IMPROVE
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**Improving
Structural Funds
for better delivery
of R&D&i policies**

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Launching of a Proof of Concept call

Centro Region (Portugal)

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Research & Innovation

ccdrc

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1. General information

Project: *PGI05786 Improving Structural Funds for better delivery of R&D&I policies*

Partner organisation(s) concerned: CCDRC – *Commission for the Regional Coordination and Development of Centro*

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NUTS2 region: *Centro (PT16)*

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The Action Plan aims to impact: X Investment for Growth and Jobs programme

☐ European Territorial Cooperation programme

☐ Other regional development policy instrument

Name of the policy instrument(s) addressed: *Regional Operational Programme of Centro 2014-2020 (Centro 2020)*

2. Introduction

2.1. Improve Project

Structural Funds Programmes are one of the main policy instruments that some European regions have for building up Research, Technological Development and Innovation and for supporting the implementation of their Smart Specialisation Strategies.

The policy instruments addressed by the IMPROVE project are mainly Structural Funds Programmes, except for the Municipal Plan for Development of Gabrovo (Bulgaria) and the Development Plan of Tartu City (Estonia), which have in common the goal of enhancing a knowledge based regional/municipal economic growth.

Beyond their different background, scope and particular target, these polices seek a smart, sustainable and inclusive regional/local development by means of actions and instruments that, to a greater or lesser extent, focus on entrepreneurship, competitiveness of regional/local businesses, employment, education and lifelong learning, innovation, research, technological development, etc.

Achieving an efficient delivery of regional development policies is crucial, not only in terms of making the best possible use of public funds, but also in terms of maximising regional potentials, fighting regional inequalities and strengthening Europe´s economic well-being, as well as its social and political cohesion.

The partnership includes a wide range of regional realities, with different levels of economic development, more and less centralised administration systems and different levels of innovation performance, as well as distinct level of involvement in the management of the addressed policies (more strategic for some partners and more operative for others), which allowed for a comparative analysis on the policy makers' approaches and enriched the perspective about the management and implementation of Structural Funds.

2.2. Regional Action Plans

Produced by each partner, the action plan is a document providing details on how the lessons learnt from the interregional cooperation during the Phase 1 of the project will be implemented in order to improve the policy instrument that is addressed within each region. It specifies the nature of the actions to be implemented, their timeframe, the players involved, the costs and funding sources.

Based on a learning process that included a State-of-the-Art report for the identification of the areas of improvement of each Policy Instrument, the organisation of Thematic Workshops on key topics shared

by the partnership, the participation in 8 Peer Reviews (organised in an on-line mode due to the COVID-19 pandemic), the identification of good practices, a 2nd round of visits (in a face-to-face mode) for an in-depth analysis of the GPs, and a close relation with the Regional Stakeholders' Groups, the action plans focus on the improvement of the identified challenges within each region.

During Phase 2, the project partners will closely monitor the implementation of the action plans and will regularly check the extent to which the measures described in the action plan are implemented on the ground, evaluating the results of these measures and gathering evidence of success to be reported to the programme. During Phase 2 the project partners will continue to learn from each other and will exchange and build on the success achieved or on the difficulties encountered.

3. Policy context

3.1. The policy instrument

The policy instrument that CCDRC addresses in the context of IMPROVE project is the Regional Operational Programme (ROP) of Centro for the programming period 2014-2020 - Centro 2020. The programme is specially oriented towards the reinforcement of companies' competitiveness and job creation. Therefore, the objectives of strengthening research, technological development and innovation (Thematic Objective 1 – TO1) and of enhancing the competitiveness of small and medium-sized enterprises (Thematic Objective 3 – TO3) play a very important role in Centro 2020, representing almost 40% of the total budget of the Programme.

In these Thematic Objectives the Smart Specialisation Strategy of Centro (Centro RIS3) is especially important because it is used to evaluate the eligibility and/or regional merit of applicant projects. Therefore, the way this Programme is managed (and more specifically TO1 and TO3) is essential to: i) assure the efficiency of the implementation of R&D&I policies and instruments aligned with the priorities defined in Centro RIS3; ii) achieve a better absorption of funds by regional actors; iii) guarantee the pursuit of the lines of action established in Centro RIS3.

Centro 2020 was established in the Partnership Agreement between Portugal and the EU (Portugal 2020 – PT2020) being, therefore, under its regulatory framework.

3.2. Main challenges or areas of improvement

The Regional Operational Programme of Centro is the privileged instrument to fund the regional Smart Specialisation Strategy. Nevertheless, due to the institutional architecture of the Partnership Agreement, with a governance model quite centralised, there is little room to directly address the regional priorities.

