Design
Options Paper

Scale-ups Ready

praxi
help-forward network

LITHUANIAN
INNOVATION
CENTRE

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un espacio para innovar

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Disclaimer

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1. Introduction

Following international evidence that shows that a small number of high-growth firms are vital to driving job growth and overall economic growth and the European Commission's Start-up and Scale-up Initiative, Enterprise Europe Network (EEN) launched in 2017 a new flagship service to support scale-ups, providing specific advisory services through scale-up advisors on funding opportunities, partnering and how to access cross-border public procurement. Client intake of scale-ups for innovation agencies may come in two ways. In the first case, the scale-up is already a client of an innovation agency, and has scaled up its activities through a 'client journey'. The second case is that the scale-up is not yet a client. In either case, capacity and needs assessment tools should be in place in order to recognize the client's potential and to be able to offer them special advisory services. According to the EEN Working Group (now Thematic Group) 'Scale-ups' Report delivered in December 2016, a scale up is a business:

- with realistic, high-growth oriented ambition & verified business plan and a clear commitment to implement it
- with a stable core team, cash-flow and foothold in its key market(s) that is looking to scale-up and expand to new markets (geographic or sectoral)
- with a potential for market creation and disruptive innovation
- driven by innovation (technological, business plan or otherwise)
- preferably more or less ready to receive equity investment

But how does an innovation agency assess a new or existing client in order to identify their capacity and potential for high growth? The former approach in which client needs and capacities are assessed by EEN consultants through simple forms is fast becoming obsolete as it rarely analyses in depthclients' needs or provide an objective assessment in capacity and capability. Innovation services are in too many occasions standardised and do not take into account the rapidly changing innovation ecosystem and the emergence of scale-ups and of new technologies that set the stage for advanced and tailor-made services to be provided by innovation agencies.

In order to cope with this new environment, client intake needs to be adapted by innovation agencies in order to approach new clients with better value propositions which address actual and contemporary client needs. An understanding of new entrepreneurial ecosystems is needed in order to provide clients wi th contextual action strategies. Assessments should be in-depth, carried out according to a clearly defined baseline, connected to the reality of a particular ecosystem, and updated on a regular basis. In the same line, the recommendations of the Scale-ups Thematic Group of EEN, centred around supporting businesses on the client journey, putting the client at the centre, tailoring to individual needs, going at the pace of the business, and adding value. Also, a significant proportion of SME Instrument beneficiaries falls into the category of scale-ups, that is companies that work on a project by project base that need to expand their activities.

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2. Project details

The objective of Scale-ups Ready was to enable the participating innovation agencies to exchange knowledge, know-how, and good practices on advanced methodologies and tools for scale-ups assessment (including SMEs with high-growth potential) and customised support services, in order to develop better approaches for client intake and support of scale-ups. The methodology used was joint workshops with training provisions for each tool from the responsible partner. After each workshop a questionnaire (see Annex) was used for assessing each tool.

The project covered peer-learning and peer-review activities for three kinds of services through specific assessment instruments that when combined offer in-depth analysis of the needs of scale-ups in order to provide them with tailored support:

- An advanced IP valuation scheme, IPscore® 2.2 provided free-of-charge to registered members by the European Patent Office (EPO) (FORTH),
- An advanced business innovation roadmap tool, smE-MPOWER 'Business innovation roadmap tool' (LIC),
- An advanced Innovation Health Check assessment tool (FUNDECYT-PC-TEX).

This peer-learning and peer-review scheme was developed based on each partner's identified competences and gaps in advanced services for scale-ups. The result of the peer-learning activity brought in new added-value service offerings to all participating organisations. The accompanying peer-review process could lead to better approaches and to adapt schemes to the specific national or regional environment.

The project included 3 innovation agencies, which engaged in peer learning activities. Each innovation agency had a lack of training and experience in the assessment tools used by the other 2 partners. Each partner had identified the need to be trained in the use of the other 2 partners' assessment tools for scale-ups in order to bring in new tools and added-value to its own organisation, and to be able provide a bouquet of advanced services to its clients. The results of the peer learning exercise should be taken up by the participating agencies for improving their techniques in assessing scale-ups. Partners investigated and exchanged good practices, which should improve client intake techniques and support provided to scale-ups.

