



Draft Design Option Paper

LEEP-SME

Learning to enhance exploitation potential of SME project results

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Executive summary

The ultimate goal of the project is to give RFOs a set of tools to offer SMEs a better support. Specific objectives of the project have been:

- Simplifying the process of applying for funding and the evaluation process for the SMEs.
- Developing an efficient method to select SME projects with the highest potential to utilise their innovation.
- Improving and increasing the effectiveness of the existing project interim and ex-post monitoring methodology and related supporting services in order to increase the applicability of the SME projects' results.
- Enhancing the same skills for other European RFOs.

Knowledge relevant to these goals was transferred by 'twinning+' methodology, which was a good fit for this project because of the different levels of proficiency of the partners.

TA CR, a relatively new national agency still gathering experience and international rating, uses innovative practices that are unique in the field. EUREKA Association (ESE), a central support unit for the EUREKA Network, working closely with the National Ministries and Innovation Agencies in more than 40 member countries, is a highly experienced partner that brings in first-hand knowledge on how to design and implement RDI programmes that support SMEs. Similarly, FUNDECYT-PCTEX, a 25-year experience organization, offers space and services to facilitate the exchange of know-how, science, and technology and plays the role of Technical Office of the Regional Government. It has great experience in European projects, participates in the most prominent international Networks and provides specialized support services to SMEs related to R&D and innovation, entrepreneurship, and cooperation. FUNDECYT-PCTEX has much experience with supporting SME applicants on their way to submitting a proposal, but finds room for improvement in its evaluation process. Finally, FICYT is an organization with 35 years of experience with coordinating international, national, and regional RDI strategies and advising regional companies and research organizations on increasing their internationalisation and taking part in European projects.

Having conducted this practice sharing exercise, the main conclusions and recommendations worth highlighting are as follows:

1. Compared to academic beneficiaries, SMEs are a very specific group with specific demands, so the relation with them has to be different from others. Client-centred approach is recommended.
2. Researchers often resist thinking about the market potential and applicability of their results and it is the task of the RFOs to bring to their attention that if they apply for funding for applied research, there must be an impact. This paper provides a set of tools that could help with this task.
3. The set includes 22 good practices from four members of the consortium. The practices react to the project objectives and their detailed descriptions can be found in [Table 1](#) below.
4. Six of them refer to the project proposal preparation stage and address objective number one, "simplifying the process of applying for funding and evaluation process for the SMEs", and two,



“developing an efficient method to select SME projects with the highest potential to utilise their innovation”. It seems that the exploitation potential can be a standard part of eligibility criteria for proposal submission. There are a number of ways to achieve this and all are rooted in the project proposal preparation phase. They are not particularly difficult to implement, as they consist mostly of asking the right questions and requiring a certain type of information. For successful implementation of one of these GPs, the consortium discussed namely the following strategies:

- a) Making clear to the applicants what is required from a successful proposal.
 - b) Requiring exploitation planning as part of the project proposal. However, the type of financial programme and the TRL of the projects need to be considered in order to determine the depth and character of exploitation planning needed at that stage. Companies with ideas close to the market should be able to prepare a brief pitch deck with numerical market information, because they should be prepared to look for private investment. This strategy is fairly basic for close to market projects, as the beneficiaries will have to ask the same questions themselves in order to take the next steps. Nevertheless, for projects further from the market, a rather general plan might be sufficient.
 - c) Providing opportunities for applicants to improve their proposal writing abilities, especially for specific chapters or aspects of the plan. This may be done via national contact points (NCPs), webinars, guidelines, etc. It should be considered that training in quality writing is an investment. In the long run, it could help the beneficiary, but also the RFO by saving time in proposal evaluations.
 - d) Considering the preparation of an exploitation-oriented type of programme via direct cooperation with universities. The one discussed in this project was targeting young researchers and potential future founders of start-ups.
5. Four practices refer to the project evaluation stage, again addressing objectives number one and two. Specifically, they describe the evaluation process applied in the Eurostars programme managed by Eureka, including the expert database and evaluation criteria. It also offers a number of methods to speed up the project proposal control and evaluation process in order to decrease the time between proposal submission and reception of the support or grant, which is an important variable across the consortium.
- a) For example, let's take EUREKA and TA CR. The TA CR's *Exploitation guarantor (AG)*, a practice forcing projects to involve a type of an end user from the beginning, expects immediate exploitation of the resulting solution right after project completion. Yet, it turns out that due to changes on the market, it is sometimes already too late for the AG (the client) to be able to use the results or they lose interest in them due to internal changes.
 - b) On the other hand, EUREKA projects have two years from completion to utilise the results, which is five years after the start in total. That is not a short time frame to place a competitive result on the market considering how fast the market changes. And yet, according to their monitoring, EUREKA projects often do succeed in the fulfilment of this condition.