For the programming period 2014-2020 (with all programmes still under execution), support to research, technological development and innovation is articulated at national level, in the context of two existing networks: the Science Network and the Incentives Scheme Network. The Science Network coordinates TO1 calls for research, development and innovation (in the scientific dimension). The Incentives Scheme Network coordinates all TO3 calls and TO1 calls for companies. The President of the (national) Operational Programme of Competitiveness & Internationalisation (Compete 2020) is the coordinator of the Incentives Scheme Network. Managing authorities, from all Regional Operational Programmes of the mainland and national agencies responsible for these public policies, are also members of these networks. The President of the national Foundation for Science and Technology is the coordinator of

the Science Network. Presidents from Compete 2020, from the National Innovation Agency and from the Regional Operational Programmes of the mainland also integrate this network.

This coordinated management at national level means that most TO1 and TO3 calls are launched jointly. Thus, when a call is launched, each Operational Programme (regional and/or national), decides if and how much money they want to put into it, contributing to the overall budget of the call. The criteria used to decide which Programme will fund each project is established in the Specific Portuguese Regulation of the Competitiveness and Internationalisation Domains (RECI) and it is published in all calls.

Although this coordination does not mean that the managing authority of an Operational Programme, like Centro 2020, is forbidden to launch a TO1 or TO3 call, independent from all other OPs; all decisions related to these TOs are discussed in these networks and need to be highly consensual, leaving little room to experimentation.

The main advantage of this centralised management of TO1 and TO3 is that applicants do not need to worry about which programme they should apply for. They apply to a common call and then the system directs the application to the right entities to evaluate and fund.

The main disadvantage of this centralised management of TO1 and TO3 is the fact that ROPs have high difficulties meeting regional demands. Moreover, the policy-mix was designed without taking into consideration the specificities of the regional smart specialisation strategies. Combining this with the fact that Portuguese mainland regions do not have an independent regional budget, the level of flexibility and the range of initiatives that might be implemented and funded, at regional level, to operationalise RIS3 is rather low.

Overall, it is safe to say that, in the programming period 2014-2020, TO1 and TO3 calls were quite standardised, not taking into account concrete regional characteristics, which created a gap between the needs felt regionally and the instruments available in the policy-mix.

Additionally, application forms and the system through which applications are submitted are also managed at national level, being concentrated in some agencies. Given these well-established procedures, it is hard to obtain, in an automatized way, some concrete information from applications to directly feed the S3 monitoring system.

Therefore, in the context of IMPROVE, Centro Region considered relevant to create awareness, at national level, about the challenges faced at regional level to properly implement S3, in what regards the need for more regionalised calls and for a more sound and self-acting monitoring system.

More details on the policy context can be found in Centro's State of the Art Report, by clicking here.

3.3. Identification of best practices relevant for the Policy Instrument

From the Peer Reviews organized by IMPROVE partners, CCDRC identified some good practices (GP) that, if implemented in Centro Region, could support the overcoming of some of the challenges faced.

Regarding the need for more regionalised calls, the "University of Tartu Spin-off Programme" was considered a rather relevant good practice as, within the context of the Programme, a Proof of Concept (PoC) funding was created back in 2019. This was considered important to Centro Region because, for years, regional stakeholders have pointed the PoC as a useful instrument to fill a gap in their research and innovation investment needs.

Regarding the need for a more sound S3 monitoring system, CCDRC found the tools managed by Puglia Region very interesting, especially its own S3 monitoring system - which acquires data directly from project applications through the fulfilment of surveys, allowing to gather relevant and timely information.

In the tables below some more detailed information can be found about each one of the good practices identified.

NAME OF THE GP	University of Tartu Spin-off Programme
OWNER	University of Tartu – Tartu, Estonia
DESCRIPTION	The Spin-off Programme from University of Tartu aims at strengthening the deep-tech ecosystem of Tartu. It also contributes to the development of a "university spin-offs" ecosystem. The main stakeholders involved are incubation centres and venture capitalists (funds). The Programme offers training, business and science mentoring and coaching services, IP analysis and due diligence, team building, networking and opportunities for financing, including promotional events and activities. In order to strengthen the flow from basic research to market, Proof of Concept (PoC) funding was first created in 2019 and within three years University of Tartu has provided 900 000€ for 31 projects within the University ecosystem. So far, about half of the researchers who applied for the Spin-off Programme have received the PoC funding. This shows that the PoC, together with the UT spin-off programme, can be a successful approach.

