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1. Object, scope and objectives of the evaluation

The Incentive Systems (IS) emerge as one of the main instruments of intervention in the field of Competitiveness and Internationalization of PT2020, continuing the main options taken in the previous programming period (2007-2013) with regard to the Agenda for Competitiveness Factors. The ISs of PT2020 emerge as instruments to promote fundamental business investment, oriented to the recovery and growth of the Portuguese economy, acting in the different phases of the link between knowledge, innovation and competitiveness.

On the PT2020 framework, support under the IS financed by the ERDF and the ESF, benefited from an approximate allocation of €4 billion, applicable in 5 of the Investment Priorities (IP) defined by the European Commission for the 2014-2020 cycle. The Specific Regulation of the Domain of Competitiveness and Internationalization (RECI), materialized by Portaria no. 57-A/2015, in the IS destined to the companies of the PT2020, established three distinct policy instruments: (i) the IS " Research and Technological Development" (IS R&TD); (ii) the IS "Qualification and Internationalization of SMEs" (IS QIPME); and (iii) the IS "Business Innovation and Entrepreneurship" (IS Innovation).

The Evaluation Report on the Impact of Incentive System to Business Innovation on competition is one of the elements of the Evaluation Plan of the Incentive System to Business Innovation, predicted by Commission Regulation (EU) No 651/2014 of 17 June 2014 (OJ L 187) and integrated into the Portugal 2020 Global Evaluation Plan.

The Evaluation of the Impact of IS to Business Innovation on competition aims to determine the effectiveness, efficiency and impact of the IS Innovation support for the results observed. The scope of the evaluation will include the typologies of investments Productive Innovation Non-SME and Productive Innovation SME¹. The results of the evaluation should inform the proposals for strategic adjustment and/or public policy, programmatic adjustments of the funds and their regulatory and instrumental framework, starting with the refinement of the instruments to support Business Innovation in force in PT2020 in order to maximize the effectiveness in the future use of the funds and enhance the sustainability of their results.

Status as of December 31st, 2021

Between 2015 and 2021, 24 Notices of Tender (NoT) were published, of which only one, published in 2019, was exclusive to IP 3.3. As of the reporting date of the evaluation, 12/31/2021, 9,785 applications had been submitted under the Thematic Objectives (TO) under review. In total, 4,060 applications were supported, which resulted in 3,236 approved operations (42% of the applications with a decision), with the cancellation/termination rate being around 20%. The distribution of operations approved by Operational Programmes (OP) is similar to the distribution of applications by OP, with the OP Norte presenting about 39% of the approved applications, the OP Centro and the OP Thematic for Competitiveness and Internationalization (POCI) 27% and 23%, respectively, and with the Alentejo, Lisboa and Algarve OPs assuming a lower weight in the approvals (6%, 3% and 2%, respectively).

The analysis of the distribution of the total ERDF amount approved by NUTS II region shows a concentration in the convergence regions under analysis, with the Norte region receiving 45.1% of the total, followed by the Centro and Alentejo regions, which received 38% and 12.3% respectively. The Lisboa and Algarve regions received significantly lower amounts (1.9% and 1.6%, respectively).

The analysis of the ERDF amount approved by sector shows evidence of a strong representation of Manufacturing and Tourism in the total approved financing, equivalent to 85% and 11% of the total, respectively. With regards to the alignment of projects with National Smart Specialisation Strategy (ENEI)'s thematic priorities, it is concluded that around 96% are aligned with at least one of the priority areas of this strategy. In an analysis of the alignment of the approved projects with the Regional Smart Specialisation Strategy (EREI), it is concluded that the contribution of the regional funding OPs is restricted to the EREI of the respective region, as would be expected. Among these, the Alentejo OP stands out, which has a higher proportion of approved projects with contribution to the respective EREI (63.6%), followed by the Algarve PO (60.3%), Centro OP (60.2%) and Norte OP (57.7%).

The analysis of the financial implementation of the approved projects by tiers reveals that the majority of the projects (62.6%) showed a level of implementation greater than or equal to 50%, with 30.7% of projects presenting a level of implementation greater than or equal to 90%, 22% a level between 70% and 89% and 10% of projects presenting a level of implementation between 50% and 69%.

¹ Complying with the provisions of Regulation No. 651/2014 and integrating the Global Evaluation Plan of the Portugal 2020.

