Design Option Paper

Enhancing and Facilitating Funding Evaluation and data Collection Techniques focused on Start-up/SME support programmes

Disclaimer

The opinions and conclusions expressed in this design option paper are those of the authors, the project team and involved stakeholders. They do not necessarily reflect the opinion or position of the European Commission and in no way commit the involved organizations.

List of authors

Author	Role	Org	Country
Stefano Sbarbati	Project Manager	Steinbeis	DE
Reyes Sansegundo Romero	Area Manager for European Programs and Technology Transfer, European Programs and Technology Transfer Unit	Madri+d	ES
Roman Zajíc	Data Analyst	MSIC	CZ
Martin Klepek	Assistant Professor, School of Business Administration, Department of Business Economics and Management	SLU	CZ
Dalibor Šimek	Assistant Professor, School of Business Administration, Department of Business Economics and Management	SLU	CZ
Adéla Píchová	International Cooperation Specialist	MSIC	CZ

List of abbreviations

BSO – Business Support Organization

DOP – Design Option Paper

IA – Innovation Agency

KPI – Key performance indicators

MSIC - Moravian-Silesian Innovation Centre Ostrava

SLU - Silesian University in Opava

SME – Small/Medium Enterprise

Steinbeis – Steinbeis 2i GmbH – Project Partner

SU – Start-up

SUV – Start-up Voucher

The EFFECT-SME project has received funding from European Union 's Horizon 2020 research and Innovation programme under the Grant Agreement number 970893 - EFFECT-SME – H2020-INNOSUP-2018-2020 / H2020-INNOSUP-2018-2019-05.

Table of Content

Overview of the consortium

Participant	Participant organisation name	Country
1 (Coordinator)	Moravian-Silesian Innovation Centre Ostrava (MSIC)	CZ
2 (partner)	Steinbeis 2i GmbH (S2i)	DE
3 (partner)	Fundacion para el conocimiento Madrid (Madri+d)	ES

The project consortium consists of established and experienced innovation agencies mainly operating on regional level and has previous experience in cooperation with each other. Considering partners balanced location and widespread networking activities, the consortium performs in diverse ecosystems and has access to broad scale of the relevant state-of-the art know-how from outside the consortium.

Introduction

Since support programmes have experienced a boom in recent years, **innovation agencies (IAs) and other business support organizations can offer these programmes to more clients** and at the same time are able to diversify them based on different topics and different target groups. Simultaneously, the strategic backbone of the economy, small and medium-sized enterprises (SMEs), need **effective support** in the development and adaptation to new realities of the surrounding world (industry 4.0, automation and digitization, circular economy, etc.). Thus, assisting companies and **monitoring the impact of the support programmes** are central subjects in innovation agencies (IAs) at both regional and national level.

Evaluating programmes is not only necessary but also a challenging task as there is a growing demand for tangible policy results from the side of IAs' stakeholders and having strong arguments behind the activities undertaken is only natural. Moreover, **better evaluation processes** will also make it possible to adjust and redesign support for companies and respond in a targeted manner to their needs.

The agencies' attitude towards monitoring and impact evaluation methodologies varies a lot as they operate in different backgrounds, with different institutional contexts, geographical scope, target groups and/or financial and human resources.

The international team of EFFECT-SME tried to take these varieties into account and respond to the challenges of current practice, which are often described as lacking finances and insufficient technical and personnel capacity of innovation centres to carry out evaluations.

This DOP is analyzing state-of-the art and the present practices of involved IAs and more profoundly elaborating the new efficient tool to ensure the **high-quality impact evaluation** in short time and for an adequate financial and human-resources cost.

Such a tool for evaluation allows for a **flexible approach** and at the same time identifies **key performance indicators** for possible comparison of programmes of IAs across Europe.

Executive summary

The present document aims at exploring existing evaluation and assessment practices existing in project's consortium, in particular for what regards SMEs and startups support practices. The document tackles the topic by taking into account evaluation and assessment practices of already existing support programmes, and it pair the practical and hands-on knowledge generated by innovation agencies with a strong theoretical overview and analysis of best practices presented in the literature.

The DOP first provide an theoretical framework, including key definitions and processes, which allow the readers to gain basic theoretical knowledge and practical understanding of the main concepts behind evaluation processes of innovation support measures. In doing so, the DOP will also provide a longlist of impact indicators, which was derived by the partners based on their experience in the different innovation support actions and the learning-effect generated internally by the evaluation and assessment of such practices.

The document builds then on this theoretical background with six practical examples of evaluation and assessment of startups and SMEs support programmes, coming from the portfolio and from the experience of each of the three partners involved.

Such examples not only provide useful overviews of the support programmes and their outcomes, but also gives the possibility to gain valuable insights on how the evaluation processes are performed by different organization, at different points of the development and considering different layers of innovation support measures. The DOP also provides an easy-to-use overview of the good practices identified and discussed within the consortium (Section 5).

The DOP also provides practical Guidelines on how to design and implement a new evaluation process for existing (or novel) innovation support programmes carried by innovation agencies. In doing so, the Consortium behind EFFECT-SME aims at providing innovation agencies across Europe with the possibility to leverage on the lesson learned during the project and to capitalize on them, as well as providing the users of the DOP with freely available online resources to facilitate the identification and the setup of the most suitable evaluation process for their needs.

The enriching peer-learning process is to be continued as the consortium saw in the end of the project that there is still a lot of space to explore. Main lessons learned for each organization are summarized (Section 5.3). This document is a start point for started and ongoing learning process.

Overview

There has been an evolution in the field of monitoring and evaluation involving a movement away from traditional implementation-based approaches toward new result-based approaches. There is, however, no correct way to build such systems and it is important to recognize that result-based monitoring and evaluation systems are continuous works in progress (Kusek Rist, 2004).[1] As highlighted by the OECD Innovation Strategy, better measurement of innovation and its impact on economic growth, sustainability and inclusiveness is key to fulfilling the promise of better coordinated innovation policies in the digital era (OECD, 2018a).[2]

A broad mix of supporting measures including those focused on innovation is commonly implemented by innovation agencies at regional level to local/regional SMEs as an important part of a regional development policy. Within a closed-loop 4-step delivery process, along with initial design, marketing, and actual support programme delivery, **monitoring supported companies and the results of the programmes is a central subject in the agencies.** Impact indicators are used for managing and redesigning programmes, strategic decision making or are communicated towards (potential) beneficiaries or the broader public (TAFTIE, 2019)[3] to demonstrate the added value of innovation agencies to society (Technopolis, 2014).[4] Apart from public accountability, innovation agencies are also under pressure from their managing authorities to better explain/communicate the results and impacts of the programmes delivered and to be as effective as possible. **Monitoring and evaluation are necessary to assess the economic efficiency of entrepreneurship policy actions and to identify those features which lead to desirable outcomes** (OECD, 2018b). Although there have been several recent advances

[1] Kusek, J.Z., Rist, R.C. (2004). Ten Steps to a Result-Based Monitoring and Evaluation System, The World Bank, Washington, D.C.
[2] OECD/Eurostat (2018), Oslo Manual 2018: Guidelines for Collecting, Reporting and Using Data on Innovation, 4th Edition, The Measurement of Scientific, Technological and Innovation Activities, OECD Publishing, Paris/Eurostat, Luxembourg. https://doi.org/10.1787/9789264304604-en
[3] The European Network of Innovation Agencies TAFTIE. (2019). Monitoring systems in TAFTIE Agencies: outcome and impact indicators. Conclusion Report.
[4] Technopolis group, (2014). Evaluation Reference Model For TAFTIE´s Taskforce Benchmarking Impact, Effectiveness and Efficiency of Innovation Instruments. Technopolis Group, Amsterdam

in SME and entrepreneurship policy evaluation techniques, still, the creation of an evaluation culture has yet to be widely established and significant challenges remain. **Key challenges include increasing the application of rigorous evaluation techniques; better specifying policy objectives, targets and indicators; making better use of data, including existing national administrative data sets** for purposes such as tax and social security; and seizing the potential of Big Data (OECD, 2018b).[5]

Even in regions with a long track record in innovation policy, the evaluation of innovation is far from straightforward. Too often measures are not built on a clear intervention logic explaining **the change sought and demonstrating how this will be achieved**. The intervention logic should also consider the type of measures and synergies with other measures. Hence, the indicators and the methods used to evaluate different measures will necessarily differ (Technopolis, 2012). This all, along with raising complexity of IAs programmes portfolio makes the impact evaluation challenging to design and implement.

According to the TAFTIE Conclusion report on Monitoring systems in TAFTIE Agencies (2019), the integration of databases (i.e. survey data, corporate databases) and standardized monitoring systems **is not yet achieved in most agencies**. Standardization of evaluation and monitoring methods is necessary to successfully implement an international benchmark of outcome and impact indicators and might be the highest target on the issue of monitoring policy impact. (TAFTIE, 2019)[6]

Factors that limit the policy evaluation include lack of financial resources, technical capacity, and methodological instruments which is even more prevalent on the regional level compared to national one.

1 Structure of the Document

The document is structured to first provide the reader with an overview on the EFFECT-SME project and the main methodology used during its implementation in Section 1.1.

Section 1.2 will help to fix key methodological and scientific concepts underpinning the project, and also useful to design and implement successful evaluation strategies for novel start-ups and SMEs support programmes. Section 2 will provide an overview on the different innovation ecosystems of the regions participating the project, as well as providing a profile of the EFFECT-SME partner organisations. Section 3 and Section 4 represents the core of the present document, as they will cover in-depth the different start-ups and SMEs support programmes implemented by the regions, and will also describe in details the corresponding evaluation models and practices.

Section 5 will draw on the previous two sections to present an actionable overview on the best practices identified by the consortium during the 12 month project, as well as briefly discussing lesson learned from the participants' perspective.

Finally, Section 6 will present an action plan for innovation agencies on how to design their evaluation processes based on the insights and lesson learned during EFFECT-SME.

[5] OECD (2018): Monitoring and evaluation of SME and entrepreneurship programmes, Policy note of the SME Ministerial Conference, Mexico City, available at https://www.oecd.org/cfe/smes/ministerial/documents/2018-SME-Ministerial-Conference-Parallel-Session-6.pdf

[6] Technopolis Group and MIOIR (2012): Evaluation of Innovation Activities. Guidance on methods and practices. Study funded by the European Commission, Directorate for Regional Policy, Brussels

1.1 Methodological Note and Twinning+ explanation

The main goal of the EFFECT-SME project is to **enhance the quality and efficiency of start-up/SME support programmes implemented by innovation agencies** through improved processes of impact evaluation. The advanced evaluation practice of IAs will help to improve their policy design and delivery, thus, to strengthen the dynamism of the start-up/SME support innovation environment. The advanced methodology on impact evaluation including (robust) data collection and monitoring must respect the nature and the capacity of innovation agencies, seeking for effective and efficient solutions to avoid extensive expert and financial structures.

The process of extracting and creating the know-how used in DOP was led by Twinning+ methodology. The main parts of the process were three intensive peer-learning workshops, which took place in an online environment due to Covid-19 restrictions. These workshops were facilitated by the third party (SU) and the themes were set as follows:

No. of the workshop	**The topic**	**The content**	**Date and organizer**
Peer-learning WS 1	Start-up support programmes	Presentation of an expert in the field of impact evaluation outside the consortium (Petr Vrána, JIC, CZ). Peer-review of the partners' approaches – strengths identified to be used as input for DOP.	16. 6. 2021, MSIC
Peer-learning WS 2	SME support programmes	Presentation of desk research outside the consortium. Presentation of academic expert outside the consortium. (doc. Ondřej Dvouletý, Ph.D., VŠE, CZ) Peer-review of the partners' approaches – strengths identified to be used as input for DOP.	4. - 5. 10. 2021, Madri+d
Peer-learning WS 3	DOP	Draft DOP presented and discussed by all partners. Compilation of optimal solutions for the 2 types of supporting programmes.	18. 1. 2022, Steinbeis

Table 1 Project's Peer-learning+ Workshops

1.2 Key definitions of impact evaluation

Evaluation is a systematic assessment of the design, implementation, and outcomes of an intervention[7]. In the case of business and innovation support programmes, it is a matter of seeing how well a programme has achieved its intended objectives. It can contribute to

7 HM Treasury (2020): Magenta Book - Central Government guidance on evaluation, London

improvements of the programme itself, as well as increase its transparency, accountability, and cost-effectiveness. Especially in areas that are innovative or breaking new ground, there is a need for evidence to illustrate whether an intervention is working as intended[8].

It differs from monitoring, which is the collection of data, both during and after implementation to improve current and future decision-making [9]. Moreover, monitoring is not considering the role of other factors which may influence monitored outcomes[10]. Monitoring is of key importance to improving programme performance, and successful evaluation often hinges upon successful monitoring, because monitoring often generates data that can be used in evaluation[11].

To describe evaluations further it is of value to list the number of characteristics that evaluations should have. Evaluations are:

- **analytical** - they should be based on recognized research techniques;
- **systematic** - they require careful planning and consistent use of the chosen techniques;
- **reliable** - the findings of an evaluation should be reproducible by a different evaluator with access to the same data and using the same methods of data analysis;
- **issue-oriented** - evaluations should seek to address important issues relating to the programme, including its relevance, efficiency, and effectiveness; and
- **user-driven** - this means that successful evaluations should be designed and implemented in ways that provide useful information to decision-makers, given the political circumstances, programme constraints and available resources[12].

Considering the users of evaluations, there will be two categories. Users who make decisions related to the programme would be then subdivided into external and internal and users who do not make decisions related to the programme, however, use this information from evaluation in their own actions. Examples of the latter are the media, the public and companies and individuals interested in joining the programme. However, for the purpose of this design option paper let us now focus on the first group.

Users who will utilize the evaluation output for decision making about the programme itself can be divided into external and internal. The first is national, regional or municipal representatives and bodies. The second is the programme owners and managers themselves. Both groups have a number of common information needs about programme effects but will differ in many ways. Understanding the end-user of evaluation information will help evaluators provide the right information at the right time in the right form. The main differences are summarized in the following table.

Evaluation users	External	Internal
Examples	Regional government City council Funding agencies	Programme manager Innovation agency management

8 Ibid.
9 HM Treasury (2020): Green Book – Central Government guidance on appraisal and evaluation, London
10 OECD (2018): Monitoring and evaluation of SME and entrepreneurship programmes, Policy note of the SME Ministerial Conference, Mexico City, available at https://www.oecd.org/cfe/smes/ministerial/documents/2018-SME-Ministerial-Conference-Parallel-Session-6.pdf
11 European Commission, Directorate-General for Budget, Nagarajan, N., Vanheukelen, M., (1997): Evaluating EU expenditure programmes : A guide: Ex post and intermediate evaluation, Publications Office, available at https://op.europa.eu/en/publication-detail/-/publication/742ed190-3961-45cd-ad34-e4d4b73bd3e7/language-en/format-PDF/source-250670009
12 Ibid.

Main purpose of evaluation	Accountability	Learning
Interest	Impact evaluation	Impact + process evaluation
Key questions	What effects have occurred and what is the scale of those effects?	Is the programme working? What is working more or less and why?
Possible decisions made based on evaluation	Continue to provide funds Invest more in the programme Cut the funding	Focus more resources on process itself in the programme
Timeframe focus	Before, after	Before, during, after

Table 2 Evaluation users and their *expectations* and interests – own elaboration

What should be of interest to both groups of evaluation users is the **impact of the support programmes for start-ups and SMEs. The impact [13]. It is the fundamental measurement of the intervention's success**.

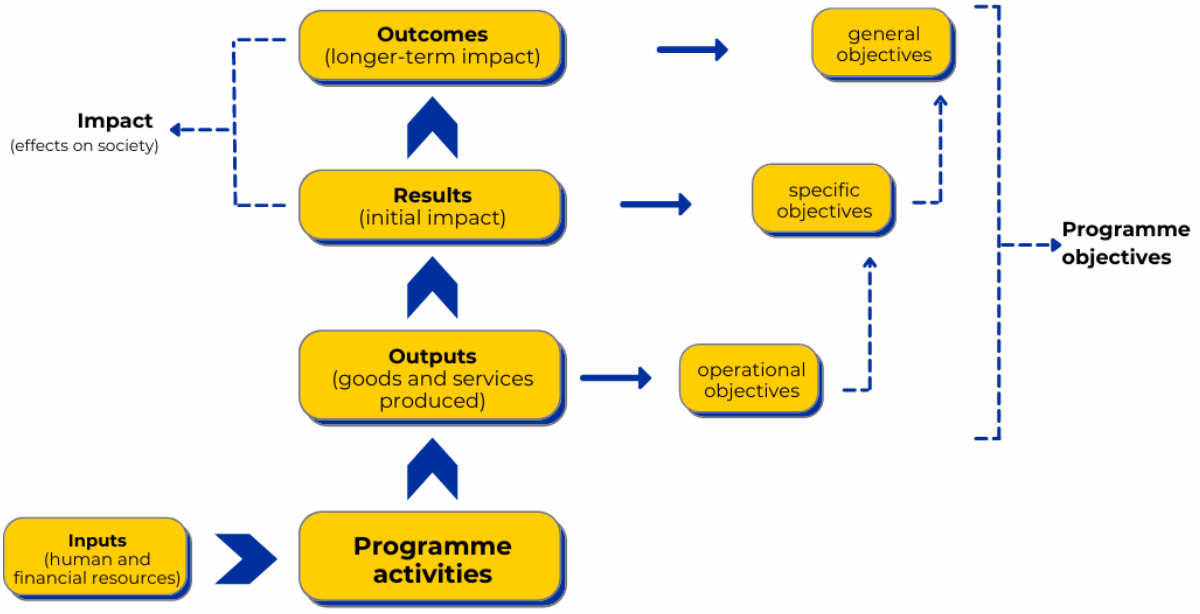


Figure 1 – Programme's Impact Evaluation Workflow. Source: https://op.europa.eu/en/publication-detail/-/publication/742ed190-3961-45cd-ad34-e4d4b73bd3e7/language-en/format-PDF/source-250670009

While delivering exact measurement of the programme impact is of high value it also carries its limits. There is no parallel universe to test the programme simultaneously and compare the results. **In the real world, evaluators are usually constrained by feasibility**. Consequently, the ability to produce conclusive evidence depends on the size of the impact, the number of research participants, the quality of data available to assess impact, and the ability to identify accurately the treatment and comparison groups[14]. Almost inevitably,

[13] Shallock, R.L. (2002): Outcome based evaluation.
[14] BIS Department for Business Innovation & Skilll (2011): Guidance on evaluating the impact of interventions on business, available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/212318/11-1085-guidance-evaluating-interventions-on-business.pdf

specific political, financial, technological, or social circumstances will make some evaluation methods less feasible. Moreover, the **costs and benefits of the evaluation should be considered**. Evaluation costs should be proportionate to its benefits and thus the more public or private support the programme provides to participants, the more robust the evaluation should be. The same applies to situations where the programme requires applicants to take certain risks. For example, to give up their job and start their own business in a startup accelerator or expand to new international markets with their SME. In these cases, a programme impact evaluation should be robust and done with particular care. With these ideas in mind, one can proceed to the selection of evaluation designs.

