#### **SWE 523**

## PROJECT PROPOSAL FORM

Translated and modified from TÜBİTAK TEYDEB AGY 101 TEMPLATE FOR EDUCATIONAL PURPOSE ONLY

**PROJECT NAME**: AIRP: AI-based domain-specific business solutions for SMEs

**PROJECT ACRONYM:** AIRP

**COMPANY NAME:** AIERP Custom Solutions

**DATE**: 01.01.2024

SWE 523 - Project1 Proposal Form (translated & modified from GRANTING ORGANIZATION/SWE523 TEYDEB Template)

Initial Technological Readiness Level- (start): 1-9

Target Technological Readiness Level (end): 1-9

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# A. FOUNDATION AND PROJECT INFORMATION

## A.0. Comparison with Related Project(\*)

(\*)If the new project proposal presented is the re-submission of a project that was previously submitted to GRANTING\_ORGANIZATION/SWE523 and was rejected / withdrawn or abolished, or if it is the continuation of a project that was previously carried out with the support of GRANTING\_ORGANIZATION/SWE523, the information requested in this section must be prepared and submitted.

Description: Your new project proposal presented in this section;

- Re-submission of a project that was previously submitted to GRANTING\_ORGANIZATION/SWE523/SWE523 and was rejected / withdrawn or abolished; By comparing it with the project in question, the differences of the new project compared to the previous one in terms of features of the targeted outputs, innovative aspects, methods to be applied, project plan, budget and collaborations,
- If it is a continuation of a project previously carried out with the support of GRANTING\_ORGANIZATION/SWE523/SWE523; By comparing it with the project in question, the differences and advantages of the new project compared to the previous one in terms of the features of the targeted outputs, innovative aspects and the methods to be applied,

Prepare a document containing relevant information and upload it in pdf format (The file size you will add can be maximum 5 MB).

Comparison with Related Project

#### A.1 - PROJECT PRELIMINARY INFORMATION

#### A.1.1.

| A.1.1.   |   |  |  |  |
|--|---|--|--|--|
| Project number   | 1   |  |  |  |
| Project name   | AIRP: AI-based domain-specific business solutions f   | For SMEs                                     |  |  |
| Project Start Date   | 10.03.2024 Project End Date   10.03.2025  |  |  |  |
| Support Start Date   | Support End Date  |  |  |  |
| Project Duration   | 52 Weeks Supp   | port Period                                  |  |  |
| Technology Group   |   |  |  |  |
| Legal/special  | O Project studies require legal/special permission (Eth   | nics Committee, etc.).                       |  |  |
| permission:  | O Project studies do not require legal/special permissi   | ion (Ethics Committee, etc.).                |  |  |
| Project information  | I hereby approve the information provided in the Proj   | ect Name and Project Purpose section to be   |  |  |
| sharing  | published in promotional activities, analysis and repor   | rting studies, such as success stories, etc. |  |  |
|  | O After the project support process is completed, I ap  | prove the name and purpose of the project to |  |  |
|  | be published on the GRANTING ORGANIZATION   |  |  |  |
|  | PRODIS: If the first option is selected in this section,  | · · · · · · · · · · · · · · · · · · ·        |  |  |
| Sector in which R&D  | •   | •  |  |  |
| Studies will be carried  | With its domain specific nature, the initial project AII  | RP will carry out studies in the following   |  |  |
| out  | sectors: Food Production  |  |  |  |
| Out  |   |  |  |  |
| Sector Where Project   | Food Production Textile Manufacturing Dairy and D   | Pairy Product Manufacturing Furniture        |  |  |
| Outputs Will Be Used   | Food Production, Textile Manufacturing, Dairy and Dairy Product Manufacturing, Furniture Manufacturing, Electronics Manufacturing, Construction Materials Manufacturing (Hardware), |  |  |  |
|  |   |  |  |  |
|  | Footwear Manufacturing, Packaging and Food Processing, Giftware Manufacturing, Automotive   |  |  |  |
|  | Parts Manufacturing, Household Appliances Manufac   |  |  |  |
|  | Sports Equipment Manufacturing, Publishing (Book),  | _  |  |  |
|  | Product Manufacturing, Metal Processing and Manufacturing   | acturing, Glass and Ceramic Product          |  |  |
|  | Manufacturing, Technological Device Manufacturing   |  |  |  |
| •••  |   |  |  |  |
| <u>                                     </u>                   |   |  |  |  |
| Scientific and Technolo  | gical Fields Included in the Project Proposal   |  |  |  |
|  |   |  |  |  |
| Economic Activity Class of Project Output (NACE Code) 62.01.01 |   |  |  |  |
| GTIP Code of Project C   | 1   | 8523   |  |  |
| Project Beginning Tech   |   | 3  |  |  |
| Technology Readiness 1   | Level Targeted to be Reached at the End of the Project  | 8  |  |  |
|  |   |  |  |  |