IP	Projects		Approved Eligible Investment		Approved Incentive		Average incentive	Average co-
	No	%	Millions of €	%	Millions of €	%	per project (€ million)	financing rate (%)
IP 1.2	343	10.6%	3,282	37.5%	939	25.6%	2.7	28.6%
Productive Innovation Non-SME	305	9.4%	1,953	22.3%	608	16.6%	2.0	31.1%
Productive Innovation Non-SME - ICR*	38	1.2%	1,330	15.2%	330	9.0%	8.7	24.8%
IP 3.3	2,893	89.4%	5,472	62.5%	2,734	74.4%	0.9	50.0%
Productive Innovation SME	2,890	89.3%	5,374	61.4%	2,721	74.1%	0.9	50.6%
Productive Innovation SME - ICR	3	0.1%	98	1.1%	13	0.4%	4.3	13.3%
Total	3,236	100%	8,755	100%	3,673	100%	1.1	42.0%

Table 1. Investment and approved Incentive, by IP

Source: EY-Parthenon, based on the data from the Information System of the PT2020. Note: * ICR - Investment Contractual Regime.

2. Methodology

For this impact assessment, the tender assumes as a methodological framework of analysis the methods of Theory-Based Evaluation (TBE) and Counterfactual Evaluation (CE). The Counterfactual Evaluation method presents, compared to the TBE methods, advantages that translate into the effective quantification of the impact (net effect of the interventions) and the greater robustness of the attribution of causality (cause/effect relationship as attribution), in the structuring of a support base for the cost-effectiveness estimation and in the reduction of the bias underlying the techniques of qualitative information collection.

The approach pursued for the Counterfactual Evaluation was based on the following steps: (i) identification of the treatment; (ii) definition of the variables/performance indicators under evaluation; (iii) choice of control group and pairing between treated and untreated companies; (iv) estimation of the incentive effect, using the "Differences-in-Differences" method; and (v) robustness analysis.

The combination of the two methods required the combination of qualitative and quantitative techniques for collecting, processing and analysing information and, on the other hand, the active participation of relevant stakeholders throughout the evaluation process, involving 10 interviews, three case studies, four focus groups, and two surveys (one to projects of beneficiaries supported by IS Innovation and one to unsupported candidates).

In addition, the elaboration of the Theory of Change, which systematizes what needs to happen for the desired results to materialize, was supported by a process of literature review and documentary analysis and took into account, with regard to assumptions and risks, a focus on the evaluation criteria that govern the evaluation questions and, therefore, a focus on results and not so much on the process of operationalization of the typologies.

3. Main results

Effectiveness and Sustainability

- The supported companies showed more significant growth in Turnover, GVA, Employment and Exports than the control group in the six years following the start of treatment (year t: year of actual beginning of projects). Assessing the effects in absolute terms, an average annual increase of €1 million in Turnover, €317,000 in GVA and 8 FTE jobs. In percentage terms, there are statistically significant effects of about +224% on Turnover, +29% on Employment and +403% on Exports. The treatment effect manifests itself as early as the years of project execution but tends to be more significant in the years immediately after its completion.
- Although more innovative from the outset, the supported companies do not accentuate their commitment to investment in R&D after the start of the projects, but rather bet on the capitalization of investments previously made through productive investment.