Each tool addresses a different aspect of business, i.e. IP valuation and management, getting ready for business innovation and assessing innovation capacities. With IP valuation the assets, products or services may be valuated in order to be commercially exploited. Business innovation roadmap (smE-MPOWER) trains the management in thinking about the different ways in which to innovate. Innovation Healthcheck assesses the capacities, for instance human capital and work processes, of a company in order to check if they are ready to innovate. All three tools are complimentary and address different aspects of business.

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3. IPscore ® 2.2

The IPscore ® 2.2 is a tool that has been developed and used for the valuation of the intellectual property of companies during the past 15 years. It is owned by the European Patent Office (EPO) and offered free-of-charge to registered members. The tool offers an in-depth analysis of the assets that a company intends to protect by issuing patent rights. It covers many aspects that a company needs to examine in order to decide whether to proceed with registering a patent or patent family or extend existing patent rights to cover a broader geographic area.

From a user perspective, IPscore® 2.2 is a relatively easy-to-use tool. It has an interface that offers an overview of the sections where input is required and the user can navigate through the questions and fields that need to be filled in by selecting the relevant section.

3.1 Preparation of the company before IP valuation

The tool requires from the company to provide information on its financial performance, the legal steps it has taken to protect the asset, its technical status, costs and revenues expected from scaling-up production of the patented product or technology, the business strategy it has developed to bring the patented product or technology to the market and its knowledge of the conditions of the markets it intends to enter.

The financial input that needs to be prepared beforehand includes the basic financial figures such as turnover, direct and indirect costs, depreciation of equipment and also an estimation of the business area of the company covered by the patented product or technology as a percentage of the total turnover. Otherwise, the real costs and revenues involved in the production of the patented product or technology need to be provided.

Other information on finance that needs to be provided, are future development and production costs, investment in new equipment, patent renewal fees and future revenues from the patent.

Companies interested in acquiring intellectual property rights for their assets will have to investigate the legal path to follow. In the IPscore® 2.2, a special section is dedicated to the legal status of the patent valuated. The company is asked to indicate the status of the patent, how broad its patent claims are, the geographical coverage of the patent, its ability to monitor against infringements in relevant markets, and whether legal disputes are common in the operative markets.

Patents are granted to technologies or products that have unique technical characteristics, unprecedented functions and can be considered as new inventions. A company that valuates its assets could be at an earlier or later stage of developing its technology.

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In either case, IPscore ® 2.2 selects information to determine the technical status of the patented technology or product. For this, the company is required to provide information with respect to the uniqueness of the technology, its relation to substitute technologies, whether it has passed testing phase, the estimated time to market, if copycat products are easy to produce and identify, if parts of the technology are used on the basis of licensing agreements with third parties, and if the product is valued by prospective customers.

The company that valuates its assets with the IPscore ® 2.2 tool also needs to define market conditions where the technology or product will be introduced. For this purpose, the company identifies the marketing options, the future market growth and turnover from the patent, the life expectancy of the patent in the market, the availability of substitute or competitive products in relevant markets, their price and the price of the patented technology or product, future applications and commercial opportunities, revenues from licensing agreements, and the obligations to issue permits or licenses in operative countries.

Finally, IPscore ® 2.2 asks for a defined business strategy for the asset under valuation. The company needs to define its business strategy for the patent. A patent can be used to secure position in markets where the company is already present or for 'freedom-to-operate', to restrict competitive development or to win new markets. It could also be used to improve the image of the company.

3.2 IP valuation results offered by IPscore® 2.2

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3.3 Results of the peer-review of IPscore® 2.2

3.3.1 Main target group for this tool

Any company that is the owner of a new technology, technical process or industrial design, and interested in protecting them by issuing patent rights is a candidate for taking the assessment with the IPscore® 2.2. Companies who already own patent rights can also take the assessment to examine its present value, to consider geographically extending patent rights and to gain insight to the risk and opportunity trade-off involved.

