Project Merit Referential

CALL Number 04/SI/2019

Incentive System for RESEARCH And TECHNOLOGICAL DEVELOPMENT (SI I&DT)

**PROJECTS IN CO-PROMOTION**

**INTERNATIONAL PARTNERSHIPS**

**Programs**

**CMU-Portugal**

**MIT-Portugal**

**UTA-Portugal**



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Project Merit Referential

The Project Merit (PM) is determined by using the criteria:

* A. Project Quality
* B. Impact of the project on the competitiveness of the industrial participant(s)
* C. Project Contribution to the economy
* D. Project Contribution for Regional Convergence

**MP = 0,35 A + 0,2 B + 0,15 C + 0,3 D**

Each criterion is scored on a scale from 1 to 5, and the result of the Project Merit is rounded to the one hundredth. In order to be eligible, the project must obtain the following minimum scores:

* Criterion A – 3 points;
* Criterion B – 2 points;
* Criterion C – 2 points;
* Criterion D – 2 points;

A. Project Quality

It assesses whether the presented project is well structured and foresees the necessary resources (physical, financial and human) for the objectives it targets to achieve. It also measures the degree of innovation of the proposed solutions within the framework of the company's strategies and the National strategy for "Atlantic Interactions”.

The following sub criteria apply:

* A1. Coherence and rationality of the project
* A2. Degree of innovation
* A3. Qualifications and adequacy of the teams/consortium

**A = 0,4 A1 + 0,3 A2 + 0.3 A3**

**A1 = 0,5 A 1.1 +0,5 A 1.2**

**A2 = 0,5 A 2.1 +0,5 A 2.2**

**A3 = 0,5 A 3.1 +0,5 A 3.2**

**A1. Coherence and rationality of the project**

This sub criterion is subdivided into:

**1.1 Quality of the scientific-technological methodology and coherence of the work plan to achieve the proposed objectives**

This sub criterion evaluates the coherence of the work plan and the methodology that will be followed to achieve the objectives, namely the adequacy of tasks (description, duration and participants), milestones and deliverables (relevance and timing of delivery).

|  |  |  |
| --- | --- | --- |
|  |  | **Work Plan** |
|  |  | Weak/No information | With some shortcomings | Sufficiently elaborated | Well prepared | Very well prepared |
| Quality of the scientific-technological methodology | Weak description | 1 | 1 | 1 | 1 | 2 |
| Insufficient description | 1 | 1 | 2 | 2 | 3 |
| Sufficient description | 1 | 2 | 3 | 3 | 4 |
| Good description | 1 | 2 | 3 | 4 | 4 |
| Excellent description | 1 | 3 | 4 | 4 | 5 |

The contribution of the project to the national strategy "Atlantic Interactions", will also be evaluated according to the following grid:

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Nonexistent** | **Weak** | **Good** |
| Degree of contribution to the Atlantic Interactions | **-1** | **0** | **+1** |

The value of criterion A1 is the sum of the values of the two sub-criteria above, but it may not be less than 1 or greater than 5.

**A 1.2 Coherence of the investment plan/adequacy of the resources involved to achieve the proposed objectives**

This Sub-criterion evaluates the relevance of the resources involved to achieve the proposed objectives:

|  |
| --- |
| **Investment Plan** |
| Lack of information to assess the sub criterion/Insufficient Resources | Disproportionate resources with major corrections needed | Reasonable budgeting, with a need for some corrections and a better cost structure balancing between the participants | Budget with the need for small adjustments and/or better balancing the cost structure between the participants | Balanced and duly sustained Budget |
| **1** | **2** | **3** | **4** | **5** |

**A2. Degree of innovation**

This Criterion evaluates the State of the Art of the scientific and/or technological development(s) and the Innovation Typology (incremental or radical), with the aim of obtaining new, or significantly improved, products, processes and services.

