbolic figure of 10.000€.

Phase 4: Sustainability plan

The last phase of the project is dedicated to the sustainability strategy to support the dissemination of the project impacts. This step is often overlooked and compromises the communication of the results in







the ecosystem and the engagement of the community and future entrepreneurs in these open innovation path. MEETING Consortium identified three main activities which should deserve great attention. The first one is the completion of a rigorous impact analysis, in order to obtain a detailed study of the positive effects that the participation in the initiative produced in SMEs, in particular in terms of further development of the prototyped solutions and of adoption of innovative technologies in their business models. MEETING partners observed that often also successful innovation support initiatives lack clear data about their results, especially in the medium-long term.

The second activity to complete is represented by the drafting of a "sustainability plan", that is a document containing a set of actions to carry out to guarantee the duration in time of the results reached by the project. These actions could include, for example, the provision of assistance to SMEs and startups to get access to other funding opportunities to continue implementing their innovation strategies, after the first step completed thanks to the "Open Innovation Path".

Finally, the open innovation initiative should be followed by an adequate set of dissemination actions of the results directed towards SMEs. To foster emulation processes in other companies, when the "Open Innovation Path" is finished the entrepreneurs both from the SMEs and the startups should be invited to become "ambassadors" within the ecosystem and promote the initiative in the next cycle of projects. The dissemination activities should also be oriented towards European innovation networks and hubs to help disseminate best practices for other European SMEs and startups.

3.3 Final remarks

The model presented offers answers to some of the main difficulties and barriers met by SMEs to engage in Open Innovation. These elements could help innovation agencies foster new support for open innovation bidding SMEs and startups. For the SMEs side, thanks to the "Open Innovation Path",

Concerning the knowledge gap, they will gain better access to different resources and expertise on innovation technologies and startups trends. Open innovation will offer them an interesting combination of internal and external knowledge.







- ✓ They will enhance their collaboration activities with the startups and better identify and be connected to technological providers.
- ✓ Moreover, they will also have the opportunity to connect to other members of the community of practice (clusters, experts, innovation providers, R&D centres...), increasing their networks of partners.
- ✓ To validate the relevance of their projects, SMEs would benefit from the testing phase with the users and with the experts' feedback, lowering the uncertainty and the risks of starting innovation projects.
- ✓ Regarding their lack of internal skills, SMEs would get help from innovation experts and regular one-to-one support by business advisors on their project's development.
- ✓ Concerning the funding barrier for SMEs to engage in open innovation practices, the "Open innovation path" would provide relevant financial support, guaranteeing null entry fees and interesting funding schemes with lump sum and vouchers.

For the startups side,

- ✓ They would have the opportunity to access a network of potential B2B customers for their innovative solutions, as well as to network with other relevant actors of the community of practices.
- ✓ They would be followed by qualified experts in the development and refining of their solution, both in the case they work to solve SMEs challenges and in the case they work with SMEs to solve more general challenges.
- ✓ They may benefit of a set of capacity building activities, like training, workshops, and mentoring, useful for the development of their entrepreneurial culture.







✓ Like SMEs, startups would have access to funding opportunities, especially important in the first phases of company development aimed at looking for the solution-market fit.

In a nutshell, the participation of SMEs and innovative startups in the "Open Innovation path" would contribute to improving their competitiveness by giving them innovative knowledge and assets, access to collaboration and reducing the development time of innovative projects and solutions. On one side, SMEs can bring inside the firm solutions developed for their peculiar needs, enhancing their capacity to adapt to a fast-changing competitive scenario. On the other side, startups can develop products validated by the market, valorising the feedback received by SMEs and innovation experts.

The main assumptions of the "Open Innovation Path" were validated by MEETING partner through a series of validation activities. One workshop was organised inviting innovation experts like incubators and acceleration programmes managers, technology transfer officers and entrepreneurs. Moreover, an online questionnaire⁴⁴ was used to collect structured feedback from SMEs and innovative startups. At the same time, a small pilot initiative was organised to test some of the support activities included in the "Open Innovation Path"⁴⁵. Innovation actors showed an overall interest for the MEETING proposal, supporting its main assumption and agreeing on the objectives. On the other side, companies expressed their needs on the kinds of supporting services which could be more useful for approaching open innovation and collaborative projects with external subjects, as well as their preference about the type of funding scheme to use.

According to the feedback collected, four main integrations to the recommendations presented in *Paragraphs* 3.1 could be proposed:

 Structured open innovation initiatives, such as the "Open Innovation Path", can create a strong impact for their target groups, proportionally to the resources allocated for their implementation.
 However, the complexity of the initiatives needs an adequate project governance which must be







⁴⁴ See Annex 3 for the questionnaire and Annex 4 for a summary of the most relevant answers.

⁴⁵ For more information see https://metropoletpm.fr/actualites/open-innovation-week. The initiative did not involve matchmaking activities between SMEs and startups but was aimed to understand the effectiveness of group activities which used methodologies like design thinking to address innovation challenges proposed by local stakeholders.

able to coordinate all the resources and the stakeholders in the field. The support activities to provide to the companies are heterogeneous and should be in line with SMEs and startups needs. For this reason, leveraging on a strong network of innovation actors and experts is the key for the success of the initiative.

- As stated by the stakeholders interviewed by MEETING partners, innovation agencies should pay maximum attention to the appropriate balancing between the needs of SMEs and those of startups. The first ones are more interested in "ready" solutions, to integrate in their business to solve immediate challenges. The second ones are more oriented to developing general-domain solutions which could target broader segments of customers. The collaborative activities proposed by agencies inside an open innovation initiative could then mix project development support services focused on the production of outputs tailor-made on SMEs needs with assistance activities with a long-term vision aimed at helping innovative startups to develop their business and their internal competences.
- Innovative startups are relatively easier to involve in open innovation initiatives than SMEs. In fact, younger companies are always interested in finding new commercial opportunities and in strengthening their business networks, gaining visibility in the ecosystem. Also SMEs are commercially projected to catch all the interesting possibilities, but they tend to be usually less interested in exploring potential opportunities not clearly related to their core business, even because often SMEs don't know where opportunities lie due to the impairing factors already discussed in this document. In order to be able to collect applications and participation requests from SMEs, innovation agencies should work as near as possible to business associations, which usually represent homogenous economic sectors and can boast a privileged proximity with SMES. This key stakeholder group should be involved in the initiative from the planning phase, finding it a clear role in the implementation phase, not limited to communication activities.
- The use of lump-sums and innovation vouchers as funding schemes for the innovation support initiative seems to be the most appropriate way to go. Interviewed companies showed more interest







in innovation vouchers than in in-kind contributions offered by innovation agencies to support the projects implementation. Vouchers give the opportunity to companies to cover a part of the costs incurred to develop or adopt innovation, partially overcoming the congenital lack of financial resources which characterises SMEs and innovative startups. Another aspect which emerged several times from the dialogue with companies is the need of simplified procedure to access public support tools: enterprises need rigorous selection procedures that do not weigh on their lean structures with bureaucratic requirements. For this reason, lump-sum could be the most appropriate funding tool to use, as testified also by the growing use of it by European programmes dedicated to SMEs and small organisations. Lump-sum schemes reward companies that demonstrate to have reached the operative objectives shared with the innovation agencies, without charging them with formal fulfilments and expenses reporting requests.