As we described under section 3.1, to prepare for a meaningful valuation with the use of IPscore® 2.2, the company is best to have prepared thoroughly with calculating the estimated costs and revenues from utilising the patent, knowing the legal path to be taken to secure the patent, having prepared a competition analysis and novelty research (substitute technologies or forerunners respectively) around the patent and a market analysis of the markets it intends to enter, being financially capable to issue the patent, and to have a justifiable interest in pursuing patent rights that is in alignment with its business strategy at company level.

From this point of view, businesses that most probably are in a position to have gone through most of these steps or are prepared to do so, are large enterprises, scale-ups, and SMEs with enough financial resources to issue a patent and be able to legally defend it against infringements.

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3.3.2 Competences of the IPscore® 2.2 consultant

The peer-review showed that support by an innovation agency consultant would be valuable in both assisting the company prepare and complete the valuation of its asset with IPscore® 2.2. For assisting the company before the valuation, a comprehensive list with the basic information needed could be useful and decrease the time needed to prepare its input. During the valuation, the presence of a consultant is advisable in order to assist with questions that the client may have. A step-by step assistance is suggested corresponding to the sections that need to be completed by the client.

The consultant that will guide the client through this assessment would need a basic knowledge of business finance to make sure that the correct information is inserted in the relevant fields and questions. He/she would also need to understand the basic concepts about patents and patents rights and be aware of the process and factors that need to be taken into account before filing for a patent. Other competences of the consultant that could be useful in assisting the client at the assessment is an understanding of the issues involved in business development and growth.

It could also be useful to provide support about the process of acquiring patent rights at the innovation agency.Otherwise, signposting the client to a competent organisation to receive support is considered a requisite.

Last but not least, the availability of support from experts in patent management from the innovation agency would be valuable for providing support to businesses in the aftermath of acquiring patent rights.

3.3.3 Estimated time for preparation and for going through the results of the valuation

The estimated amount of time needed for a company to prepare for the IPscore® 2.2 valuation is 1-2 days to gather the data required by the tool. A company that is not well-prepared could take the assessment but the results would not be reliable. Even in this case, there could be a benefit from learning what information needs to be gathered and processed in order to be able to take a decision for applying for a patent. In such a case, a company would need to retake the valuation for obtaining meaningful results.

To read the outputs of IPscore® 2.2, the consultant would need to spend approximately 1 hour with the client in order to interpret the results. Depending on the outcome of the valuation, the results of the valuation could be easily identifiable in a go or no-go manner. This would be, for instance, the case for a patent that presents a combination of a very high risk coupled with a low opportunity window and a low return of investment from the commercial exploitation of the patent. In this case it would be a no-go situation. The opposite would be the case of a patent with a high opportunity and low risk score and a profitable forecast of the patent.

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For a better understanding of the valuation, the consultant would need to go through all the outputs of the tool in order to identify the risks that can be identified and managed, such as the possibility of a lack of liquidity for some years following the commercial exploitation of a patent.

3.3.4 Benefits and drawbacks of the tool

The IPscore® 2.2 can be a challenging tool for a business that has not spend a considerable amount of time dealing with the issues involved in pursuing a patent legally, financially, and commercially. But what does it have to offer to the client who has made the effort?

It is a tool that can assist the decision-making process of whether to pursue a patent or not. The more accurate the input is, the more accurate are its results. For a client who has prepared thoroughly, the tool can provide good insights on the financial viability of his/her business to pursue the patent (profit and liquidity forecast). In addition, the radar charts and supplementary reports offer an easy-to-understand overview of the strengths and weaknesses of the business with regard to developing and exploiting the patent.

Overall it is a tool that requires a lot of research and analysis before taking the valuation of the patent and has limitations to the outputs that it offers to the client. The main drawback of this tool is that it needs a time-consuming elaboration of the results from the part of the consultant in order to offer a clear and brief overview of the factors that will determine the future success or failure of the patent.