- c) However, it should be taken into consideration that Eurostars targets mostly market ready projects, for which it is easier to create a realistic market plan. It seems that two years is an adequate compromise for that technology readiness level (TRL). It would appear that the problem occurs case by case, TRL by TRL, sector by sector, depending on their competitiveness. It could be that the issue is mixing of TRLs in one strategy. It might be better to have a special call for middle-level, high-level and low-level projects and adopt a different approach to each.
6. For successful implementation of the methodologies referring to shortening of the evaluation period, the consortium recommends to:
 - a) intensify the use of artificial intelligence in the evaluation process, but keep in mind that automation also has its issues;
 - b) find a balance between a friendly approach and time effective management of tasks and always consult respective legislation;
 - c) listen to the client while selecting the changes to be implemented on the current processes;
 - d) keep in mind that the suggested tools are still in early application, so no real evidence for success is available yet.
7. The automation of processes in order to shorten the evaluation period (but also for other purposes) was a significant topic of discussion. According to the shared experience, the setup of the system is demanding and its operations require good maintenance of it. As with all the good practices, it has advantages and disadvantages. For instance, a software is a good opportunity to simplify the process, but at the same time it might contain some errors, especially at the beginning. Moreover, it could be a useful tool at national and regional levels, but it has to be proposed to the respective government to be approved for implementation.
8. Four GPs refer to the project realisation phase, addressing objective number three: “improving and increasing the effectiveness of the existing project interim and ex-post monitoring methodology and related supporting services in order to increase the applicability of the SME projects’ results”. These GPs describe different approaches to project monitoring from the perspective of exploitation of results (personalized close-up and online large scale overview) including methods to help projects to achieve the results they planned. For a number of partners, there is room for improvement in terms of problem-solving support for projects that run into trouble in implementation. The partners have a method to discover the trouble, but a strategy to rectify such situations is often missing.
9. Seven practices refer to the ex-post stage, as well as to objective number three. They cover a range of aftercare services including support for projects to find further funding or to scale-up, ex-post monitoring of results, and tools to map results and impact in order to better shape programmes and future calls.
 - a) For GPs referring to support services (in the project proposal stage or further stages), it is important to build trust between the client and the advising entity. Also, it is important to make sure that beneficiaries don’t rely on the support too much.



- b) Some good examples of such services are, for instance, a good practice called Close ex-post follow-up to monitor further exploitation and support service on additional funding programmes or *Sectoral reports*. The principle of these is to gather good knowledge of the needs of the region, beneficiaries and potential beneficiaries and, based on this knowledge, direct them towards new possibilities of innovation and development. The benefits of such a service are mainly the increase of the number of companies with access to more R&D and increased readiness of companies to prepare and work on a funded project, which could lead to fewer issues arising during the project implementation phase.
- c) These practices can also support collaboration between academia and industry. Specifically, the *Sectoral reports*, for instance, are prepared by researchers while the target users are SME managers, so once the SMEs identify an idea in the report, collaboration with the author is created in a natural way.
- d) In aftercare, connections are very important and define the scope of provided help. Using the right connections, the organisation can help projects to get to the right markets. International outreach is more challenging than national or regional, but it offers new horizons and opportunities. However, it is easier to find needed support in some countries than in others. For instance, it is still quite difficult in Latin America due to cultural differences or lack of funding. That is why there is orientation to some markets more than others. One must be able to admit that it is impossible to solve every problem for the client.
- e) In aftercare programmes to support already finished projects in their next steps, impact should be measured.
- f) Before implementing such services, it is important to make sure that the target audience is interested in them. For example, companies do not always seem to be interested in international opportunities, calls or expansion.
- g) Namely ex-post monitoring and follow-up has been a difficulty for all partners. It has been discussed that a connection between monitoring and follow-up on the needs of clients is essential. This goal has very high requirements in terms of time, effort, and finances. Hypothetically, it could be completed by a tool based on AI that would allow for assessment of different complex situations. However, it is concluded in this project that probably a significant amount of human resources would need to be invested anyway at least at the beginning, even in the best case scenario of an in-between solution that functions as an interactive map used in the first step to analyse the ecosystem. Two such tools have been presented.
- h) Both tools gather publicly available data, have long-term goals and a longitudinal approach, are used to analyse the local market and the RDI environment and can prepare graphical outputs to facilitate understanding. The tools are commonly used to shape programmes, open calls, and additional activities.
- i) There are three important things to consider in the implementation of these practices. First, it is recommended to conduct a cost-benefit analysis to determine if an investment in this