To conclude, project MEETING activities tried to follow the advice of Vanhaverbeke⁴⁶, who outlined three main directions that an effective support programme to open innovation in SMEs should consider. MEETING partners focused their attention especially to the networking dimension. The importance of building a community of practices encompassing SMEs, startups and other important stakeholders has the primary objective of creating a friendly environment that facilitates smaller companies to approach collaboration opportunities. As pointed out by Vanhaverbeke, once the network is built the real challenge is that of creating benefits and value for all the participants. The activities described in the "Open Innovation Path" have the ambition to create value both to SMEs and innovative startups, thanks to the implementation of collaborative innovation projects. At the same time, the other stakeholders involved in the network could gain indirect benefit: business association could see a gain in competitiveness of their companies and an increased visibility in the sector, innovation actors could benefit of the growth of the startup ecosystem they contribute to cultivate, institutions and public bodies could appreciate an overall boost in SMEs innovation processes. The networking building activities have been coupled with capacity building activities, thought by MEETING partners as necessary to help SMEs and startups to be

⁴⁶ See supra, Paragraph 1.2.







able to absorb effectively the knowledge gained through the participation to open innovation networks. The technical supporting services included in the "Open Innovation Path", such as training, mentoring, technical support, and innovation support assistance, have in fact the scope of supporting SMEs in building their innovation culture and adjusting their internal structure and processes, in order to gain competitiveness and develop a higher grade of resilience to the ongoing major changes in the competitive scenario.







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5. Annexes

Annex 1 – Best Practices Collected by Project MEETING Partners

These are the forms of the best practices collected by partner during the Project MEETING activities, displayed according to the following order:

- 1. Ti presento una startup
- 2. ZICER
- 3. Circularity Goes Digital
- 4. Business Meets Innovation
- 5. Ocean Hackathon
- 6. Open Drone Tech Challenge
- 7. Bizhack Hackathon
- 8. Venti d'Innovazione
- 9. Leather Innovation Challenges 2025
- 10. Call 4 Ideas
- 11. Open Innovation Matching
- 12. Innovation RampUp
- 13. PITCCH Project
- 14. BlockStart Project











1 - Ti Presento una Start-up

Country

Italy

Innovation Support Initiative Name

TI PRESENTO UNA STARTUP

(I PRESENT YOU A STARTUP)

Year

2019-2020

Overview

Ti presento una startup is an innovation initiative that wants to facilitate meetings between startups and traditional businesses companies

Innovation Agency

Confindustria Bergamo is the association of the manufacturing companies of the province of Bergamo. It includes more than 1000 enterprises, mainly SMEs

Objectives

 $Encourage\ collaboration\ opportunities\ between\ traditional\ companies\ and\ innovative\ start-ups$

Process

The initiative is articulated in four main activities:

- Start-ups Application
 - The start-ups interested must fill a form on the web site of Confindustria Bergamo, attaching an elevator pitch PowerPoint presentation
- Evaluation
 - The presentations are evaluated by a commission composed by entrepreneurs and officers of the Association
- Matching Day
 - Selected start-ups present their pitches to the companies of Confindustria Bergamo
- Follow up
 - After the matching events, traditional companies and start-ups could engage in collaboration activities, like commercial partnerships, investments, procurement deals











1 - Ti Presento una Start-up

Target Groups

The initiative is open to all the start-ups with innovative solutions in one of the following fields:

- New Material
- Digital transformation
- Smart production
- Innovation in quality control
- Circular economy

Traditional companies involved in the matching events are companies associated to Confindustria Bergamo working in a specific manufacturing sector (e.g. for 2020 the plastic and rubber sector).

Stakeholders

The initiative is fully coordinated and implemented by Confindustria Bergamo, in particular by the group of Young Entrepreneurs of the Association

Funding

There are not costs to participate to the initiative neither for SMEs nor for start-ups

Open innovation Model

The collaboration activities are not defined in advance, so from matchmaking meetings could stem different kinds of results, like procurement and co-designing agreements and investments in the equity of the startups.

Takeaways

Strengths:

- Company association are strongly related to SMEs
- SMEs are the main target, there are not many corporates in Italy
- There are not tight restrictions to participate

Weaknesses

- There is not a structured collaboration path that follows the matchmaking events
- External subjects with competences in open innovation and start-ups are not involved











2 - ZICER

Country

Croatia

Innovation Support Initiative Name

ZICER - Entrepreneurial Centre "Blue Office"

Year

2020

Overview

ZICER is a Croatian organisation aimed at facilitating early-stage start-ups to create high-quality innovative tech products

Innovation Agency

ZICER Plavi ured is an innovation agency whose objective is supporting the birth of new enterprises, thanks to a network of entrepreneurs, Universities and local institutions.

Objectives

Raise entrepreneurial competences, promote entrepreneurial spirit and facilitate access to funding for all start-ups and innovative enterprises.

Process

The ZICER support programme is articulated in three main activities:

Educational activities

Educational programs are divided into two groups – those about starting a business in Croatia, and those that expand entrepreneurial competencies in general. Start-up Academy, a four-day seminar, prepares participants to start their own business. In cooperation with external experts, ZICER Plavi ured also offers various educational programmes in the field of marketing, finance, business planning, e-business, communication skills, human resources and other areas relevant for running a business.

Entrepreneurial counselling

ZICER Plavi ured also offers free counselling for future and present entrepreneurs. Consulting can be in the areas of law, finance, grant programs and other areas relevant to existing and future business. Entrepreneurs of already existing enterprises could provide their advisory to start-ups.

Funding

The City of Zagreb provide grants with a total fund of HRK 500,000, financing industrial property protection, development and technical-technological processing of innovations, promotional activities and market analysis.











2 - ZICER

Target Groups

The main target group of the initiative is that of aspiring entrepreneurs, as well as early-stage startups. SMEs could be involved as advisors for the launch of the enterprise

Stakeholders

Public institutions (city of Zagreb), Universities, advisors

Funding

The participation to the ZICER programmes is fully funded by the City of Zagreb, start-ups have not to pay any entry fee.

Open innovation Model

Start-up support

Takeaways

The project builds a stimulating environment for the new entrepreneurial initiatives in the local community. This project enables the development of entrepreneurial competencies, as well as provides accurate information and counselling regarding starting a business in Croatia. After acquiring entrepreneurial skills, local people are more likely to engage in entrepreneurial endeavours.











3 - Circularity Goes Digital

Country

ITALY

Innovation Support Initiative Name

CIRCULARITY GOES DIGITAL

Year

2020

Overview

Circularity goes digital is an open innovation initiative that wants to foster the development of circular innovation projects in Italian companies, through collaborations with innovative start-ups.