- The treatment effects on the main activity variables among the supported companies were accentuated during the pandemic, allowing to assess a contribution of the supported projects to the increase of the resilience of the companies.
- Manufacturing was the only group where the projects supported produced a statistically significant positive effect on productivity. In turn, the housing sector stood out for its effect on employment, equivalent to about twice the average of the projects supported.
- The average treatment effects were more significant in the Lisbon Metropolitan Area (LMA) region, in absolute (in level) and relative (in percentage) terms, in the majority of the most important variables, with the exception of productivity and intangible assets. The differential in performance seems to result from the higher quality of the selected projects, given that the projects in the region analyzed exhibit an average investment value lower than the average and are distributed across different sectors, and therefore it is possible to exclude factors such as the greater intensity of support or concentration in high-growth sectors.
- SMEs showed treatment effects, in absolute terms, higher than average in the employment (in FTE) and export variables, but lower in the other variables. However, when the impact was analyzed in percentage terms, it was higher in all variables.
- When the average treatment effect was assessed in the main variables, by support intensity (incentive weight in the GVA of the start-up year), the results were heterogeneous in a comparison in absolute and relative terms. Although companies with lower support intensity exhibit more relevant effects in level, there is an increase in the treatment effect in percentage terms as a function of intensity.
- At the cut-off date of this evaluation, the increases in operational activity expected for the post-project period, namely in Turnover (+€43,327 million annually), GVA (+€13,164 million annually), Exports (+€32,056 million annually) jobs (265,844 new FTE jobs) for the 3,236 projects approved under IS Inovation are of significant economic importance at national level.
- The prospects of meeting the contractual targets on the horizon of project completion are optimistic, given that 45% of the promoters stated that the objectives will be exceeded and 38% that they will be met. For the five main indicators (turnover, international turnover, GVA, jobs and skilled jobs), the survey data show that the targets should be exceeded (the exception is international turnover, explained by the unfavourable economic and financial developments of the target markets, which has conditioned the achievement of the targets).
- The achievement of the contractual goals for employment was negatively influenced by the context, and the listening of the actors highlighted the difficulty of the promoters in recruiting and maintaining labor, both qualified and unqualified. The difficulties of hiring in the labor market thus constituted an obstacle to the development of the projects, with reflections on the fulfillment of the defined objectives or the delay in this fulfillment.
- Post-COVID projects, started after 2020, as a whole are expected to fall short of targets in turnover, international turnover and GVA, while pre-COVID projects in pre-2020 are expected to exceed them, with the exception of NIV. These results are consistent with the responses of the promoters, who refer to the pandemic as the main constraint in meeting the goals set in the application.
- The results achieved by the projects are sustainable in the long term, with cases of projects with fleeting results being residual, according to the responses of the promoters supported to the survey.
- The support of IS Innovation allowed an increase in the competitiveness of the promoter companies, evidence corroborated both by the perception of the promoters themselves, who affirm that the company is in a better competitive position vis-à-vis competitors after the realization of the supported project than it was before in relation to the quality and innovative character of the products/services, as well as the results of the counterfactual analysis, where significant effects are observed in terms of Turnover, GVA and Export Intensity.
- The hybrid financing model was well received by the companies supported under IS Innovation, which allowed, on the one hand, to increase the capacity of the beneficiaries to attract funding from others for the execution of the projects and, on the other hand, for the Management Authorities to support a greater number of projects. Some specific problems were identified in the operationalization of the financial instrument component (e.g. requests for additional guarantees, lengthy process), which did not call into question the effectiveness of the model.

In the absence of IS Innovation support, about half of the approved eligible investment would not be realized, mainly because many projects would not be implemented (catalyst effect), but also because some of the projects that would continue to be implemented would see their financial dimension reduced (incentive amplifier effect). It is estimated that, by the closure of Portugal 2020, IS Innovation will have avoided the loss of 5 billion euros of

eligible investment (57% of the total) that would not be invested in the absence of support. The mitigation of investment losses tends to assume greater relevance in IP 1.2 (where losses would amount to 71% of the approved eligible investment), which can be explained by the larger size of the projects associated with this IP. To these effects is added the accelerator effect, by the contribution that the incentive presents to anticipate the start date or reduce the implementation period of projects that would continue to occur in the absence of funding, as well as the contribution to a greater orientation towards the results of the investments.

- A significant part of the projects that would continue to be implemented in the absence of support assume an imperative character for the maintenance of the competitiveness of companies, however, their financial dimension tends to benefit from the support of IS Innovation (amplifier effect).
- The incentive has no effect on the relocation of the investment, and there is no recognition of the influence of the differentiation of co-financing rates and increases associated with different regions in determining the place of implementation of the investment.

Impact (Spillover Effect)

- The projects supported have a high potential for aggregate impact on GDP and employment at national level, both through the associated investment (investment phase) and through the increase in entrepreneurial activity they induce (operational phase). It is estimated that the execution of the entire contracted investment is associated with a total annual impact (direct and indirect, including the upstream effects of the supply chain) of € 3,572 million in GVA, associated with an increase of more than 90 thousand annual jobs (FTE).
- Much of the impact results directly from the activity of the supported companies (direct effect). Still, the spillver
 effect upstream of beneficiaries (along the supply chain) is significant: on average, in the post-project period,
 each million euros of incentive invested in business support contributes annually to generating €281 thousand
 in GVA and 8 jobs (operational phase).
- When applied to the total amount of eligible investment approved at the reporting date, assuming that there are no falls in financial realization, the approved incentive will lead, through the activity of the supported companies, to an annual spillover effect of more than €1,000 million of GVA and about 29,600 annual jobs (FTE).