## A.1.2.

| Project manager  |                           |                 |             |
|------------------|---------------------------|-----------------|-------------|
| Name and surname | Mehmet Eyupoglu           | TC              | 17342183964 |
| Title/Duty       | Software Developer        |                 |             |
| Correspondence   |                           |                 |             |
| Telephone        | 5531731991                | Fax             |             |
| Email            | mehmeteyupoglu2@gmail.com | Secondary Email |             |

## A.2 - ORGANIZATION INFORMATION

# <u>A.2.1 – Applicant Organization</u>

<u>Information</u>

|   | _ | - | - |
|---|---|---|---|
| Δ | 7 | 1 | 1 |
| - |   |   |   |

| A.2.1.1.   |  |
|--|--|
| Establishment Official   |  |
| Organization Type/Scale/Balance  |  |
| Tax Administration   |  |
| Tax Registration Number  |  |
| Establishment Registration Date  |  |
| trade register number  |  |
| Location of the Project:   |  |
| (Technocity/R&D  |  |
| Center/OIZ/Other)  |  |
| Tax Registration Number Establishment Registration Date trade register number Location of the Project: (Technocity/R&D |  |

A.2.1.2. Project Person Information

| A.Z.1.Z. Project Person informat | 1011                     |  |
|----------------------------------|--------------------------|--|
| Establishment Official           |                          |  |
| Name and surname                 | TC Identification number |  |
| Title/Duty                       |                          |  |
| Telephone                        | Fax                      |  |
| Email                            |                          |  |

## A.2.1.3.

| Organization Person | nel Distribution |        |         |                   |       |       |
|---------------------|------------------|--------|---------|-------------------|-------|-------|
| Unit of             | Doctorate        | Degree | Licence | Technical/Vocatio | Othe  | Total |
| Production          |                  |        |         |                   |       |       |
| R&D                 |                  |        |         |                   |       |       |
| Other               |                  |        |         |                   |       |       |
|                     |                  |        |         |                   | Total |       |

# A.2.1.4.

|                         | Year/Period                              |  |
|-------------------------|--|--|
| Financial Information   | Annual Number of Employees (YIB)         |  |
| of the Organization for | Net Sales Revenue                        |  |
| the Previous Year or    | R&D Expenses                             |  |
| Last Interim            | Total Foreign Sales                      |  |
| Accounting Period       | Paid-in capital                          |  |
| (TL)                    | Total Financial Balance Sheet (Total of  |  |
|                         | Total Grant Support Amount Provided from |  |
|                         | the Public in the Last Three Years (TL)  |  |
|                         | Equity                                   |  |
|                         | Last Three Years Net Sales Average       |  |

| Partner Organization Information    |  |
|-------------------------------------|--|
| Organization Name:                  |  |
| Tax Office and Registration Number: |  |
| Address:                            |  |
| Tel/Fax/E-mail/Web Address:         |  |
| Establishment Official:             |  |
| TC Identification number:           |  |
| Title/Duty:                         |  |
| Tel/Fax/E-mail:                     |  |
| Organization Type/Scale:            |  |