TRANSFERABILITY ASPECTS TO THE REGION	Within the context of IMPROVE project, and benefiting from direct exchange of experience with some of the partners, including Tartu, the ROP of Centro was able to recently launch a PoC pilot call (more details on the fourth chapter of this action plan). Therefore, now CCDRC wants to deepen its knowledge about the PoC instrument and to learn how Tartu monitors the projects' results; to reflect on what improvements could be done to the pilot call; and to understand how beneficiaries and University of Tartu assess their longer experience (how useful and efficient is this instrument?). Additionally, it should be highlighted the relevance of the integrated approach followed by University of Tartu and its partners in the Spin-off programme. They support ideas from the technological concept – going through the PoC, the spin-off incubation programme and the commercialisation of the intellectual property – until the incubation of companies in the Tartu Science Park. CCDRC expects regional universities to be motivated with this good practice and to consider the possibility of developing their own spin-off programmes, or similar, in cooperation with other stakeholders from the regional innovation ecosystem, as technological incubators. In Centro Region of Portugal, the proportion of enterprises in high and medium-high technology sectors (in the total number of regional enterprises) is only of 1,6% - below the national average of 1,98%. Looking at this number it is clear that the deep tech ecosystem of the region can and needs to be improved. Thus, this Programme from University of Tartu, given its good results, provides CCDRC with a great example of what can be done in the region to improve this scenario.

Table 1 - University of Tartu (UT) Spin-off Programme

NAME OF THE GP	**The Knowledge Innovation Hub:** • **Apulian Innovation Overview;** • **Apulia Research Gate;** • **The monitoring system of RIS3.**
OWNER	**ARTI (Agenzia Regionale per la Tecnologia e l'Innovazione) – Puglia, Italy**
DESCRIPTION	Puglia's Knowledge Innovation Hub includes the Apulian Innovation Overview (AIO), the Apulia Research Gate and the regional RIS3 monitoring system. Together, these three tools compose a sound and rather complete regional monitoring system and they are all managed by the same entity (ARTI), which opens up the opportunity to create synergies and to have a more robust and coherent system. The Apulian Innovation Overview is a web-based information system that systematises historical series of indicators related to socio-economic conditions and to the regional innovation ecosystem. Puglia is working on the development of a new menu, so that AIO can give information for each of the priorities of the regional S3 (as employment, value added and innovative start-ups), a development that is considered very interesting and useful (not only for regional stakeholders but also for policy-makers). The Apulia Research Gate is a modular information system that maps skills, organisations, researchers and that identifies connections between research groups and specific R&D areas. One of its main goals is to increase the awareness about "who does what" in terms of research activities, results/outcomes and competences. Regarding Puglia's RIS3 monitoring system, one of its key features is that data needed for indicators is directly collected from the beneficiaries through a set of four questionnaires, which are delivered through a web interface during the application phase and, if successful, at the end of the project granted. This system allows the region to have, at any moment, real-time data to analyse and to insert into the decision making process. Additionally, in theory, questions should be easy to add

	or remove, considering the changes occurred in the regional innovation ecosystem and the type of information needed.
TRANSFERABILITY ASPECTS TO THE REGION	CCDRC believes the experience of ARTI in the development and implementation of these monitoring tools can be of great value to inspire similar approaches in Centro. Regarding the Apulian Innovation Overview (AIO), it seems to be quite similar to DataCentro - a web platform with more than 1000 statistics indicators about the region and that can be combined depending on the needs of each user. Data comes from different sources and CCDRC is the entity who manages and feeds the platform. Considering that Puglia is now working on the development of a new menu, so that AIO can give information for each of the priorities of the regional S3, there is a chance to CCDRC to consider this same add-on for DataCentro, depending on the type of information and data needed and available. CCDRC is also interested in learning more about the survey that is filled in by project applicants (in the application form) – what kind of information is requested and how is the data gathered and treated. The main goal of CCDRC is to improve its RIS3 monitoring system for the next programming period, through the gathering of information in a more automatized way. CCDRC has developed a monitoring system for its regional RIS3, but: i) it is not fully implemented; and ii) the regular analysis that is made uses data that is not automatically generated.

Table 2 – Puglia's Knowledge Innovation Hub

Even though these two good practices have been considered equally relevant and possible to transfer to Centro Region, taking into account the time and resources available, CCDRC considered to be more realistic to focus on the PoC, benefiting from the GP of Tartu. Thus, for what concerns this Action Plan, the Proof of Concept funding, from University of Tartu, will serve as inspiration and as a basis for the activities still to be developed. Nevertheless, CCDRC is already taking some steps for the improvement of the monitoring system of the regional RIS3. Therefore, the further exchange of experiences with Puglia was a valuable input. In this context, in the second round of visits organised in IMPROVE, Centro's delegation, to Puglia, included one of the members from CCDRC's team which is responsible for the management of DataCentro and for the gathering and treating of data for Centro RIS3 monitoring system. This allowed CCDRC to start exploring some options in a more concrete and practical way. One of the options that is being carefully explored is the addition of a new tab, on DataCentro, especially focused on Centro RIS3 with new and dedicated indicators. This possibility will be discussed in order to assess its usefulness.

