Detailed description of the project

This document must be completed and attached to the application form for State aid on MyGuichet.lu under attachments.

**Research and development project**

**Name of the company:**

**Project title:**

# Project Type

**Experimental development**

An experimental development project is the acquisition, combination, shaping and use of existing scientific, technological, business and other relevant knowledge and skills with the aim of developing new or improved products, processes or services. This may also include, for example, activities aiming at the conceptual definition, planning and documentation of new products, processes or services.

**Industrial Research**

An industrial research project consists of planned research or critical investigation aimed at the acquisition of new knowledge and skills for developing new products, processes or services or for bringing about a significant improvement in existing products, processes or services. It comprises the creation of components parts of complex systems, and may include the construction of prototypes in a laboratory environment or in an environment with simulated interfaces to existing systems as well as of pilot lines, when necessary for the industrial research and notably for generic technology validation.

**Fundamental research**

Fundamental research consists of experimental or theoretical work undertaken primarily to acquire new knowledge of the underlying foundations of phenomena and observable facts, without any direct commercial application or use in view.

# Description of the company *(max. 0.5 – 1 page)*

*Briefly describe the general as well as the R&D-specific activities of the company (including a revenue breakdown).*

*In case of a (multinational) group: include the role and position of the applying entity in the group.*

*In case of a start-up: include information on the founders.*

# Executive summary of the project idea *(max. 0.5 page)*

# Project rationale

## Context *(max. 0.5 – 1 page)*

*Describe the current situation and the open issue you are planning to address. Explain how the planned developments will solve the latter. Detail the concrete expected results of the project and why they can be considered innovative/novel.*

*In case of product-improvement: describe the current product, its shortcomings and the planned improvements.*

## State-of-the-art

### **Company-internal (if applicable) (max. 0.5 page)**

*List past research results directly linked to the project.*

*In case of the advancement of a prototype: describe its current status/TRL.*

### **Scientific (either table or max. 1 page)**

*Add a literature review of the latest scientific publications relevant for the project. Explain how the presented developments will either be used for or outperformed by the project.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Reference** | **Description/Summary** | **Link with the project** | **To be used in the project or to be outperformed by the solution** | **Justification** |
|  |  |  |  |  |

### **Commercial (either table or max. 0.5 - 1 page)**

*Present the current market situation: list and describe solutions from existing and forecasted competitors. Justify the outperformance of the planned solution.*

|  |  |  |  |
| --- | --- | --- | --- |
| **Competitor (company and product)** | **Weblink** | **Description/Summary** | **Justification of the outperformance of the suggested solution** |
|  |  |  |  |

# Project impact

## IPR-Strategy *(max. 0.5 page)*

*If applicable, present the results of an FTO-analysis.*

*List the to be generated IP and describe the corresponding IPR-strategy.*

*If applicable, list project-related IP already generated and protected.*

## Commercial exploitation *(max. 2 pages)*

*Justify the expected market opportunity/interest and describe the planned business model (incl. the geographical aspect). Describe the expected financial impact for the Luxembourgish company/entity. Explain with which market entry strategy the identified barriers will be overcome. Outline the time to market and the post-project developments required before commercialization. Describe the expected ROI.*

## Impact for the company *(max. 0.5 page)*

*Outline the alignment of the project with the company’s long-term vision. Describe the expected impacts (aside from commercial exploitation of the project results) on the applicant undertaking (i.a. job creation, R&D-capacity, recognition in the ecosystem). List potential follow-up projects.*

## Broader impact *(max. 0.5 - 1 page)*

*Justify expected societal and environmental impacts of the project.*

*Is the project aligned with national and international strategies and priorities. Does the project tackle a current challenge?*

## KPIs

*Complete the following table where applicable for your project. In case of funding, the estimations will be compared with the actual results to be informed in the final technical report of the project.*

|  |  |
| --- | --- |
| **KPI** | **Expected results** |
| New targeted market | [markets] |
| New products, processes, services | [products, processes, services] |
| Patents | [number] |
| Increase in turnover | [€] |
| Recruited FTE | [number of FTE] |