This sub criterion is subdivided into:

**A. 2.1 Characterization of the State of the Art**

It evaluates the way the beneficiary describes the State of the Art of the scientific and/or technological development(s) proposed in the project.

|  |
| --- |
| **Characterization of the Scientific/technological State of Art** |
| 1 | The State of the Art is insufficiently described. There is no evidence of knowledge of the relevant technologies available in the market or there is no information to assess the subcriterion  |
| 2 | The State of the Art is superficially described. It does not demonstrate nor justifies the current limitations that justify the relevance and pertinence of the proposed developments |
| 3 | The State of the Art is detailed enough, showing a good knowledge of the relevant technologies and new trends, and the proposed scientific and technological advances are satisfactorily justified. |
| 4 | The State of the Art is well detailed and the proposed scientific and technological advances to be reached are shown to be significant, as well as duly framed and justified. |
| 5 | The State of the Art is described in great detail. The proposed scientific and technological advances are clearly significant relative to the existing technologies. The promoter demonstrates a significant knowledge of current and potential competitors in the target technologies.  |

**A. 2.2 Design Novelty Degree**

Innovation degree of the project, as far as obtaining new, or significantly improved, products, processes and services, according to the following referential:

|  |  |  |
| --- | --- | --- |
|   |   | **Solution Innovation Degree** |
|  |  | **Nonexistent** | **Incremental** | **Radical** |
| **Scientific and technological developments** | Combination of current scientific and technological knowledge, with no evidence of innovative integration of this knowledge and technologies | 1 | 1 | 1 |
| New combination of current scientific and technological knowledge incorporating significant technical and technological developments | 1 | 2 | 3 |
| Use of recent scientific knowledge or technologies (development of new technologies) | 1 | 3 | 4 |
| Creation of new scientific knowledge | 1 | 4 | 5 |

* **Radical Innovation:** Exploration of new technologies; Focus on products or processes with levels of performance that define New *Standards* in the industry; Ability to transform or create new markets and industries
* **Incremental Innovation:** Exploitation of existing technologies; Focus on improving the performance of existing products or processes; Improving competitiveness within the current market and industry

**A3 Qualifications and adequacy of teams/Consortium**

This sub criterion evaluates the composition of consortium technical teams, evaluating their expertise in the relevant advanced scientific and technical knowledge.

This sub criterion is subdivided into:

**A 3.1 Qualifications and adequacy of the teams**

The participating R&D teams are evaluated to assess if they possess the needed nuclear competences in the relevant scientific and technical areas, as well as the overall adequacy of their curricula. The participation of highly skilled human resources is a valuation factor for the project.

|  |  |
| --- | --- |
|      | **Curriculum and/or proven experience in R&D of the business teams** |
| Weak | Average | Strong |
| **Curriculum and/or proven experience in R&D of non-business teams** | Weak | 1 | 1 |
| Average | 3 | 4 |
| Strong | 4 | 5 |

**A 3.2 Qualifications and adequacy of the consortium**

This sub criterion evaluates the quality of the consortium as a whole, and their ability to successfully carry out the proposed activities.

|  |  |  |
| --- | --- | --- |
|   |   | **Adequacy of the constitution of the Consortium to the project objectives** |
|   |   | Null | Weak | Moderate | Strong |
| **Need to subcontract necessary activities****for the project development** | Yes  | Nuclear Activities | 1 | 2 | 2 | 2 |
| Non-Nuclear Activities | 1 | 2 | 3 | 4 |
| No | 1 | 2 | 4 | 5 |

If the sub criterion A 1.1 score is 1, the score of criterion A becomes 1.

If the scores of sub criteria A 1.1 and 1.2 are less than 3, the score of criterion A becomes 1.

If the sub criterion A1.2 score is less than 3, the score of criterion A1 becomes 1.

If the score of sub criterion A 2.1 is less than 3 or the score of sub criterion A 2.2 is 1, the scoring of sub criterion A2 becomes 1.

If the score of sub criterion A 2.1 is less than 3, the score of sub criterion A2 becomes 1.

If the score of sub criterion A 2.2 is 1, the score of criterion A becomes 1.