4. Action Plan

4.1. General description

The self-proposed indicator established by Centro Region, within IMPROVE project, was the launch of a dedicated call for Centro RIS3. Meaning, a call designed to address the needs in strategic areas for the region - RIS3 priorities. Given the Portuguese governance model of European Structural and Investment Funds (ESIF), which established that in Portugal the implementation of TO1 and TO3 should be coordinated at national level, CCDRC knew, since the beginning, that this was a highly ambitious and complex target. In practice, as TO1 and TO3 calls are open at national level, all the procedures to launch tenders, receive and assess applications are already very well established and centralised in some agencies. Nevertheless, CCDRC was aware that this was an important step to pave the way to the possibility of having more regionalised TO1 and TO3 calls in the next programming period, thus, supporting a more efficient implementation of RIS3.

In Centro, one of the gaps identified, for years, by the regional stakeholders was the lack of a Proof of Concept (PoC) instrument, being pointed out as something that could be useful to help fulfilling the research and innovation investment needs within Centro RIS3 priorities. Considering this, it was without surprises that, as will be mentioned further on in this report, the PoC was an issue highly discussed during the Regional Stakeholders Group (RSG) meetings. Thus, CCDRC decided to dedicate this Action Plan to the development and implementation of the PoC instrument. To do so, three main steps were established: i) the design and launch of a Proof of Concept pilot call; ii) the assessment and approval of projects; iii) the elaboration of a report with the main recommendations and conclusions possible to withdraw from this pilot.

It is also important to note that the Proof of Concept is an instrument foreseen in the Portuguese list of instruments available for TO1 (in RECI) but it was never operationalised. Considering all this, the launch of this call, by a single region, should be seen as a success case, especially knowing that all the achievements from the programming period still ongoing will influence the definition of the new programming period.

4.2. Action 1

4.2.1. Summary of the action

Context of the Action Plan	Instrument to be improved	Dedicated R&I call
	Policy instrument tackled	Regional Operational Programme of Centro 2014-2020 (Centro 2020)

Name of the ACTION 1		Priority	(x)	High
Operationalisation of the Proof of Concept Instrument				Medium
				Low

	Activities	Funding Sources	Costs	2021			2022				2023	
				Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
1	Design and launch of a pilot call	-	0€	x	x							
2	Assessment and approval of projects	Regional Operational Programme 2014-2020	2.000.000€			x	x	x				
3	Elaboration of a report with the main conclusions and recommendations	-	0€									x

Players Involved		Indicators/ Monitoring	
Responsible	**Functions**	**Indicators**	**No**
A	CCDRC - Centro 2020 team	Design and launch of the call; approval of projects.	Number of applications received Number of projects approved Number of recommendation for the next programming period (draw in the report)	52 13 5
B	CCDRC - IMPROVE team	Support the design and launch of the call; assess the sub criterion B1 (strategic impact of the project); elaboration of the report.		
C	National Innovation Agency (ANI)	Intermediary body; responsible for the evaluation of the criterion related to scientific quality of the applications.		

4.2.2. Relevance to the project

Aware of the complexity of achieving the self-proposed indicator established in IMPROVE project (launch of a dedicated call for Centro RIS3), CCDRC tried to engage the most relevant stakeholders during the Regional Stakeholders' Group (RSG) meeting. Additionally, and recognising that this would be a time consuming task, CCDRC decided, together with the lead partner, not to wait for the end of phase one of the project to proceed with the actual implementation of the Action Plan. This choice gave CCDRC the time needed to be able to reach the self-proposed indicator and to, now, properly monitor its implementation.
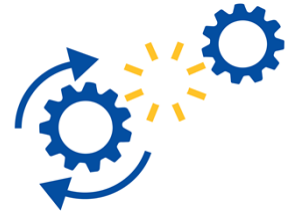
RSG meeting and inputs given by regional and national stakeholders were fundamental to clarify what could and should be done and, thus, to clearly shape this Action Plan. Thus, in the first RSG meeting, that took place on January 8th, 2020, CCDRC decided to invite only a small group of stakeholders - the internal and external members of the management team of Centro RIS3. This decision was taken to allow a deeper discussion about the IMPROVE project with the core team of Centro RIS3 and to collectively define the next steps. Considering the general objectives of the partnership and the specific self-proposed indicator, from this meeting came out a list of concrete stakeholders to be invited for the next RSG meeting, in order to allow the pursuit of CCDRC goal with its participation in IMPROVE.