# Technical implementation

## Technological choices *(max. 1 – 2 pages)*

*Describe the technologies that are going to be used. Justify the made choices why are the chosen technologies the most appropriate ones for the project.*

*In case of AI: justify the need for AI in the project as well as the taken measures to ensure robustness and trustworthiness of the algorithms and systems.*

## Technological objectives *(max. 0.5 page)*

*Clearly state the technological project objectives.*

## Work plan

### **R&D activities (max. 2 pages)**

*Describe the specific R&D activities and methodology required to reach the set objectives as well as their novel and innovative character. Elaborate on technological challenges and technical difficulties that need to be overcome to realize the project.*

### **Work packages**

|  |  |
| --- | --- |
| **WP title** |  |
| Duration |  |
| Objective |  |
| Activities |  |
| Deliverables |  |
| Research type with justification | *Industrial research or experimental development* |

### **Milestones (max. 0.5 page)**

|  |  |
| --- | --- |
| **Milestone title** |  |
| Deadline | *With respect to project start or other project dates* |
| Description | *Incl. expected results, minimal required result, importance for the project, impact of non-achievement, links with different WPs/activities/objectives* |
| Validation method | *How is the milestone validated?* |

# Project implementation

## Risk analysis

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Risk** | **Description** | **Category** | **Probability** | **Severity** | **Mitigation** |
|  |  | *i.a.: Technological,*  *Operational, Commercial,*  *Financial* | *Low,*  *Medium,*  *High* | *Minimal,*  *Medium,*  *Maximal* |  |
|  |  |  |  |  |  |

## Legal and regulatory compliance (if applicable) *(max. 0.5 page)*

*List the current and future legislations and regulations impacting the development and/or exploitation of the project results. Describe the measures taken to ensure legal and regulatory compliance.*

## Resources

### **Internal HR**

*Describe the internal HR (already hired and to be hired (with an estimated hiring date)) working on the project. Please ensure coherence between this list and the collaborators listed in the excel ‘Financial summary’.*

|  |  |  |  |
| --- | --- | --- | --- |
| **(Company internal) Function** | **Relevant expertise/experience** | **Role/responsibility in the project/WP** | **Company internal or hiring plan** |
|  |  |  |  |

### **Equipment (if applicable) (max. 0.5 page)**

*Describe the already available and to be purchased equipment/material (depreciable and non-depreciable) required for the project. Please ensure coherence between the equipment described here and the depreciable investment and non-depreciable material costs listed in the excel ‘Financial summary’.*

### **Subcontracting (if applicable) (max. 0.5 page)**

*Justify the need for the implication of subcontractors. Explain the selection of the subcontractors. Please ensure coherence between the subcontractors described here and the subcontractors listed under ‘Subcontracting costs’ in the excel ‘Financial summary’.*

### **Collaborations (if applicable) (max. 0.5 – 1 page)**

*Describe the roles/contributions of the collaborating entities in the project (incl. the budget distribution) and the expected benefits from the collaboration. Outline the complementarity and commitment of the consortium-members. Present the organization and management of the collaboration. Please attach an unsigned draft collaboration agreement.*

### **Counterfactual scenario (in case of a requested aid > 500 000 € by a large undertaking) (max. 0.5 page)**

*Describe the impact of the absence of the aid on the project plan (i.e.: duration, scope/extent). Quantify the budgetary impact.*

|  |  |  |
| --- | --- | --- |
| **Project budget with state aid** | **Project budget without state aid** | **Difference in %** |
|  |  |  |

### **Financial (max. 0.5 – 1 page)**

*Describe how the applicant undertaking plans to pre- and co-finance the project (i.e.: available own funds, capital injection, future free cash flow from activity, loan from 3rd party (i.e.: shareholders, sister company, bank (incl. details on duration and interest rate))).*

|  |  |
| --- | --- |
| **Financing plan** | **Amount** |
| Maximum State aid requested | [€] |
| Required funds from the company | [€] |
|  |  |
| Financing method 1 | [€] |
| Financing method 2 | [€] |
| **Total financing from the company** | **[Sum of financing methods]** |

*Details Financing method 1:*

*Details Financing method …:*

*In case of start-ups: describe the attached cash flow forecast and the underlying assumptions.*