1.2.1 Types of evaluation design

Some evaluation models will produce excellent results but may take too long or be extremely expensive. Others might focus on the general direction of the policy or programme outcomes and will produce less strong conclusions about the specific causality and impact of the intervention but will be deliverable within a timeframe and budget that is more useful to policymakers.[15]

Evaluation design	Certainty and precision	Generalizability	Feasibility
Experimental/randomized control	High	High	Low
Quasi-experimental			
Hypothetical comparison group			
Longitudinal status comparison			
Pre/post change comparison	Low	Low	High
Person as own comparison			

Table 3 Evaluation design options - Source: Adapted from Outcome based evaluations (2002) and Guidance on Evaluating the Impact of Interventions on Business (2011)

Experimental/randomized control

A true scientific experiment or randomized controlled trial enjoys the greatest accuracy in determining the impact of a programme or policy. It is primarily based on the use of a control group of companies or individuals from the target population who have not received support from the programme. These are then compared with the programme participants. If there is a significant difference other than chance, the impact can be attributed to the intervention (programme).

Moreover, both control and treatment group members are selected randomly. Hence, the method is called randomized control trial. However, the randomization could not be feasible in many programmes design since participants are selected based on the quality of their proposal or other programme criteria. These are not inherently random.

[15] Ibid.

Experiments could be used not only for programme impact evaluation but also for process evaluation (hence for external and internal users). All supported participants can be randomly assigned to treatment and control groups and provided with different services such as coaching, counselling or education. Later, metrics important for evaluating provided services can be compared across the groups and those that show better outcomes than others can be used further. All to the benefit of the programme process improvement and at the end of the day its impact as well.

There are some limitations. Experimental/control design requires a relatively large sample size to control for other factors. Moreover, using an experimental/control design to evaluate an impact of the programme that has not reached maturity is likely to be inappropriate and, under most circumstances, an experimental/control should not take place until the programme has been adequately developed[16]. If randomization is not possible, there are only a few participants in the programme or the programme is still in its development, another, less accurate and less certain methods can be used.

Quasi-experimental

Quasi-experimental design tries to get as close to the experimental approach as possible but without the full experimental characteristics. There are two techniques to be used.

The first is called **matched groups**. Instead of pure randomness, participants are selected according to the similarities. To find a matched group, the analyst will need to measure some characteristics of each of the treatment group businesses, for example, business size, sector, region, and turnover and find the same characteristics on the population of businesses for the matched comparison group[17]. Pre-treatment and post-treatment data are collected for both groups and compared to uncover differences and display programme impact.

The second is **multiple time-series data**. It uses many measures of pre-treatment and post-treatment and has data on the whole target population at each observation point. A large number of measures build up a more comprehensive picture and strengthen the model. Because this design uses a treatment group and a comparison, the evaluation will produce more robust results if it is able to account for extraneous variables or confounding reasons for the effects that may affect either of the groups between the initial observation points and their respective endpoints.[18] Experimental and quasi experimental methods are essentially a difference-in-difference which is usually depicted as several data points captured in time before and after the intervention.

[16] White, H., Sabarwal S. & T. de Hoop, (2014): Randomized Controlled Trials (RCTs), Methodological Briefs: Impact Evaluation 7, UNICEF Office of Research, Florence.
[17] BIS Department for Business Innovation & Skilll (2011): Guidance on evaluating the impact of interventions on business, available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/212318/11-1085-guidance-evaluating-interventions-on-business.pdf
[18] BIS Department for Business Innovation & Skilll (2011): Guidance on evaluating the impact of interventions on business, available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/212318/11-1085-guidance-evaluating-interventions-on-business.pdf

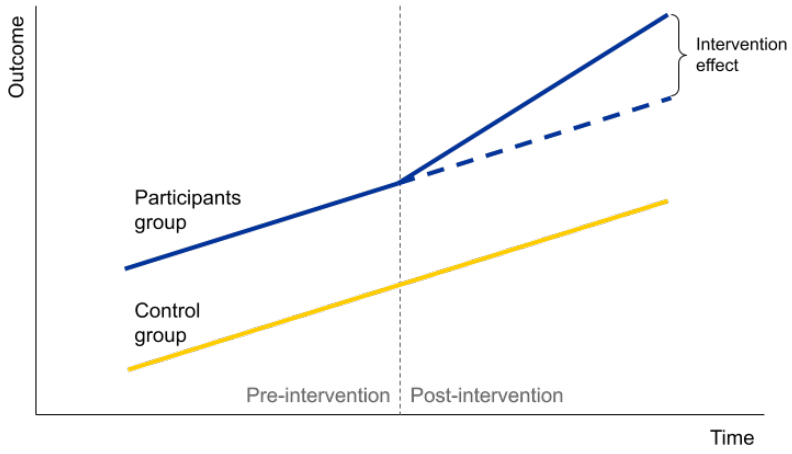


Figure 2 - Experimental design. Source: own elaboration

Hypothetical comparison group

The hypothetical comparison group method requires the evaluator to form a hypothetical comparison group that can be used as a benchmark for comparison purposes. The hypothetical comparison group can be based on one's general knowledge of average outcomes from other, closely related programmes; pre-enrollment status; archival data (for example, published indices such as Medicare costs); and national databases. By relying on general knowledge of the average outcomes of nonparticipants or on knowledge of pre-enrollment status, the analyst may estimate what would have happened to participants had they not enrolled in the programme or had been involved in a comparable programme.[19]

Longitudinal status comparison

The longitudinal status comparison is a potentially good design since it allows one to look at the change in service recipients over time and determine their living, work, educational, or health status at some point following programme involvement. However, it is a relatively weak design in impact evaluation if there is no control or comparison group. Therefore, one is limited frequently in the degree of certainty in precision, comparability, and generalizability.[20]

Pre/post change comparison

The requirement in the pre/post-change evaluation design is that you have comparable measures on the individuals before intervention and sequentially thereafter. An example would be the employment status of service recipients after a job training programme. This technique is used frequently when there is no experimental or comparison group, and therefore it represents a low level of certainty in one's analysis.[21]

Person as own comparison

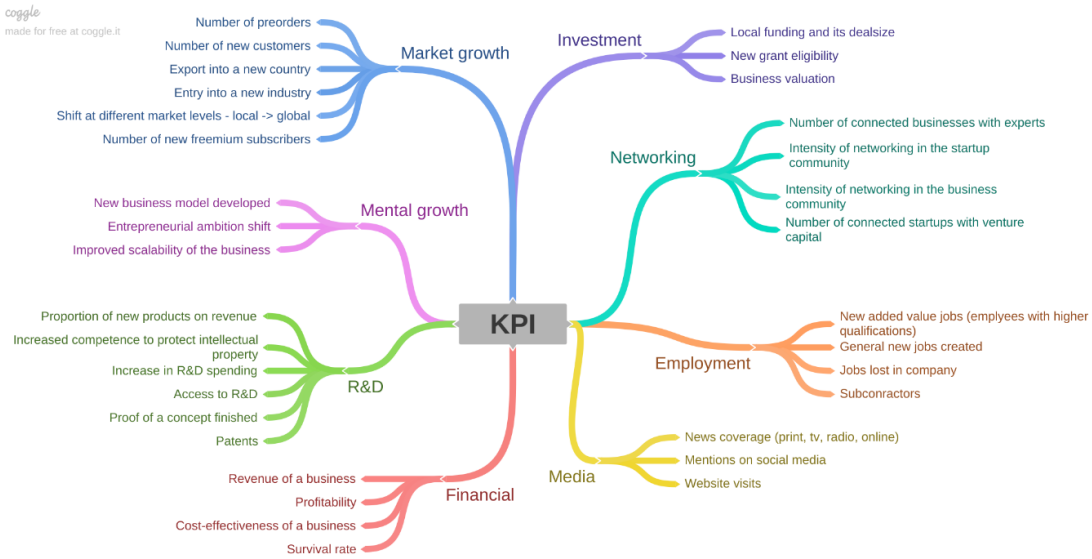
Person-as-own-comparison evaluation designs allow one to share individual success stories, and at the same time, to demonstrate the programme's impact[22]. This method, however, is least precise and its results cannot be generalized to whole population.

[19] Shallock, R.L. (2002): Outcome based evaluation.
[20] Shallock, R.L. (2002): Outcome based evaluation.
[21] Shallock, R.L. (2002): Outcome based evaluation.
[22] Shallock, R.L. (2002): Outcome based evaluation.

1.3 Map of impact indicators

As a valuable source of inspiration can serve the map of key performance impact indicators that is shared here for illustration, in attachment 3 and also in MIROVERSE platform. It is an important output of peer-learning sessions with projects partners, data analysts from other IAs or stakeholders from academia. The purpose of this map is firstly to have elaborated description of WHAT (categories, areas of measurement) and HOW (possible indicators) can be measured in connection with effectiveness of business innovation and development support (e. g. jobs created versus real-time indicators that are more difficult to measure, especially in area of startup's support). Secondly, the map is considered as an opportunity to standardize the units and areas of measurement to have better opportunities for benchmarking among the IAs and BSOs.

This document is sharable and can also be extended by other indicators. It is a base that the members of consortium as well as other entities can use for further development and follow-up projects or activities.



2 Introduction of the innovation centres and regional characteristics

To understand basic historical background, economic factors and the profiles of participating organizations can help to complete the big picture, compare their roles in the innovation ecosystems and to have a better grasp of the difference of the support programmes and their evaluations.

2.1 Moravian-Silesian Region: MSIC Ostrava

> ***From coal mining to data mining and circular economy***

The region lies in the northeast of Czechia and forms one of the most marginal parts. It borders in the north and east with the Polish voivodeships - Silesian and Opole, in the southeast with the Žilina region in Slovakia.

Since the 19th century, the region has been, and still is, one of the most important industrial regions in Central Europe. However, the focus of economic activity - the sectoral structure - poses significant problems related to the transformation of this region. Since the beginning of the 1990s, the state of the environment has significantly improved due to the decline in industrial production, the use of more environmentally friendly technologies and significant investment in environmental measures. Despite these improvements the region remains one of the most congested areas in Czechia.

It is the third most populous region in the country with a population of 1,200,000, but with its 300 municipalities it belongs to the regions with the smallest number of settlements. Approximately a quarter of the population live in the region capital Ostrava.[23]

Industrial heritage of Moravian-Silesian Region cannot be denied, but nowadays most of its visible traces are transformed into new uses that are rarely seen elsewhere. The local landscape has been dramatically altered by the coal mining industry, however the region has undertaken the journey "from coal mining to data mining and circular economy".

Local emerging technology companies deal with artificial intelligence, virtual reality, develop technologies for agriculture, industry, mobility, and medical appliances of the future. They are successfully expanding not only to European markets and their founders agree that they have ideal conditions for their development in the region: quality schools and their graduates, availability of resources at a reasonable price, functional support, strong infrastructure and unshakable commitment and enthusiasm.[24]

> ***"Innovation ecosystem: young innovation agency with ambition to create internationally significant entrepreneurial region***

Since July 2017 MSIC has become an important regional innovation centre in Czechia. From the beginning it has 5 shareholders – Moravian-Silesian Region, Statutory City of Ostrava, Technical University Ostrava, Ostrava University and Silesian University in Opava. In the national context it is now considered as a leading innovation agency with a strong track record in supporting business innovation. It has succeeded in developing a wide range of services to support entrepreneurship from early-stage start-ups through seed-stage start-ups to mature SMEs. MSIC is an official partner to a formal platform of Czech innovation centres YNOVATE which unites eight regional innovation agencies.

MSIC's main mission is coordination and further development of the Regional Innovation Strategy as well as management and implementation of strategic umbrella projects (Talent Attraction Management, Digitization, Envi-Tech) and professional services which embrace growth and innovation in local companies - individual business support services to start-ups and SMEs and administration and development of the Technology Park.

MSIC operates four business incubators of approximately 10.000 square meters in total, including offices, meeting rooms, laboratories and two shared laboratories dedicated to prototyping and digitalization (e.g., collaborative robots).

The current portfolio of clients consists of approximately 310companies (60 out of them rent offices and/or laboratories in one of four premises MSIC Ostrava is running). MSIC has around 130 experts at its disposal. They can help companies with implementation of so-

[23] Moravskoslezský Region (2020): Statistical Yearbook of the Moravskoslezský Region, https://www.czso.cz/documents/10180/142044378/33010021chcz.pdf/6af9a74a-d2f6-4c4c-bef7-0e797f7ae290?version=1.3

[24] Forbes (2020): Top 10 startupů ze severu moravy, available at: https://forbes.cz/top-10-start-upu-ze-severu-moravy-cim-mlade-firmy-z-ostravska-dobyvaji-svet/

called “change projects”. Apart from SMEs, MSIC also develops cooperation and relationships with large companies, investors, and other stakeholders.

Thanks to cross-border cooperation with Poland and Slovakia, MSIC has the ambition to share services and work smartly with the partners to achieve international recognition.

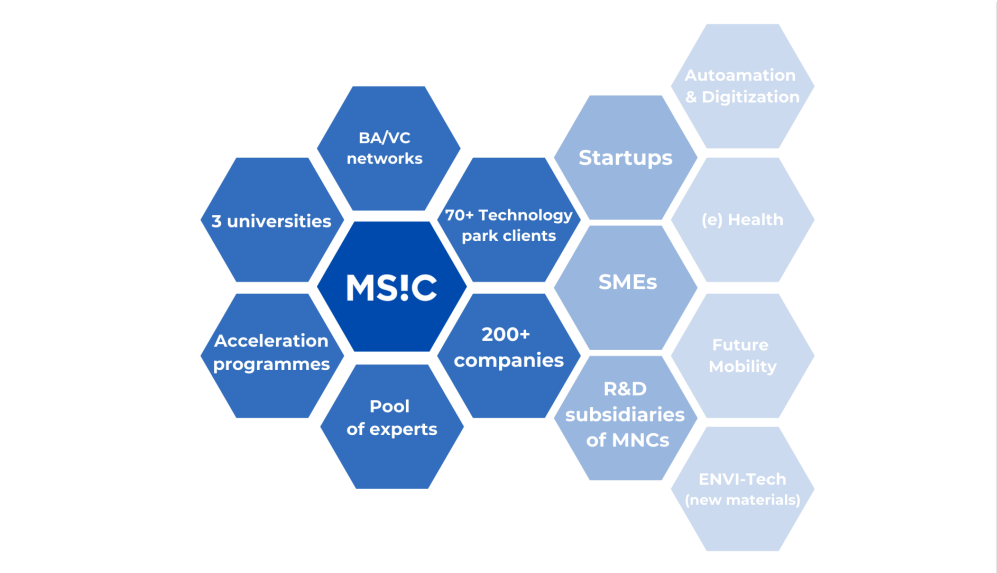


Figure 3 Regional innovation ecosystem in Moravian-Silesian Region

2.2 Community of Madrid: Fundación para el conocimiento Madri+d

> ***“ Business decision centre where possibilities of growth and collaboration are real***

Madrid is a Spanish region covering 1.6 % (8,030 km2) of the country’s area, where 14% (6.5 million) of the population of the Country live but which generates 18.9% of Gross Domestic Product. (GDP). Furthermore, the average size of Madrid companies (11.75 workers) is 18% higher than the national average (9.96 workers), so that the region's share of the national total increases from 14-15% in the strata between 1 and 25 employees, to 20-24% in those with more than 250 employees. Thus, in terms of workers, the Community of Madrid (CM), with nearly 1,850.000, represents 17.33% of the national total. This makes the Madrid Region a business decision center and a place where the possibilities of growth and collaboration are real.

Besides, **Madrid accounts for 23.8% of total Spanish employment in R&D.** 1.81% of total employment in Madrid is related to R&D activities, a ratio higher than the national average (1.19%). According to this, the CM occupies the first position in the Spanish regional ranking. High technology sectors are responsible for 37.65% of Madrid's R&D expenditure (33.9%5 in the case of the state). A similar result can be seen when taking into consideration the participation of employment in high technology sectors and services over the total number of employed (9.9% in the case of Madrid and 6.6% in the case of the State). Considering exclusively employment in high technology services, the CM employs 6.6% of the total employed, compared to the national average of 2.8%.

> ***“ Innovation ecosystem: the bridge between Latin America and Europe where high-tech innovation becomes a reality***

Fundación para el Conocimiento madri+d is an initiative of the Regional Government of Madrid created in 2002. Its main objectives are to **contribute to making the quality of higher education, science, technology and innovation key elements of the competitiveness and well-being of citizens.** Based on several years of collaboration, Madri+d counts on an invaluable relationship with several national and international stakeholders regarding the support and promotion of R&D&I activities.

The Madrid Region is one of the **highest concentrations of multinational corporations and the second European region for employment in the high-tech sector.** With more than 200 incubators, accelerators, and builders, it occupies the 5th position in Europe in number of startups & scaleups, 4th position in Europe in number of VC investment rounds and the 2nd position in Europe in number of exits of more than € 100M. One of the main drivers in developing this outstanding innovation ecosystem is to become the main startup bridge between Europe and Latin America, thanks to its geography, language and strategic position in high-tech innovation.

Fundación madri+d promotes the protection and transfer of knowledge from academic and scientific environments to business to foster the creation, consolidation and growth of technology-based companies. It has also the first Mentoring Certification for Entrepreneurs of excellence in Europe. Besides, it manages research and innovation European programmes and promotes the participation of Madrid institutions in European Programmes. Fundación madri+d is the coordinator of the regional node of the Enterprise Europe Network, which helps businesses innovate and grow on an international scale. It is the world's largest support network for small and medium-sized enterprises (SMEs) with international ambitions.