Due to the pandemic situation, and taking into account the time needed to put in place all the necessary adjustments in the work plan, the second regional stakeholders meeting only took place on November 23rd, 2020. However, this time, the number of invitees was higher than in the first meeting, as the relevant entities to facilitate the panning and launch of a TO1 or TO3 call were already involved. The list of invitees / attendees to this second meeting is the one presented below:

- national stakeholders, instrumental to operationalise and launch a new instrument – representatives from Compete 2020 and the National Innovation Agency were invited and attended the meeting; a representative from the national Development and Cohesion Agency was invited but due to agenda constraints could not attend the meeting;
- representatives from relevant regional entities – expecting that they could give important inputs on the needs felt on the territory to better implement research and innovation projects aligned with Centro RIS3 priorities – representatives from Biocant, Instituto Pedro Nunes and the Engineering and Tooling cluster were invited and attended the meeting;
- an expert on the RIS3 thematic was invited and attended the meeting.

The vice-president of CCDRC, who was in charge of the R&D&I Internationalisation Plan of Centro, also attended the meeting. One of the main topics addressed was the self-proposed indicator established by Centro Region. From the discussion generated, important inputs were given, namely the suggestion to open a Proof of Concept call and at the end of the meeting, it was consensual that the next RSG meeting

should be with potential regional beneficiaries of a Proof of Concept call allowing to assess their real interest and to gather some insights.

Therefore, the third RSG meeting, took place on the 6th of January, 2021, and CCDRC invited, as planned, a set of relevant regional stakeholders that could be seen as potential regional beneficiaries of the Proof of Concept call envisaged:

- A representative from University of Coimbra;
- A representative from University of Aveiro;
- A representative from the Polytechnic Institute of Leiria;
- Representatives from relevant regional interface entities:
  - Biocant, Portugal Science & Technology Park for Biotech and Life Science;
  - IPN, Instituto Pedro Nunes, a regional incubator and accelerator (two representatives attended the meeting);
  - BLC3, a campus for innovation and technology dedicated to Bioeconomy;
- A representative from an innovative regional start-up, Coimbra Genomics.

All of them attended the meeting, as well as a selected expert on RIS3. From CCDRC, both the RIS3 and the ROP team (responsible for TO1 management) were present. As already mentioned, the main goal of this meeting was to assess stakeholders' interest in a Proof of Concept call and gather as much suggestions and comments as possible for the design of this new instrument. During the debate, all stakeholders agreed on its relevance, stressing how much it could support some of their activities and, most importantly, how the launching of this proposed call would help to close a gap already identified (as this is an important stage of the innovation cycle, which was missing support from public funding). On the other hand, stakeholders had already many strong and concrete ideas to share with CCDRC about some critical issues regarding this potential call (benefiting from their experience in similar type of support through European Programmes).

The lack of operationalisation of this instrument (foreseen in the list of instruments available for TO1, but never operationalised) led to a recommendation in a national report, "Evaluation of ESIF's contribution to knowledge transfer and valorisation dynamics in Portugal"[1] which was elaborated by an independent evaluator, at the request of the national Cohesion and Development Agency (AD&C), which is the entity responsible for the technical coordination, evaluation and monitoring of Portugal 2020 (the Partnership Agreement between Portugal and the European Commission).

"Recomendação: *Operacionalização efetiva do instrumento de apoio a provas de conceito (…), visando a validação técnica e/ou económica de ideias inovadoras resultantes de projetos anteriores*

When this specific recommendation was discussed in the Science Network, still in 2020, CCDRC stated the willingness to design and launch a Proof of Concept call. Although other regions showed interest in this instrument, none declared availability to join this initiative, namely in such a late stage of the programming period. CCDRC, on the contrary, took this opportunity to raise the needed support from this network and to create awareness about the need for more dedicated and regionalised TO1 and TO3 calls in the next programming period.

In the meantime, all the exchange of experience activities planned at the partnership level were also being organised and three specific moments must be highlighted, due to the contribution that they have given to the design of the PoC call. The first one is Centro's Peer Review that took place on the 2nd and 3rd of December, 2020. During the two days of Peer Review, to promote the active participation of partners, CCDRC launched some questions through the digital open tool Sli.do. In this context, a question was added about the existence of instruments to support proof of concepts in each of the partner regions. Response options were:

- Proof of concept in the development phase (close to research) – seven positive answers;
- Proof of concept in the upscaling phase (close to market) – six positive answers.

The next question posed was about the perspective of the partners on the challenges faced in a Proof of Concept call. Response options were:

- Public Administration is not geared to handle very uncertain projects – three positive answers;
- The regional innovation system may not be ready (mismatch between companies and tech-parks) – three positive answers;
- Lack of interest at the political level – no answers;
- Other – two positive answers.

Following the Sli.do questions, CCDRC opened a free discussion with all partners, in order to gather more details on their experience in supporting Proof of Concept projects. All inputs given by the partners were deemed very important for CCDRC to start planning and designing this new instrument. One of the most active regions in this discussion was Centre-Val de Loire, which, at that time, had already organised its own Peer Review. From Centro's perspective, Centre-Val de Loire Peer Review was very interesting, showcasing very well the range of instruments available in that Region, which cover the whole research and innovation cycle (including the proof of concept phase).