Innovation Agency

The initiative is coordinated by Cariplo Factory, in collaboration with two corporates, Intesa Sanpaolo and Microsoft. Cariplo Factory is a no-profit innovation agency specialised in open innovation programs and in delivering support services for start-ups.

Objectives

Accelerate the circular transformation of traditional companies' business models through the building of collaboration with innovative start-ups of the digital and circular economy ("circular open innovation").

Process

The initiative is articulated in three main phases:

- Scouting and application phase (two months)
 Interested start-ups can apply to participate to the program filling the form on the Cariplo
 Factory website, providing a description of the company and some financial KPIs
- Speed Date Networking (one day)
 Selected start-ups and corporates will meet during a matching event, in order to understand needs and solutions
- Circular Transformation Path (five months)

 If needs and solutions match, collaborative projects could be implemented. With the support of Cariplo Factory, pilot projects and work plans are defined.











3 - Circularity Goes Digital

Target Groups

The initiative will scout innovative solutions provided by start-ups of three specific areas:

- Design Out Waste & Pollution
- Supply Chain Optimization
- Products & Materials Life Extension

There aren't restrictions for the corporate participation.

Stakeholders

Microsoft will provide training and digital solutions to selected start-ups, while Intesa San Paolo will evaluate the access to own funding for the projects implemented during the initiative (Intesa has a plafond dedicated to circular economy innovation projects).

Funding

Start-ups don't have to sustain any cost to participate to the program, as well as corporates haven't. The collaboration projects born will be sustained by corporates, with the possibility to accede to the funding plafond for circular projects of Intesa San Paolo.

Open innovation Model

Procurement and Co-Development

The start-ups could become partner and provider of the corporate that wants to implement a circular innovation project.

Takeaways

Strengths:

- Partners have a strong network of corporates
- No cost for start-ups, no fixed costs for corporates
- A financial institution is involved in the project, providing funding with good conditions
- Scope of the initiative and business areas are well defined

Weaknesses

- SMEs are not the main target of the initiative
- Timeline is very condensed: 5 months to implement a pilot could be not enough











4 - Business Meets Innovation

Country

ITALY GERMANY **Innovation Support Initiative Name**

BUSINESS MEETS INNOVATION

Year

2020

Overview

Business Meets Innovation is an initiative aimed at fostering matching processes between corporates needs and innovative start-ups' solutions.

Innovation Agency

The Chamber of Commerce Italian-Germanic (AHK), a German business association which works to improve commercial relations between Germany and Italy.

Objectives

- Helping German corporates in finding innovative solutions for their projects
- Strengthening commercial relations between German and Italian companies

Process

The initiative is articulated in four main phases:

- German corporates ("Top Players") realise a "reverse pitch", presenting their planned innovation projects ("Technology Challenges") and their business needs;
- Start-ups interested in presenting their solutions apply to the contest, subscribing the rules
 of the competition and a non-disclosure agreement with the AHK and the Top Players. They
 have four months to prepare a ppt presentation and/or a video of their solution to one or
 more of the Technology Challenges. During this period, start-ups have the possibility of
 attending two webinars to ask any questions to the Top Players, and two mentoring
 webinars with an advisory and consultancy firm;
- Top Players receive the presentations, select the best applications and invite the most interesting start-ups to have a pitch in their presence. After the pitches, each Top Player chooses the best solution of their Technological Challenge;
- The best start-ups are invited to attend a final event for the selection of the Overall Winner, assessed by a commission of experts evaluating the quality and the innovation of the solutions.











4 - Business Meets Innovation

Target Groups

The initiative is open to start-ups, innovative SMEs, Universities' spin-offs, students and researchers.

Stakeholders

The AHK is supported by several business partners, like corporates and business associations. Moreover, many innovation agencies like technological parks, incubators and accelerators, are involved in the promotion of the initiative to their affiliated start-ups. In total, the 2020 contest has 6 business partners, 5 Italian companies associations and about 40 innovation agencies among its partners.

Funding

The participation of start-ups is totally free.

Probably Top Players and other sponsors contribute to the organisation of the initiative

Open innovation Model

The collaboration activities between start-ups and Top Players are not defined in advance, so from the contest could stem different kinds of results, in particular procurement and co-designing agreements.

Takeaways

Strengths:

- Top Players are top-tier corporates with high reputation
- The initiative is supported by a strong network of partner
- $\bullet \quad \text{The process of presentation and presentation of the applications is well structured} \\$
- Start-ups can interact easily with corporates and are provided with free consultancy services
 The prestige of the award attracts a strong participation of start-ups (100 in 2018, 92 in 2019)
- Weaknesses
 - The steps following the contest are not defined
 - Strong business relations with corporates are required
 - SMEs are involved in the challenge as solvers and not as innovation seekers











5 - Ocean Hackathon®

Country France Innovation Support Initiative Name

Ocean Hackathon®

Year 2019 & 2020

Overview

Open Innovation challenge

Teams work non-stop for 48 hours in response to the challenge of producing an innovative project that included a demonstrator and used the varied marine and maritime data provided.

Innovation Agency

The Brest-Iroise Technopole created the Ocean Hackathon® with the Campus Mondial de la Mer. TVT innovation is the agency in charge of doing it in Toulon, being responsible for the local implementation of the Ocean Hackathon®.

Objectives

Ocean Hackathon® is an initiative by Campus Mondial de la Mer which encourages sharing, the use of new digital technologies and an entrepreneurial spirit. The resultant projects enhance the value of marine and maritime data, often by repurposing it. Data providers focus their efforts on improving data accessibility and comprehension and are involved in coaching participants throughout the event.

Process

Ocean Hackathon® will be held simultaneously in nineteen cities in 2020: Ancona, Boulogne-sur-mer, Brest, Cadiz, Cardiff, Cartagena, Castellon, Champs-sur-Marne, Deshaies, La Rochelle, Le Havre, México, Nantes, Rimouski, Saint-Jean-de-Luz, Saint-Malo, Sète, Split and Toulon.

Ocean Hackathon® is organised in three stages:

- Call for applications from cities,
- Call for challenges submitted by private individuals or bodies, and
- Registration of participants who will make up the teams.

http://www.tvt.fr/Vous-informer/Actualites/Appels-a-projets-concours-AMI/Ocean-Hackathon-2020-Appel-a-defis











5 - Ocean Hackathon®

Target Groups

Tech, digital, maritime blue tech

Stakeholders

Enterprises, start-ups, students, researchers, public institutions in the field of maritime economy, Universities. Ocean Hackathon® is also supported by seven French national bodies with an ambassadorial role: Ifremer (French Institute for Ocean Science), Shom (French hydrographic and oceanographic service), Météo France (French National Meteorological Service), Le Village by CA (start-up acceleration network), Office Français de la Biodiversité (French Biodiversity Office), Cluster Maritime Français (French Maritime Cluster) and Cedre (French accidental water pollution centre).