area would be appropriate for the given situation. Second, one's analysis is only as good as one's data. This includes the fact that data from different sources come in different formats that must be homogenized first and require continuous maintenance and updates. To ensure quality of the data, all input must come from legal sources. For example, FUNDECYT-PCTEX is basing the data on the regional authority and funding entity. In fact, from the experience of the partners, the most challenging part is the regional data gathering, but once this information is ready, the national data is available and easy to process. Third, if the tool is available to third parties, data privacy needs to be safeguarded.

- j) Even with these tools, evaluation of the impact of projects is a challenge for the partners. A common bottleneck has been the response rate in implemented monitoring exercises and trustworthiness of the gathered data.
 - k) An example of such a good practice are Market Impact Reports. The main takeaway from this practice is that using online surveys seems to bring much higher response rates and save time for all parties. EUREKA seems to reach up to 70% return rate.
 - l) Incentives to answer the questionnaires could be a good tool to get higher quality answers and a higher response rate. Generally, it is recommended to motivate beneficiaries to fulfil the expectations of applicability by offering benefits to them in further public tenders. For instance, if one achieves completion of a meaningful project with a significant potential impact on society, there would be an increased possibility to support the beneficiary in their next projects. TA CR, for example, aims to do this in an evidence-based way and plans on using two electronic tools / databases for this purpose.
 - m) The possibility to implement penalties for non-compliance with the approved project proposal in terms of results has been discussed as well. The idea was to motivate beneficiaries to follow the approved plan and report on the results.
 - n) At the regional level, the seriousness of respondents could be an issue because there is a smaller number of highly excellent proposals. It might be that at the transnational level, the quality is higher, which leads to respondents giving answers that represent the reality in a more precise way. It might be advisable at the beginning to start with a simpler questionnaire.
10. In addition, there is one miscellaneous practice from the recommendations of the Taftie SELECT working group. Unfortunately, neither of the partners in the consortium found itself in the position to implement it at the time being due to low readiness of the ecosystem.
11. The provided good practices must not be approached categorically. One must be flexible in their implementation. There are significant differences between agencies and the situations they find themselves in, so there is no one best practice but many good practices anyone can be inspired by and apply them on the basis of what works in their condition. In fact, theory is one thing while reality is another thing. One must keep in mind that certain practices work only in specific conditions. The real context and strategic objectives of each given situation must be taken into consideration during the selection of the best match.



12. One should be aware of the fact that every change in the direction of the provided methodology will require time and funding. For example, many of the GPs require engagement of specialized experts whose involvement increases personnel costs. Unfortunately, this type of stakeholders are often uninterested in the given kind of work (especially the type involving tasks with a considerable administrative burden). Similarly, many GPs bring in additional administrative burden for all parties, the RFO and the applicant. These three barriers have been discussed by the majority of the partners in relation to the majority of the GPs.
13. For some GPs, it is convenient to have some level of influence on the local government to be able to impact the set up of the programmes and the respective calls.
14. In case of a number of GPs, some partners have been limited by the respective legislation that hasn't allowed them to pursue the recommended path or implement the GP at all due to fragmentation of the agenda in the local ecosystem of service and funding providers. For example, some GPs might already be implemented by the local regional innovation centres or other research supporting entities.
15. When this occurs, one should avoid overlap and duplication and look for cooperative solutions. Notably, collaboration with other public organisations in the ecosystem is recommended. At least, one should consider sharing the GPs, engaging in working groups or using a shared database.
16. Last but not least, one needs to keep in mind that there are many different types of organisations and every organisation has its own specific situation, which must be taken into account when deciding which GPs can be implemented and which ones not. To make it easier for readers of this DOP to select the best fitting GP to read more about, a **Good practice checklist** was prepared. Using this checklist, an organisation guided by self-diagnosing questions can determine whether a GP is interesting and implementable in the given situation. It takes into account the most common and significant barriers connected to each GP that an RFO might face during implementation.
17. In addition, it needs to be taken into consideration that all good practices must be adapted to each agency's particular situation in order to be implemented properly. Finally, the implementation should be approached with a systematic, efficient, and agile approach that doesn't harm other functioning processes.
18. All these GPs will be disseminated to other European research funding organisations, thus addressing the project objective number four, enhancing the same skills for other European RFOs.