The impacts produced by projects supported under IP 1.2 (non-SMEs) have more significant multiplier effects in both phases of the project compared to IP 3.3 (SMEs). In the case of the spillover effect (indirect impact along the promoters' supply chain) during the exploration phase, each million euros invested in IP 1.2 contributed to generating \notin 226 thousand and 7 jobs annually during the exploration phase, while in IP 3.3 the effect was EUR 113 thousand and 3 jobs per year during the post-project.

- The magnitude of the spillover effects is positively influenced by the existence of clusters in the region of implementation of the projects.
- Although the Manufacturing Industry has higher multiplier effects than Tourism in the operational phase, the spillover effect produced upstream of the beneficiaries is similar in both sectors. In the investment phase, projects in the tourism sector contribute more significantly to GDP and employment, and also have a greater knock-on effect on the productive fabric in this phase.
- Although the multiplier effects produced in the North and Centre regions are similar, the greater demand directed to regional suppliers and assets in the North justifies effects of greater magnitude in this region.
- IS Innovation projects have often not benefited from knowledge external to the company as a result of relationships with non-business entities of the R&I System, meaning that they will not have emerged, in a relevant way, from R&D results. However, it is significant the weight of the promoters who stated that the supported project had a high contribution to a greater integration in networks of the regional/national innovation system and in the deepening of relations with R&D and Innovation partners.
- The support of IS Innovation allowed to enhance the development of mature regional clusters of the Portuguese territory, promoting productive investment in innovative and more technologically intensive areas, such as footwear and textiles in Ave, Cávado and Porto Metropolitan Area, Molds in Marinha Grande and Leiria, Madeira, Cork and Furniture in PMA, Tâmega e Sousa and Viseu Dão Lafões, of products and pharmaceutical research in Coimbra, among others. This perception is corroborated by the different types of actors heard throughout the evaluation.
- The regional spillover effect tends to be enhanced by the existence of already established clusters. This conclusion is reinforced by the results of the survey of the promoters, which show that the national and regional supply chain has been strengthened with the implementation of the supported projects, and there is, therefore, a contribution of the support to horizontal and vertical clustering logics.

Impact (on competition)

- The evidence collected reveals that the majority of the most direct competitors of the supported companies are national companies in the same sector. However, it does not lead to the conclusion that the support granted has contributed decisively to the attainment of a dominant position by the undertakings supported, and that the impacts on competition should therefore be residual/not material.
- The North region stands out as the one where the dispersion of competition is lower (52% of the main competitors of the companies supported in the region are local or regional) and, therefore, is the most susceptible to impacts on competition according to this criterion. However, the North region is also the one where there is a greater dynamic of clustering, which acts as a mitigating factor of the distorting effects of the supports, since it is frequent for companies that compete with each other to be supported under the IS Innovation. Specifically, from a sample of beneficiaries who were part of a sample of applications where the identification of the main competitors was made, 30% of the total beneficiaries identified entities that also had projects approved in this instrument.
- Projects with better scores in the quality criteria tend to face greater competition from international *players* so that support tends to have a less pernicious effect on competition, since the companies supported enjoy an insignificant market share. Because they tend to be more innovative projects, in which it is clearer that the incentive is responding to an under-investment market failure, the concept of the relevant market for competition analysis is more difficult to delimit (due to the difficulty in defining the products and companies that compete directly with the new products/services). In fact, according to the survey of supported promoters, 7% stated that the products resulting from the projects did not have "direct" competition, a reality that is more frequent in Non-SME projects due to the greater demand in relation to the scope of innovation placed by the eligibility criteria of the projects in IS Innovation.
- The companies with projects supported by IS Innovation revealed, in the opinion of the promoters, an improvement of their competitive position in three critical factors of competitiveness price, quality and innovation/differentiation as a result of their implementation. Although the supported projects had an influence on the competitive positioning of the beneficiaries in relation to the price of the products, for most promoters, the weight of the incentive (reimbursable and non-refundable) was less than 5% of EBITDA, limiting the room for maneuver they have to practice predatory prices in the market.
- The majority of companies surveyed (86%) consider that they have increased their market share due to the investments made possible/facilitated by IS Innovation and 58% said they have been able to absorb market share from their main competitors. However, most companies attribute the improvement in their strategic positioning to the quality (84%) and differentiation (84%) of the products after the implementation of the project than to the price (49%, and only 3.8% of the companies consider that they went from a position below the competition to a level above the competition). In addition, an analysis of a sample of beneficiaries for whom the applications had indication of national competitors, no correlation (positive or negative) was found between the growth rates of the supported companies and their direct competitors.
- In another perspective, there were no changes in the demographic dynamics of the sectors where the support would focus. The analysis of the weight of the promoters supported by IS Innovation in the total sector where they are inserted allows us to conclude that IS Innovation is a relevant instrument for almost all industrial sectors (GVA of those supported exceeds 10%, and in some cases exceeds 50%, as are the cases of the manufacture of rubber articles and plastic materials, Manufacture of computer equipment, communications equipment and electronic and optical products, Manufacture of electrical equipment and Manufacture of other transport equipment). This representativeness seems to be more associated with the clustering effect that IS Innovation has fostered throughout its implementation, given the significant number of promoters supported in the sectors in which it has high representativeness, and no specific cases of market distortions derived from the support granted were identified.