Although there is a chart that shows the areas that the patent scored higher or lower, the consultant would need to go through and elaborate on his/her own the answers to the questions of the related section to identify the problem and discuss it with the client to provide solutions. The tool also does not offer any suggestions on what needs to be improved in order to overcome low performance in the areas examined. This relies completely on the consultant and the client. This means that the service that needs to be built around the tool from innovation agencies would require a structured approach to analyse results of the tool and come to conclusions.

Last but not least, with the latest versions of Microsoft Office (MS Office 2013 and beyond) the tool malfunctioned in producing certain radar charts and in producing the combined report, i.e. one of the main outputs of IPscore® 2.2. Through our communication with PATSTAT promotion & customer support of the European Patent Office we were informed that EPO has decided not to further support or maintain the tool. However, this has not been announced yet on the website of EPO, where the tool remains available for download.

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3.3.5 Suggestions for improvement

In supporting scale-ups, a tool that valuates business assets in order to help businesses make decisions about protecting them with patent rights would be valuable for innovation agencies. It would, therefore, be of interest to innovation agencies and other relevant stakeholders to further support, maintain and even update existing tools such as the IPscore® 2.2.

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4. smE-MPOWER

smE-MPOWER is an effective business innovation coaching system. Initiated in 2005 as a European project with specific focus on research intensive SMEs, it targets the business innovation system of SMEs including traditional companies as well as fast-growing high-tech enterprises from emerging sectors. smE-MPOWER includes two transferable components: the Coaching System and the Web-based Platforms. This methodology offers a proven approach for those regions and/or programmes, which intend to support SMEs' business innovation needs, aiming ultimately to enhance growth, create jobs and boost competitiveness.

The smE-MPOWER is a bouquet of tools aimed to support SMEs with business innovation coaching, such as the Business Innovation Roadmap tool, the Segmentation tool, the Business Architecture tool etc. For the purpose of supporting scale-ups one of these tools was selected namely theBusiness Innovation Roadmap tool.

4.1 Business Innovation Roadmap tool

4.1.1 The object-subject approach and the life-cycle model

The first step to conduct an assessment with this tool is to identify whether it will be used to assess a project or the company as a whole. This is the object-subject approach that the Oslo Manual of the OECD describes. The project-oriented assessment would lead to a better innovation management while working on the project, while the company-oriented assessment that is used to generate a strategic roadmap would lead to the establishment of a business innovation management approach at the corporate level.
The main idea of the Business Innovation Roadmap tool is then based on the life-cycle model. The model describes companies as part of two groups: the pre-industrialised and the industrialised. These are the two stages of the life-cycle model. The pre-industrialised companies that are possiblyin one of the following stages: seed stage, project-to-project stage and upscaling stage. The industrialised companies included in the following stages: the expansion stage, the consolidation stage and the renewal stage.

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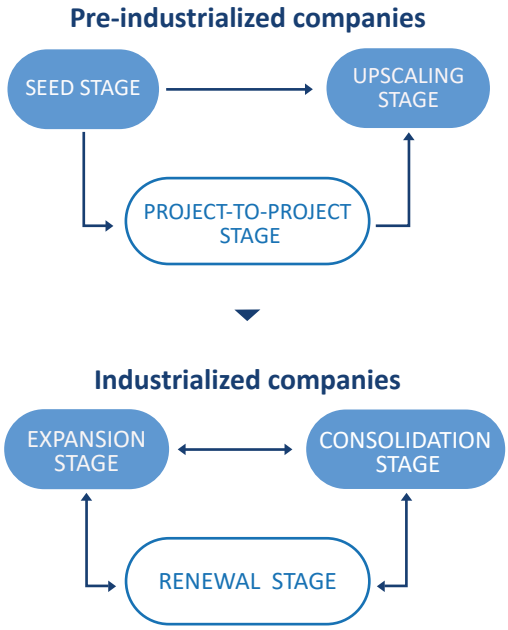

Figure 1: Life cycle model

For the purposes of the Scale-ups Ready project the focus would be on the upscaling stage. In accordance with the methodology, this stage is characterised by scalable solutions for market segments, the presence of a supply chain and distribution channels and the possibility for mergers and acquisitions. The upscaling stage is also characterised by the launching product and service developments based on the commitment of strong lead customer(s). Typical challenges concern make-or-buy decisions, organisational design and resource development, definition of (new) business models, choice of supply and distribution partners, the expansion of the production system to an economy of scope and financial planning based on forecasts.