### A.2.1.5 Other R&D Projects of the Company:

| Other R&D I | Other R&D Projects of the Organization Completed and Ongoing in the Last Five Years (*) |                   |                 |  |             |
|-------------|---|-------------------|-----------------|--|-------------|
|             | Institution from which support is received  | Support<br>Amount | Start-End Dates | Economic Values  | Explanation |
|             |   |                   |                 | Export Amount: Number of Patents: License Revenues: TEYDEB Support?: Total Sales Amount: |             |
|             |   |                   |                 |  |             |

<sup>(\*)</sup> In PRODIS, the organization's previous GRANTING\_ORGANIZATION/SWE523 Project information comes automatically from the database. Editing can be done regarding the project information in question, and project information carried out with the support of different institutions can be added. (It will be listed automatically.)

# A.2.1.6. Questions for your company's projects previously supported by GRANTING\_ORGANIZATION/SWE523 (if any):

1. What is the market share of the supported project outputs and the turnover achieved? (Indirect income for projects other than product development

Detailed explanation of the benefits such as increased productivity, cost reduction, and quality increase that enable it to be achieved.

- 2.Does your company provide after-sales support for the outputs of supported projects? Is the product being sold continued to be developed?
- 3. Are the supported project outputs a component of a main exported product? (For example, the rim of an exported car)
- 4. Have applications been made for international R&D support programs (EU Framework Programs, etc.)? Have you taken part in an international project? If yes, please briefly state what your role is in the project.

#### A.3. PROJECT DESCRIPTION - BRIEF DESCRIPTION

Explanation: In this section, it is expected to provide information that can be shared with people other than those evaluating the project - without commercial sensitivity. The written and visual material you will prepare in this section will be submitted to the Executive Board where the decision for your project proposal will be made. It will be presented unchanged at the meeting. It is recommended that this section be prepared after all other parts of the project proposal form are filled in. In this section, the focus should be directly on the purpose of the project, concrete goals, R&D content, innovative aspects and technology level. Texts should be written that clearly summarize the project team structure, the project-specific methods to be applied, the unique contributions of your organization, and the technical / economic benefits of the project output to be obtained. Considering that the prepared summary will be presented to people who have expertise in the basic technological fields to which the project is related, general (book) concepts related to the subject should not be repeated,

and the focus should be on the technical details to be worked on. General subject and history narratives that are not specific to the project and its content and will not contribute to the evaluation, and explanations such as general project management methodologies, work package ranking, etc. that may be valid for every project should be avoided.

#### 1 - Brief Introduction of the Establishment and Reason for Initiating the Project

Give brief information about your organization's main field of activity, its main products and services, your core competencies that give your organization a competitive advantage (areas you are best at), and your organization's future vision, and explain how the proposed project is related to all of these (the strategic importance of the project for your organization). (Up to 1,500 characters)

The AIRP project addresses inefficiencies in SMEs, aiming to prevent management crises and bankruptcy threats by providing an AI-based assistant. Our core values of innovation, efficiency, and foresight drive this initiative, aligning with our vision of leveraging technology to foster sustainable growth within the SME sector. This strategic endeavor reinforces our commitment to innovation and our position as leaders in AI-driven solutions, while also creating tangible value for businesses navigating an ever-evolving landscape.

#### 2 – Aim of the Project

AIRP aims to offer an affordable ERP solution tailored specifically for SMEs, integrating built-in features that strengthen their operations. Leveraging advanced AI through smart suggestions from Large Language Models (LLMs), it provides intuitive recommendations to enhance decision-making processes. This cloud-based ERP system ensures accessibility on mobile devices, enabling SMEs to manage their operations seamlessly from anywhere. Additionally, our domain-specific setup streamlines processes, making day-to-day tasks easier for SMEs, ultimately empowering them to thrive in competitive markets.