2.3 Baden-Württemberg: Steinbeis Europe Zentrum

"Industrial giants and a strong medium-sized backbone[25]

Baden-Württemberg is one of the leading economic regions not only in Germany but also Europe: it hosts internationally renowned corporations and thousands of successful small and medium-sized enterprises, known for its innovative drive and inventive spirit, with a high level of productivity and low unemployment[26]. With a GDP of € 524,3 Billions, the size of its economy is comparable to whole European countries such as Belgium, Sweden and Austria.

Baden-Württemberg economy pivots around strong industry and it is very export-oriented, with about 38% of its GDP related to regional export in 2021.[27]

Baden-Württemberg is home to internationally renowned industrial giants such as Daimler, Porsche, Bosch, Festo, SAP and IBM Deutschland. The structure of the economy is however composed primarily by its thousands of highly innovative SMEs, of which 400 are market leaders in their respective product fields.[28] Of particular importance for the

[25] The section is based on data and materials made available by the Ministry of Economic Affairs, Work and Tourism of the Region Baden-Württemberg https://wm.baden-wuerttemberg.de/de/wirtschaft/

[26] Baden-Württemberg portal (2022):

[27] Ministry of Economics, Labour and Tourism (2021): Export country Baden-Württemberg, available at: HYPERLINK "https://wm.baden-wuerttemberg.de/de/wirtschaft/wirtschaftsstandort/aussenwirtschaft/exportland-bw/"Exportland BW: Ministerium für Wirtschaft, Arbeit und Tourismus Baden-Württemberg (baden-wuerttemberg.de)

[28] BW Invest (2022): Baden-Württemberg Location, available at: HYPERLINK "https://www.bw-invest.de/standort"bw-invest: Standort

economic development of Baden-Württemberg is growth in the knowledge-intensive service sectors with close ties to the manufacturing industry.[29]

Around one quarter of industrial revenue is generated today in Baden-Württemberg by the automotive engineering industry and its large supplier network, closely followed by mechanical and plant engineering (around 20%) and the metal and electrical industry (each 7%). The chemical, pharmaceutical and optical industries also play a key role.[30]

Research and Development intensive economy

Baden-Württemberg is the leading region when compared to the 97 regions in Europe for what regards R&D intensity: in 2019 the regional economy reinvested into research and development about € 30.3 Billion of its gross domestic product, a record-high in the history of the state[31] . This accounts in fact for a 5,8% of the GDP reinvested in R&D activities.

The percentage steadily increased during the last decade (it was 4,6% in 2009), and it is significantly higher not only when compared to other German regions (averaging at 3,2%), but also as mentioned when compared to EU-27 which averages at 2,2% of GDP reinvested in R&D activities.

This degree of investment is of course reflected also on the number of patents registered: Baden-Württemberg leads the German standing in terms of patents, with about 123 registered patents per 100.000 inhabitants.

This record high value is also a direct consequence of the high number of Research institutes active in the Regions (more than 100, including the Institutes of the Max-Planck Society, the German Cancer Research Centre in Heidelberg, the German Aerospace Centre, the Centre for Solar Energy and Hydrogen Research Baden-Württemberg, several the Fraunhofer Institutes etc.) and of the 110 cluster initiatives and networks in the region[32], which play a key role in R&D activities and technology transfer.

> ***“ Innovation ecosystem: European innovations for a sustainable society and responsible industrial change***

Steinbeis 2i is part of Steinbeis Europa Zentrum, an organization which has been active for more than 30 years in innovation consulting and research funding throughout Europe and beyond. Steinbeis Europa Zentrum consists of three strong partners: Steinbeis EU FOR YOU (formerly SEZ, founded in 1990, part of Steinbeis Innovation gGmbH), Steinbeis 2i GmbH (founded in 2016) and Steinbeis IDEA Europe (the Institute of the Commissioner for Europe of the Minister of Economic Affairs, Labor and Tourism Baden-Württemberg, founded in 2018, part of Steinbeis Innovation gGmbH).

Steinbeis is well-connected with international partners and networks, and supports companies, start-ups, universities, research institutions and cluster initiatives on issues of innovation management, financing, EU applications, international markets, regional and social transformation, and innovation policy.

---

[29] Baden-Württemberg portal (2022): Home to commerce and industry, available at: https://www.baden-wuerttemberg.de/en/our-state/business-location/

[30] Baden-Württemberg portal (2022): Home to commerce and industry, available at: https://www.baden-wuerttemberg.de/en/our-state/business-location/

[31] BW Statistisches Landesamt (2021): Research intensity in Baden-Württemberg reaches a new record of 5.8% available at: rttemberg (statistik-bw.de)

[32] Baden-Württemberg - Forschen im Land der Zukunft (2019): 2019_bwi_Broschuere_Forschen_in_BW_DE.pdf (bw-invest.de)

For all target groups, Steinbeis offers training on proposal writing, project management and innovation. Together with economic development agencies, representatives of the state ministries and the EU, Steinbeis conceptualizes and organizes large congresses and information events, including international ones, bringing together innovation actors from the entire value chain, as shown in the figure below:

Figure 4 Steinbeis Fields of expertise and services

3 Overview of the Startup Support Programmes

Startup Support Programmes can take a wide range of forms. Also, the organizations involved in EFFECT-SME represent diverse ways of starting systematic work with startup projects from automated assessment and identifying suitable EU calls, to mentoring, training and financial support. This chapter is dedicated to individual programmes to better understand how its settings affect evaluation design. See comparison table of the three analyzed programmes.

Before describing the programmes themselves, it is important to distinguish the levels of evaluation they contain. Programme focused on initial assessment of projects (Innocheck) that are the focus of the business support is an ideal start for any IA or BSO to work with a given customer. It is the valuable default baseline for measuring business support impact and provides overview of information needed for tailor-made approaches. Nevertheless, it doesn't provide any information regarding the quality of the programme itself. On the other hand, the rest of the programmes (Healthstart, SUV) evaluation is aimed at the impact of the programmes and programme design.

In other words, there is a need to differentiate between assessment focused on the performance of the projects (SU) and evaluation of the programmes focused on the quality of the programme itself, impact it has made on the SU and possible redesign of the support as well.

		Steinbeis (Innocheck)	Madri+d (Healthstart)	MSIC (Startup Voucher)
BASIC INFO	Goal of the programme	One of the entry points of a wider supporting measure promoted by the Minister of Economic Affairs, Labour and Tourism of the Land Baden-Württemberg (WM-KMU). The goal is to support the access to EU funding and innovation opportunities for Startups and SMEs in the Region.	Encourage the creation of technological start-ups in the health sector, mostly from hospitals, health centers and research centers in the Community of Madrid.The program focuses particularly on the consolidation of entrepreneurial ideas based on science and the creation of entrepreneurial teams	Facilitate and speed up the validation of a new product / service with customers and validate the size of the market. The program only accepts scalable business plans with a high potential of added value.
	Ownership of the programme	The program is managed by Steinbeis 2i GmbH and financed by the Minister for Economic Affairs, Labour and Tourism	Fundación madri+d	Moravian-Silesian Region (MSIC has a role of program coordinator in marketing, application assessment and programme evaluation)
	Starting year of the programme	The tool Innocheck is online since 2019, while the support programme is already running since several years.	2016	2018
	Total N° of beneficiaries	The number of users that finalised the Innocheck questionnaire is 74 (up until last reporting period at the end of 2020). 46 of these participants qualified as Startups	61 beneficiaries (and 11 spin offs created to date) out of 138 candidates in 5 years	20 (114 applicants)
	N° of beneficiaries yearly	74	between 10 and 14	5-10 (2018 - 10, 2019 - 5, 2020 - 5), it depends on total ammount of money approved by the region
	Frequency (rounds/yearly)	constant	One call per year (5 calls to date)	yearly (with exception in 2021)
	Maximum amount of aid per beneficiary	Up to 48 hours of consulting services to identify funding schemes, ideate and draft a project proposal and get iterative feedbacks on the proposal. The type of support and the amount of the allocated time depends on several factors such as the funding framework, the maturity level of the proposal etc.	12 000 EUR in services	20 000 EUR
	Cofinance	X	10% co-financing of collaborators, in services	70% region, 30% company

		Steinbeis (Innocheck)	Madri+d (Healthstart)	MSIC (Startup Voucher)
CRITERIA FOR ACCEPTANCE	Size	Startup (at least)	x	Starup
	Age	x	x	not older than 5 years
	Other	x	· Growth potential (market size, level of competition, ease of commercialization, income generation) (40%) · Scientific and technological content of the business idea, development potential and technological and / or industrial capacity (30%) · Capacity of the promoter team to generate new funds (30%)	x
EVALUATION / MONITORING	N° of completed evaluations	3	5 (years)	1
	Type	monitoring	4 types of evaluations: (1 evaluation exante, 18 midterm evaluations of all sessions, 1 evaluation expost , follw-up after 3 years)	midterm
	N° respondents	N/A	61	18 (of 80 participants in program till end of 2019)
	When (years)	quarterly	continuous	2021
	Evaluation goal	number of SMEs/startups supported in the overall WM-KMU Program	· Accomplishment of expectations (exante vs. expost): scope of the IPR, intention to create a company, knowledge of the basic contents of a business plan, market knowledge, satisfaction with the program. · Quality follow-up of all 18 sessions (midterm evaluations): Organization and prior information, Technical means and online platform, Duration of the event, prior knowledge of the seminar, quality of the speakers and quality of the projects presented in the final session · Follow-up of results after 3 years (creation of companies, funding raised, etc)	to evaluate if results of the supported projects are in line of goals of the program and if there is any difference between companies who were and weren't supported
	In-house/external/combination - specify	In-house reporting to be submitted to the Minister for evaluation	All questionaires are issued and evaluated in-house and online. 98% of response rate. 2 evaluation reports are issued	in-house
	N° of team members	5	All (between 3-5 members)	1 + 2 experts as supporters

3.1 MSIC

3.1.1 Start-up Voucher

Startup Voucher (SUV) is one of the programmes for startup support offering financial support. Originally it was run by Moravian-Silesian region as a funding programme with MSIC as a methodological coordinator. Nowadays it has been transformed into startup competition and it is run solely by MSIC. The main purpose is to support start-ups with high added value and high potential of growth. Experience gained during the first 3 rounds of calls was crucial in future development of the programme and in creation of new programmes for starting companies. Even though this programme is different now, there is still need to measure its impact on supported companies.

The main goal of Start-up Voucher is to **facilitate and speed up the validation of a new product / service** with customers and **validate the size of the market**. The programme only accepts **scalable business plans** with a **high potential of added value**.

Key criteria for applicants are:

- company not older than 5 years
- with innovative, scalable products/services
- with ambition to become a global company

Successful applicants get financial support from approx. 2 000 to 20 000 EUR and their projects had to be co-financed by the company itself (30%). From 2018 to 2019 there were 3 calls with an overall of 114 applicants and 20 successfully supported projects.

3.1.2 Start-up Voucher Evaluation

So far only one evaluation of Start-up Voucher was finished. It was considered as a midterm programme evaluation and the main goal was to validate whether the programme was on a good track in reaching its goal to facilitate and speed up the validation of a new product/service. As it was the first evaluation run in MSIC history and the key issue was to find if there were any measurable impacts of the programme and how to find them. Companies which have completed their projects at least 1 year before the evaluation were addressed and contact was made with unsuccessful participants from the same programme runs as well. Evaluation was done by MSIC (data analyst) with participation of the Moravian-Silesian region (officer responsible for the programme), who took part only in contacting unsuccessful participants.

We set these steps in the evaluation process:

1. Purpose definition and evaluation questions

It is important for an innovation agency to specify what need to be answered and how to get the right answers from the participants. In this case the goal was to find out: What is the quality of programme participants? We have set following evaluation questions that we tried to find the answers for:

- Did MSIC receive enough relevant proposals?
- What is the quality of submitted proposals to the programme/ individual calls?
- How did the individual business plans have evolved since the proposals had been submitted to the programme?
- Are the companies still active?
- What specific benefits of the programme did they perceive?

2. Choosing the way for data collection

So far we've chosen an online gathering method mainly because of faster implementation, less involvement of agency staff and also because of covid restrictions that were put in place. For questionnaire creation LimeSurvey tool was used. It is an efficient tool for complex questions with possibility of conditional questions, own formatting, or limited access via tokens. There is a paid Cloud version, or it is possible to download Community Edition as an open source. The most important part was to collect all needed replies from respondents on time. It proved to be a time-consuming exercise. The better relations you have with the respondents the likelihood of getting relevant answers increases. Example of the questionnaire can be found in attachment 1a. Start-up Voucher online Questionnaire

3. Replies assessment and evaluation

Complex design of conditional questions can on one side be pro-client oriented, on the other side you might not get enough answers. It can be hard to analyze them or make a relevant comparison between supported and not supported participants. Our goal was to make it as simple as possible for the respondents and not to ask for irrelevant questions. However, this decision led to the lack of responses. Using more sophisticated tools like LimeSurvey can help you design more complex process of data gathering but be aware of its complexity and take it into account during preparations. It can be far sufficient to use simple questionnaire tools like Microsoft of Google Forms if the form is easy. For analysis in small innovation agencies it is far sufficient to use Microsoft Excel or Google Spreadsheet. These tools allow to analyze most of the gathered data and in connections with other Office tools like Word our Powerpoint are easily to use in final evaluation report or presentation.

4. Output creation and interpretation

It is very important to have access to all relevant materials (contact information, applications with annexes). In MSIC case difficulties arose due to unresolved issues with access to all the materials needed. Therefore, some compromises had to be made and new setting was proposed for future runs. The final evaluation results were considered as a probe which was sufficient for midterm evaluation, but for final evaluation more precise questions and direct approach to the participants will be needed. The midterm evaluation should have been based on replies from quite small group of companies (e.g., Even to evaluate such a small-scale sample the time required is months.)

Key learning points from SUV evaluation:

- Ensure access to all contacts and materials needed for evaluation (check availability of contact information and materials from all the runs and make partnership modifications if needed).
- Think thoroughly the evaluation questions, think through the conditional questions and their possible impact on entered data. There may be a lot of missing responses if the condition is too strict.
- Involve all the programme stakeholders in the beginning of evaluation and establish close cooperation or reporting with them.
- Consider the time schedule properly, plan in advance and be prepared for unexpected delay (covid restrictions).

3.2 Madri+d

3.2.1 Healthstart madri+d description

This is one of the **most relevant startup support programmes in the Madrid region**, with a well-established evaluation process and clear results gathered **since 2016,** when

healthstart madri+d was first launched. Its main aim is to encourage the **creation of technological start-ups in the health sector**, mostly from Madrid hospitals, health centers and research centers. Main beneficiaries are entrepreneurs and professionals in the health sector with their own technological projects or those developed in hospitals, universities, and research centers in the Region. They present an idea or business project in its initial phase and, if selected, they will receive **12.000 euros plus support services** for the development of their company, including specialized training and team building. The calls are launched once a year, selecting between 10 and 14 projects per year. The winners are able to present their outcomes in a final conference in front of different stakeholders and investors. During the last five editions, healthstart madri+d has created 12 startups in the Madrid region.

Figure 5 Final Event Healthstart 5th Edition

3.2.2 Healthstart madri+d evaluation

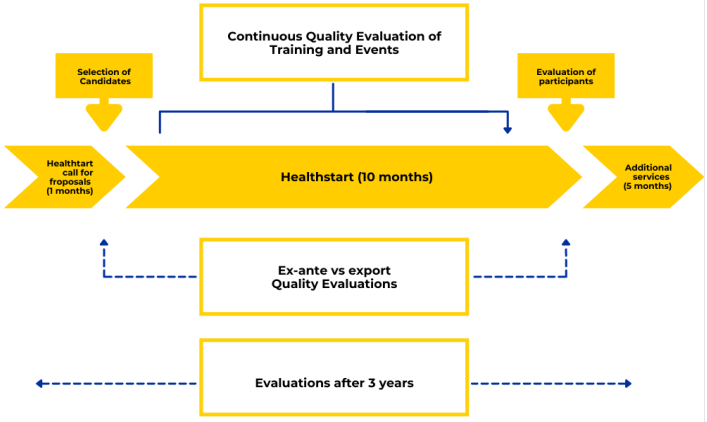


Figure 6 Overview of the Healthstart madri+d evaluation

In the scheme above the main evaluation stages for Healthstart madri+d programme are summarized. It covers both continuous project (SU) evaluation and programme evaluation, there is a continuous incorporation of the feedback of participants to the programme design.

Phase 1. Selection of candidates

At the beginning of the programme, following evaluation criteria are used:

Candidates' evaluation criteria (max 14 projects)	**Type of evaluation and submission**
·**Market size**, level of competition, ease of commercialization and income generation (40%) ·**Scientific-technological content** of the business idea, industrial property (30%) . ·**Capacity of the promoter team to generate new funds** (30%)	·**Initial Committee** ·**At least three experts** in the areas of entrepreneurship and health technologies. ·Electronic submission (online questionnaire).

Thanks to the report system, this process could be improved, being the evaluation of the criteria over time as follows:

Evaluation criteria (max 14 projects) 2016 and 2017	**Evaluation criteria (max 14 projects) from 2018**
·**Market size, knowledge of competitors, marketing strategy and future income generation** (30%) ·**Scientific-technological content** of the business idea, industrial property (20%) ·**Growth Potential** (30%) ·**Commitment and capacity of the team to generate new funds** (20%)	·**Market size**, **competition level, ease of commercialization and income generation** (40%) ·**Scientific-technological content** of the business idea, industrial property (30%) ·**Capacity of the team to generate new funds** (30%)

The 14 projects selected will receive 2000 euros and the services and training during a 10-months acceleration phase.