Therefore, CCDRC decided to contact bilaterally the representatives of Centre-Val de Loire (Dev' up) and to ask for more concrete information about the existing instruments to support the proof of concept phase – second moment highlighted. Answering to Centro's request, Centre-Val de Loire shared some

very complete material on the different regional instruments of Research, Development and Innovation, stressing that a lot of them could help the project owners to proceed with a proof of concept. Concretely, Centre-Val de Loire shared information about the following instruments:

- Diagnostic Innovation, funded by BPI France (the public bank of investment which has a delegation in each region) and operated by Dev'up;
- *Contrat d'Appui aux Projets*: CAP Recherche & Développement & Innovation (Project Support Contract: CAP Research, Development and Innovation), funded by Centre-Val de Loire;
- APR IR: *appel à projet recherche d'intérêt regional* (calls for research projects of regional interest) - only funds research laboratories;
- *Aide pour la faisabilité de l'innovation* (Support for the feasibility of the innovation), funded by BPI France;
- Bourse French Tech, funded by BPI France;
- And finally, *Aide pour le développement de l'innovation* (support for the development of innovation), also funded by BPI France.

Although all the data shared by Dev'up was considered to be very useful, the relevance of some of these calls, like the APR IR, was signalled by CCDRC as a good inspiration tool to develop the Proof of Concept call.

The third relevant exchange of experience was a bilateral meeting that was organised between CCDRC and the University of Tartu, following the Peer Review prepared by the Estonian partner, Tartu Science Park. During the event, that took place on the 7th and 8th of June, 2021, one of the presentations made was about the Spin-off Programme of University of Tartu, which incorporates the funding of the proof of concept phase. Being already working on the concrete text for the regional PoC call, CCDRC found this quite a timely opportunity to exchange some more details and to validate some of the decisions made, at that moment, by Centro's team. Thus, a bilateral meeting was organised with the responsible for that instrument that took place on the 7th of July 2021, in a digital format.

To sum up, CCDRC's participation in IMPROVE, with the involvement of the right stakeholders on the RSG meetings has allowed to open up the discussion on the development of a new instrument and has allowed the definition of a concrete action plan. On the other hand, the share of experiences between all the partner regions has provided CCDRC with valuable insights to properly implement and operationalise this instrument and action plan.

Aware of the fact that the implementation of any new instrument would be a complex and quite time consuming process, during the fourth semester of IMPROVE, CCDRC developed the necessary arrangements for the launch of the PoC call. The anticipation of the action plan was deemed as needed, because the plan was for projects to have up to 12 months of lifetime, with an eventual extension of up to six months. Moreover, being at the end of the programming period 2014-2020, time was an important

variable and the launch of a pilot during this period would influence the decisions taken in the preparation of the next programming period. Although all this process took some months to be completed, on the 19th of July, 2021, the call was launched and it was open until the 24th of September[2]. All the tasks needed to reach this point, as well as next steps of this Action Plan are explained in the next chapter.

4.2.3. Nature of the Action

As described in the previous points, the action proposed in this plan is the operationalisation of the Proof of Concept instrument. To reach this goal three main activities were foreseen: i) the design and launch of a Proof of Concept pilot call; ii) the assessment, approval and funding of projects; and, iii) the elaboration of a report with the main recommendations and conclusions withdrawn from this pilot.

Regarding the first activity, the design and launch of a Proof of Concept pilot call, during the fourth semester of IMPROVE, CCDRC carried out the procedures for the development of this task: discussing this issue in the relevant national networks; engaging all the important stakeholders; and finally, launching the call within the Regional Operational Programme of Centro (on the 19th of July, 2021). The call was supported through TO1.

In a concise way, the main steps that enabled the launch of this call were:

1. To discuss with stakeholders what type of "dedicated call" would be interesting to work on;
2. To discuss the proposal of a Proof of Concept call in the Science Network, which coordinates, at national level, TO1 calls for R&D&I;
3. To exchange information, through email, with Centre-Val de Loire (PP2) - important inputs were received for the text of the call;
4. To elaborate a proposal of text for the call and for the evaluation grid;
5. To work with the National Innovation Agency (ANI), which acted as intermediate body, to agree on the evaluation grid;
6. To get the call and the evaluation grid approved by AD&C (technical body responsible for the management of PT2020);
7. To get the evaluation grid approved by the Monitoring Committee of Centro 2020;
8. To exchange information with Tartu (PP6), through an online meeting and email, and to make some adjustments to the final text of the call;
9. To get the call and the evaluation grid approved by CIC (the political body responsible for the coordination of Portugal 2020, composed by the relevant Ministers);
10. To prepare an application form in the current (centralised) information system through which all TO1 and TO3 applications are submitted, which encompassed articulation with Compete 2020, the National OP for Competitiveness, that manages the system;

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[2] The Proof of Concept call can be found here: http://www.centro.portugal2020.pt/Concursos/CENTRO-45-2021-30.zip?versao=1.