Keywords:

ERP, SME, AI, LLM, Business, B2B, Generative AI, Mobile

#### 3 – Innovative Aspects

This project boasts several innovative aspects that set it apart in the realm of SME-focused ERP solutions. Firstly, our domain-specific setup ensures tailored functionality, addressing the unique requirements of various industries and niches, thereby streamlining operations for SMEs. Secondly, we leverage advanced AI capabilities, such as smart suggestions from Large Language Models (LLMs) trained on company-specific data, enabling personalized and contextually relevant insights to drive decision-making. Lastly, our emphasis on mobile access ensures flexibility and convenience, empowering users to manage their businesses anytime, anywhere, and on any device.

## 4 - Techniques and Technologies to be Used/Developed and Original Contributions

Prototype level:

• Backend: Express.js, MySQL

• Frontend: React

• Generative AI: Llama 2

Enterprise level: TBD

## 5 – Economic Benefits & Business Value to the Nation

Considering the large majority of economies in most of the countries rely on SMEs, the immediate effect will be through nationwide sales. Within a few years, AIRP is expected to be used by the 10% of all SMEs in Turkiye, that makes about 20000 SMEs. This is expected to produce around 150M TL (5M USD) out of the money wasted due to inefficient resource planning and lack of strong data-driven management.

#### Project Visual

At least one visual material (photo, technical drawing, layout drawing or draft drawing, table, graph, circuit diagram, system architecture, conceptual model diagram, flow diagram, etc.) that you think will best reflect your project to the evaluators should be uploaded to this section. (You can upload documents in image (JPG, JPEG, GIF, PNG), PDF or Microsoft Word Document format. 1 attachment can be a maximum of 5 MB, and the total size of your attachments can be a maximum of 10 MB.)

™Visual 1



# Presentation Material (YOU WILL PRESENT YOUR PROJECTS FOR SWE523 COURSE, 10 slides max.)

Project owner companies/project managers who wish can prepare one of the following presentation options and add it to the Project Proposal Form (Do not upload videos only for organization promotion in this section. Your video clip can be a maximum of 10 MB. The videos to be uploaded to the system must be in "flv" format. You can upload your videos in different formats. You can convert it to "flv" format with programs such as Format Factory etc. The presentation file size to be uploaded can be maximum 5 MB):

Project Presentation (must be in MSPowerPoint format, not exceed 10 slide pages) Project Promotion Video (must be in flv format, should not exceed 5 minutes)

THIS WILL BE SUBMITTED WITH YOUR PROPOSAL AS PPT FILE

#### B. INDUSTRIAL R&D CONTENT, TECHNOLOGY LEVEL AND INNOVATIVE ASPECTS OF THE PROJECT

#### B.1 -RELATIONSHIP OF THE PROJECT WITH THE CALL TOPIC AND OBJECTIVES

1 -Explain the relationship of the project to the subject of the call.

%100 in aggreement with the call for project.

#### 2 - Explain the general purpose of the project. Identify the problem that is intended to be solved by the project.

SMEs often struggle to manage their data effectively due to resource constraints and limited IT expertise. This is particularly challenging because:

- Lack of control: Disorganized data makes it difficult for SME owners to get a holistic view of their business, hindering their ability to make informed decisions.
- Inefficiency: Manual data entry and isolated processes can waste time and resources, especially for businesses with limited human resources.
- Financial vulnerability: Poor data management can lead to errors in accounting, inventory control, and other critical areas.
- Data entry burden: SMEs with limited staff often find data entry a cumbersome task, leading to delays and potential inaccuracies.

## 3- Describe the proposed solution to achieve the project objectives.

This project tackles the data management challenges faced by Small and Medium-sized Enterprises (SMEs) by developing a user-centric Enterprise Resource Planning (ERP) system. This system offers several key features designed to empower owners:

## - Centralized Data Hub:

 The system acts as a central repository for all business data, accessible through both desktop and mobile devices. This eliminates data silos and ensures all departments and employees have access to the most up-to-date information.