Funding

Participant fees, private and publics sponsors and TVT

Open innovation Model

Innovation challenge

Takeaways

Strengths:

- The competition is organised simultaneously in 19 European cities
- Several national bodies are involved as ambassadors of the competitions
- Coordinated communications activities enhanced the participation of several teams

Weaknesses:

- SMEs are involved in the challenge as solvers and not as innovation seekers
- The follow-up of the projects' development after the hackathon is not well defined











6 - Drone Tech Challenge

Country France Innovation Support Initiative Name

Drone Tech Challenge

Year 2020

Overview

Open Innovation Challenges for the Design of a swarm of marine drones

Innovation Agency

The company Naval Group's Innovation Hub in coordination with TVT Innovation and its System Factory service (dedicated to Tech innovation).

Objectives

Several objectives were identified: Scout for innovation / Foster new idea / Help create working prototypes / help foster a dedicated community

Process

- 1 –A <u>Call for ideas online</u> to answer to the Challenge for the Design of a swarm of marine drones was announced during a local Tech & Innovation event called "Innov Day" in May 2020
- 2– The start & management of an **online community** (100 participants) using a private Facebook page Swarmz to get people together and share knowledge on R&D and activities done in the concerned field.
- 3 The validation of ideas and **pre-selection of 12 projects** done by a group of experts from the Engineering School, the company Naval group and TVT in September 2020. The idea afterward is to get people to work in teams on the projects mixing students, researchers, staff and start-ups.
- ${\bf 4}$ Support done to help the team go from the idea to the ${\bf project's}$ ${\bf product}$ ${\bf conception.}$
- 5 **Pitch award** ceremony with 3 awards for the best ideas during the System Factory Day (professional event dedicated to Tech innovation that was organized in Toulon)

The winner will get some financial support and mentoring from the partners involved to go to the prototyping phase.











6 - Drone Tech Challenge

Target Groups

Tech start-ups in the field of digital, electronic, 3D print

Stakeholders

Enterprises, start-ups, students, researchers, public institutions in the field of maritime safety, Universities.

Funding

The initiative is funded by both partners, TVT and the company Naval Group The winner of the contest gets a Financial Award at the pitch event

Open innovation Model

Innovation challenge

Takeaways

Strengths:

- The process biding together different both public and private stakeholders seems to be working
- Building of an online community for the exchange of good ideas

Weaknesses

• SMEs are involved in the challenge as solvers and not as innovation seekers











7 - Bizhack Hackathon

Country CROATIA Innovation Support Initiative Name

Year 2020

Overview

BizHack is an open innovation virtual hackathon focused on solving problems of entrepreneurial ecosystem to create a more supporting entrepreneurial environment in Croatia.

Innovation Agency

The project is coordinated by the Croatian Chamber of Commerce. Its implementation was done by Lean Startup Croatia, an innovation agency and non-profit organisation.

Objectives

The objective of the initiative was that of collecting solutions to the three challenges aimed at building a more entrepreneurship-friendly Croatian business ecosystem. The three challenges were:

- How to foster entrepreneurship in Croatia?
- How to facilitate business start-ups in Croatia?
- How to guarantee continuous consultancy and training services to Croatian start-ups?

Process

The initiative was articulated in four main stages:

- 1. Definition of the concept of hackathon and promotional activities
- 2. Creation of content and communication materials to attract participants
- Execution of the event coordinating all stakeholders (participants, facilitators, mentors and organisers)
- 4. Report about the results

All the initiative is delivered through online channels necessary to gather skilful teams of individuals to solve stated challenges.











7 - Bizhack Hackathon

Target Groups

Target of the initiative were entrepreneurs, tech-savvy individuals, students of design, technology and business.

Stakeholders

Regional or local development agencies, incubators and universities to promote the initiative. Startup experts and corporate partners to provide mentorship and support to participants who create solutions to stated challenges.

Funding

The project is co-funded by EU and the Croatian Chamber of Commerce. Monetary rewards are provided to the winning teams.

Open innovation Model

Innovation challenge

Takeaways

Strengths:

- Challenges are strictly linked to business activities
- Initiative coordinators are supported by competent partners

Weaknesses

• SMEs are involved in the challenge as solvers and not as innovation seekers











8 - Venti d'Innovazione

Country

Innovation Support Initiative Name

Year

ITALY

VENTI D'INNOVAZIONE

2020

Overview

The initiative puts in contact SMEs with specific business challenges to solve and innovative startups able to provide technological solutions. The best solution is implemented within an innovation project co-designed by the startup and the SME.

Innovation Agency

Polo Tecnologico di Navacchio is the coordinator of the initiative. It is a technological park which offers incubation and acceleration services to startups and innovative SMEs hosted in the facility. It also provides support to help companies to access to public and private funding opportunities.

Objectives

Facilitate innovation processes in SMEs thanks to the collaboration with innovative startups, developing projects able to meet SMEs' specific needs.

Process

The business challenge is detailed in a public call. Applicants are also provided with further informative materials detailing SME's business model, as-is processes, potential solutions already tested in the past.

Applicants must provide a Ppt presentation containing a description of the company and of the solution provided, with a possible roadmap of the implementation of the innovation project and an estimate of the costs to sustain.

A committee of experts, composed by representants of Polo di Navacchio and of the challenger SME, as well as external consultants, evaluates the applications and identify the best solution, taking into account some criteria such as innovation level, TRL, team quality, solution feasibility.

The winner proposal will have the possibility of developing the innovation project with the SME, committing to give it the exclusivity of the solution.











8 - Venti d'Innovazione

Target Groups

There are no restrictions for participants who want to propose their solutions, but the main targets for obvious reasons are innovative startups with hi-tech solutions and a focus on R&D.

On the companies' side, the initiative is dedicated especially to SMEs of traditional sectors, that need to focus their internal resources on core business activities and could benefit of the help of external partners for R&D activities. The last calls were proposed by two manufacturing SMEs.

Stakeholders

The initiative is fully coordinated by Polo di Navacchio. A key role is played by the SMEs that propose the business challenge. SMEs involved are part of the network of the Polo, which is recognized as an authoritative open innovation services provider.

Funding

Startups don't have to sustain any cost to participate to the program, while SMEs pay Polo di Navacchio for the realisation of the initiative.

The collaboration projects born will be sustained by SMEs.

Open innovation Model

- Innovation Challenge: Startups are called to propose their solutions to answer the business challenges proposed by local SMEs
- Procurement and Co-Development: The startups could become partner and provider of the SMEs that wants to implement the innovation project.

Takeaways

Strengths:

- The innovation challenge model permits to address specific real needs of SMEs
- SMEs are strongly engaged in the initiative

Weaknesses

• The initiative relies "only" on Polo di Navacchio without other stakeholders involved











9 - Leather Innovation Challenges 2025

Country

Innovation Support Initiative Name

LEATHER INNOVATION CHALLENGES 2025

Year

2020

Overview

The initiative is a call for proposals to collect ideas and innovative solutions for the innovation and development of the tannery industry

Innovation Agency

The Italian Leather Research Institute is the Italian agency for the research in the leather sector, providing consultancy, training and R&D services to all the enterprises of the industry

Objectives

The initiative wants to build partnership and collaboration projects between the SSIP and technology and solutions providers, with the objectives of starting R&D projects useful for all the leather industry and promoting the birth of new start-ups.