Phase 2. Evaluation of participants

As can be seen in the diagram, after 10 months of work in the programme, the participants are evaluated in order to step into the final phase. In this final phase only 5 projects will be founded with the 10.000 euros voucher and the additional support services for 5 months. At this stage, the evaluation criteria used are the following:

Participant's evaluation criteria (2nd stage, 5 projects)	**Type of evaluation and submission**
·**Commitment with the programme** (attendance at workshops, quality of deliverables, quality of the final project): 30% ·**Market**, knowledge of the competition, marketing strategy and expected benefits: 20% ·**Scientific-technological content** of the business idea, development potential and technological and / or industrial capacity:	·**Final Committee** ·**At least three experts in the areas of entrepreneurship and health technologies** (usually 8-10 experts) ·Documents of the work developed by the teams, sent in advance ·Face-to-face discussion and evaluation after a final pitch event

15% ·**Growth potential**: 20% ·**Capacity of the promoter team to generate new funds**: 15%	

Also, thanks to Madri+d experience, evaluation criteria could be developed in time:

Evaluation criteria (max 14 projects) 2016 and 2018	**Evaluation criteria (max 14 projects) from 2019**
·The final committee selected **projects** that **received cash prizes** (1st € 6,000, 2nd € 4,000 and 3rd € 2,000) and other **services.**	·All the projects selected receive € 2,000 at the beginning of the programme to start developing their prototypes. ·The **final committee selects the five best projects** which receive **additional € 10,000 each to continue their prototype developments.**

Phase 3. Continuous evaluations of training and events

During this phase, done during the 10-month support, the main aspects evaluated are the organization and prior information, technical means and online platform, duration of the event, quality of the speakers among others. It is also relevant the prior knowledge of the seminar, and the quality of projects presented in the final session. These evaluations are done online using tools like Typeform and, again, it is useful feedback for the decision-making process over time. For instance, our first training programme was defined in 2016 asking the candidates their training priorities in the registration form. Contents are updated yearly, based on the Continuous Quality Surveys.

Phase 4. Ex-ante versus ex-post quality evaluation

It is a very similar process to the one described in phase 3, using the same online tools, but in this case the main aspects evaluated are the intention of creating a company, knowledge of all aspects covered in the training sessions, the knowledge of investors and public instruments, the basic contents of a business plan, of IPR project needs. In general, the evaluation also contains questions for the general satisfaction with the calendar and the main organization of the programme.

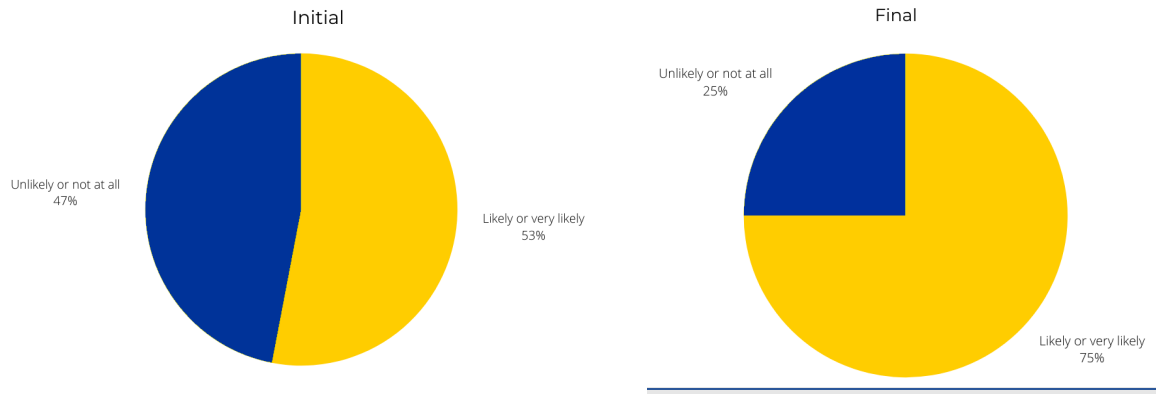


Figure 7 Ex-ante and ex-post quality evaluation (Phase 4)

Phase 5. Assessment (follow-up) of results after 3 years

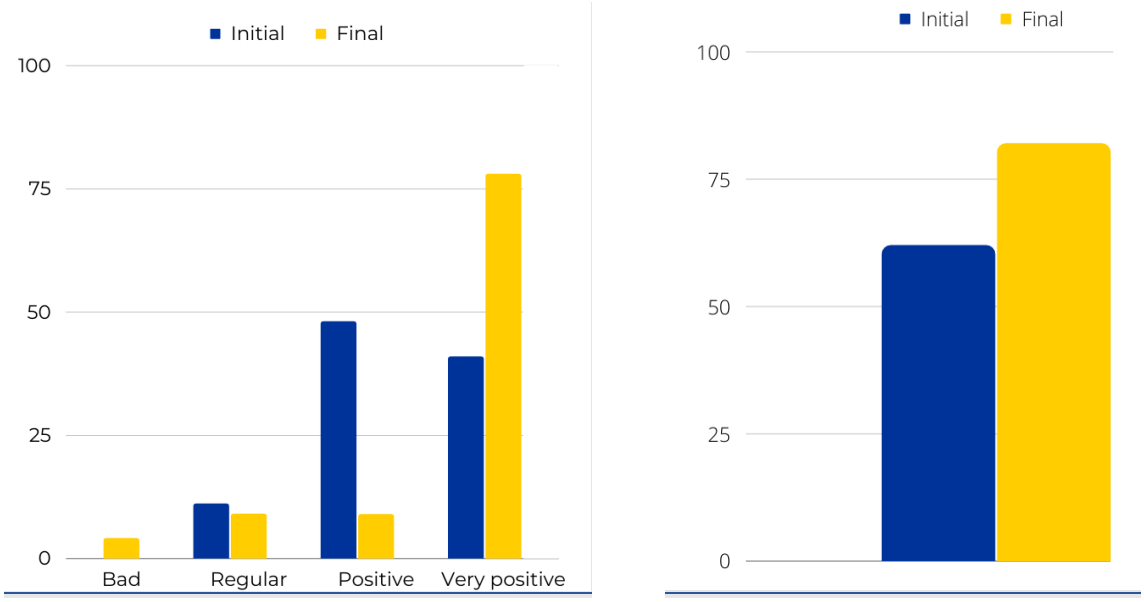


Figure 8 Comparison of initial and final assessment (Phase 5)

This process is done directly by an assessor via telephone calls with the beneficiaries, assessing the situation of the project or the company created, if they have raised funding, the partnerships they have done until then thanks to the programme or the general business situation after 3 years of receiving healthstar madri+d support.

Healthstart madri+d outputs and lessons learnt

Evaluations of Candidates and Participants

- Refinement of selection criteria improved quality perceived by the Partners and the Committees

Quality follow-up of all sessions

- Refinement and extension of calendar and improvement of quality perceived by attendants

Follow-up of results after 3 years

- Knowledge of the situation of the new startups for dissemination purposes
- Possibility to offer additional support (search for financing, mentoring, IPR...)

Ex-ante vs. ex-post Quality Evaluations

- Part of the participants without any protection for their ideas have patents or industrial designs registered at the end of the programme.
- The entrepreneurial vocation to create technology-based companies in the health sector has increased in the last 5 years.
- The degree of satisfaction of the participants is generally high, both with the programme and with the organization, mentoring support and contents offered.
- They have acquired a greater knowledge after participating in the programme, especially in areas of legal, regulatory, financial, or industrial and intellectual property.
- The participants have been able to visualize potential sources of financing, both through investors and public aid, to support the creation or development of their companies.

3.3 Steinbeis

3.3.1 INNOCHECK BW Description

The INNOCHECK BW Programme is a platform designed to give startups and companies that have innovative product or services ideas to scope the European funding landscape with ease. The INNOCHECK BW is a web platform (https://www.innocheck-bw.de) accessible free of charge and open to all companies in Region Baden-Württemberg

Background information on the programme
To maintain and further develop the high level of innovation and growth potential of recent decades, the involvement and continued participation of Baden-Württemberg's SMEs in the new EU research framework programme "Horizon Europe" is crucial.

INNOCHECK BW is one tool in the multifaceted strategy that Steinbeis with the support of the Ministry of Economics, Labor and Tourism (hereinafter “WM”), has been able to implement. This tool is part of a bundle of information and accompanying measures to the benefit of Baden-Württemberg's SMEs in recent years.

The offer of intensive short consultations in the context of regional information events or at interested companies on site, the implementation of specific web seminars and the possibility of a free application correction by Steinbeis experts formed in this respect a targeted regional supplement to the consulting services offered by the "National Contact Point SME" based in Bonn.

3.3.2 INNOCHECK BW Evaluation

In the period 2017-2020, Steinbeis has directly supported more than 180 prospective project participants about the opportunities for participation in European funding programmes and advised them on the requirements for submitting an application in the course of 12 SME consulting days throughout the state.

More than 75 Baden-Württemberg SMEs were assisted in applying for "Horizon 2020" funding, of which more than one-third reached or exceeded the threshold for funding. Of the companies in question, 14 received funding.

Within the scope of special SME funding, which is covered in Horizon 2020 by the so-called "SME instrument" and the measures of the EIC pilot, 39 Baden-Württemberg companies (of the above-mentioned 75 companies) were supported in applying for corresponding funding (of which 26 SMEs with Phase 1 projects and 14 SMEs with Phase 2 projects/Accelerator/FTI). 8 projects reached or exceeded the threshold value. The approval rates for the funding instrument in question are very low due to the high level of acceptance

across Europe, which is why resubmissions are often necessary. Unfortunately, a final statement on the final funding rate cannot be made at this stage.

Based on the following project concept, this work is to be continued in the period from 01.01.2021-31.12.2022 and supplemented by targeted activities resulting from the priorities of the new "Horizon Europe" programme and innovation topics relevant to Baden-Württemberg.

In order to fully exploit the aforementioned content and potential of the new research framework programme for Baden-Württemberg's SMEs, the main task will be to identify suitable project ideas that can be transferred to the first application phase. Steinbeis aims at supporting at least 120 applications with Baden-Württemberg players from the SME and start-up or scale-up segment during the period 2020-2022. Steinbeis also aims to have at least 30% of the applications invited to submit a full proposal (so-called stage 2 applications). In this context, the special challenge of winning SMEs for EU funding projects for the first time should be pointed out, i.e. to encourage and support companies that were previously unable or unwilling to overcome this hurdle. Start-ups/scale-ups are increasingly found in this target group in particular; likely, a high proportion of small mid-caps companies will also want to get involved here.

The activities to be carried out by Steinbeis 2i GmbH will be based on a nationwide, intensive announcement of the funding programmes in "Horizon Europe", which provide a participation opportunity for SMEs, with special consideration of the open-topic funding instruments in the EIC. For these activities, multipliers such as cluster initiatives, innovation hubs for digitization or AI labs, business development agencies, etc. should be involved to a greater extent. In addition, synergies must be created with state-wide initiatives, e.g., to interest young companies (start-ups, scale-ups) and an increasing number of female entrepreneurs (e.g., via Spitzenfrauen-bw) in EU funding instruments. Proven formats should be taken up and further expanded. Digital tools - for example in the form of web seminars - have proven particularly helpful in this regard, as they help to increase the reach and ensure low-threshold access to information for all interested parties.

Individual and initial consultations serve the concrete analysis of the respective project and its eligibility for funding under the "Horizon Europe" programme options. The consultation includes the assessment of eligibility, the degree of innovation and technological maturity, the suitability of the application concept as well as the documentation of first steps towards the application concept.

In a subsequent step, SMEs are supported on the path to a successful application - for example, by correcting applications - so that the financing of innovations is also ensured for Baden-Württemberg companies in the long term.

The project and the support measures are directly monitored by Steinbeis, that reports to the WM on quarterly basis. For what regards the monitoring and the main output needed to be reached, INNOCHECK BW has one KPI in the range of activities put in place to support innovative startups and SMEs. As already mentioned previously. INNOCHECK BW is an onboarding measures in the support funnel envisaged by Steinbeis, which is designed also to extract and structure information about the company and the innovation concepts at the submission stage.

Activities	KPI	2021	2022	
1. Communication measures				
1.a) Informing potential programme participants about EU funding instruments and regional support offers				
	Number of submitted ideas through INNOCHECKBW	50	50	100
2. Preparative and accompanying measures				
2.a) Realisation of Quick consult on „Horizon Europe“and EIC-Funding Instruments				
	Quick Checks about Horizon Europe and EIC	60	60	120
	Quick Checks for young companies (Start Up's & Scale Up's)	15	15	30
	Quick Checks for „EU-Newcomers“& Woman-led enterprises	15	15	30
2.b) Short trainings on Proposals' development (Webinars)				
	Number of webinars	2	2	4
2.c) Individual short trainings about „Blended Finance“ measures				
	Number of individual short trainings on how to pitch/prepare for investments rounds	3	3	6
3. Measures for individual support in the application phase				
3.a) Feedback on the application concept and, if applicable, the composition of the consortium at an early stage of the application process;				
	Number of individual brief consultations on the application concept	20	20	40
3.b) Correction of drafts				
	Number of corrections of application outlines to the EIC Accelerator or Stage 1 applications in Pillar II.	25	25	50
3.c) Review of advanced or final application versions				
	Number of corrections of full proposals (2nd stage to EIC Accelerator or Pillar II projects)	20	20	40
4. Project management and reporting				
4.a) Mid-term and final report				
	Preparation of a detailed mid-term and final report	1	1	1+1
4.b) Periodic statement of results (applications and project approvals)				
	Quarterly transmission of the achieved target figures	3	3	6

Table 4 Innocheck Evaluation KPI

The data will be collected using the webform available on the website https://www.innocheck-bw.de/fragebogen-2-de

The data generated through the webform are then securely transmitted to Steinbeis, which proceed with manual assessment of the information provided and filter the applications based on the information provided. Depending on the status of the concept, its innovativeness, its maturity stage, its sector of application etc., the applications are then sorted and assigned to the most competent expert in the area available in the Steinbeis' portfolio of internal talents.

The consultant proceeds with a second, more in-depth assessment of the concept submitted and then proceed with the first quick check with the company.

The overall goal is to identify the best support measure and secure the appropriate funding for the applicant, mainly at European level.

Innocheck programme itself is also subject to on-going internal quality monitoring, which is then reported to the supporting authority WM quarterly to ensure close overview on the supporting measures. Innocheck also produces two major evaluation documents during its lifespan (mid-term and final reports).

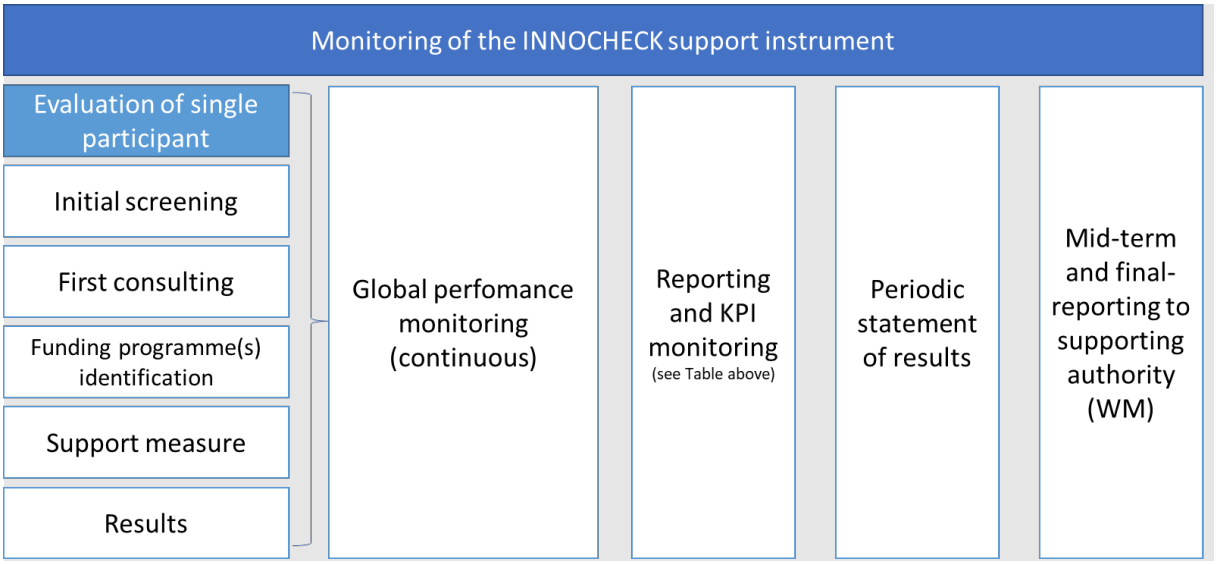


Table 5 Innocheck evaluation process monitoring

4 Overview of the SMEs Support Programmes

Forms of support to mature companies of small and middle size depend not only on the goals of the programmes but also on different economic conditions and external contexts as well as maturity of the supporting organization itself. See the comparison tables of the three analyzed programmes.

As in the case of support programs for startups, a distinction must be made between project (company) assessment (UKC, partly ESA BIC) and programme evaluation (ESA BIC, Expand).