## - Domain-Specific Efficiency:

- The system incorporates domain-specific functionalities tailored to the unique needs of different industries within the SME landscape. This streamlines common tasks like inventory management, customer relationship management, or project tracking.
- Customizable forms further enhance data collection by allowing users to capture industry-specific data points relevant to their operations.

## - Leveraging LLMs:

- The project integrates Large Language Models (LLMs) trained on company-specific data. These LLMs can act as intelligent assistants by:
- Facilitating Data Collection: LLMs can automate data entry tasks by extracting information from documents, emails, or voice commands, reducing manual work and improving accuracy.
- Supporting Decision-Making: Trained on historical data and industry trends, LLMs can provide insights and generate reports to aid informed decision-making by SME owners.

## - Web Intelligence with LLMs:

 The system utilizes LLMs to scrape the web for domain-specific news and industry developments relevant to the company's operations. This allows owners to stay informed about market trends, competitor activity, and potential opportunities. Overall, this project proposes a comprehensive ERP system that combines centralized data access, domain-specific functionalities, and the power of LLMs. It aims to streamline data management, enhance decision-making capabilities, and provide SME owners with valuable real-time insights to navigate the dynamic business landscape.

#### 4 -Explain the goals planned to be achieved with the proposed solution.

This project aims to develop an ERP system that empowers SMEs by achieving the following goals:

## Enhanced Operational Efficiency:

 By streamlining data collection through built-in functionalities, customizable forms, and LLM automation, the system aims to reduce manual data entry tasks. This translates to a measurable increase in employee productivity, allowing them to focus on higher-value activities.

# o Reduced Resource Redundancy:

 The centralized data platform and domain-specific functionalities will eliminate the need for siloed data and redundant processes across departments. This will be measured by tracking the number of processes streamlined and the reduction in duplicate data entry instances.

## Improved Data Quality and Availability:

 By automating data entry and offering user-friendly data capture methods, the system aims to achieve a measurable increase in data accuracy. Additionally, the centralized platform ensures data availability for all authorized users, fostering better decisionmaking.

## **Data-Driven Decision Making:**

• The project leverages LLMs trained on company data and industry trends to generate reports and insights. The goal is to increase the utilization of these AI-powered insights by SME owners within a defined timeframe.

## Strengthened SME Competitiveness:

By achieving the aforementioned goals, the system aims to contribute to a measurable improvement in key performance indicators (KPIs) relevant to SMEs, such as increased sales, improved customer satisfaction, and reduced operational costs. Tracking these KPIs will demonstrate the overall impact of the ERP system on strengthening SME competitiveness

## 5 -Identify the ultimate beneficiaries of the proposed project and justify the reasons for selecting this target group.

This project prioritizes SMEs due to:

**Resource Constraints:** Limited financial resources often hinder investment in complex ERP systems or data management expertise. This project offers a user-centric, cost-effective solution.

**Data Management Challenges:** Inefficient data collection and silos impede control and informed decision-making. The proposed ERP system tackles these challenges through a centralized repository, streamlined collection tools, and functionalities tailored to SME needs.

**Enhancing Efficiency:** Automation features and data-driven insights aim to bolster overall business efficiency for SMEs.

While broadly applicable, manufacturers may see specific benefits due to their data-intensive operations. The system can be tailored to their industry-specific needs.

### 6 -Explain in detail the methods to be applied and the reasons for choosing these methods.

This project proposes a flexible approach to empower SMEs with data management capabilities:

## Ubiquitous Data Collection (Mobile & Desktop):

 Rationale: SMEs require flexible data entry options. Mobile access caters to field workers and remote operations, ensuring real-time data capture (e.g., field sales recording). Desktop access facilitates data entry for administrative staff and decisionmakers.

## Domain-Specific Data Organization and Functionalities:

O Rationale: One-size-fits-all solutions often fail to capture the unique needs of different industries. The system will offer pre-built functionalities and industry-specific forms that cater to data points relevant to each SME's operations (e.g., inventory management tools for manufacturers, customer relationship management features for service providers). This streamlines data collection and organization according to industry best practices.