Relevance

- IS Innovation contributed to foster the competitiveness of the national economy through the granting of financial incentives to support business investment, being oriented mainly to the dynamization and up-grading of the national industry based on the production of tradable goods and services, with a strong orientation to international markets and significant appreciation of the incorporation of added value and innovation.
- The profile of demand supported was in line with the objectives defined in the design and implementation of this policy instrument. Given its potentially eligible business universe, the IS Innovation favoured the support for small and medium-sized enterprises and those in convergence regions, investments aimed at revitalising the manufacturing industry, based on medium-high and high technology sectors, based on advanced competitiveness

factors. Despite this contribution, it was found that IS Innovation tended to favour low-intensity sectors in terms of value creation to the detriment of moderate-intensity sectors in terms of value creation.

• The incentives for productive business innovation were largely part of the strategic development priorities of national and regional scope (ENEI and EREI, respectively), promoting the implementation of innovative projects with greater added value. Both in terms of the number of projects and the eligible investment, the focus was mainly on the priority themes foreseen in the ENEI and EREI. This factor, together with the low completion rate of the projects at the cut-off date (23%) and the temporal *lag* underlying its effects, did not allow the identification of changes in the pattern of productive specialization during the analysed period.

Efficiency and European Added Value

- The NoTs launched under IS Innovation are appropriate to the needs of potential beneficiaries, showing, in general, the ability to attract high levels of qualified demand, particularly in SMEs. In the case of support for non-SMEs, the difficulty in mobilizing qualified demand stems from an initial difficulty in mobilizing the demand for support from the Regional OPs, due to the limits to financing, which leads large companies, with large projects, to compete for COMPETE, in which the vast majority of tenders (90%) saw demand exceed the initial allocation.
- Selectivity tends to occur more through the conditions of admissibility (1st phase of selectivity) than through the
 analysis of the merits of the applications submitted, maintaining a logic similar to that observed in the previous
 programming period. The average admissibility rate stood at 61%. In the case of IP 1.2, the lower demand
 coexists with a high rate of admissibility (82%), eligibility (100%) and selection (100%), the result of an increasing
 level of preparation of promoters (e.g., use of specialist advice) and a greater articulation with Intermediary
 Organisms in preparatory stages for the submission of applications.
- The effects of the COVID-19 pandemic on the development of investments were mainly responsible for the cancellation/termination of 20% of the projects after their approval.
- The cost-effectiveness analysis, which relates the results of the counterfactual analysis for the closed projects with the associated funding, reveals that, on average, each euro of incentive granted translated into an additional €0.88 of Turnover and €0.31 of GVA in each of the years following the start of the projects (or €2.20 and €6.13 in cumulative terms in the 7 years following the start of the project). The cost per job created (FTE), in particular for skilled employment, was substantially higher.
- Among the three regions analysed (Norte, Centro and LMA), the cost per unit of result is lower in LMA, a result of the confluence of tendentially more significant effects and lower co-financing rates.
- SMEs have a cost-benefit ratio higher than the average of the companies supported by IS Innovation (and therefore the ratio is lower in non-SMEs), as a result of co-financing rates that tend to be higher and have smaller effects in absolute terms. The exception occurs at the level of employment, where due to the greater effectiveness of treatment in SMEs in this variable, it is estimated that the cost per job generated is about 123 thousand euros.
- The leverage effect of private investment by support is relevant, since each euro of financing contributes to leverage €1.77 of private investment, being higher in the case of non-SME projects. This effect benefited from the changes resulting from the revision of the RECI (hybrid financing model), in that it was possible to increase the leverage effect of the projects, without a reduction in qualified demand.
- By the financing OP, there are three distinct groups: the OPs of the convergence regions, with lower leverage (about €1.8) in line with the higher co-financing rates and greater concentration of support to SMEs and/or smaller projects; the POCI with a slightly higher degree of leverage than the convergence regional OP (€2.4), given the financing of larger projects; and the OPs of Lisboa (€3.1) and Algarve (€5.0), with the highest degrees of leverage, by virtue of the lowest co-financing rates.
- In relative terms, the combination of leverage and incentive effect means that for every euro of incentive granted to a non-SME it is possible to guarantee € 2.74 that would not be invested without the support of IS Innovation, while in SMEs the effect is € 1.17.
- IS Innovation is a complementary factor in attracting foreign direct investment, and the decisions of international investors are based on the analysis of an additional set of factors that enhance the competitiveness of the national economy (e.g. qualification of human resources, transport and communication infrastructures).
- Still, when there are geographies with similar characteristics, the support of IS Innovation tends to be decisive. On the other hand, the incentive is not decisive when it represents a part of the residual of the total investment, which occurs in projects of high investment amount, but with low eligibility at the level of expenses.