The objective is to support the application of a business innovation model in order to achieve the transition to the expansion stage. This stage is part of the industrialised firms group and is characterized by new markets, new distribution channels, better organisation and resources management and a better management system for the company as a whole.

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4.1.2 The seven critical dimensions analysis

To proceed with the business innovation analysis, the four vectors methodology is used to identify the business innovation model that the assessment will target. The four vectors are offering, process, distribution and customer. A change in one of the vectors would lead to business innovation. Offering may include the development of new and innovative products and/or services, the use of common components to deliver offerings or the existence of customised solutions. Process may include the redesign of core operating processes, changes in the organisation and resources model or in the supply chain. Distribution focuses on new distribution channels, networking and brand expansion. The customer category may include a segment of new customers, a new experience offering, or a new value capture by the creation of new revenue streams or methods of payment.

Business Innovation Vector	Types	Description
Offering	Products & Services	Develop innovative new products or services.
	Platform	Use common components or building blocks to create derivative offerings.
	Solutions	Create integrated and customized offerings that solve end-to-end customer problems.
Process	Redesign	Redesign core operating processes to improve efficiency and effectiveness.
	Organisation & resources	Change form, function or activity scope of the firm.
	Supply chain	Think differently about sourcing and fulfilment.
Distribution	New distribution channels	New distribution channels or innovative points of presence, including the places where offerings can be bougnht or used by customers.
	Networking	Create network-centric intelligent and integrated offerings.
	Extension of a brand	Leverage a brand into new products.
Customer	New customers (segment)	Discover unmet customer needs or identify undeserved customer segments.
	Experience (new interface)	Redesign customer interactions across all touch points and all moments segments.
	Value capture	Redefine how company gets paid or create innovative new revenue streams.

Table 1: Vectors of business innovation

The four vectors are seen as the branches of the business innovation tree that is rooted at strategic resources that are the enablers of innovation. The strategic resources include: sources of innovative ideas, internal resources and partnerships and cooperation.

This seven-layered model serves the identification of the level at which the company is and the targeted level that it wishes to be with future development. These two dimensions are offered by the tool in a four quadrants matrix revealing areas of critical gaps in strategically important aspects.

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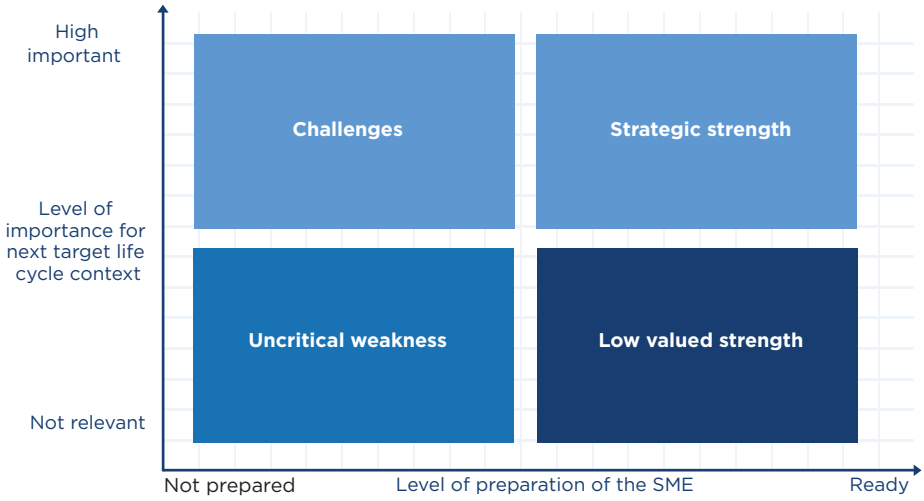

Figure 2: Need analysis quadrants

This analysis provides the foundation for an action plan to business innovation that focuses on the strategic weaknesses of the company. The innovation roadmap includes a time schedule and future innovation actions as well as the support agents that may be needed in achieving the actions. Finally, an action plan template should be completed with the measures and activities needed to be taken by the assessed company to achieve best outcome of the assessment.