Process

The initiative is articulated in four main phases:

- Participants have to fill an online form reporting main information about their proposal, describing their solution and its potential impact on the leather industry
- The SSIP evaluates the proposal, according to quality criteria such as innovation level of the proposal, Technology Readiness Level, feasibility of the project, quality of the team
- The subjects which submit proposals positively evaluated will be invited by SSIP to an
 interview to analyse possible collaboration paths











9 - Leather Innovation Challenges 2025

Target Groups

The call for proposals is open to all the private and public subjects interested in proposing and sharing their solutions with a technology readiness level between 4 and 9 able to answer to the three challenges of the call:

- Product Innovation
- · Sustainability and Circular Economy
- Industry 4.0 and Leather Smart Factory

Stakeholders

The initiative is implemented with the help of Tree Open, a private firm specialised in the management of open innovation programmes.

Funding

The programme is funded by the SSIP, which used a grant of the Economic Development Ministry to purchase consultancy services of Tree Open.

Open innovation Model

Innovation Challenge

Takeaways

Strengths:

- The SSIP acts as collector of the needs of the enterprises of the whole leather industry
- The SSIP is the most appropriate subject able to evaluate the proposals

Weaknesses

- SMEs are not directly involved in the initiative
- It's not clear how and when technology transfer processes to SMEs start
- Challenges are broadly defined
- There are not well-defined incentives or award for start-ups and call participants
- The process following the evaluation of the proposals is not defined











10 - Call 4 Ideas

Country ITALY

Innovation Support Initiative Name

CALL 4 IDEAS

Year

2020

Overview

Call 4 Ideas is a programme aimed at fostering innovation processes in the contact centres industry leveraging on the innovative solutions provided by start-ups. The initiative offers an acceleration programme for start-ups and entrepreneurship, funded by traditional companies.

Innovation Agency

AssoContact is the Association of Italian companies of the contact centers sector

Objectives

- Find innovative solutions able to improve the quality of contact centres' services
- Accelerate the birth and the scale-up of innovative start-ups

Process

The initiative is articulated in four main phases:

- AssoContact identified some business areas which could be innovated thanks to the
 develop of specific solutions relative to some technological domains (e.g. RPA, sentiment
 analyses, lead generation).
- Start-ups and young entrepreneurs with a solution able to answer to the call send their
 application providing a description of the solution. A commission composed by experts in
 start-ups development and contact centres' industry awards the three best ideas.
- The teams which presented the three best ideas can participate in a six-months
 acceleration programme aimed at developing the company, refining the solution and
 entering the market. The acceleration programme is funded by four members of
 AssoContact.
- At the end of the programme, the four funding companies have the option of buying a 10% share of the equity of the start-up











10 - Call 4 Ideas

Target Groups

The initiative is open to start-ups and young entrepreneurs who want to launch their idea. The solutions must be related to one of the three business areas and technologies individuated by the Call:

- Hr: Recruitment 4.0, People Engagement, workforce management
- Operations: CRM, RPA, sentiment analysis, omnicanality, social media
- Sales & Marketing: Lead generation, marketing and digital marketing

Stakeholders

The acceleration programme is coordinated by Grownnectia, a private company specialised in open innovation programmes and in delivering support services for start-ups. Grownnectia makes available to startups a team of mentors and advisors and a toolbox of methodologies for the development of start-ups in their seed phase.

Funding

The acceleration programme is funded by 4 companies of the contact centres' industry, mainly SMEs, which also provide mentorship and assistance services to the young enterprises

Open innovation Model

Investment

The winning start-ups have to guarantee a purchase option of the 10% of the equity to the companies which funded the acceleration programme

Takeaways

Strengths:

- High commitment of tradition companies
- Association could help to spread the result of the call to all its companies, especially SMEs
- Searched solutions are requested to be easily adoptable for SMEs
- Equity option reinforce the relationship between traditional companies and start-ups
- A partner with strong competences in start-ups support is involved

Weaknesses

• The programme is funded only by four companies which could be not interested in spreading innovation











12 - Innovation RampUp

Country

ITALY

Innovation Support Initiative Name

INNOVATION RUMPUP

Year

2017-2019

Overview

The Innovation RumpUp is a structured path of training and consultancy dedicated to SMEs to strength their competences on digital technologies

Innovation Agency

Como Next, a technological park which offer incubation services to startups and open innovation programs for corporates and SMEs. It acts both as coordinator and service provider of the Innovation RumpUp.

Objectives

Fostering digital innovation processes in SMEs, especially of those of more traditional sectors

Process

The Innovation RampUp is composed by two phases:

Training sessions: offer a general education on digital technologies and their impacts on companies and business models. The seminars are interactive and tailor-made on the profile of the companies. The speakers are members of Como Next staff and employees of startups.

The cost to participate is 500€ per person, for two full days of learning.

Consultancy services: the team of digital consultants provide an assessment of the digital readiness of the company, analysing its strengths and weaknesses with an audit at the company's offices. The output of the assessment process is a document with a roadmap of pilot projects that could be implemented to strengthen the competitiveness of the company adopting digital technologies. This phase needs 3 full days of work by the consultancy team and costs 6000ε .

The most interesting aspect of the initiative is the innovation transfer model developed by Como Next to leverage the network of competences of the startups incubated ("NExT Innovation"). The park offers digital consultancy services to all interested SMEs coordinating teams of consultants composed by entrepreneurs and employees of the startups specialised in 4 technological areas. These consultancy services space from digital maturity assessment to more structured industrial collaborations.











12 - Innovation RampUp

Target Groups

The initiative is open to the companies of all dimensions and sector, but its main focus is represented by SMEs of more traditional sectors, especially manufacturing, craft sector, retail.

There are not selection criteria to access the initiative.

Stakeholders

- The Chamber of Commerce of Como and Lecco, which provides a grant to cover the 25% of the cost of the participation to the Innovation RampUp for all the local companies
- The local trades associations of manufacturing, craft and retail sectors, which provides a
 grant to cover the 25% of the cost of the participation to the Innovation RampUp for
 associated companies

Both stakeholders have also an active role in the promotion of the initiative to the companies, through the organisation of informative events and meetings. Human resources of the stakeholders are part-time staffed on these activities.

Funding

The participation to the initiative is funded with grants from 25% to 50% by local stakeholders.

Open innovation Model

Consultancy and procurement

Innovative startups act as digital consultants of the SMEs, providing an assessment of their digitalisation level and offering them a list of possible pilot projects to be implemented to address some weakness points and opportunities. The SMEs then can choose if develop these projects and purchase the services from the same startups.

Takeaways

Strengths:

- Trades associations have a key role to promote the initiative for their companies
- Grants are provided to SMEs
- Como Next is an authoritative innovation agency which act as broker between startups and SMEs, acting as commercial partners of startups...