		Steinbeis (UKC)	Madri+d (ESA BIC)	MSIC (Expand programme)
BASIC INFO	Goal of the programme	UKC aims at assessing, screening and understanding the competence of the client SMEs at a glance, and to provide a quantitative assessment that helps to better understand the strengths of each SME and build a customized support measure based on decisions informed by data.	To enable entrepreneurs (incubatees) to receive commercial and technical assistance in order to set up their business using space technology for general non-space industrial, scientific and commercial uses ("spin-off") or using non space technology for proposing products and services for the space sector (spin-in"). ESA BIC Madrid Region offers to support projects and ideas for business incubation by providing funding, business support and technical assistance. The modalities and the extent of the support provided are negotiated on case by case basis.	To identify the key problem hindering the future development of the company and then find a solution in cooperation with an external expert. The key is practical know-how from an expert and freedom in how the company cooperates with the expert.
	Ownership of the programme	Steinbeis Innovation gGmbH	European Space Agency - setup, administration and implementation of the calls by Madri+d.	MSIC
	Starting year of the programme	2017	2015	2017
	Total N° of beneficiaries	161	40	110
	N° of beneficiaries yearly	N/A	8	30
	Frequency (rounds/yearly)	constant	Yearly	constant
	Maximum amount of aid per beneficiary	N/A	50.000 EUR covering costs incurred for the development of products, prototypes, software and IPR.	max. 2300 EUR
	Cofinance	N/A	YES, 50% Madrid Regional Ministry of Economy, Employment and Treasury. 50% ESA.	in phase 1 it is 80% covered by MSIC, in phase 2 it is 50% covered by MSIC

		Steinbeis (UKC)	Madri+d (ESA BIC)	MSIC (Expand programme)
CRITERIA FOR ACCEPTANCE	Size	SME	NA	Small and medium sized companies
	Age	N/A	Less than 5 years	Older than 2 years
	Other		Scale-up potential, space technologies to be used on other sectors (spin-out) and non-space technologies to be applied in the space sector (spin in), one of the 4 locations of ESABIC Madrid Region.	Specific criteria based on: product type (eg. scalability or technology), ambition to grow, expand to foreign markets or compentece in R&D or automation
EVALUATION / MONITORING	N° of completed evaluations	The evaluation is based on the overall number of beneficiaries	14 calls completed in 5 years (2015-2020)	73 companies
	Type	Ex Post	The companies participating in each of the 14 calls passes 5 types of evaluation milestones: SELECTION PHASE: 1.Tender Opening Board (evaluation of written proposals); 2.Tender Evaluation Board (evaluation of 30 min. presentation); PROJECT QUALITY ASSESSMENT: 3. Mid-Term Report (after 12 months); 4.FInal Review (evaluation of project results after 24 months); EX-POST EVALUATION: Yearly questionnaire	midterm
	N° respondents	NA	80% respondents to the Expost evaluation.	101
	When (years)	constant	Yearly Project Quality assessments & yearly Expost evaluations.	first run for all companis who completed projects between 2017-2020
	Evaluation goal	Data coming from UKC are paired with the qualitative assessment from Steinbeis innovation consultant, to define the best support programme for the companies. The growing number of UKC users allow also for an increasing base for data comparison; therefore fine-tuning and perfecting the UKC every time it is used	Expost to follow-up the status of the companies supported in terms of sales, jobs created, impact and collaborations.	track progress of the subsidized companies, get feedback of the programme after some time, get support materials for future financing of the programme
	In-house/external/combination - specify	in-house	Combination of madri+d, ESA & external experts: TOB (madri+d+ SA); TEB (madri+d+ESA+external experts); MTR&FR (madri+d+ESA); Es-Post (ESA and madri+d)	in-house
	N° of team members	All Steinbeis UKC-certified consultants	x	3 did 80%, other 6 members did 20%

4.1 MSIC

4.1.1 MSIC Expand Description

Expand programme was the first support programme implemented by MSIC in 2017. It is based on the Swiss programme Platinn. It is an individual mentoring programme for company owners/managers. It is meant for SMEs located in Moravian-Silesian region with their own product or service. There are 4 domains of expertise: organization, business development, financing, and cooperation. MSIC has its own database of unique experts, who are mostly company owners, CEOs or various specialists. The organization take advantage of common pool of experts of other Ynovate innovation agencies running identical programmes as well.

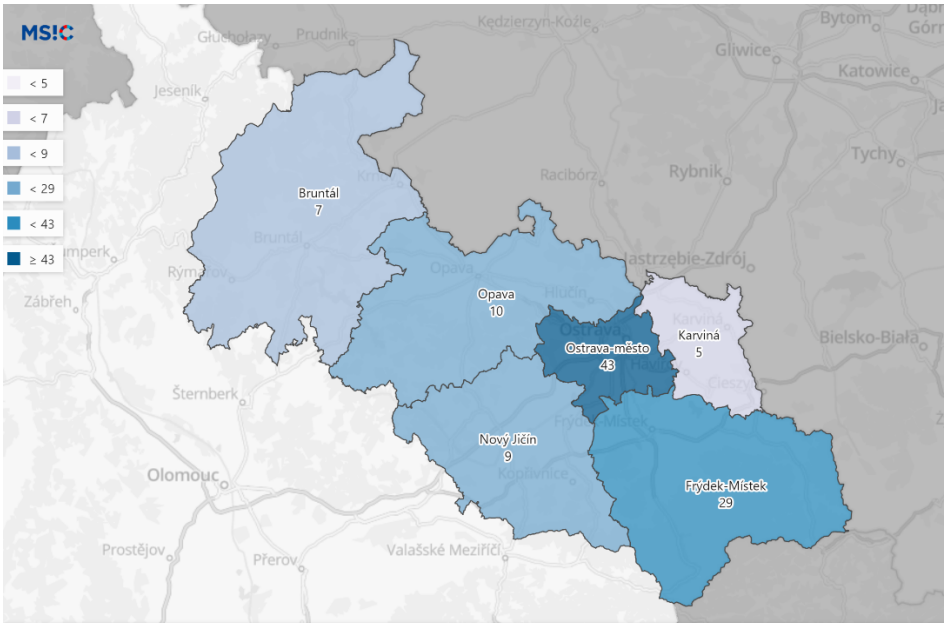


Figure 9: Map of supported companies across Moravian-Silesian Region

It is a two-phase programme:

- 1st phase: problem analysis, solution design (40 hours)
- 2nd phase: implementation of a change project (80 hours)

Both phases are co-financed by public funds via MSIC.

- 1st phase: 80% MSIC (2 400 EUR)
- 2nd phase: 50% MSIC (4 800 EUR)

4.1.2 MSIC Expand Evaluation

The first midterm programme evaluation was run in 2021. Its goal was to get first result of the impact on the supported clients growth. Companies that had completed at least one Expand project between years 2017-2020 were selected. The evaluation sample contained 107 unique companies in which 141 projects were implemented in total. As a method for evaluation personal interviews with company owners or CEOs was given the priority. All interviews were carried out by MSIC employees. Outputs of evaluation were also used to justify the continuation of the financial support for the programme.

These are key steps in the evaluation process:

1. Definition of evaluation questions

Four key evaluation questions were set:

a) What is the topic of change projects implemented by participating companies?
b) What are the overall characteristics of supported companies, have they changed over time, and if yes, how?
c) What are the main benefits of change projects and how are they perceived by company owners?
d) How do the owners evaluate the settings of the Expand programme itself and the cooperation with the expert?

2. Questionnaire creation and interviews

Based on the experience with company owners MSIC decided to have an interview with them. One-page questionnaire was created that was meant to set a structure of the interview. However, the interview itself was meant to be an open discussion with the owner (semi-structured interviews).

The questionnaire consisted of 3 parts:

1. Basic information about company and project
2. Key company indicators (net turnover, EBITDA, number of employees, labor costs)
3. Questions for company

First part was prepared by MSIC staff from internal sources and materials. Second part should be publicly available (e.g., online registers) but some companies are not publishing financial statements and therefore these indicators were asked prior or during the interview to get the full picture of the company growth. The third part is a basic structure for the interview and the interviewer decides when the concrete question is asked based on the interview flow. Example of the questionnaire can be found in Annex 1d. Expand questionnaire

Data gathering and analysis

As all interviews were performed by internal MSIC team who are not well trained in carrying out the interviews the essential training was organized. We had one experienced interviewer who helped us with the questionnaire design and performed two training interviews. We arranged two separate meetings two different company representatives with who we have good relations and notified them it is a training run. After each interview we discussed the information gathered from the interview and key answers were put into simple Excel database where all future responses were put as well.

MSIC worked with a simple shared excel sheet, where interviewers put all the gathered information. For each question was a separate column and for each company a separate row. This structure helped a lot in data analysis. During the time interviewers figured out that getting economic indicators information about the companies is challenging task, especially because not all the companies publish this information online even when it is obligatory. Also, some companies were unwilling to share this information with us. The whole exercise was to set up a meeting with a company representative. As soon as staff agreed on the meeting then the interviews were open, fruitful and MSIC received all information needed.

3. Conclusions

Evaluation was set to be completed in approx. 5 months (July - November). Only 70% of planned interviews were completed till the deadline mostly due to covid limitations and internal capacities. Fortunately, there were enough data for assessment and interpretation. The output of evaluation was used for partial changes of the programme and as report of MSIC Expand performance for the MSIC shareholders.

Key learning points:

- Prepare realistic timetable and act adequately.
- Use internal employees if it is possible (you create valuable connections to SMEs owners).
- Do not be afraid of negative feedback – it can really help to re-structure the programme in a proper way.
- Do not postpone the closure of data collection/interviews even though you do not have data from all supported companies. It can be relevant learning point for the future.

4.2 Madri+d

4.2.1 ESA BIC Madrid Region programme description

The ESA BIC programme was chosen to be part of this analysis due to its characteristics of co-founded programme together with a EU organization as ESA, and because of the different level of maturity and support that offers to startups and SMEs of Madrid region. ESA BIC Comunidad de Madrid is the Business Incubation Center of the European Space Agency (ESA) and the Community of Madrid. Coordinated by Madri+d, it aims to support start-ups in the space sector or developing innovative solutions based on space technologies for other sectors. As it was previously mentioned, ESA BIC Comunidad de Madrid is co-financed 50% by ESA and 50% by the Comunidad de Madrid, through the Consejería de Economía, Empleo y Hacienda.

Figure 10 ESA BIC Overview

It is a programme which generates 18 euros for every euro invested by the Madrid region and started in 2015, supporting 39 startups, creating 65 full time employments, and raising 9.6 million euros of funding. ESA BIC Madrid region launches 1-2 calls per year.

Beneficiaries of this programme need to present an innovative project and be a company less than 5 years old or be in the process of incorporation. For the purposes of the EFFECT-SME project we included this programme in the section for support programmes for SMEs, nevertheless, the participants are rather on the border between the startup phase of the project and the growing company phase. The ambition of the beneficiaries should be to develop a technological solution that includes the use of:

- space sector technologies or infrastructures to develop innovative products or services for any sector (Spin off).
- non-space technologies used for the development of innovative products or services for the space sector (Spin in).

Winners will be incubated in one of the four locations of the ESA BIC programme in Madrid and demonstrate a high scale-up potential.

When entering the programme, companies will receive 50,000 euros over two years:

- 50% earmarked for product, prototype, software or IPR development.
- 50% earmarked for new employment linked to the developments described above.

Support in the search for additional funding through programme partners and participation in madri+d investment forums. Besides, they will also receive specialized training and technical support.

4.2.2 ESA BIC Madrid Region programme evaluation

In the following scheme the main evaluation stages for ESA BIC programme are summarized.

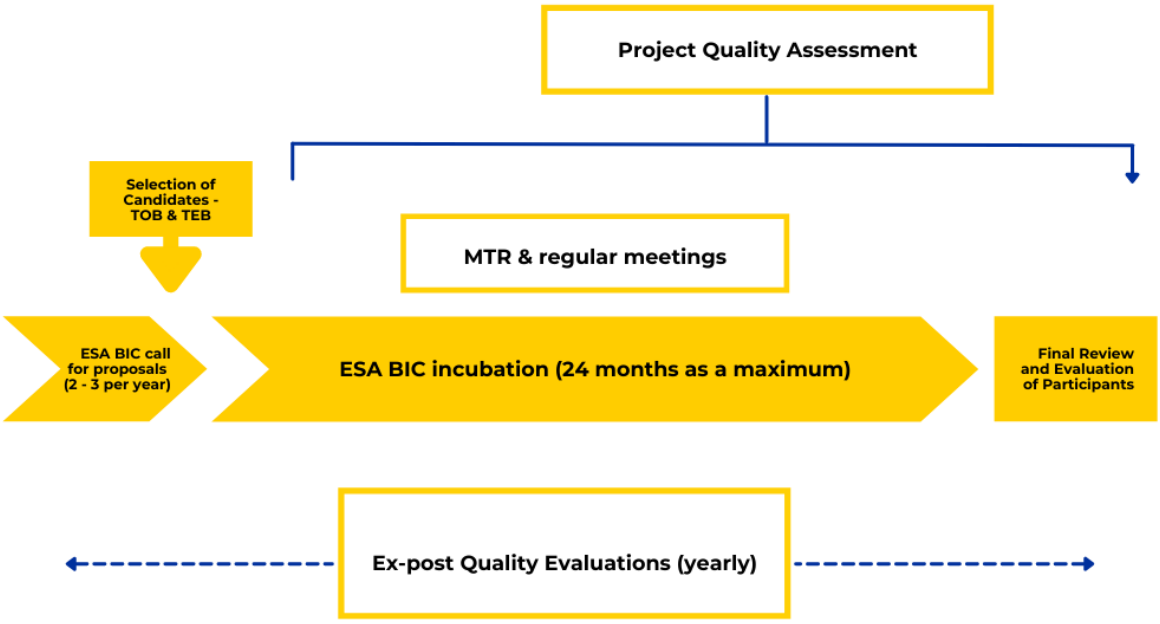


Figure 11 ESA BIC Madrid Region evaluation process

Phase 1. Selection of candidates

The two bodies in charge of this phase are the Tender Opening Board (TOB) and the Tender Evaluation Board (TEB). In the following table the main evaluation criteria used at this stage can be found:

Candidates evaluation criteria	Type of evaluation and submission

Background & Experience: Experience and team composition, support entities and vision (25%) **Technology/Service:** Space Connection, Technical feasibility of the product/service to be developed, Product development strategy and IPR (20%) **Value Proposition & Market:** Value proposition, Market and Competition (20%) **Business Modelling and Risk:** Revenue model, Finance and Risk (15%) **Activity Proposal:** Quality of the eBAP; Milestones/cost planning; Work Breakdown; Management and ESA BIC investment opportunity (20%)	**Electronic submission** of Business and Incubation Proposals **Tender Opening Board (TOB):** Preliminary Evaluation of written proposals by ESA and Fundación Madri+d **Tender Evaluation Board (TEB):** Evaluation of the proposals and the presentations. Evaluation special emphasis is placed on the search for real weaknesses, based on the previous technological and economic study developed by **ESA's technology brokers**. **The Board is made up of experts** in the areas of entrepreneurship, space technologies and different regional ministries.

An evaluation matrix is created with all the projects to be able also to see in which sectors are working the potential candidates. The final incubatees will enter a 24-months incubation period in which they will receive the 50.000 euros plus support services.

Phase 2. Project Quality Assessment

At this point, ESA BIC programme managers performs a quality follow-up of all start-ups (36 mid-term reviews completed). As a start-up company, the Incubatee requires a close monitoring during their incubation period, including business development support, technical and commercial advices and marketing expertise to make them being able to commercialize its product or service through:

- developing its commercial focus;
- enhancing or creating its business plan;
- elaborating on its business outline proposal;
- making relevant use of Third Party advisors;
- establishing a sound financial, commercial, and marketing model; and
- performing additional technical activities, functional to the above activities as required.

During this stage, the incubatees will also be monitor through progress meetings and Mid Term Reviews:

Project meetings	**Mid Term Reviews**
• The goal of these meetings is to make a catch-up of: • Action items completed during the reporting period; • Description of progress: events accomplished etc.; • Problem areas, if any, and corrective actions planned and/or taken;	• The issues dealt in this milestone are: • Progress of all the activities (technical, business, events etc) to be performed in the first period of the programme. • Cost report: Cost of technical staff, time devoted to the project, RLT and

• Events anticipated during the next reporting period;	RNT, payments of salaries etc • Certificates of different Administrations. • Plan of Occupational Risks. • Several Declarations signed ("De Minimis Aid", " Other incomes or grants". • Once this milestone is performed correctly, the second payment of the programme will be transferred to the Company.

At the end of the incubation period, the companies which have profited from the ESA BIC programme will face the Final Review Phase. This is the final milestone of the incubation programme. The start-up shall produce a complete statement of all the work undertaken during the contract term, including the activities functional to the Business Plan:

- Lessons learnt
- Details of the support received from Fundación Madri+d and/or ESA BIC Madrid Region partners
- Contacts established
- Description of technical developments
- Financial details
- All invoices relevant to the third-party services obtained by the Incubatee
- Licenses granted and patent filings and applications
- Photographic documentation
- Questionnaire of Evaluation of their experience at the ESA BIC Madrid Region

Phase 3. Ex-Post Quality Evaluations

These evaluations are carried out by ESA with the collaboration of each of the ESA BIC network nodes. The main relevant aspects evaluated are related with the funding of the companies, FTEs, revenues. In this case, Madri+d has no control or direct influence in this evaluation phase **(see examples of evaluation questions attachment)**.

ESA BIC Madrid Region outputs and lessons learnt

Some (technical, personnel…) objectives will not be achieved.

- Challenge: to make a better evaluation of deviations from the initial plan.

Cooperation between the 4 incubators is not completely achieved.

- Challenge: to include an evaluation of incubators performance in the agreement signed with each of them

Startups do not always mention the Programme as agreed in the incubation contract

- Challenge: to make a continuous follow-up of press releases, etc., published by the startups and the incubators. Results of this follow-up could be evaluated in the Mid-Term and Final Reviews
- How you define your evaluation (with regards to the programme, its involved stakeholders, reporting methods to the programme's funder – if any)
- Who will take part in the monitoring and evaluation process?
- What to monitor and assess?

- How to collect data, monitor the beneficiaries and measure and evaluate the effects?
- What the evaluation process looks like? (Map the evaluation process)

4.3 Steinbeis

4.3.1 Enterprise Competency Check (UKC) Description

As part of the Steinbeis group, Steinbeis 2i leverages on existing knowledge and tools available in the group to deliver quality and excellent support services to SMEs in the Baden-Württemberg and beyond. The Steinbeis Enterprise Competence Check – in German Unternehmen Kompetenz Check (UKC) – is one of the tools available to our pool of experts and consultants to assess, screen and understand the competence of the client SMEs at a glance, and to provide a quantitative assessment that help to better understand the strengths of each SME and build a customized support measure based on data.

Also, the UKC helps to keep track and quantify the effects of the measures implemented by Steinbeis when supporting the client SME – an added value when considering the implementation of an integrated and quantified approach to SME support.

Rather than providing a stand-alone support service, in fact, the UKC is a strategic enabler for the wealth of support services already available in the Innovation Agencies across Europe, which can help on the one hand to identify the best support service, and on the other to quantify the added value provided by Innovation Agencies to their customers by comparing the results of the UKC during different stages of the support measures (ideally before, during and after it).