4.2 Experiences of using smE-MPOWER BusinessInnovation Roadmap tool

smE-MPOWER Business Innovation Roadmap tool is used for over a decade in various regions and contexts. In Lithuania it was used to coach more than 40 companies (most of them were Horizon 2020 SME Instrument beneficiaries, however there were other SMEs as well). This tool allowed the coachto identify the main issues quite effectively and clearly define the steps to overcome the challenges. SMEs were engaged because the tool helped them to understand their own business better and made them think about what further activities should be performed to develop the business and to reach their goals. The need analysis is crucial for this aim. When a company becomes aware of its status quo (which resources it possesses and which it lacks, what partners should be attracted and for what role, where ideas should come from etc.) then the company is able to make strategic decisions. Many innovative enterprises are stuck in the project-to-project phase and don't realise that it drains their resources and prevents them from scaling-up. The Business Innovation Roadmap tool not only highlights this fact but offers the framework how to upscale.

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4.3 Results of the peer-review of smE-MPOWER Business Innovation Roadmap tool

In terms of preparation before taking the assessment, the peer-review showed that no preparation would be needed. Instead key people of the assessed company are needed to take part. More specifically, the CEO of the company, Head of Sales/Marketing and R&D or manufacturing would be needed. However, the client needs to be guided through the whole process.

The best way to introduce the assessed company to the tool would be a presentation with the use of powerpoint of the object-subject approach, the lifecycle-model, and the seven critical dimensions analysis. A discussion about the history and the future of the company would be also important as a basis in order to identify the possibilities for innovation. Approximately two hours would be enough for completing the assessment.

For using the tool, the innovation agency representative would need approx. 2-3 hours. However, training sessions are needed for the coaching analysis model and business and innovation offered by Platinn and JIC companies to become accredited smE-MPOWER coach with training.

With regards to the types of companies that the tool would be useful, the peer-review showed that all types of companies (start-ups, scale-ups, micro-SMEs and SMEs) could benefit from using the tool except from large enterprises.

The outputs of the assessment, i.e. the action plan, offer a holistic picture of the company and a skilled view especially for key persons inside the company. They also offer a useful way to talk about the future of the company and what is important for it. All innovation agency representatives agreed to recommend the tool for the use with scale-ups to their agencies. In order to improve the tool, they suggested to make it portable by offering an online version of it.

Similar tools that could be used are the Innovation Healthcheck and IMP3ROVE, however the smE-MPOWER tool offers a broader overview of the business innovation environment of a company and the possibility to enable it with the use of the action plan.

5. Innovation Healthcheck

5.1 Overview of the Innovation Healthcheck tool

The Innovation Healthcheck tool is built around six sections that investigate the innovation capacity of a business. The first section is 'Innovation culture' that needs to be in place in order to implement and sustain a proactive innovative approach to company growth. It involves three broad themes: Environment for innovation including motivation and ambition to grow, Management style, company leadership and openness to change, and Managing success, learning from failure, managing & tolerating risk including an appropriate reward structure.

The second section is entitled 'Understanding the business' and takes on all aspects of the business and how they affect performance. The broad themes it involves are: Gathering information on customers, markets, competitors and technology trends, Analysing information to identify threats and opportunities, and Identifying sources of competitive advantage for the company.

The third section is entitled 'Strategy' and focuses on how the business will grow and how to maximise return from its resources. The broad themes are: Define objectives and goals based on the identified sources of competitive advantage, Strategic planning, looking at a wide range of product/market ideas to define a business model, and How to link innovation strategy with the overall company strategy and the use of appropriate tools to improve company performance.