If the score of sub criterion A 3.2 is 1, the score of criterion A becomes 1.

|  |  |  |
| --- | --- | --- |
|  | **Equal to 1** | **Less than 3** |
| **If the** **sub criterion (s) score** | **A 1.1** | **A = 1** |  |
| **A 1.1 and A 1.2** |  | **A = 1** |
| **A 1.2** |  | **A1 = 1** |
| **A 2.1** |  | **A2 = 1** |
| **A 2.2****A 3.2** | **A = 1****A = 1** |  |

B. Impact of the project on the competitiveness of the industrial participants

Criterion B assesses the potential effects of the R&D project upon the business activities of the industrial participants, in particular if the products, services and processes to be developed have the potential to contribute to their internationalization or allow the strengthening of their internal R&D and Innovation capacity. This criterion is subdivided into the following sub criteria:

* B1. Impact of the project on business strategy
* B2. Propensity for international markets
* B3. Strengthening R&D and innovation capacity

**B = 0,4 B1 + 0,4 B2 + 0,2 B3**

**B1 Impact of the project on business strategy**

This sub criterion evaluates the importance of the project in the strategy of the leader company, or in the strategy of the company that will commercially exploit the results of the project. Projects with greater impact potential in terms of business diversification (entry into new markets or customer segments) shall be better rated.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  | **Company Dimension** |
|  |  |  | Non-SME | SME |
| **Impact on Business** | No Impact/No information to assess this criterion | 1 | 1 |
| Current Business Extension | Improve process efficiency | 2 | 3 |
| Improve current offer or expand to new customers or new markets without, however, accurately identifying and quantifying this potential | 3 | 4 |
| Business Expansion | Expand to new customer segments or new markets and this potential is identified and quantified in a convincing manner | 5 | 5 |

**B2 Propensity for international markets**

This sub criterion evaluates the contribution of the project to the international competitiveness of the industrial participant(s), valuing either the creation of products, processes or services that could be exported, or the ability to address international markets.

|  |  |  |
| --- | --- | --- |
|  |  | Exportable Nature  |
|  |  | No | Yes |
|  |  | Not relevant for the strategic priorities of the company(s)  | Relevant for the strategic priorities of the company(s) |
| Promoters have established export channels/Existence of international partners and/or involvement of other agents facilitating access or presence in external markets | Yes | 1 | 2 | 4/5 \* |
| No | 1 | 2 | 3 |

\* 5 points are only possible when new international markets are involved.

**B3 Strengthening R&D and innovation capacity**

This criterion evaluates the impact of the project on the company’s mobilization and reinforcement of R&DT competencies, in particular as a consequence of hiring highly skilled human resources for carrying out R&D & I activities.

This criterion is calculated using the two following indicators:

* Effect of new hires with a BSc or higher;
* Participation of PhDs in the industrial project teams.

|  |  |  |
| --- | --- | --- |
| **Effect on the reinforcement of organized ID & IT units** |  | **Impact of new hires (Index I) \*** |
|  | **I ≤ 5** | **5 < I ≤ 20** | **I > 20** |
| **Participation of PhDs in the industrial project teams (Q Index) \*** | **Q ≤ 5** | 1 | 2 | 3 |
| **5 < Q ≤ 20** | 2 | 3 | 4 |
| **Q > 20** | 3 | 4 | 5 |

(\*) Data corresponding only to companies

$$Index I=\frac{Number of person-months with BSc or higher hired for R\&D\&I actvities}{Number of -months working on the project}x100$$

$$Index Q=\frac{Number of persons-with aPhD working on the projetct }{Number of person-months working on the projetct}x100$$

Note: the number of person-months corresponds to the workload expressed in FTE (full time equivalent)

If the score of sub criterion B1 is 1 and/or the score of sub criterion B2 is less than 3, the score of criterion B becomes 1.

C. Contribution of the project to the Economy

Criterion C measures the contribution of the project to economy competitiveness, notably favoring changes of the productive profile towards more technology intensive activities, as well as knowledge and value chain integration. Contributions of the results to other thematic areas of Portugal 2020 are also valued, as well as the effects on the diffusion and dissemination of knowledge. This criterion is subdivided into the following sub criteria:

* C1. Contribution of the project to the OP (Operational Program) results and to other thematic areas of the Portugal 2020 Program
* C2. Structural impact of the project
* C3. Effect of demonstration, dissemination and valuing of results
* C4. Positive externalities

**C = 0,2 C1 + 0,25 C2 + 0,3 C3 + 0,25 C4**

**C1 Contribution of the project to the OP (Operational Program) results and to other thematic areas of Portugal 2020**

This sub criterion evaluates whether the project contributes to the result indicator "Expenditure of R&D companies in the Gross Value Added (GVA)", referred to in article 74 (1) (a) of the applicable regulation (RECI). The leading participants with the highest R&D intensity and those that contribute the most to the increase of the national R&D Expense receive more points.