Steinbeis UKC – briefly

- The Steinbeis Enterprise Competence Check (UKC) helps to systematically identify and analyze the competences of a company.
- UKC supports you in identifying the organizations' strengths and meeting challenges actively.
- Therefore, the personal competences of the employees and the organizational capabilities of the firm are taken into consideration.
- UKC is suitable for all organizations and businesses, which are interested in further developing their respective competence profile and therefore build the foundation for a long-term innovation and business success

UKC in details

The objective of UKC is to assess the innovation process, the innovation strategy, the internal organization as well as the SME's relationship with innovation partners, in order to help designing the best support programme and to direct the company toward the most appropriate funding schemes. The goal is to understand the SME's innovation capacity in those processes, the tools and processes they have already implemented and the targets they have already achieved. As a result, it is possible to identify the gaps and bottlenecks for the SME and define – jointly with the company - the most important areas to be improved by coaching and consulting services. The diagnostic process has been improved over time and represents to date an important tool in Steinbeis toolkit.

UKC is composed by a) self-assessment online questionnaire; b) standardized process to identify strengths and weaknesses within the company and c) qualitative workshop with the client to identify strategic areas of support.

1. **Self-assessment concerning getting a more detailed picture of the SME´s innovation management capacity and competences analysing these along**
    a. **5 competence levels**:
        i. Knowledge
        ii. Innovation
        iii. Implementation
        iv. Communication
        v. Network
        vi. Transformation
    b. **and 10 dimensions**:
        i. Knowledge = resources and learning
        ii. Innovate = processes and products
        iii. Implementation = strategy and personnel
        iv. Communicate = network and market
        v. Transformation = driver and change
    c. **and 30 sub-dimensions**:
        i. Resources = technical/ methodological knowledge, technologies, intellectual property rights / patents / licenses
        ii. Learning= flexibility/adaptability, research & development, problem solving skills
        iii. Processes = transfer processes, project management, business processes
        iv. Products = customer benefit, degree of innovation, unique selling points
        v. Strategy = goals, change, organization
        vi. Personnel = leadership, securing skilled workers, employee orientation
        vii. Network = corporate partners, internationalization, IT structures
        viii. Market = market knowledge, marketing, customer relationship management
        ix. Driver = digitalisation, connection, ecosystem
        x. Change = digital culture, added value and business model

All 30 sub-dimensions are enclosing 150 single innovation, capacity and competence questions to be answered in the self-assessment by the SME.

Each dimension is rated according to a scale with five degrees ranging from “--“ to “++”

The results are visually shown as spider diagram, as shown in the picture below.

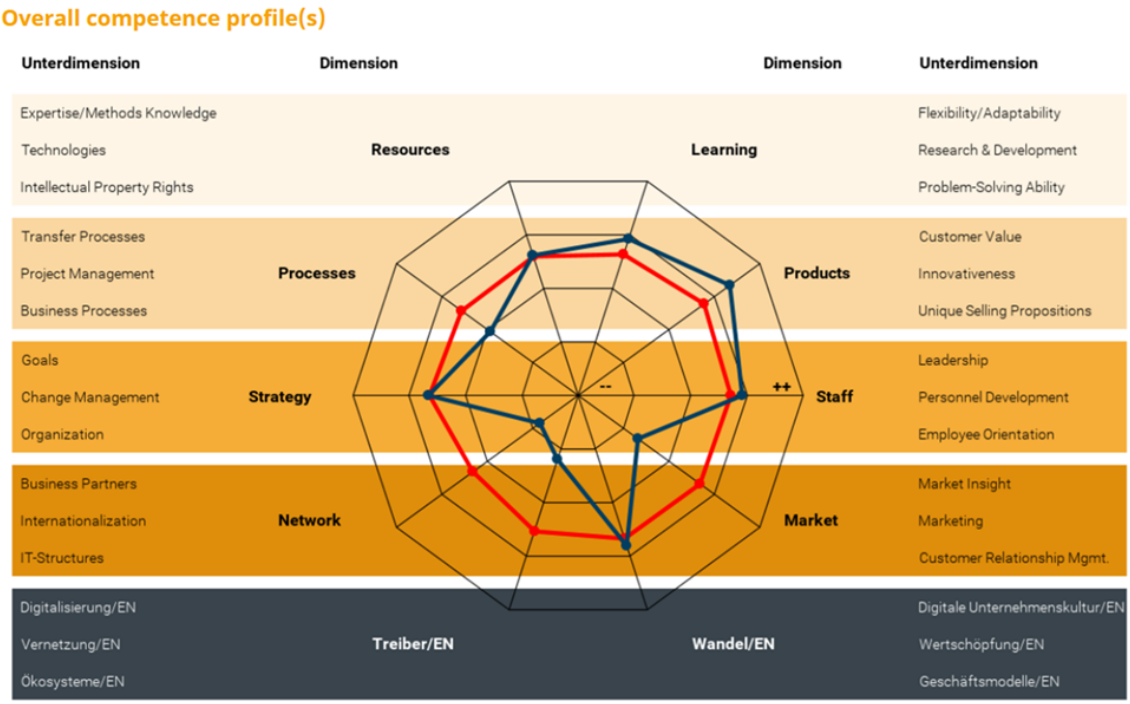


Figure 12 Steinbeis UKC Overview. Source: https://steinbeis-ukc.de

b) Standardised process to identify strength and weaknesses and major gaps

As with the results from the innovation and competence assessment, innovation gaps and barriers as well as core competences and weaknesses are identified in the self-assessment process. Using these results, a strength and weakness analysis is made for the SME client and discussed with members of the management team. Furthermore, together with the client those gaps/needs are detected which bottleneck innovation most.

c) Workshop with client to tackle needs and identify highest priority for action

The results of the strength and weakness analysis including core competences and weaknesses are presented and a discussion takes place with the SME about these results, like:

- Are there surprising results related to specific sub-dimensions?
- How can it be that specific questions have been answered in this way?

From detected gaps/needs SMEs and are invited to take part in a participative workshop to detect those weaknesses with highest relevance. For the priority list of topics to be taken care of in the UKC measures, the focus is laid towards weakness values, forming bottlenecks for innovation processes inside the SME. From this, a discussion is set up around the question if the most relevant needs /weaknesses shall be best tackled through the SME itself or through external experts or assistance. The consultant explains at this stage the core issues of innovation management and reminds and updates the SME about the UKC service and what results the SME can expect.

RESULT: The major bottlenecks concerning internal innovation processes are identified and priorities set for the next actions.

4.3.2 Enterprise Competency Check (UKC) Evaluation

After the self-assessment and workshop, the SME receives a tailored analysis of the companies strength and weaknesses with recommendations on tailored capacity building measures (like further services, EC fundings etc.) as well as a benchmarking with similar companies e.g. in the same market segment and region. Each SME receives

- A mid-term report with the results of the diagnostic phase
- A final report with the final results and recommendations for further actions
- The report summarises the major results, includes the pictures ("spider diagrams") and the picture content transferred into tables and diagrams

The SMEs are then pointed toward the different services and networks available at Steinbeis, for example EEN or the host organizations services to continue the path to improve their innovation capacities. Many of the clients decide for instance to continue with EEN Support provided by Steinbeis, and they will leverage on our service to:

- go for a EU business innovation project
- internationalise with targeted partner search
- develop a commercialisation strategy for innovative products

The UKC provides the SMEs with a tool that helps them visualizing their competences briefly, but it also goes a step further in enabling them to combine different layers of analysis, and to reflect on their strengths and weaknesses identified via the tool. It helps in fact the "Self-reflection" section, the SME has the opportunity to look at itself (before spending time with the experts) and has an immediate result in the form of the radar chart.

The quantified self-assessment, paired with the support of the Steinbeis innovation consultant usually also flow into a report formulated by the senior innovation expert and an action plan. The experience and case studies from the different projects and clients that took advantage of it allow also for an increasing base for data comparison; therefore, fine-tuning and perfecting the UKC every time it is used.

UKC tool and methodology is now widely used as part of the services of Steinbeis, and it also received awards and appraisal at international level. Steinbeis has developed the tools further, combining it with self-assessment and adding acknowledged tools practiced in innovation management. Building on the innovation and technology audits for which Steinbeis also received the Award for the best innovation audit tool in 2014, Steinbeis together with the Steinbeis Holding tested an updated innovation audit tool, the UKC Audit tool from 2017 onwards. It delivers a thorough analysis on SME's innovation management capacities and company's competences in a self-assessment taking into account competences on digitalization etc.

5 Good practices overview and lessons learned

This section is summarizing the good practices identified by the consortium during the project. These are presented in an easy-to-digest and easy-to-use format in the following tables.

The section also summarizes main lessons learned during the project and offer the readers further an overview on proved good practices that can be implemented in existing evaluation workflows.

5.1 Good Practices

The good practices with the highest added value were identified throughout the course of the project among numerous shared processes and materials. The aim is to point out what is every practice about, what is the desired outcome, how to achieve it and what risks one should consider during its implementation. Some of them can be easily implemented, others need more information that you can find in attachments or external links. These good practices are based on the consortium own experience, and are recommended for future use, but organization's own unique position and actual situation should be always considered.

Name	**Access to contacts**
Tags	quick tip, partners
Desired Outcome	direct or indirect access to contact information of participants is needed
Description (case)	you are working on a project as a partner, owner is another subject, and you don't have access to relevant contact information of participants
Solution	• try to negotiate contact sharing for this special case if possible • define process and phases of contacting participants and outsource online contacting to partner (partner sends questionnaire, you are collecting the data) • adjust program terms with a partner for the future work with contact information for next program/project runs (feedback, evaluations, ...)
Possible challenges	• slow administration process with regional authorities • limited resources for direct reminders • possible questionnaire collision when another evaluation survey is running
Real examples	MSIC, Moravian-Silesian Region – Grant programs for business support
Links/Attachments	

Name	**Access to contacts**
Tags	quick tip, not supported participants
Desired Outcome	relevant feedback from all participants (supported + not supported)
Description (case)	you have to get answers from as many participants as possible to have relevant output (feedback or evaluation results)
Solution	• engage supported and not supported participants • prepare questionnaire for both groups with as identical structure as possible (some questions may vary)

	• pick comparable sets of subjects from both groups and compare their responses if possible, řto get more accurate evaluation • combine offline interviews with online questionnaires to save resources if needed
Possible challenges	• not enough respondents or responses • possible biased information • lack of interest from not supported participants
Real examples	MSIC, Moravian-Silesian Region – Grant programs for business support
Links/Attachments	Annex 1a. Start-up Voucher online Questionnaire

Name	**Token based questionnaires**
Tags	quick tip, online questionnaire
Desired Outcome	completed questionnaire
Description (case)	you need to get 100% response rate or as many responses as possible
Solution	• use specialized tool for questionnaires with possibility of participants database with unique tokens (each respondent has unique link for questionnaire and limited uses) • automate reminders to the ones, who don't respond to minimize unnecessary emails to all • work with positive motivation for fulfilling the questionnaire (benefits after filling) • use phone call reminders if possible
Possible challenges	• some anti spam technologies and applications can filter/block this content • no additional contact informations available (phone) or they are out of date • lack of interest from respondents
Real examples	MSIC, most online questionnaires
Links/Attachments	https://www.limesurvey.org (open source software with possibility of buy as service or install on the own server)

Name	**Ex ante vs Ex post evaluation**
Tags	questionnaires, agile implementation
Desired Outcome	Iterating on those issues that have not worked during the support programme and being able to improve them in an agile way in the next call.
Description (case)	You want to design a **step-by-step evaluation process**, which is flexible, dynamic and is completely self-evaluated every year.
Solution	To maintain the structure and content of the questionnaires you send to the participants at the beginning and at the end of the programme, preferably via an online tool to be able to treat the data afterwards.
Possible challenges	The number of answers before and after is not the same, jeopardizing the final ex ante - ex post comparison.
Real examples	Healthstart madri+d Ex-ante vs. ex-post Quality Evaluations
Links/Attachments	

Name	**"Extreme" evaluation and selection of candidates**
Tags	evaluation design, committees

Desired Outcome	Optimize the selection process to allocate the money to the most impactful projects.
Description (case)	Maximize economic incentive impact from the beginning of the evaluation process.
Solution	Create an "extreme" evaluation and selection process with two different boards, a previous technological and economic analysis of the candidates and an interview phase. The first board will be only administrative, the second will be technical and will include the one-by-one final interview.
Possible challenges	• lack of human resources for the process • Not valid for support programmes without real economic incentives • Huge number of applications that can difficult the interview phase
Real examples	ESA BIC madri+d Tender Opening Board (TOB) and Tender Evaluation Board (TEB)
Links/Attachments	

Name	**In-depth screening of applicants startups with Innocheck**
Tags	evaluation design, data acquisition, assessment
Desired Outcome	Create significant data points from interested startups already at onboarding stage
Description (case)	Getting all the information needed to create a „profile" of the target startups/SME and build data-oriented support path. The same data can be also used to track the improvement of the target company during and after the support programme, as well as to build a data-driven profile of the company more interested in support programmes and tailor/adjust the offer accordingly.
Solution	Structure the content in direct and clear way and design the system to export/store the information using interoperable data format. Leveraging on online platform with advanced analytics that helps tracking users, referrals, etc.
Possible challenges	• Getting all the information needed to create a „profile" of the target startups/SME and build data-oriented support path • (For Implementing Body/Agency) Design a platform with UX in mind, which at the same time also generates significant data for the Innovation Agency • (For Innovation Agency) Having a number of startups/SMEs significant enough to be able to infer business intelligence and orient the offering accordingly
Real examples	Innocheck BW online application questionnaire
Links/Attachments	Annex 1c. INNOCHECK Online Questionnaire

Name	**Building data-oriented evaluation of SME**
Tags	evaluation design, data acquisition, assessment
Desired Outcome	Develop a matrix to assess/track the progress of SMEs during the support programme (before/after scenario)
Description (case)	To better measure and assess the value of the Innovation Agency support, there is the need to setup a standardised process to identify strength and weaknesses and major gaps. The Innovation and Competence assessment done through Steinbeis Unterhemen Kompetenz Check (UKC) tool help to define

	an clearer, quantified overview of the target company, including innovation gaps and barriers as well as core competences and weaknesses that are identified using a self-assessment process. Using these results, a strength and weakness analysis is made for the SME client and discussed with members of the management team. A qualitative innovation support measure can be then prepared on the basis of the specific data output of the self assessment. This analysis can be done after the end of the support programme to check the differences and to evaluate the targeted support provided by the Innovation Agency.
Solution	The Steinbeis Unterhemen Kompetenz Check (UCK) is a tool that help to track and measure different aspects of the target SME already at the beginning of the support process, and tha Will allow to track and measure different dimensions before and after such process.
Possible challenges	• Difficult to screen each SMEs needs in a streamlined fashion • Possibly difficult to get all the necessary information in a coherent and systematic way • High “entry” barrier to develop the tool
Real examples	Steinbeis Unternehmen Kompetenz Check
Links/Attachments	

5.2 Use cases

To help you understand in more detail how some of our best practices can be implemented into your support programmes, in this section two use cases are described in depth. One corresponding to the Healthstart programme (**Ex ante vs Ex post evaluation table in section 5.1**) and the other corresponding to the ESA BIC programme ("**Extreme"evaluation and selection of candidates table in section 5.1**).

USE CASE 1

Healthstart programme: A dynamic and changing evaluation strategy, essential for continuous improvement.

The main best practice extracted from the Healthstart madri+d program in comparison to the rest of the EFFECT SME programmes is the **step-by-step evaluation process**, which is flexible, dynamic and is completely self-evaluated every year. **The Ex-ante vs Ex-Post Quality evaluations** are very useful not only to see the real impact of the program in the startups selected, but to **improve the program itself**, iterating on those issues that have not worked and being able to improve them in an agile way in the next call. To perform this comparison, the most important thing is to maintain the structure and content of the questionnaires. In Madri+d case (see Section 3.2) the online questionnaire is designed in Typeform, an online tool very user-friendly, with the possibility of downloading the data in Excel file to treat them afterwards. Healthstart survey is composed by the questions included in the "**Examples of evaluation questions" (see Attachment 1b** Healthstart Evaluation Questionnaire.

During the support programme, the participants receive the questionnaire in Month 1 and in Month 10. As explained before, the questions are the same in order to be able to compare the data and be able to assess the impact of the activities offered to the beneficiaries, and correct/improve them if needed. For example, when asked about the intention to **create a technology-based company** (**Error! Reference source not found.**) in the health care sector, the results indicate that the percentage of those participants who at the beginning considered it unlikely or unlikely to create a technology-based company has been reduced from 47% to 25%, thus increasing those who intend to create one from 53% to 75%. We can conclude that the training and the mentoring in this regard is working aligned with the purpose of Healthstart and no further action for the next period is needed

To help you understand in more detail how some of our best practices can be implemented into your support programmes, in this section two use cases are described in depth. One corresponding to the Healthstart programme (**Ex ante vs Ex post evaluation table in section 5.1**) and the other corresponding to the ESA BIC programme (**"Extreme"evaluation and selection of candidates table in section 5.1**).