11. To launch the call;

12. To promote the call before regional stakeholders/ potential beneficiaries.

The Proof of Concept call has as main objective to reduce the existing risks in the phase of knowledge development and valorisation by supporting activities that allow a first validation of the scientific potential at stake, before moving to major investments. Centro RIS3 was an eligibility criterion – projects not aligned with Centro RIS3 priorities could not be supported.

The potential beneficiaries were non-entrepreneurial entities from the research and innovation system (as higher education institutions) and also companies (as long as projects were led by the first type of entities mentioned). Only regional entities could be supported, although stakeholders from outside the region were allowed to participate in the projects, but not as beneficiaries. Projects could be presented in an individual or collaborative (engaging two or more entities) format.

The main criteria foreseen to assess projects were their quality and impact. In the first assessment criterion (Project's quality), three sub criteria were considered: suitability of the team; quality of the proposal; and fairness of the budget. In the second assessment criterion, four sub criteria were evaluated: strategic impact of the project (where the level of alignment with Centro RIS3 was rated); potential for knowledge valorisation; additionality effect of the project (contribution of the project to the advanced training of human resources); contribution to the results/indicators foreseen in the call. It is also important to note that in the sub criterion related to the strategic impact of the project, projects that contributed to the transition for a circular economy were marked up.

The deadline for submission of applications was the 24th of September, 2021, and the evaluation process is now closed, so some big numbers can already be shared. For instance, the total number of entities applying (as leaders of projects) was 12 and 52 applications were received, accounting for 7,5M€. Even though only 37 applications were considered eligible, they still represented 5,5M€, in a pilot call that had 2M€ of budget. From the eligible projects, 17 were presented in an individual way and 20 were collaborative projects. In these 20 projects, it is possible to count 32 participations from companies, mainly SMEs. The three most popular scientific areas were "Materials engineering", "Basic medicine" and "Medical Biotechnology", tied with "Electrical, Electronic & Information Engineering". From the 37 applications considered eligible, 34 received the maximum score in the alignment with Centro RIS3, having as main RIS3 domains "Health", "Materials" and "Sustainability of resources".

The following pressing step is to close the official approval of projects (pending on administrative procedures) and to start funding the approved applications. From there, CCDRC will monitor the implementation of the projects and organise some meetings with projects' promoters, in order to understand what went wrong and right, what should be improved and what are the necessary adjustments to be made in a possible future call of this type of instrument. CCDRC also wants to draw some conclusions about the added value of this pilot call for the entities that applied and saw their

projects approved and also for the region as a whole. These tasks will feed the report that CCDRC will produce and deliver, in order to inform the preparation of the programming period 2021-2027.

4.2.4. Stakeholders involved

To be able to achieve the goals set within IMPROVE project, it was considered relevant to engage, since the beginning, and in a regular way, a team from the Regional Operational Programme of Centro and the external coordinators of each of the four innovation hubs of Centro S3.

In the specific context of the development of the Proof of Concept call, a set of concrete national agencies was also involved, for being critical to operationalise and launch such a call.

1- The National Innovation Agency (ANI) – as it was the body responsible for the evaluation of the criterion related to the scientific quality / innovative nature of the proposed projects. ANI as also involved in the establishment of the criterion.

2- The Development and Cohesion Agency – which is in charge of the technical coordination of Portugal 2020 and was the entity who assessed and approved the call text and the evaluation grid.

3- The Inter-ministerial Coordinating Commission (CIC) – which is the body responsible for the political coordination of Portugal 2020 and has the mission of assuring the coherent application of ESIF. It is composed by government members of each ministerial area, being coordinated by the Minister responsible for Portugal 2020; the approval of a call by the CIC is mandatory.

4- The Monitoring Committee of Centro 2020 – which approves the evaluation criteria of the calls and is the body responsible for analysing and approving the methodologies and criteria used to select projects. Among its members are: the European Commission; the Audit Authority; the Investment European Bank; the Portuguese National Association of Municipalities; relevant economic and social organizations; regional higher education institutions; relevant public entities in the context of the ROP and the managing authorities of all the other Operational Programmes from the mainland.

5- Compete 2020 – which is the body responsible for managing the centralised information system through which TO1 and TO3 applications are submitted. A coordination between Compete and CCDRC was needed to assure that the system was correctly working and able to receive applications. There was also a collaborative work to fix minor issues reported by project promoters in the application form.

Additionally, CCDRC involved the Science Network, as a whole (all members included). As this Network coordinates the management of TO1 calls at national level, it played a key role in the development and launching of a pilot Proof of Concept call.