4. Recommendations

R1. Maintain the eligibility of non-SMEs under the IS Productive Innovation through the differentiation of financing conditions through the size of the business group.

The impact analysis of non-SMEs showed that they have a greater knock-on effect than SMEs. At the same time, the cost-effectiveness analysis suggests that the return generated for each euro of incentive granted is higher among non-SMEs. In this sense, it is important to ensure support for non-SME (at least small mid caps and mid-caps), otherwise the efficiency and impact of IS Innovation support will be reduced.

As no evidence has been found to support the influence of support on possible market distortions, both in SMEs and non-SMEs, given the fact that the overwhelming majority of national non-SMEs do not have a relevant share in the markets where they operate (and in view of the strong demand for export intensity), considering that a relevant portion of the companies that carry out innovations with greater impacts on the national economy are non-SMEs (which even have knock-on effects for the dissemination of knowledge and innovation in the market), verifying in the consultation process that there is an incentive effect on projects promoted by non-SMEs, and in particular in the attraction of FDI, the relevance of including this segment of companies as eligible for ESI Funds support remains.

The non-eligibility of non-SMEs may also raise issues that violate competition laws due to restrictions on access to funds for a specific segment of companies and which, if influenced by group effects, have similar characteristics and competitive capacity to other SMEs. However, in order to protect against possible market distortions arising from situations of significant power on the part of larger companies, it is recommended that there is differentiation in the financing conditions of projects promoted by non-SMEs (e.g., regressive financing rate with the size step), taking into account the different sizes within this group (e.g. small mid caps, mid caps and large caps).

R2. Promote a greater appreciation of the knowledge produced by the I&R system in productive innovation projects.

Ensure support for R&D projects that have a high potential for economic and financial valuation (e.g. industrialization of results of an IS R&DT project is automatically supported by IS Innovation, if the application meets the eligibility requirements and has a minimum merit score to be defined).

Ensure greater agility and speed of evaluation for R&D projects with positive results and that have already been supported in embryonic stages, similar to what happens under the EIC Accelerator. Since the IO responsible for the analysis of the Productive Innovation project may be different from the one responsible for the R&D project, the analysis of the Productive Innovation project should require a technical opinion from the supported R&D project manager to "certify" the eligibility of the project for this "fast lane".

Introduce differentiating factors, through merit criteria, that reward projects that capitalize on the technology and knowledge produced by non-business entities in the national R&I system, seeking to ensure greater connection with innovation networks and the industrialization of the results of potential projects supported under IS R&DT.

R3. Maintain the option of a hybrid financing model, combining the grant component with the financial instrument component.