The fourth section is entitled 'Structure' and focuses on the appropriate structure of the company to achieve its goals. The broad themes it involves are: Organisation of resources involving team working, effective communication and knowledge sharing, Appropriate empowerment and management of staff, Appropriate processes to best manage different areas of businesses such as sales, marketing, operations and R&D etc.

The fifth section is 'Capability and Resources' and focuses on the company's resources with regards to achieving goals, identifying gaps and establishing appropriate skills. The broad themes are: Appropriate skill requirements are identified and satisfied through training or acquisition, Resource requirements are identified such as equipment, third party support, etc., and Suitable systems and processes are identified to minimise waste.

The sixth section 'Processes' focuses on processes that enable innovation capacities of the company. The broad themes it entails are: Developing and managing ideas from inception to commercialization, Systems that allow timely and stage-gated evaluation of development projects including post project reviews, Use of business and innovation tools with appropriate linkages to third level colleges, customer supply chain, competitors and potential license partners etc.

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As an outcome the Innovation Healthcheck tool offers a benchmarking report of the business against its database that includes 11 countries from the EU. The benchmarking report includes radar graphs and percentages with the scoring of the company with relevance to the database. This can also be accompanied by an executive summary report to be filled in by the assessor.

Additionally, FUNDECYT-PCTEX has developed a tool based in the IHC assessment to be used with smartphones. It is a game-based approach tool that gathers the different opinions inside the company and helps the participants from each company get to know each other. The participants can answer questions with the use of their smartphones, and if different answers exist then discussion follows and one final answer is selected at the end of the process.

5.2 The peer-review of the Innovation Healthcheck tool

5.2.1 Main target group for this tool

Innovative companies of any size and any sector are suitable candidates for taking the assessment with the IHC tool. In particular, SMEs, scale-ups or large enterprises that have high potential for growth and internationalisation but need to enhance their innovation management capacities could benefit from an IHC assessment. Therefore, the tool can be used with all types of companies and especially start-ups and scale-ups that can benefit most from the process of innovation benchmarking.

5.2.2 Competences of the IHC consultant

Support by an innovation agency consultant would be advisable in both assisting the company during and after the IHC assessment. The assessment starts with a meeting of the consultant and the key responsible persons of the company, where the consultant will perform an analysis of the current innovation management capacities of the company through the IHC tool. The result will be a report with the strengths and weaknesses of the company in this aspect. After the company's validation, the consultant will develop an action plan addressing some or all of the detected weaknesses. Afterwards, the company will start the implementation of some or all of the activities proposed in the action plan according to their resources and availability and the consultant will provide support services and follow-up during the implementation of solutions.

It would be valuable if the innovation agency consultants are competent in providing support about innovation funding, innovation tools, available regional services related to innovation, etc.

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5.2.3 Estimated time for preparation and for going through the results of the valuation

The peer-review showed that there is no need for preparation beforehand from the part of the company in order to take part in the assessment. Only a presentation of the methodology would be needed. The time estimated to take the assessment is approximately 3 hours. The additional application would shorten the time by one hour. The assessment also needs to be facilitated so the client cannot take the assessment by themselves. The tool is easy to use but the traditional approach without the smartphone application takes too long.

The approximate time that is needed to get acquainted with the tool is approximately 1-2 hours when familiar with innovation management. The tool is meant to be used with small team's representatives of different departments from each company.

After the assessment and the follow-up a repetition of the assessment some months after might be also suggested to make sure that recommendations were implemented.

5.2.4 Benefits and drawbacks of the tool

The Innovation Health Check has been designed to evaluate a company's innovation process. It looks at how the process operates from the outset, capturing customer needs (stated and un-stated), idea generation, concept development, product/service development up to the commercial realisation stage and all steps in between. IHC explores how this process is impacted by company culture, business strategy and structure, the company capability and resources and the level of innovative processes that are in place.