Weaknesses

- ... but startups could struggle to build a direct link with SMEs
- SMEs associated to trade associations represent a little minority of companies
- The value of an assessment could not be easy to understand for SMEs with few resources
- For the technological support SMEs already relies on entrusted suppliers











13 - PITCCH Project

Country

EU

Innovation Support Initiative Name
PITCCH Project

Year

2020-2023

Overview

European project aimed at fostering collaborations between corporates and start-ups/SMEs with innovative solutions to their business challenges

Innovation Agency

The project is implemented by a Consortium of five members composed by public and private innovation agencies, research centres and private companies

Objectives

Promote collaborations between corporates and SMEs/start-ups to develop innovation projects Building an open innovation community including corporates, SMEs and innovative start-ups

Process

The Project is articulated in 3 main stages

Challenges Definition

Corporates interested propose their challenges, and SMEs and start-ups with interesting offers propose their solutions. These activities are performed on the PITCCH Platform, developed to build an Open Innovation network.

Collaboration Definition

The PITCCH team selects the best candidates and propose them to the Corporates, which select the most promising and invite them to a Pitch Competition. Each Corporate then choose one subject with which start its collaboration.

Collaboration Implementation

Partners are supported by PITCCH team to implement the roadmap. SMEs/start-ups receive also 40 hours consultancy brokerage services, including the assessment of the needs in terms of technical and business support needed to realise the solution.











13 - PITCCH Project

Target Groups

European Corporates of wide list of economic sectors. SMEs/start-ups working providing advanced technologies solutions in specific sectors, like Advanced Manufacturing, Advanced Materials, Nanotechnology, Micro and Nano-electronics, Photonics, Industrial Biotechnology, Digital technologies.

Stakeholders

European innovation agencies, enterprises networks

Funding

The project is funded by Horizon 2020 programme, corporates and SMEs/start-ups have not to pay any entry fee. Moreover, winner SMEs/start-ups receive a financial support of €25.000.00 in-kind contribution against payment to develop the project and free 40 hours of consultancy services.

Open innovation Model

- Innovation Challenge: SMEs/startups are called to propose their solutions to answer the business challenges proposed by corporates
- Procurement and Co-Development: SMEs/startups become partner of the corporate that wants to implement the innovation project.

Takeaways

Strengths

- A clear path is defined to support the birth and the development of collaboration projects
- Training and consultancy services are provided to SMEs/startups, as well as financial support
- Technological sectors are defined by project, in order to focus on EU priorities

Weaknesses

- The initiative targets Corporates as challengers
- · Follow-up activities are not defined











14 - BlockStart Project

Country

EU

Innovation Support Initiative Name

BlockStart Project

Year

2019-2022

Overview

European project aimed at supporting the development and the adoption of blockchain-based solutions by SMEs

Innovation Agency

The project is implemented by a Consortium of three members composed by private companies experienced in start-ups support services

Objectives

Promote collaborations between SMEs and innovative SMEs/start-ups providing solutions in Distributed Ledger Technologies/Blockchain domain

Process

The Project is articulated in 4 main stages

Adopter SMEs and DLT provider selection

SMEs and start-ups answer to an Open Call, proposing their challenges and their solutions. Best proponents are selected after a quality evaluation performed by external experts.

Ideation

SMEs and start-ups are invited to an ideation Kickoff event, during which solutions and needs are matched and implementation roadmaps are built. Only the best project can go to the prototype stage. Funding is provided to SMEs and start-ups as reimburse of participation costs.

Prototype

DLT providers have 4 months to develop and adapt the blockchain-based solution towards the needs of SME adopters, with the support of the BlockStart consortium and a pool of external mentors. All completed projects are funded with 15.000 ϵ . Best projects advance to the prototype stage.

Pilot

DLT must apply their solution to the SMEs contest, completing a pilot project able to demonstrate a TRL of level 8-9, that is the solution implementation in a real-life environment. Funding is provided both to adopter SMEs and solution providers.











14 - BlockStart Project

Target Groups

Innovative SMEs/start-ups with solution in the DLT domain. SMEs both of more traditional sectors (agriculture, retail) and innovative sectors (fintech, ICT). Candidates of both target groups have to pass several evaluation steps to be admitted in the programme.

Stakeholders

European innovation agencies, enterprises networks

Funding

The project is funded by Horizon 2020 programme, SMEs and start-ups have not to pay any entry fee. DLT start-ups could receive up to 20.000€ funding, depending on their advancement along the Blockstart path. Adopter SMEs could receive a grant up to 4.500€.

Open innovation Model

- Innovation Challenge: SMEs are requested to propose their business challenges potentially addressable by DLT
- Procurement and Co-Development: SMEs and startups become partner and work together on the development of a pilot solution

Takeaways

Strengths

- An entry assessment is provided to SMEs to measure their real need of the DLT
- A path is defined to support the birth and the development of collaboration projects
- · Winning projects have to overcome several stages to prove their value
- The project addresses a really specific technology domain
- Funded are provided both to start-ups and adopter SMEs
 Success metrics and KPIs are settled before each project stage

Weaknesses

- SMEs engaged in the programme must be already innovation oriented
- The funding provided to pilot projects for SMEs is limited







Annex 2 –Open Innovation PATH: the model of open innovation initiative designed by MEETING Project



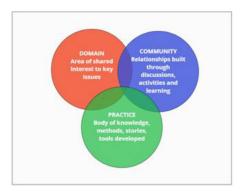


Project MEETING

Open Innovation PATH

Phase 1: Find & Explore

- Create a steering committee (SC): the Consortium will create management structures to manage the initiative.
- Create & Engage the Community of Practice* on Open Innovation
 - O Networking events / meetings to help identify / define:
 - the **Stakeholders** involved in the initiative
 - the target groups of SMEs and innovative startups are concerned by the innovation support initiative (e.g., retail industry, ICT, traditional SMEs ...)
- Explore with Co-creation workshops to:
 - o share a vision
 - o define the challenges SMEs want to address (bottom-up approach)
 - o define **technology and strategic challenges** to address (<u>top-down approach</u>)
 - o **involve** stakeholders
 - create awareness on innovation trends and potentialities
- Use a collaborative platform to communicate (ex. Discord / Slack) and manage the project activities (Trello / Basecamp)



"*Communities of practice are groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly. In all cases, the key elements are: **The domain**: members are brought together by a learning need they share (whether this shared learning need is explicit or not and whether learning is the motivation for their coming together or a by-product of it) **The community**: their collective learning becomes a bond among them over time (experienced in various ways and thus not a source of homogeneity) **The practice**: their interactions produce resources that affect their practice (whether they engage in actual practice together or separately)" https://wenger-trayner.com/introduction-to-communities-of-practice/











Project MEETING Open Innovation PATH

Phase 2: Engage the community / Select projects

• Call for applications for SMEs

 Publication of a call for SMEs: SMEs will submit their challenges (<u>bottom-up approach</u>) or express their interest to work on technology and strategic challenges with startups (<u>top-down approach</u>).