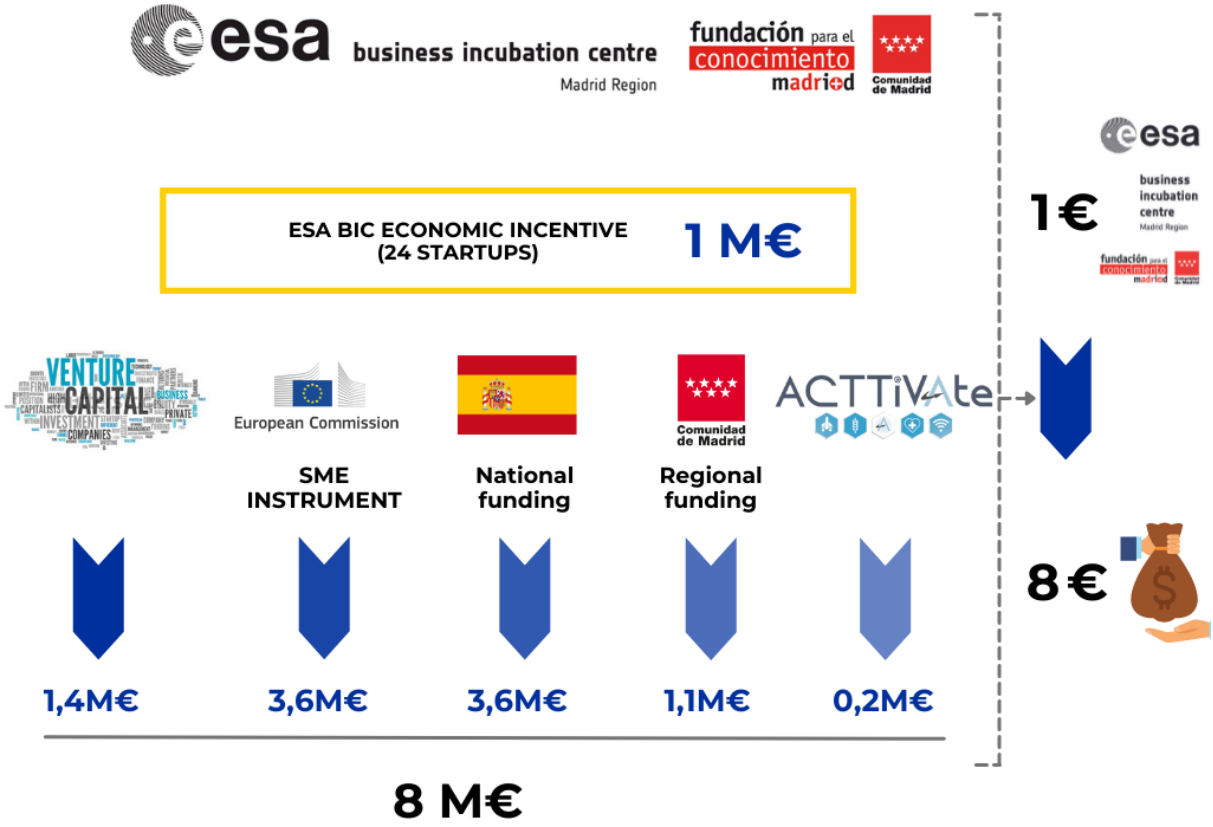
USE CASE 2

ESA BIC Madri+d: Maximizing economic incentive impact from the beginning of the evaluation process

The most differential point in the ESA BIC programme is the **selection and evaluation of candidates**. As explained in 4.2.2, in this case the **selection and evaluation process is really exhaustive and not applicable to all SMEs or startups programmes**. In fact, this type of selection process is recommended to be applied in **programs that have financial allocations**, with a high number of applications and that require a detailed analysis of the future impact of the technologies presented.

When an IA needs to **guarantee the impact** of their programmes, it is needed to **optimize the selection process** to allocate the money to the most impactful projects. Following the ESA BIC Model, we can use a **double-committee design** for our programme. At the beginning of the selection process, the **Tender Opening Board (TOB)** reviews the submitted documentation and, if anything is missing, asks them to complete it. In a second phase, the **Tender Evaluation Board (TEB)** interviews and discusses with the candidates that have passed the first committee. This last committee lasts **2-hours per project**, and can be supported by external advisors or previous studies (i.e. ESA Technology Brokers). This allows the TEB to establish contractual obligations to be fulfilled by the future beneficiaries in relation to the resolution of those weaknesses identified in the evaluation phase. In the case of the last call in Madrid, 68% of the proposals that arrived from the TOB were approved (41) and 95% of them (36) finally signed incubation contracts.

Although this is not a direct variable of measuring the impact, an IA can take into consideration that, **to strengthen the selection and evaluation will impact directly on the outcome of the programme.** In ESA BIC's case, the programme is a challenge itself because it has a regional component fully determined by the European Space Agency (ESA). Bringing these two worlds together in the form of regional support where the objectives set by the programme are European makes it necessary to maximize the support received by the companies. As an example, although the "real" direct money received by the companies is 50.000 euros, the ESABIC economic incentive turns into 8 euros per 1 euro invested at the end of the day. And this is not by chance, this is because the best of the best have been selected, with an evaluation and selection process that is even tougher than that of the EIC Accelerator. During the incubation period, these companies are able to raise venture capital funds, European Commission, Spanish national funding or regional funding. This point is something that we have not seen in other EFFECT SME programmes and that shows the potential that a regional programme has to create real synergies in the innovation ecosystem.



5.3 Lessons learned

This Section aims at providing key takeaways and lesson learned from each participant's perspective.

5.3.1 MADRI+D

Our greatest room for improvement is in the area of **tools for management and evaluation of the programmes**, both for SMEs and startups. We do not have a CRM to help us in this monitoring, although we have some web applications that are not entirely usable. The creation of this CRM or more automated processes, as Steinbeis and MSIC have, would be of great help to Madri+d.

Another point for improvement is the **follow-up** after programme closure to really measure the impact on the companies. Interviews are not very systematized and are done through a phone call, conducted after several years of the end of the support programme. In this case we would need to improve the data visualization tools to be able to offer additional support to the winners, as well as change the interviews to a face to face format and not simply a phone call. A shortening of interview times would also have a positive impact in this regard. Three years is a long time to follow up, so it would be better to initiate these contacts six months after the end of the programme at the latest. This way, we will be able to use this interview stage to singpost our winners to other services or calls offered by us, improving the engagement with our programmes.

5.3.2 MSIC

In the beginning of this project, we had no practical experience with evaluation of programmes mentioned in previous sections. Only key basis was the expertise of the CEO of MSIC who worked as evaluator for many years. In one year we successfully finished 2

midterm evaluations with obvious space for improvement, but the expected outputs were created. Since it was midterm evaluation, there was also a goal to learn how to implement it properly and verify the tools and methods. We successfully gathered information from 42 participants with online survey and 56 thanks to offline interviews. The main message is that even a small innovation agency can start its own evaluation with limited resources and get relevant and valuable results. By the time the agency can improve and ask for more resources in connection with the programme importance and usage of information gathered during the evaluation process. During the project we discovered the common known truth that learning never stops. As we continue with our evaluations, we are continuously improving the processes and trying to share our the knowledge with other more and also less experienced agencies. Their point of view is really valuable and we are hoping to find a common ground for shared methods, impact indicators and possible space for benchmarking. The key at the end message can be that “simplicity is the answer” or at least it can help with difficult parts or possible obstacles. Use simple methods, simple tools and focus on important parts and data.

5.3.3 Steinbeis

Steinbeis is conducting a range of support services across different dimensions and projects, which are however not part of the structural offer of the organization but rather designed, scoped and implemented for individual projects or initiatives. During the years Steinbeis has developed a range of (financial) support measures for startups and SMEs active in different areas, including the implementation of large scale cascade funding programmes on EC-supported projects.

In EFFECT SME project we learned about the added-value of sector-oriented, structural support programmes for startups and SMEs, and how to execute them as part of the service portfolio of innovation-support agencies. Such structural measure can be seen as complement to the current Steinbeis' expertise in offering evaluation and support measures at meta-level (e.g. aggregating and facilitating the access to existing structural programmes at regional, national and European level), and the lesson learned with our EFFECT SME partner can definitely facilitate the implementation of novel and effective evaluation practices in new and existing projects and initiatives.

6 Designing your Evaluation Process

The goal of this chapter is to help you with the design of an evaluation to make it right and get all anticipated outcomes. Since the context of every innovation agency is quite unique in the terms of its focus, experience or resources, it is hard to create a standardized process that everybody should follow. There are many golden standards that can be easily described but in a reality of young innovation agencies with limited resources it is very hard to be implemented and it doesn't have to bring the anticipated results. It is advised to always look from the perspective of what are the costs and what are the benefits the agency can get from the evaluation and all its parts. This process represents a simple overview just from the perspective of a young innovation agency. It tries to state, what is important and should be taken into consideration during an evaluation design. It is also more fitted for evaluations during implementation (midterm or interim evaluations) as these are more often needed in the first years of running innovation agencies. It is up to every individual to set, what are the crucial parts that should be elaborated in more details and what is perfectly clear or which materials are well prepared and understanded for the use during the evaluation.

We prepared 8 simple steps that can help you to design an evaluation process and it should lead to valuable outcomes. This is a recommended order that you should follow but there is no need to go directly one by one. Some of these steps are more connected to each other and more important is to reflect them all then go step by step. At the end of every step you find control questions and by answering them, you should be able to create necessary outputs which should have value for the whole evaluation and its successful completion. For all these steps we created a template in online tool MIRO, where you can collaborate with other people or just simply use it as graphically attractive template for your own evaluation design.

1. Purpose of evaluation project

The aim of every evaluation is to validate whether the goal of the company support programme is being fulfilled. It is important to define a purpose of each evaluation project, why do you do the concrete evaluation and what should be the expected outcomes. It is important to distinguish the purpose of the evaluation from the goal of the programme. They are connected but they are not the same. The general purpose of the evaluation can be improvement of the programme as well as verifying all intended impacts of the programme. Some additional purposes can be also building relations with the companies or discovering their specific needs.

Control questions:

1.1. Why do you do the evaluation?
1.2. What outputs do you expect from the evaluation?
1.3. When should be evaluation completed?
1.4. How do you plan to work with the outputs?

2. Key stakeholders identification

It is necessary to list all stakeholders that are involved in the programme that should be evaluated and map their roles and needs. Usually stakeholders are municipalities, regional governments or programme owners. Each stakeholder can have different needs and requirements and it is important to specify them. It is not necessary to involve all stakeholders in every evaluation, but they should be taken into consideration. Either there can be future outcomes valuable for them or it can be preparation for their future

involvement. Common understanding of the evaluation goals between all the stakeholders leads to better cooperation during and even after evaluation is being completed.

Control questions:

2.1. Who are the main stakeholders involved in the programme?
2.2. What are their roles?
2.3. What are their requirements from the evaluation?

3. Programme specification

As it was mentioned earlier, each innovation agency is quite unique. Therefore, programmes developed for support of the companies have different goals which should be set in the programme specification. When you know the programme, you can evaluate if it really works and achieves it expected goals. From the experience there can be insufficient documentation or slight changes in the goals understanding when programme is being modified or people changed over time. It is very important to clarify and revise actual goal of the programme and this goal should be verified during the evaluation. Overall description of programme is also important to understand the context and to know, how the programme is being implemented and how companies participate in it.

Control questions:

3.1. What is the main goal of the evaluated programme?
3.2. What is the programme target group?
3.3. What programme runs or participants do you want to evaluate?
3.4. What is the general description of the evaluated programme?

4. Intended socio-economic change

Every public support programme or publicly funded infrastructure should have defined, what are the expected impacts. This impact should be specified with measurable indicators. Within our peer learning, we were discussing possible measurements of impact in areas such as employment, finances, R&D, business growth or market development and created a map of measures that are used in and out the consortium. The map is available in attachments (Annex 3. KPI map) and also online[33]

Finding own indicators for learning (MIRO board)

- Beyond accountability you can measure indicators for learning (feedback)
- With an ambition to get quick and cheap feedback from experienced innovation agencies
- We created a structured process in Miro Board to help you uncover your thought process for external colleagues.

Control questions:

4.1. What are the intended impacts that you want to achieve by the programme?
4.2. What impact indicators you want to monitor and assess and why?

[33] https://coggle.it/diagram/Yj2mrSvA9yPIK1vk/t/kpi (https://bit.ly/3tPqKZq)

5. Evaluation methods selection

Once the indicators are in place the next step would be to assess the feasibility of a specific evaluation design in the context of a given programme. For each indicator, different evaluation methods can be utilized. The obvious ambition of any evaluation should be to get the most precise and certain insight, however, there are financial, technological and time-related constraints. Consequently, the selection of evaluation design is dependent on these variables. The following scheme provides a decision diagram for method selection. By answering a couple of yes or no questions one can easily arrive at the most feasible yet precise method to evaluate impact. These methods are described in more detail in chapter 1.2.1.

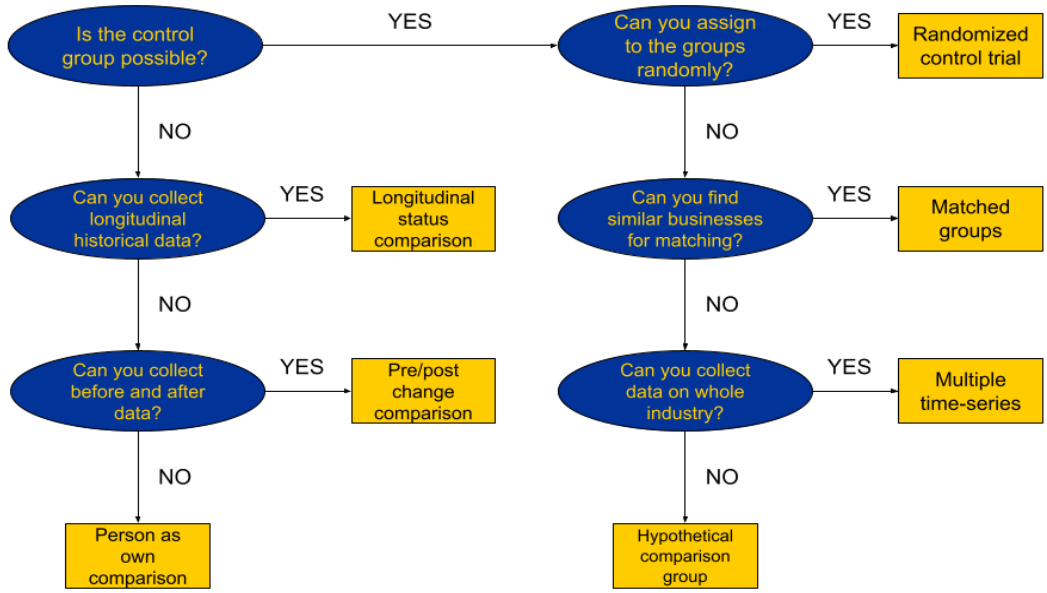


Figure 13 Evaluation methods selection scheme

Control questions:

5.1. What methods do you want to use and why?
5.2. What are their requirements?

6. Data collection

When the method is being selected, it should be obvious what data should be gathered and from what sources. According to the amount of data needed there many different methods available from online questionnaires, local or public data mining to in-depth interviews with company representatives. Choosing the right methods goes in connection with evaluation purpose and requirements from the stakeholders. Available resources can have significant influence in data gathering but fortunately modern technologies can help to reduce amount of time and can balance the effort needed for successful data collection. From the experience of a young agency it is more important to get real feedback and often hardly quantified experience and impacts rather than maximize the set of data gathered by unified and precise data gathering process. Personal interviews are definitely more time consuming but possible benefits in

understanding the company needs and finding out the space for future cooperation can be really valuable.

Control questions:

6.1. How will you collect the data?
6.2. Are there any other participants needed for the data collection?
6.3. Are there any additional resources that you need?

7. Analysis and interpretation

After gathering of all the necessary data, it is time to analyze it according to the evaluation methods selected. Each agency can have different knowledge and skills for the analysis but the recommendation especially for the new ones is to keep it simple. Understanding what the data represent and what is the context is critical in its interpretation. In the final report There should be met all the requirements from the stakeholders and all the findings it the final report or its presentation. There can be better explanation and understanding by a simple presentation rather than a long report with many pages length. Nevertheless, all the necessary documentation must be available and final format always depends on the stakeholder requirements.

Control questions:

7.1. How will you analyse the gathered data?
7.2. How will look like final the report of the evaluation?
7.3. How will be the final report presented a to whom?

8. Lessons learned implementation

The final evaluation report is not the end. Based on the findings during the evaluation there should be able to prepare recommendations for redesigning the existing processes or designing the new services or programmes. These outcomes are the final results of any evaluation and they should be implemented in cooperation with the stakeholders. It is their decision if they implement it and based on the evaluation there should get all important materials for their decision process.

Control questions:

8.1. How will you ensure that evaluation outputs will be used?

Going through this process and answering the control questions should help you to define the basic description and structure of your evaluation. This process can be used as self-guided preparation or it can also work as preparation for workshop with team members or other stakeholders.

You can design your evaluation and go through all these steps in MIRO application by following this link: https://miro.com/miroverse/the-evaluation-process-of-innovation-support-program/

We tried to prepare practical process designed to guide you and your team to generate a coherent evaluation design through which the impact of SME and startup support program

you are analyzing can be truly measured. You can use it in this format, or you can edit it as you want because we are well aware that each innovation agency is different and it has its own specific needs. This process helps us in our own evaluation design and we are working on its improvement as we are continuously “learning by doing it” as it can be visible from the experiences mentioned in chapters earlier.

After going through these 8 simple steps there should be a quite precise overview of the upcoming evaluation which should lead to evaluation plan and its implementation. We are intentionally not describing these phases here because it is more a project planning and realization and there are various methods and tools already available.

We hope that our experience can add some more knowledge in the topic of impact evaluations and we are open to share any ideas or thoughts in its future improvement.

Attachments:

1 - Specific evaluation questionnaires

a) Startup Voucher
b) Healthstart
c) Innocheck
d) Expand
e) ESA BIC
f) UKC

2 - KPI map

3 - Template MIRO

1a. Start-up Voucher online Questionnaire

1. **Are you currently an entrepreneur?**
    a. if YES: Is the business plan submitted in the application for the Start-up Voucher programme the dominant subject of your business?
    b. if NO: Do you want to do business again in the next 3 years?
2. **Was the business plan you applied for the Start-up Voucher with your first business plan?**
    a. if NO: How many business plans did you have before?
3. **Within the project of mapping the innovation capacities of the Czech Republic, certain types of business ambitions have been defined, where would you place yourself?**

    Leader = I aspire to lead changes in the world market, I am motivated to invest in finding and testing new solutions, I already have results

    Pioneer = I want to be close to the position of a leader and technologically at the top or close to the top in my field, I develop or strive to develop unique solutions with the potential to introduce new solutions in the field

    Follower = I want to be as visible as possible to the leaders of my market and be able to respond to their actions as quickly as possible, I carefully examine the actions of the leaders and look for my own ways to respond to them

    Optimizer = my main innovation aspirations are to optimize products, production methods, distribution methods, etc. that have been established on the market for a long time, I do not need to be at the forefront of changes in the world market

4. **How many members did your team have at the time of the application and how many do you have now?**
5. **Have you managed to get an investor in the period since the application was submitted?**
    a. if YES: What was the amount of investment? (less than 80 000 EUR / 80 000 - 400 000 EUR/ more)
    b. if NO: Are you currently seeking the entry of an investor?
6. **How many new paying clients have you managed to acquire in the period since the application was submitted?**
7. **Do you have intellectual property protected through patents?**
    a. if YES: What markets does your intellectual property protection cover? (Czech Republic / Europe / outside Europe)
8. **What turnover did you manage to achieve in the year XXXX?**
9. **How would you formulate the main benefits of the program? (highlight non-financial benefits)**

1b Healthstart Evaluation Questionnaire

1. Do you think you have the right team of promoters to create a company? (Yes / No)
2. You have indicated that you don't have the right team of promoters to start a company, what kind of profile would you need? (Open text)
3. Value your knowledge of business and business management aspects (Open text)
4. Do you know the basic contents of a Business Plan? (Yes / No)
5. Do you see yourself capable of preparing the business plan for your idea? (Open text)
6. Target market for your business idea (Open text)
7. Industrial and intellectual property (Open text)
8. Corporate Finance (Open text)
9. Legal environment for the creation of companies (Open text)
10. Regulatory environment of health application products (pharmaceuticals, diagnostic products, medical devices...)(Open text)
11. Indicate if you know of any investors (venture capital firms, business angels, etc.) that invest in projects in the health sector (Yes / No)
12. Indicate if you are aware of any public aid for the creation and development of technology-based companies. (Yes / No)
13. Assess your initial perception of the healthstart program (scale of values)
14. Evaluate the initial organization of the program and the information received (scale of values)
15. Evaluate the tentative schedule and the content of the proposed activities (scale of values)
16. Mention any suggestions or comments you may have initially to be taken into account, as far as possible, during the development of the edition (Open text)

1c. INNOCHECK Online Questionnaire

The following 20 questions allow you to assess your planned innovation project and the innovation potential of your project idea. It will take about 15 minutes to complete. Unfortunately, it is not possible to save and continue the entry at another time. The information you enter in the free text fields is optional; it will enable you to receive personal and free initial advice on EU funding from Horizon Europe from a Steinbeis 2i staff member (funded by the Baden-Württemberg Ministry of Economics, Labour and Housing). The questionnaire is designed to help you assess your innovation project for possible European innovation funding.