The IHC approach gathers critical information through a combination of a set of formal questions combined with the information gathered through the facilitated engagement itself. Experience suggests that this combined approach of formal questions with facilitated engagement process suits the engagement with SME companies. It involves the scoring of a questionnaire by the company in a facilitated workshop situation. The company scores the questions in a collaborative manner with 3-10 people (ideally from different areas of the company and depending on the size of the company), in a room together with the facilitator. This reduces the risk of natural biases of any one person's opinion. There are no right or wrong answers to the questions and therefore no pass or fail barriers. The purpose of the questionnaire is to identify the practices that the company have in place and the performance arising out of those practices.

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The questionnaire is closely aligned with CEN/TS 16555-1 "Innovation management system", the scope of this standard is as follows:

- understanding the context of the organisation
- establishing the leadership and commitment of tip management
- planning for innovation success
- identifying and fostering innovation enablers/driving factory
- developing the innovation management process
- evaluating and improving the performance of the IMS
- understanding and using innovation management techniques

The IHC reporting system includes the generation of written reports and recommendations on what and how to do it next. The report identifies the strengths and weaknesses of the company along with opportunities for improvement against international standards for the sector and scale of business. It makes detailed comparisons with like companies and suggested actions to improve performance. Benchmarking is anonymous and is compliant with confidentiality rules.

In addition, the application tool designed by FUNDECYT-PCTEX based in the IHC methodology allows to carry out the assessment and to obtain the answers of the SMEs effortlessly. Therefore, the main differences in the delivery of the assessment by using this game-based tool versus the traditional interview method are the fresh presentation of services to companies, the easy way to capture companies' innovation management data to prepare afterwards the report, and the time saved during the process.

All partners agreed to recommend IHC to their agencies and to the EEN because it is a quick way to identify innovation needs of a company in comparison to a large database of already assessed companies from EU countries. Moreover, the game-based tool that allows to capture companies' information on innovation management in a more attractive and user-friendly manner is also recommended since it can be easily replicated by any EEN partner that uses the Innovation Health Check methodology. The tool might be used through a license agreement.

5.2.5 Suggestions for improvement

With regards to improving the IHC tool, more real-time information would be needed so as not to have to send each version of the database for benchmarking.

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6. Summary of examined tools

The following table summarizes in an easy-to-read way the main characteristics of the 3 tools examined in the context of the project. More specifically, the time needed for preparing each tool, the time needed for taking the assessment, type of business to which they may be addressed, and the complexity of each one.

Tool examined	Preparation time	Session time	Type of business	Complexity of tool (1-5 scale)
IPscore® 2.2	3-4 days	3h	Scale-ups, SMEs, large enterprises	4
smE-MPOWER: Business Innovation Roadmap	2-3 days	2h	Start-ups, scale-ups, micro-SMEs,SMEs	3
Innovation Healthcheck	1-2days	3h traditionally 1.5-2h with the application	Start-ups, scale-ups, micro-SMEs,SMEs	2

Table 2: Summary of assessment tools

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7. Annex – Questionnaire

Scale-ups Ready

Questionnaire for peer reviews

1. How much time do you think that the client needs to prepare before taking the assessment?
2. Would the client need support to get prepared before the assessment?
3. How much time do you estimate that it takes to complete the assessment?
4. Would the client need support to take the assessment? If yes, in which ways.
5. Was the tool easy to use? If not, please list the difficulties you experienced.
6. How much time do you expect to spend on studying the tool, before you start using it with clients?
7. Is the tool useful to one or more of the following types of companies: start-ups, scale-ups, micro-SMEs, SMEs, large enterprises? According to your opinion, what type does it suit best?
8. Are the outputs of the assessment useful to your clients? Please, explain in which ways.
9. What kind of support would your client need from your agency to realise the potential of a positive assessment?
10. Is there space for improving the tool? Please, identify ways in which the tool can be improved.
11. Do you intend to recommend to your agency to include this tool in its services, and why
12. If not, are you familiar with a tool that would better answer your clients' needs in assessing intellectual property? Please, name it and list a few of its advantages in comparison to the assessed tool.
13. Would you recommend this tool to the Enterprise Europe Network? Please, justify.

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