This sub criterion is automatically calculated according to the following matrices:

**Companies with R&D expenses in Pre-project**

|  |  |  |
| --- | --- | --- |
|  |  | **P-Index**  |
|  | Micro or Small Enterprise | P < 0.8% | 0.8% ≤ P < 1% | P ≥ 1% |
|  | Medium Enterprise or Non-SME | P < 18% | 18% ≤ P < 2% | P ≥ 2% |
| **Increase of I&D between pre-and post-project** | No | 2 | 3 | 4 |
| Yes | 3 | 4 | 5 |

**Companies without R&D expenses in Pre-project**

|  |  |
| --- | --- |
|  | **P-Index** |
| **Micro or Small Enterprise** | P < 0.8% | 0.8% ≤ P < 1% | P ≥ 1% |
| **Medium Enterprise or Non-SME** | P < 18% | 18% ≤ P < 2% | P ≥ 2% |
| Score | 2 | 3 | 5 |

Where:

$$Index P=\frac{Post-Project R\&D Investment}{Post-Project Gross Value Added }x100$$

If the project presents positive externalities in other thematic areas approved within other European Funds (social inclusion and employment, human capital, sustainability and efficient resource use), the score will be increased by 0.5 points. The score for criterion C1 cannot be higher than 5.

**C2 Structural impact of the project**

This sub criterion evaluates the extent to which the project focuses in tradable goods/services with exporting potential. It also evaluates if the project deals with quality and differentiating sectors, and if it makes a contribution to the increase of the value added of the company, improving the sophistication of products and production processes while responding to current societal challenges set in Europe's 2020 objectives.

|  |  |  |
| --- | --- | --- |
|  |  | **Contribution to societal challenges**  |
|  |  | **Project does not contribute to the societal challenges**  | **Project contributes to the societal challenges**  |
|  Application in tradable goodsand with potential for exports  | The project is not focused on tradable goods/services with exporting potential | 1 | 1 |
| The project has potential for application in tradable and exportable goods/services, however this potential is not specified or quantified in a clear way | 2 | 3 |
| The project has potential for application in tradable and exportable goods/services and this potential is specified or quantified in a clear way | 4 | 5 |

**C3 Effect of demonstration, dissemination and valuing of results**

This sub criterion evaluates the management of the acquired knowledge and its potential in terms of industrial property protection, as well as the results dissemination.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  | **Quality of the dissemination plan and valuing of results** |
|  |  |  |  | The plan contemplates only isolated actions of dissemination  | The Project includes a coherent dissemination plan, with a strong potential for dissemination and results valuing |
| Plans for a wide dissemination of the results  | No | 1 |
| Yes | Provides technological disclosure (fairs/workshops) | 2 | 3 |
| Provides technical-scientific disclosure (conferences, congresses, scientific journals or technical and Industrial Property protection) | 2/3\* | 3/4\* |
| Provides technological and technical-scientific dissemination | 3/4\* | 4/5\* |

\* An increase of 1 point applies when the proposal includes technical-scientific publication(s) in co-authorship between the company and non-business entities of the Research and Innovation System.

**C4 Positive Externalities**

This sub criterion evaluates the expected capacity of the project to generate positive externalities for the economy. It values the production of intermediate products and services especially directed to companies.

|  |  |  |
| --- | --- | --- |
| Technology Type  | Product Type | Score |
| **Product (Good or Service)** | Intermediate Product (Ex: Industrial Equipment or "Industrial" Software) | 5 |
|
| Consumer Goods | 3 |
| **Process\*** |  | 1 |

* Process – it means that no company is clearly identified to take the project results to market.

D. Project Contribution to Regional Convergence

This criterion evaluates the impact of the project on regional competitiveness, through the degree of insertion in the regional strategy of smart specialization. It is evaluated by the applicable Regional Authority.

Note: For projects that include investments in more than one region, the score is obtained as the weighted average of the eligible investments in each region.