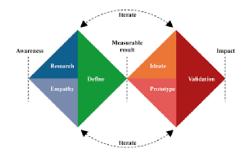
Call for application for innovative start-ups

 <u>Publication of a call for innovators/start-ups</u>: startups will present a description of their solutions to the challenges proposed.

Selected SMEs and startups will receive a set of supporting services (auditing, training, assessment) to strengthen their open innovation competencies and their awareness about innovation opportunities.

Open Innovation Event: Creative Camp & Hackathon

- o Kick-off event: ice-breaker + Inspiration talk + challenges presentation
- Matchmaking: creation of team of one SME and one startup which will work on the proposed challenges. Each team will realise a mock-up of their solution with the help of mentors and applying the *Design Thinking methodology* (Double diamond.



Selection of the best projects

 Each project will be presented with a pitch. Best projects will be selected by a jury of stakeholders and will access a set of supporting services, offered by the Consortium, to develop a pilot of their solutions.











Project MEETING Open Innovation PATH

Phase 3: Development Phase (Output → Protype)

- Incubation of the best projects
 - o (Within a coworking / business incubator)
 - MasterClass (collective workshop 2 days)
 - o Partnership agreement support (1:1 legal advice)
 - o Establishment of the project's Roadmap (1:1 business support manager)
 - O Development and validation of the prototype (1:1 BP/KPIs validation)
 - o Funding

The teams of SMEs and startups will receive a set of supporting services (technical support, project management, IP and innovation management) to help them developing their innovation projects. Each successful team will receive a grant at the end of the process.

Phase 4: Impact / Dissemination / sustainability

- Dissemination ("telling the story")
 - o Impact analysis
 - Dissemination of results / success stories
- Sustainability plan ("stay in touch")
 - o Ambassadors
 - Sustainability plan
 - o European Network
 - o Capitalisation: promote solution adoption in other SMEs

Follow-up activities will be dedicated to maximise the impact of the project, disseminating its results and promoting the adoption of the innovative solutions developed also in other SMEs.







Annex 3 – Questionnaire for SMEs and innovative startups on open innovation practices





Project MEETING Questionnaire

Section A - Company information

1.	Name of the company
2.	Location of HQ (Country/Region)
3.	Year of Establishment
1.	Sector
5.	Yearly gross revenues
	 <500.000 € Between 500.000 € and 1 Mln € Between 1 Mln € and 2 Mln € Between 2 Mln € and 5 Mln € Between 5 Mln € and 10 Mln € Between 10 Mln € and 50 Mln € Over 50 Mln €
6.	Headcount
	□ 0-9 employees □ 10-49 employees □ 50-249 employees □ More than 250 employees
7.	R&D annual expense (as % of revenue
3.	Are you a startup? ☐ Yes

□ No











9.		nich is the development stage of your company? Pre-seed: the business ideas is just born Seed: we are validating our product Early stage: our product is on the market Early growth: our product is growing its share on the market Growth: our product is well positioned on the market
Se	ctio	on B – Information on innovation activities implemented (startups)
10.	. Wh	Lack of funding to develop the product Lack of funding to structure the company Difficulties to access the market Lack of information on access to financing possibilities Uncertain regulatory requirements for new innovative products/services Difficulties in IP management Lack of cooperation and networking between different R&D&I actors Lack of support for the acquisition of innovation management skills
11.		you have any SME (Small and Medium-sized Enterprises) among your customers? Yes, SMEs are our main target Yes, even if SMEs are not our main target Yes, but we would like to further grow our share on the SMEs' market No, but we would like to further grow our share on the SMEs' market No, SMEs are not our main target
12.	. Ha	ve you ever collaborated with any SME? We worked together on joint R&D projects We help them adopting our solutions We have been involved in Open Innovation events (e.g., contests, hackathons) We have been involved in B2B Meetings We have one or more SMEs among our investors SMEs have helped us developing our solution Other No











Section C - Open Innovation with SMEs

13. How did you enter in contact with SMEs to engage in collaboration agreement?		
14. Could	you provide a brief description of your collaborations with SMEs?	
Co Inr Do De Dif	has been the main negative aspects of the collaboration with SMEs? nordinating the work novation culture of the SMEs we quality of the output play in results delivery efficulties in setting objectives ther	
Section B	B – Information on innovation activities implemented (SMEs)	
	the last 3 years, has your company introduced any forms of innovation? (multiple ers possible)	
	Yes, new or significantly improved products	
	Yes, new or significantly improved services Yes, new or significantly improved processes for manufacturing goods or producing services	
	Yes, new or significantly improved organisational methods (e.g., change in management structure, work organisation or new methods of interaction with other companies)	
	Yes, a new business model or a new way of marketing our products/services Yes, new or significantly improved logistics, delivery or distribution processes No	
	are the main barriers you met which slowed or stopped your innovation activities? Lack of financing support for R&D&I activities Lack of information on access to financing possibilities Lack of information on new technologies, new regulations Uncertain regulatory requirements for new innovative products/services Insufficient IP management	











	□ Lack of cooperation and networking between Lack of support for the acquisition of spectors □ Lack of support for the acquisition of innover □ Other	ific skills (e.g., digital skills)
resources for new o	open innovation in organizations can be sother than a formal internal research and or improved products, services and products stomers, suppliers, crowdsourcing (e.g., soc	development process to generate ideas s. For example, outside ideas can come
	on the definition above, did your organization er creating new or improving existing products, ser	
	Yes, often Yes, sometimes Yes, but rarely No	
19. Which	h actors did your company engage in open inno	vation activities?
	Suppliers Customers Universities and research centers Other companies Other	
	your company ever been in contact with in ation?	novative SMEs and/or startups to foster
	☐ Yes ☐ No	
Section	on C – Open Innovation with startups	
21 . How d	lid you enter in contact with innovative SMEs/st	artups?
3 <u> </u>		
22 . Could	you provide a brief description of your collabor	ations with SMEs/startups?
18		









23. What kind of collaboration did you build with innovative SMEs/startups?



		We collaborate on specific R&D project
		We purchase from them services and/or goods
		We have been involved in Open Innovation events (e.g., contests, hackathons)
		We have been involved in B2B Meetings
		We have invested in equity of one or more startups
		We helped them developing their solutions
		Other
		nuch are you satisfied of the results reached through your collaboration with innovative startups?
		Fully satisfied
		Moderately satisfied
		Unsatisfied
25.	10/1	nich has been the main negative aspects of the collaboration with startups?
25.	VVI	Immaturity of the solutions provided by startups
		Coordinating work with startups
		Low quality of the output
		Delay in results delivery
		Difficulties in setting objectives
		Costs higher than expected Other
		None

Project MEETING Consortium is working on the design of a support scheme to foster innovation processes in SMEs promoting their collaboration with innovative SMEs and startups. In fact, innovative startups could provide advanced competencies, technologies and solutions to help traditional SMEs to innovate their business.