The hybrid model applied to IS Innovation since the intermediate phase of its operationalization was well accepted by companies and allowed to increase the capacity of beneficiaries to raise foreign funding for the execution of projects. Value added is also correlated with market interest rates, which are expected to remain at higher levels during the Portugal 2030 programming period compared to Portugal 2020.

However, specific improvements should be made to the operationalisation of linked credit lines, seeking to establish strict deadlines for financial operators and the maintenance of credit pre-approvals for the minimum reasonable period for the analysis of applications. Compliance with the deadlines established for the analysis of applications and communication of results by the MA/IO is also essential to ensure that credit pre-approvals maintain the conditions from the moment of application until the contracting of financing.

R4. Extend the period of evaluation of the contracted results of the supported projects.

The second full year after the implementation of the investment (third in the case of tourism) is often referred to by beneficiaries as insufficient to reach the cruising speed of the economic activity associated with the investment. In the specific case of the COVID-19 pandemic period, there was flexibility of the IOs to extend the execution of projects, duly justified by the economic situation, which made it possible to mitigate the challenging effects of this short deadline for companies to achieve results.

At the application stage, the objectives proposed in the post-project do not always correspond to the cruising speed of the project (they are lower), especially when it comes to new products/services with greater innovative content. In addition, in larger projects, the multiplier effects on the economy are not captured as effectively in the post-project year, either from an economic perspective (dragging) or from a knowledge transfer perspective, as they do not manifest themselves in their fullness.

It is recommended to consider extending the evaluation period of project results for another year to the third full year after the implementation of the project, for all sectors of activity, including tourism.

R5. Strengthen the analysis of the incentive effect and the financing strategy of the project.

Deepen the requirements for demonstrating the incentive effect and sources of funding for projects, particularly in ICR projects promoted by non-SMEs, with the aim of reducing the deadweight effect and channelling funds to operations where the granting of the incentive has a more preponderant effect on the implementation of the project.

- Consider the inclusion of composite indicators of project impact / project leverage with incentives in the NoT merit benchmark (e.g. incremental GVA between pre and post project / Incentive; Incentive/Total Investment). These indicators can influence the setting of project targets by beneficiaries (in order to make them more ambitious), who often underestimate the targets to increase the likelihood of post-project achievement.
- Request at the time of application:
 - Justification of the project's funding strategy, including justification of the incentive effect, in addition to a simple description of the sources of funding (as requested in the case of ICR applications);
 - Indicators of the project profitability analysis and rationale of the main business assumptions associated with the financial projections.

R6. Broaden the range of eligible expenses under IS Innovation projects that are complementary to productive innovation investments (e.g., qualification, internationalization).

In order to reduce the number of applications to the incentive systems and the associated analysis and monitoring costs, as well as to enhance the results of the supported projects, IS Innovation should have greater flexibility in eligible expenditure, in order to include investments that are complementary to productive innovation and eligible in other incentive systems (e.g. SME Qualification, SME Internationalization, R&TD). This additional expenditure should not exceed a threshold to be defined in the NoT (tending to be low, never higher than 20%). However, in this case, it is recommended to maintain the financing conditions for complementary expenditure, even if it means lower support intensities than those practiced in other instruments in which such expenses are eligible (e.g. internationalization expenses in IS Internationalization SMEs financed at 45% vs IS Innovation with 42.5% maximum rate in the last NoT launched (13/SI/2021)).

Alternatively or complementarily, design an integrated instrument with several complementary business investment typologies, which include productive investments, following a model similar to that of the RRP Innovation Agendas.

R7. Implement mechanisms of greater automatism and efficiency in the processes of (i) preparation and submission of applications and (ii) monitoring and evaluation of projects.

Preparation and submission of applications:

- Clarify the conditions of admissibility/eligibility of promoters and projects, especially with regard to the concept of innovation, on websites, forms, application tools and user guides (e.g. provide for clarification sessions at the time of launch of some NoT, in particular at the beginning of the programming period or when significant changes occur compared to previous calls);
- Simplify the application processes, by approximating the criteria/forms/processes of the European model (more intuitive, practical, flexible, with information on access conditions gathered in the NoT);
- Minimise the information required from promoters through greater integration of systems (standardisation
 of the various support platforms that must have centralised promoters' financial information), in order to
 avoid redundancy at the documentary level, namely on the statistical and economic-financial information of
 promoters (e.g. avoid that entities have to fill in the same characterization data financial data, intellectual
 property, jobs, etc. with each application they submit);
- Introduce functionalities in the forms that help the completion of qualitative and quantitative fields that are relevant to the fulfillment of the rules of admissibility and merit of the tenders, alerting the promoter to the

non-compliance with admissibility / eligibility conditions (in the quantitative fields, for example when there is a threshold value and it is not being met).