## **o** Leveraging Open-Source LLMs for Company-Specific Insights:

O Rationale: State-of-the-art AI technologies offer significant potential for SMEs. By utilizing open-source LLMs trained on a company's specific data sets, the system can generate more relevant and actionable insights. This empowers decision-makers to make informed choices based on tailored data analysis and avoid generic recommendations that may not apply to their specific industry or business context.

| 7 -Examine the priority areas link in the can text and indicate whether your project has been developed for the Priority |
|--|
| R&D and Innovation Topics" in these areas. (It is recommended to take into account the explanations under the Priority   |
| Products and Technologies headings and the Technology Readiness Level (THS).)  |
| YES or NO  |
|  |
| Explanation:   |
| •  |
|  |
|  |
|  |

#### **B.2 TECHNOLOGY LEVEL OF THE PROJECT**

| Current State of the Technology ("State-of-the-Art")   |  |  |
|--|--|--|
| Explain the current national/international level regarding the project subject. (Up to 3,000 characters) |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
| (Up to 3,000 characters)   |  |  |
|  |  |  |
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|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

## Techniques and Technologies Covered by Project Activities and Original Contributions

List the techniques and technologies that will be developed or used in the project, especially during the design/development processes, in the table below. Please also indicate your organization's unique contributions to the technical/technological content of the project and the areas of expertise that will receive support from outside your organization:

| Name/descripti<br>on of<br>technique/tech<br>nology | To Be Used / To<br>Be Developed | Why is it<br>needed in the<br>project? | Which phase of<br>the project does<br>it concern (work<br>package) | Project<br>personnel who<br>will carry out the<br>work | Persons or organizations to receive consultancy/servic e from outside the organization |
|---|---------------------------------|--|--|--|--|
| " analysis"   |                                 |  |  |  |  |
| "Newproducti<br>on technique"                       |                                 |  |  |  |  |
| "tests"   |                                 |  |  |  |  |
|   |                                 |  |  |  |  |
|   |                                 |  |  |  |  |

## **Technical/Technological Uncertainty and Challenges**

Taking into account your organization's current knowledge and capabilities gained from past projects, describe the technical/technological uncertainties and difficulties you will encounter for the first time and that you will have to overcome during the development of the proposed project, with which you have no experience. (Up to 3000 characters)