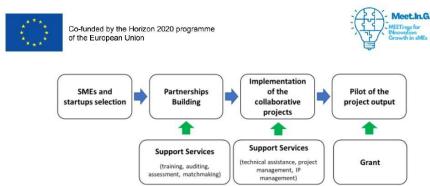
The support scheme intends to provide free consultancy services and technical assistance to partnerships composed by a SME and an innovative startup/SME to help them developing an innovative solution/product/service/process. Moreover, the partnerships will receive a grant once they successfully complete their collaborative projects.

The building of the partnerships would be preceded by the delivery of support services to SMEs, with the scope of helping them to improve their innovation capabilities (training) and to identify innovation opportunities for their specific company (auditing) to be pursued during the development stage. The teaming of SMEs and startups would be completed during a matchmaking event, which will match SMEs' needs with the innovative solutions of the startups.









Which of these support services could be more useful to help your firm implement innovation collaboration with startups? (only SMEs) Training on innovation-related topics (innovation management, IP management, innovation case studies, design thinking, ...) Assessment of the business and innovation needs of the firm Definition of an "innovation roadmap" with the actions to complete to catch business opportunities Scouting of interesting business partner with which starting innovation projects ☐ Technical assistance to run R&D&I collaborative projects Project management to coordinate R&D&I collaborative projects Consultancy on intellectual property/partnerships management Other Which of these support services could be more useful to help your firm working with SMEs? 27. (only startups) Training on innovation-related topics (innovation management, IP management, innovation case studies, design thinking, ...) ☐ Training on startup development and management topics Scouting of interesting business partner with which starting innovation projects Technical assistance to run R&D&I collaborative projects ☐ Project management to coordinate R&D&I collaborative projects Consultancy on intellectual property/partnerships management □ Other_ 28. Which of these funding scheme could be more useful to help your firm invest in innovation? □ Vouchers covering part of the costs of the innovation projects Vouchers to cover the intellectual property of project outputs In-kind contribution for technical support to the project implementation Other







29. How would you improve the support scheme proposed?

Annex 4 – Main answers to the questionnaire for SMEs and innovative startups on open innovation practices





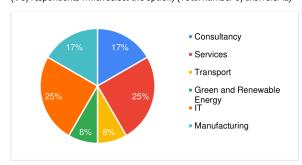
Project MEETING

Answers to the Questionnaire

Company Information

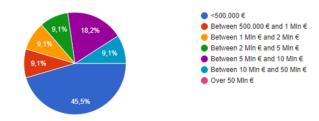
Sector

(% of respondents which select the option) (Total number of answers: 12)



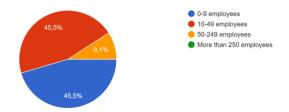
Yearly Gross Revenue

(% of respondents which select the option) (Total number of answers: 12)



Headcount

(% of respondents which select the option) (Total number of answers: 12)



104







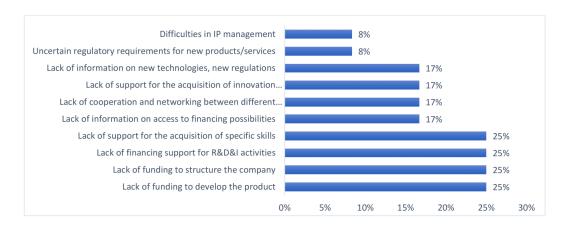




Innovation activities

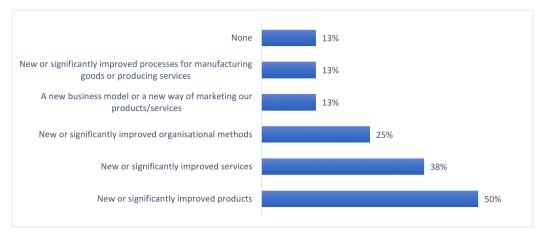
Which are the main barriers you met which slowed or stopped your innovation activities?

(% of respondents which select the option) (Total number of answers: 12)



Over the last 3 years, has your company introduced any forms of innovation?

(% of respondents which select the option) (Total number of answers: 8 SMEs)







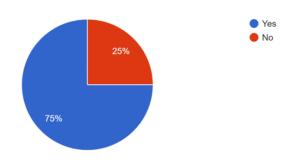






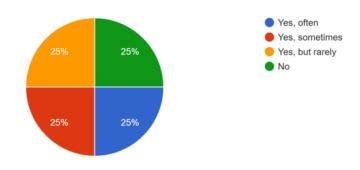
Was your innovation based on research activities carried out in-house?

(% of respondents which select the option) (Total number of answers: 8 $\underline{\sf SMEs}$)



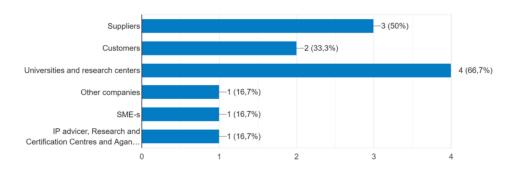
Did your organisation engage in inbound open innovation activities?

(% of respondents which select the option) (Total number of answers: 8 SMEs)



Which actors did your company engage in open innovation activities?

(% of respondents which select the option) (Total number of answers: 8 SMEs)









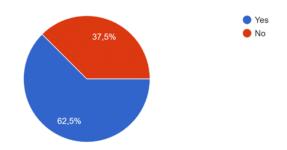






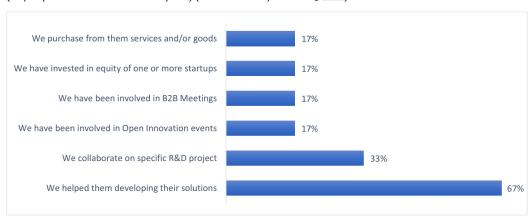
Have your company ever been in contact with innovative SMEs and/or startups to foster innovation?

(% of respondents which select the option) (Total number of answers: 8 SMEs)



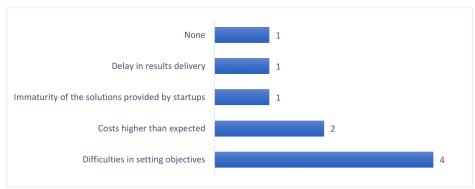
What kind of collaboration did you build with innovative startups?

(% of respondents which select the option) (Total number of answers: 5 SMEs)



Which has been the main negative aspects of the collaboration with startups?

(% of respondents which select the option) (Total number of answers: 5 $\underline{\sf SMEs})$













Open Innovation Support Scheme – Validation Answers

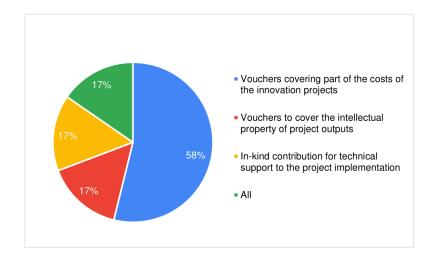
Which of these support services could be more useful to help your firm working with SMEs?

(% of respondents which select the option) (Total number of answers: 12)



Which of these funding scheme could be more useful to help your firm invest in innovation?

(% of respondents which select the option) (Total number of answers: 12)











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