• Develop tools for self-diagnosis of the admissibility of promoters and projects, in order to clarify concepts and criteria, minimizing the number of projects rejected due to lack of admissibility framework.

Follow-up of projects:

- Reduce the delay associated with the certification of expenses and payments (e.g. expand the application of simplified cost processes, adopt good practices for simplifying procedures of the European Commission's direct management programmes such as Horizon Europe);
- Strengthen the technical teams (MA/OI), filling the lack of HR that currently seems incompatible with the requirements of evaluation, monitoring and control, ensuring more significant support to projects and their promoters in order to ensure the monitoring of results and enhance the sustainability of the long-term impacts of the supported operations;
- Ensure that IOs are able to have greater availability to carry out a closer, qualitative and strategic monitoring of the supported projects (e.g. visits to the entities involved), from the evaluation phase of the application to the closure phase (going beyond the typical administrative follow-up), namely in projects of relevant size and of strategic interest to the regions of insertion (except those under a contractual regime, whose accompaniment is already denser).
- Accelerate the processes of closing projects after the final payment request and eliminate the "captivation" rule in the final payment (of 5% of the incentive) after the closure of the project, making beneficiaries responsible in case of non-compliance through the return of incentive.

R8. Increase predictability throughout the life cycle of the operationalisation of the instrument (from the NoT to the closure of supported projects).

Define a timetable for the opening of calls for proposals according to a model inspired by Horizon Europe, in which the same NoT is open continuously for a period (e.g., 1 or 2 years) and has several cut-off dates for the analysis of submitted applications. This way provides more predictability in the management of IOs' technical resources, allows companies to prepare and submit applications at all times (replacing the aid registration model and helping to stabilize the inflow of applications), ensures stability in the access rules (eligibility conditions, eligible expenses, merit reference, forms, etc.) and reduces the bureaucratic burden in the operationalization of NoT (production of supporting documents). Budget management by MAs may still vary over the duration of the NoT, but with indicative allocations for each cut-off date for the analysis of applications.

It is also important to optimise the procedures for examining applications and payment requests in order to provide greater predictability and confidence to promoters in the management of projects and cash flows. The high bureaucratic burden with desk verification (e.g. invoices and receipts) should be eased and a greater degree of responsibility transferred to the beneficiary at a later time, e.g. through more detailed checks at project closure or random audits.

R9. Increase the percentage of advances to promote the start-up/implementation of approved projects, reduce the likelihood of dropping out and reduce delays in programme implementation.

Increase the percentage of advance allowed with the contracting of the incentive to reduce cash flow constraints associated with the time between the realization of expenses and the receipt of the payment request by the companies. Consider as the maximum advance payment the lower of the following two (indicative) values: 30% of the contracted incentive or the value of the incentive associated with the amount of the eligible investment planned for the following 6 months of the project. This measure can be applied in interim advances throughout the implementation of the project, with similar limits.

R10.Make the merit criteria and targets defined for projects more flexible according to the evolution of the macroeconomic context and demand.

In a context of favorable economic development, where full employment is converging, the promoters revealed difficulties in recruiting workers, conditioning the fulfilment of the project's result indicators. The recruitment problem manifests itself right at the application stage, to the extent that, due to the valorization of the job creation indicator, there is a tendency for promoters to commit to objectives that appear to be difficult to achieve from the outset, and there are potentially other projects of high potential that do not apply or are excluded for this reason.

In this sense, and considering that in contexts such as the current one, job creation assumes less relevance compared to other indicators such as increased productivity and export intensity, it is important to translate these changes into the criteria for analyzing the merit of applications and in the definition of goals for projects.

It is therefore important to make the rules of analysis more flexible so that, in the context of reprogramming, it is possible for MAs to:

- carry out a diagnosis of the context of implementation of the support and assess the demand for the support;
- depending on the analysis, adjust the criteria for the analysis of applications in order to capture greater qualified demand and reduce deviations in the physical execution of projects and programming indicators.

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