Table 1: List of shared practices

GP	Owner	Description
Proposal Stage		
<u>Proposal eligibility requirement: Exploitation guarantor</u>	TA CR	An exploitation guarantor is a party that is engaged in the project as a third party or a beneficiary that intends to utilise the results in practice. It can be a public institution (a city, a ministry etc.) or a private company. The guarantor is involved in the project proposal and defines the character of the results. In most TA CR calls, it is an eligibility requirement to engage an exploitation guarantor to ensure applicability.
<u>Proposal eligibility requirement: Plans to achieve market entry</u>	EUREKA	As an instrument supporting the development of near-to-market solutions, Eureka's Eurostars programme requires applicants to answer a number of questions focusing on the market entry, potential market size, barriers, sales, and profit forecasts. This section of the application form requires concise and convincing answers to demonstrate the market readiness of the solution within 2 years of project end – the latter is an eligibility criteria for the programme.
<u>Proposal eligibility requirement: Business plan</u>	FICYT	An instrument that provides enough information about the company and its business strategy for the evaluators to more accurately assess the exploitation potential and relevance of the product/technology that the company plans to develop.
<u>Advanced support services for successful application submission</u>	FUNDECYT -PCTEX	Support service for the identification of market challenges and for an innovation diagnosis of SMEs, performed individually for each potential applicant during the project proposal preparation phase. This accompaniment service, which is conducted in a personalised way by specialised advisors, is focused on the identification of enterprise challenges in order to know potential needs or problems that can be solved through RDI projects.
<u>Implementation plan</u>	TA CR	An eligibility requirement that entails a description of planned implementation of results at the end of a project. The indicators for each plan must be quantified in terms of: new employees, income, exports, number of produced goods.



RDI development (project preparation and execution) – Sapiem

FUNDECYT
-PCTEX

Entrepreneurship support service offered by the University of Extremadura to help students during the whole entrepreneurship process. Its main purposes are to keep the talent in the region, to identify innovative business models, to provide students with the possibility of developing their business ideas and to promote a high-impact entrepreneurial culture.

Evaluation Stage

Expert community

EUREKA

Eureka’s expert community provides agencies from its member countries access to a pool of thousands of specialized industry and academic experts from across numerous sectors. Agencies can benefit from a wider expert pool than are available at national level with a broader range of expertise and higher flexibility in working availability.

Centralized evaluation process

EUREKA

Eureka’s centralised evaluation process provides a trusted procedure for evaluation of international projects in Eurostars and other Eureka programmes. In particular, the two-stage process involves remote and panel stages providing for efficient and high-quality evaluation.

Evaluation criteria

EUREKA

The evaluation criteria used in Eureka programmes ensure a strong focus on commercialisation with sub-criteria scores for market size, market access and risk, competitive advantage, clear and realistic commercialisation plans, time to market.

Steps to speed up the project proposal control and evaluation process

TA CR

For the purpose of reduction of time between the launch of the call and the resolution of the financial support, which is over six months now, TA CR applies, for example, the following strategies: Accepting or rejecting based on the presented data instead of asking for new administrative documentation, explanation or corrections after proposal submission. Avoiding the resubmission of unimproved unsuccessful proposals in a recurrent way and hence avoiding the reception of proposals already evaluated in previous calls. Rejecting proposals that are similar to those already presented in previous calls, possibly by using text comparison automation of project proposals.

Implementation Stage

Internal evaluators

TA CR

TA CR Department of Internal Evaluation used to have eight members. They cover the following roles: evaluators of projects in their realization phase, rapporteurs, internal consultants which play the role of an insider in specific and large projects, internal experts that supervise or check on external evaluators, review and supervise their work and consequently write comments and communicate with them about occurring issues.