After you have submitted your answers, you will receive a pdf document to your email address with recommendations and tips tailored to your needs, including information on the national and European funding measures that are right for you to get your innovation off the ground. The Steinbeis 2i GmbH experts will then contact you to arrange a consultation. If you would like to meet the team of experts, please click here.

Your data will be treated confidentially and will not be passed on to third parties. The data processing on this website is carried out by the website operator.
Innovation questions:

01. one-line-pitch - explain your innovative idea in one sentence

02. To which technology sector can your innovation be assigned?

a. health, demographic, welfare, medical tech
b. food, safety, agriculture, forestry, marine, bio
c. safe, clean, energy intelligent cities
d. intelligent, green, integrated transport
e. climate, environment, resources, raw materials
f. integrative, innovative, reflective societies
g. secure societies
h. materials, microsystems tech, nano tech, photonics, biotechnology
i. intelligent production, mechanical engineering, safety tech, intelligent products
j. ICT
k. creative industry
l. other

03. To which future & emerging breakthrough technologies (FET = future breakthrough innovations) does your innovation relate?

a. AI
b. Big Data
c. Biometric
d. Blockchain
e. Drones
f. Internet of Things
g. Robotics
h. Serverless Computing
i. Virtual/Augmented Reality
j. 3D Printing
k. 5G
l. Others

04. For which problem does your innovation provide a solution?

a. Free text – 500 characters

05. Are you developing a product, process, service, new business model?

a. Product
b. Process
c. Service
d. Business Model

06. Is your Innovation disruptive or incremental?

07. At what TRL level is your innovation at the moment?

08. What are your target markets?

a. Niche
b. Consumer
c. B2B
d. B2C
e. International markets

09. What is the customer profile for your innovation? What customer benefit/market need is being met?

Financing questions:

01. In what form would you like to implement your project?
a. Consortium
b. Alone

02. Do you have interest at international cooperation?
a. Yes
b. No

03. What type of funding or financing are you looking at?
a. Public funding/grants
b. Venture Capital
c. Equity Capital
d. Loan
e. Angel Investor / Business Angel
f. Other

04. What are your planned next steps / envisaged goals in the project?
a. Further developments
b. Upscaling/commercialisation
c. Internationalisation
d. Marketing/sales strategy
e. Feasibility study
f. Standardisation/certification
g. Property rights

05. What do you need support for?
a. Application
b. Project management
c. Exploitation

d. Market access
e. Strategy development
f. Partner search
g. Communication
h. Internationalisation
i. Other

06. Which services are interesting or relevant for your company?

a. Information on funding programmes (EU, national, country)
b. Support in applying for funding programmes
c. Training (international research management, application, innovation)
d. Start-up advice / start-up advisoring
e. Technology transfer / technology cooperation: e.g. partner radar; profiles for your technology requests / offers; profiles for your search for technology requests / offers
f. Participation in B2B, information events, business trips, workshops / round table: dialogue between SMEs and research.
g. Technology screening / scouting (observation and identification)
h. Market analysis (qualitative/quantitative)
i. Intellectual property - strategies for property rights
j. Innovation strategies / strategic company roadmap
k. Strategic partnerships / Eco-System Analysis, Open Innovation

Questions regarding your organization

01. Organisation type

a. Research Center
b. University
c. High School (German Hochshule)
d. SME
e. Large Company
f. Start-Up
g. Scale-Up
h. Non-Profit Organisation
i. Other Organisation

02. Number of Employess

a. 1-10 (micro)
b. 11-50 (small)
c. 51-249 (Medium)
d. 250-499 (Mid-Cap)
e. >499 (Large Company)
f. Public Company (number of employees not relevant)

03. Turnover

a. < 1 Million €
b. < 10 Million €
c. < 50 Million €
d. > 50 Million €

04. Founding Date

a. 2018-2020
b. 2015-2017
c. 2011-2014
d. 2010 or earlier

05. Do you have your head quarter in Baden-Württemberg?

a. Yes
b. No

06. Branches/Market

a. Free Text – 500 Characters

07. Key Competence

a. Free Text– 500 Characters

08. Main Product commercialized

a. Free Text– 500 Characters

09. % share of turnover from research and development activities

a. < 5%
b. 5% - 10%
c. 10% - 15%
d. > 15%

10. Were/are you involved in EU projects or application for EU funding?

a. Currently Involved
b. Involved in the Past
c. No
d. In preparation

11. Demographic

a. Name
b. Position in the Company
c. Title
d. Address
e. Position in the Company
f. Email
g. Telefon number

1d. Expand questionnaire

The name of the company:

Date:	
MSIC representative:	
Company representative:	

1. Information about the evaluated project

a) The company participated in the Expand programme:

☐ in the 1st phase/ ☐ in the 2nd phase

b) In what way did the Expand programme help the company? (briefly the main points):

c) Expert(s):

d) Date of evaluation of participation in the Expand program:

2. Development of key company indicators

Indicator / year	2016	2017	2018	2019	2020
Net turnover					
EBITDA					
Number of employees					
Labor costs					

3. Questions for the company representative

3.1 Qualitative evaluation: Would you recommend someone else to participate in the Expand program if they asked you?

- NPS 0 - 10 + comment if the owner wants to add something.
- If the NPS is less than 7, we want to know the reasons for low satisfaction.

3.2 What specific changes has your company introduced in connection with the implementation of the Expand project(s)?

- We want a qualitative description (brief but concise) of the changes introduced. E.g. "We have launched a new product on the German-speaking markets" or "we have introduced a new way of rewarding employees". It is important to emphasize the interrelationship of the changes made.

3.3 How did these changes affect the company's management and employment?

a. *impact on sales [0/1]*
b. *Impact on exports [0/1]*
c. *Impact on profitability [0/1]*
d. *Impact on employment [0/1]*
e. *other impacts strengthening the company's competitiveness [0/1]*

- We want to know if there was any effect (1) and what was it.

3.4 How satisfied were you with the expert(s) who worked for you? Would you recommend him/her to other business owners in your area?

- NPS 0 - 10 + comment if the owner wants to add something.

- If the NPS is less than 7, we want to know the reasons for low satisfaction.

3.5 What is your view on the contribution of experts and has it changed in some way as a result of your experience with the Expand program?

- We emphasize soft factors: inspiration / motivation / shift in the ambition of the owner.

3.6 What do you recommend to change in the Expand programme settings and why?

3.7 Does your cooperation with the expert(s) continue after the end of the Expand project(s)? (If yes: to what extent?)

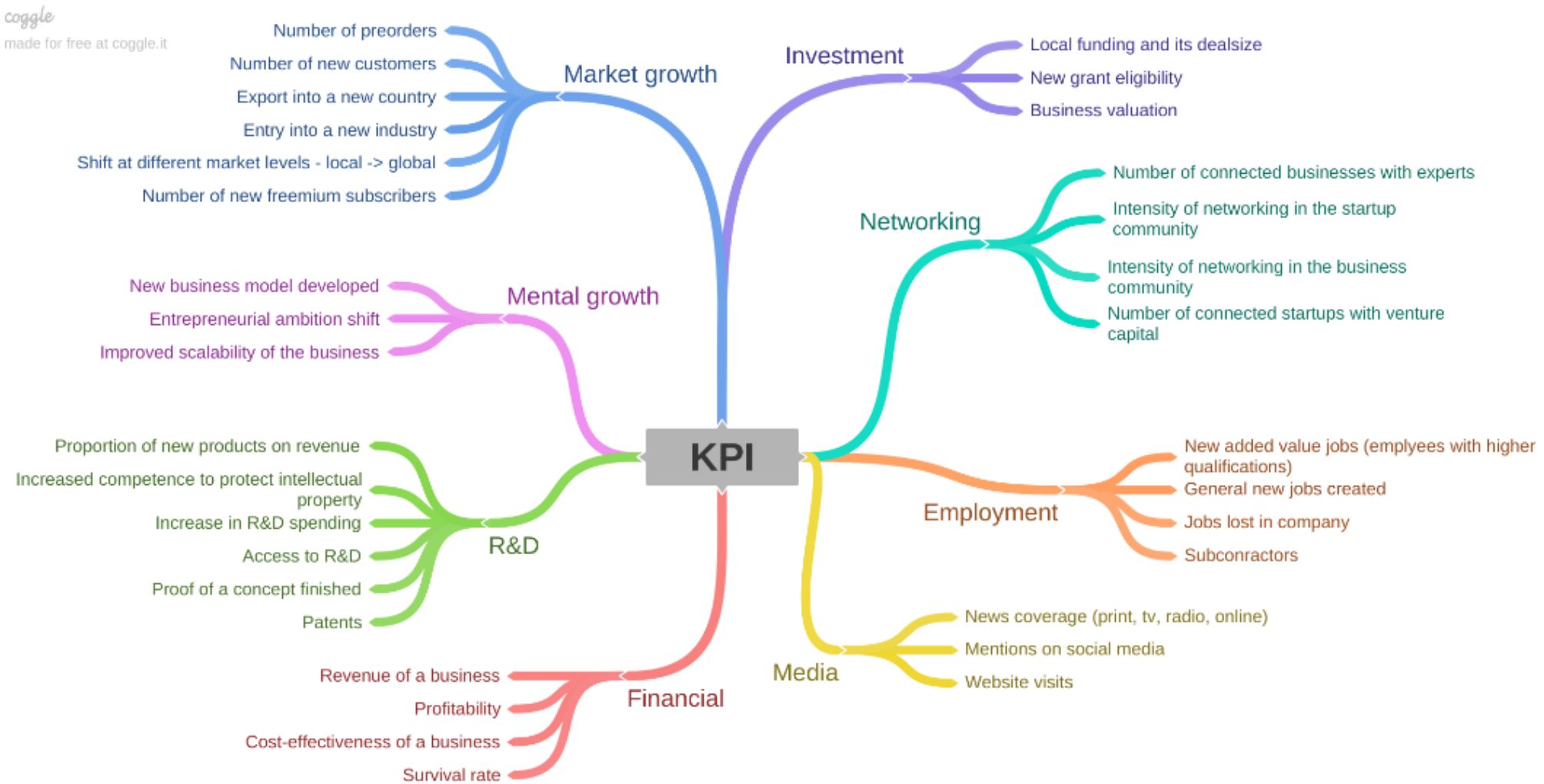
3.8 Do you want to name some other benefits of the program that you perceive?

3.9 What is the business ambition of the owner?

a. ambition to grow the company
b. ambition for technological pioneering / leadership

3.10 Do you have any additional / new needs or challenges that your company needs to address? Do you lack any specific competencies / experience in the company?

2 – KPI Map


coggle
made for free at coggle.it
KPI
Market growth
Number of preorders
Number of new customers
Export into a new country
Entry into a new industry
Shift at different market levels - local -> global
Number of new freemium subscribers
Investment
Local funding and its dealsize
New grant eligibility
Business valuation
Networking
Number of connected businesses with experts
Intensity of networking in the startup community
Intensity of networking in the business community
Number of connected startups with venture capital
Mental growth
New business model developed
Entrepreneurial ambition shift
Improved scalability of the business
R&D
Proportion of new products on revenue
Increased competence to protect intellectual property
Increase in R&D spending
Access to R&D
Proof of a concept finished
Patents
Employment
New added value jobs (emplyees with higher qualifications)
General new jobs created
Jobs lost in company
Subconractors
Media
News coverage (print, tv, radio, online)
Mentions on social media
Website visits
Financial
Revenue of a business
Profitability
Cost-effectiveness of a business
Survival rate

3 - MIROVERSE template

This template (https://miro.com/miroverse/the-evaluation-process-of-innovation-support-program/) will take you through the process of creation of your own Evaluation Process for start-up or SMEs support program which are provided by Innovation Agencies or other business support organizations.

Since support programmes have experienced a boom in recent years, innovation agencies (IAs) and other business support organizations can offer these programmes to more clients and at the same time are able to diversify them based on different topics and different target groups. Assisting companies and monitoring the impact of the support programmes are central subjects in innovation agencies (IAs) at both regional and national level.

Evaluating programmes is not only necessary but also a challenging task as there is a growing demand for tangible policy results from the side of IAs' stakeholders and having strong arguments behind the activities undertaken is only natural. Moreover, **better evaluation processes will also make it possible to adjust and redesign support for companies and respond in a targeted manner to their needs.**

List of references

Baden-Württemberg portal (2022). *Home to commerce and industry*, available at: Business location: Baden-Württemberg.de. Available at: https://www.baden-wuerttemberg.de/en/our-state/business-location/

Baden-Württemberg - Forschen im Land der Zukunft (2019). *Forschen im land der zukunft!* Available at: https://www.bw-invest.de/fileadmin/user_upload/bw-invest/downloads/Studieren_Forschen/2019_bwi_Broschuere_Forschen_in_BW_DE.pdf

BIS Department for Business Innovation & Skilll (2011). *Guidance on evaluating the impact of interventions on business*. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/212318/11-1085-guidance-evaluating-interventions-on-business.pdf

BW Statistisches Landesamt (2021). *Research intensity in Baden-Württemberg reaches a new record of 5.8%* Available at: https://www.statistik-bw.de/Presse/Pressemitteilungen/2021186

BW Invest (2022). *Baden-Württemberg Location*. Available at: https://www.bw-invest.de/en/location

Czech Statistical Office (2021). *Statistical yearbook of Moravian-Silesian Region*. Available at: https://www.czso.cz/documents/10180/142044378/33010021chcz.pdf/6af9a74a-d2f6-4c4c-bef7-0e797f7ae290?version=1.3

Forbes (2021). *Top 10 startups from North Moravia. What are young companies from Ostrava conquering the world with?* Available at: https://forbes.cz/top-10-start-upu-ze-severu-moravy-cim-mlade-firmy-z-ostravska-dobyvaji-svet/

HM Treasury (2020). *Magenta Book - Central Government guidance on evaluation*, London. ISBN 978-1-913635-18-3 PU2957.

HM Treasury (2022). *The Green Book - Central Government guidance on appraisal and evaluation*, London. ISBN 978-1-5286-2229-5

Kusek, J.Z., Rist, R.C. (2004). *Ten Steps to a Result-Based Monitoring and Evaluation System*, The World Bank, Washington, D.C. Available at: https://openknowledge.worldbank.org/bitstream/handle/10986/14926/296720PAPER0100steps.pdf?sequence=1&isAllowed=y

Ministry of Economics, Labour and Tourism (2021). *Export country Baden-Württemberg*, available at: https://wm.baden-wuerttemberg.de/de/wirtschaft/wirtschaftsstandort/aussenwirtschaft/exportland-bw/

Nagarajan, N., Vanheukelen, M., (1997). *Evaluating EU expenditure programmes : A guide: Ex post and intermediate evaluation*, Publications Office. Available at: https://op.europa.eu/en/publication-detail/-/publication/742ed190-3961-45cd-ad34-e4d4b73bd3e7/language-en

OECD (2018). *Monitoring and evaluation of SME and entrepreneurship programmes, Policy note of the SME Ministerial Conference*, Mexico City. Available at https://www.oecd.org/cfe/smes/ministerial/documents/2018-SME-Ministerial-Conference-Parallel-Session-6.pdf,

OECD/Eurostat (2018). *Oslo Manual 2018: Guidelines for Collecting, Reporting and Using Data on Innovation*, 4th Edition, The Measurement of Scientific, Technological and Innovation Activities, OECD Publishing, Paris/Eurostat, Luxembourg. Available at: https://doi.org/10.1787/9789264304604-en

Shallock, R.L. (2002). *Outcome based evaluation*, Kluwer Academic Publishers, New York. ISBN 0-306-47620-7.

Technopolis Group and MIOIR (2012). *Evaluation of Innovation Activities. Guidance on methods and practices*. Study funded by the European Commission, Directorate for Regional Policy, Brussels. Availible at: https://ec.europa.eu/regional_policy/sources/docgener/evaluation/pdf/eval2007/innovation_activities/inno_activities_guidance_en.pdf

The European Network of Innovation Agencies TAFTIE (2019). *Monitoring systems in TAFTIE Agencies: outcome and impact indicators*. Conclusion Report. Available at: https://taftie.eu/wp-content/uploads/2021/05/ConclusionsReport_SNB19_B.pdf

White, H., Sabarwal S. & T. de Hoop, (2014). *Randomized Controlled Trials (RCTs), Methodological Briefs: Impact Evaluation 7*, UNICEF Office of Research, Florence. Available at: https://www.unicef-irc.org/publications/pdf/brief_7_randomized_controlled_trials_eng.pdf