Last but not least, it should be highlighted the involvement of key regional stakeholders (for instance, University of Coimbra, Unisersity of Aveiro, Polytechnic Institute of Leiria, Instituto Pedro Nunes, Biocant and BLC3) that attended the RSG meetings. Inputs given by these stakeholders were fundamental and allowed some in-depth discussions.

4.2.5. Timeframe

The "Operationalisation of the Proof of Concept Instrument" action is organised in three main activities, which have different timeframes.

1 – Design and launch of a pilot call: this activity was already carried out. The design of the call, as well as the kick-off of the whole process, started back in 2021, during the second quarter of the year, which corresponds to the fourth semester of IMPROVE project. After all the necessary steps were taken, and all the procedures were closed, the call was launched on the 19th of July, 2021, and it was open until the 24th of September (third quarter of 2021).

2 – Assessment and approval of projects: this activity has already started as projects have already been assessed (during the last quarter of 2021 and the first month of 2022). Approval decisions are now being made by the team from the Regional Operational Programme. If everything goes as expected, this task will be concluded in the second quarter of 2022, knowing that it is still necessary to draft and sign funding contracts.

3 – Elaboration of a report with the main conclusions and recommendations to draw from this pilot: the elaboration and delivery of the document is foreseen for the second quarter of 2023. Data will come from the monitoring that will be done within the context of this Action Plan (further explained in 4.2.7. Monitoring of the activities).

Regarding the lifetime of the projects, they may have up to 12 months, with an eventual extension of up to six months.

4.2.6. Cost and funding sources

As already explained, the action foreseen in this plan, the "Operationalisation of the Proof of Concept Instrument", is structured around three main activities. While the first and last activities do not have costs associated, apart from human resources, they are not depending on any funding source. However, this is not the case with the second activity, which comprises the assessment, approval and funding of projects, as 2M€ have been allocated to the call, in order to fund concrete and innovative projects. This

budget comes from the Thematic Objective 1 of the Regional Operational Programme of Centro (Centro 2020) – which is the policy instrument addressed by CCDRC within IMPROVE project.

The maximum budget by project approved is 150 000€. Each project approved will have to co-fund its own eligible expenses. This co-funding rate will be 15% for entities from the research and innovation system. For companies, the co-funding rate will go from 15% up to 60%, depending on the type of activities executed (industrial research or experimental development) and on the size of the company (the smaller the company, the lower the co-funding rate will be).

It is also important to note that from the 2M€ of the call, 30% (600 000€) of this budget was allocated to inland territories, which are characterized for being less populated, with fewer resources and with lower levels of competitiveness. This measure was deemed rather important in order to secure funding to these areas of the region - which in a competitive logic is not always assured. This will contribute to the further development of these more disadvantaged areas and strengthen their innovation ecosystems. If there are not enough application from entities of these territories, money will be allocated to fund projects from the rest of the region.

4.2.7. Monitoring of the activities

As all the improvements made in the present will be lessons for the future, CCDRC believes that it is important to gather the most important conclusions and recommendations from this pilot into a report to be shared with the relevant entities. Therefore, the team allocated to IMPROVE, in coordination with Centro 2020 team, will monitor the implementation of the projects and organise some meetings with the projects' promoters, in order to understand what could be improved and what are the necessary adjustments to be made in a future call. CCDRC also wants to draw some conclusions about the added value of this pilot call, in the perspective of the promoters and for the region as a whole.

More specifically, some of the activities that CCDRC can already foresee are:

i) Monitor if all projects approved are being implemented; if any project is not being executed, CCDRC will try to understand why, together with the beneficiary.

ii) Follow the execution rate of each project and the percentage of funding going to each category of expense.

iii) Monitor the number of projects that are being implemented (from the beginning) in partnership with the industry and the ones that have generated an interest from the industry side, once they are under implementation.

iv) Organise meetings with the beneficiaries to gather inputs for the improvement of the instrument and to understand what their main difficulties were during the application and the execution phases of the projects.

v) If considered needed, create a specific survey to the PoC call beneficiaries to ask for more specific data, such as the number of researchers actually involved in the project and, for instance, if a gender balance was assured. This survey might take inspiration from the surveys used by Puglia Region after the approval of projects.

This monitoring will provide crucial information for the continuation of this instrument in the next programming period.

Activities and meetings will start in the last semester of phase one and continue throughout the second phase of the project. The delivery of the final report is foreseen for the second quarter of 2023.

CCDRC hopes to have paved the way for the adjustment of the current governance model of ESIF in Portugal, allowing for more regionalised calls in the next programming period, through a less complex process, that should be hassle-free.

Date:	1st of July, 2022
Signature:	
Function:	President of CCDRC
Organisation:	CCDRC