<u>Monitoring and evaluation of the execution potential of the results</u>	FICYT	An instrument that provides a close follow-up of the research projects to ensure their correct execution and an opportunity for clients to transfer / utilise results through external collaborations and/or additional funding.
<u>Authorised consultants</u>	TA CR	TA CR is defining a new communication strategy to be closer to their clients and to create an atmosphere of confidence, whereby being the authorized consultants is one of the main tools for this purpose. The internal experts in the role of consultants participate in close collaboration with the beneficiaries in the review of the project's evolution and its results, participation in meetings or communication between beneficiaries and the Agency, in order to avoid undesirable situations.
<u>On-site monitoring visits</u>	TA CR	TA CR has the obligation of verifying the correct use of funding, which is why it carries out on-site monitoring in order to analyse progress of the projects during their realization phase. Because of the lack of human resources, this monitoring is performed only in cases where suspicious signals are detected by TA CR staff or in very large and expensive projects. TA CR gathers very useful inputs from these visits.
<u>Ex-Post Stage</u>		
<u>Mapping of innovation capacities</u>	TA CR	A tool for longitudinal mapping and analysing innovation capacities using primary and secondary data for strategy building. The used survey and interviews have a standardized set of questions. The idea is to create a methodology for mapping the innovation environment that allows to compare data over time. The data is used for defining the S3 and RIS3 strategies, programme planning, etc.
<u>Investment readiness activities</u>	EUREKA	Eureka's investment readiness activities focus on assisting companies in two key areas for scaling up: internationalisation and corporate venturing. In the former area, missions are organised for selected SMEs to visit high growth markets and to be introduced to the local ecosystem, investors, and potential partners. For the latter, SMEs – in particular startups – are introduced to corporates in sessions organised around specific themes/challenges set by each corporate. Finally, selected SMEs are invited to one-on-one pitching sessions. The aim is to create new growth opportunities, widen contacts, and broaden horizons for participating companies.
<u>Highly specialised support service to help the beneficiaries find further funding</u>	FICYT	Highly specialized support services to help the companies find additional funding and regional calls to foster the participation of regional entities in international RDI funding programmes and help increase their internationalisation.



<u>Close ex-post follow-up to monitor further exploitation and support service on additional funding programmes</u>	FUNDECYT -PCTEX	Support services for the identification of additional funding programmes and the development of the proposal for those programmes. After the development of an RD project, the company needs to identify the resources to develop demonstrators, short runs of the new product to test the market, make presentations in specialised fairs, etc., and we help them to identify the existing financial support for such actions.
<u>Market impact reports</u>	EUREKA	Market Impact Reports (MIRs) aim to follow up on the achievements of Eureka project participants specifically with regard to commercialisation. They are requested 1, 2, and 3 years after the end of the project and allow for close monitoring of market entry via a short online questionnaire, which can be updated by participants to avoid re-entering existing data. They focus on questions such as the expected or realised time frame for market entry, reasons for delay or deviation from original plans, additional revenue achieved/expected in different markets, the impact of the project on revenue and market position, the impact of the project on new market entry / targeted regions, the creation of spin-off companies, and the use of and need for external financing for commercialisation.
<u>R&D Observatory and the Strategic Information System on RDI</u>	FUNDECYT -PCTEX	Strategic system for monitoring RDI policies in the framework of the Smart Specialisation Strategy. It is a system that, based on reliable information sources, integrates data on activities, results, and policies in real time with the final aim to help the regional government to make strategic decisions on R&D and innovation.
<u>Sectoral reports</u>	FUNDECYT -PCTEX	It is a tool to connect scientific and technological knowledge with the industry needs in order to better align the RDI developed in the region with real problems in the market. The work is done by external experts from the University under the coordination of FUNDECYT-PCTEX.
<u>General</u>		
<u>General recommendations and recommendations based on Taftie SELECT Study</u>	TA CR	A good practice from Estonia and its national database of economic entities, which allowed for the comparison of the economic situation before and after the project, in order to analyse the economic situation before and after the innovation was developed.

For more information

Detailed description of all GPs is included in the LEEP-SME Design Option Paper, which is available on the partners' websites and will be available in the H2020-INNOSUP archive. To identify which GP is the best match for your organisation and would therefore be a good source of inspiration, we recommend to use the following checklist.

Good Practice Checklist

The tool is available in the form of [this Google form](#).