# B.3 PROMOTION OF THE PROJECT WITH CONCRETE / MEASURABLE OBJECTIVES AND SOLUTION APPROACHES (R&D SYSTEMATICS)

|  |                               | •                    |                       |  |       |
|--|-------------------------------|----------------------|-----------------------|--|-------|
| Project Goals  |                               |                      |                       |  |       |
| Please indicate in the table below the most important (maximum 5) concrete and measurable success criteria (capacity,        |                               |                      |                       |  |       |
| physical size, working conditions, speed, various performance values, etc.) that define the targeted outputs of the project. |                               |                      |                       |  |       |
| measure of s   | success                       |                      |                       | target value                                   |       |
|  |                               |                      |                       |  |       |
|  |                               |                      |                       |  |       |
|  |                               |                      |                       |  |       |
|  |                               |                      |                       |  |       |
|  |                               |                      |                       |  |       |
|  |                               |                      |                       |  |       |
| Project Prepa  | aration Studies               |                      |                       |  |       |
| Please indicate  | e in the tables and fields be | low the informat     | ion obtained befor    | re the project application regarding the liter | ature |
| and patent rese  | earch on the project subjec   | t, technical feasib  | ility studies and the | he standards / specifications to be followed   |       |
| Literature rese  | earch results, if any, that w | ill contribute to th | ne project:           |  |       |
| Publication  | name                          | Date                 | Writers)              | Summary information that will form             |       |
|  |                               |                      |                       | input to the project:                          |       |
|  |                               |                      |                       |  |       |
|  |                               |                      |                       |  |       |
|  |                               |                      |                       |  |       |
| Patent / utility   | model research results, if    | any, related to the  | e project subject:    |  |       |
| patent   | Patent office where it        | Year (applicati      | on Patent/ap          | Summary information that will form             |       |
| number   | is registered (TPE,           | year if at the       |                       | input to the project                           |       |
|  | EPO, USPTO,                   | application sta      |                       |  |       |
|  | JPOetc)                       |                      |                       |  |       |
|  | ,                             |                      |                       |  |       |
|  |                               |                      |                       |  |       |
|  |                               |                      |                       |  |       |
| Summary find   | ings of technical pre-feasi   | oility studies - if  | conducted: (Maxir     | num 1500 characters)                           |       |
| 1.   |                               |                      |                       |  |       |
| 2.   |                               |                      |                       |  |       |
| 3.   |                               |                      |                       |  |       |
|  |                               |                      |                       |  |       |
| Standards / sp   | ecifications to be followed   | regarding the pro    | oiect output: (Max    | imum 1500 characters)                          |       |
| 1.   |                               | 8 8 1                | J 1 (                 | ,  |       |
| 2.   |                               |                      |                       |  |       |
| 3.   |                               |                      |                       |  |       |
|  |                               |                      |                       |  |       |
|  | e Used in the R&D Proce       |                      |                       |  |       |
|  |                               |                      |                       | o achieve the project objectives defined ab    |       |
| \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \  |                               |                      |                       | oproaches and their stages will be followed    |       |
|  |                               |                      |                       | andard / routine working methods that may      | be    |
| in every project   | ct should not be repeated.)   | (Maximum 3000        | characters)           |  |       |
|  |                               |                      |                       |  |       |
|  |                               |                      |                       |  |       |
|  |                               |                      |                       |  |       |

#### **B.4. INNOVATIVE ASPECTS OF THE PROJECT**

#### Innovations

After briefly summarizing the innovative aspects of the output targeted in the project, its anticipated differences, advantages and superiorities compared to its counterparts in the market and sector (within the company, at home or abroad), please state it by comparing it with concrete/numerical and measurable values as much as possible in the two tables below.

- State of the art LLM Technologies will be exploited
- Mobile Access
- Industry specific solutions that are peculiar to certain companies which makes the data collection easier
- Solutions for SMEs that need better organization
- a) Comparison of the proposed project output with your organization's existing products/processes and the outputs of previously completed R&D projects (Table Y.1):
- There is no similar product/process in our organization that can be compared with the proposed project output.
- o Comparison of our organization with similar products/processes is made in the table below.

| Technicial<br>Specifications | Project Output | Other Product/Process Available in the Organization (1) | (If any) Other Product/Process Available in the Organization (2) |  |
|------------------------------|----------------|---|--|--|
| Feature-1                    |                |   |  |  |
| Feature-2                    |                |   |  |  |

- b) Comparison of the proposed project output with existing or potential similar ones in the domestic/foreign market (Table Y.2):
- o In the project, a new product/process that has no comparable counterpart in the market will be developed.
- Comparison of the project output with its current or potential counterparts in the domestic/international market is made in the table below.

| Technicial<br>Specifications | Project Output | Similar<br>Product/Process (1) | (If any) Similar<br>Product/Process (2) | ••••• |
|------------------------------|----------------|--------------------------------|---|-------|
| Feature-1                    |                |                                | ,                                       |       |
| Feature-2                    |                |                                |   |       |
| Feature-3                    |                |                                |   |       |

## INFORMATION RELATED TO THE PARTNER PROJECT (\*)

(\*)(This section will be activated for applications within the scope of projects carried out with national partnerships.)

Explain the division of labor between the partners in the project. State your duties and responsibilities in the project by associating them with the work packages. Provide information about the complementarity of the project partners' skills to be used in the project.

If technology transfer is planned from the partners of the project, please provide information about the efforts to ensure the permanence of technology transfer in the project.

Explain how the intellectual and industrial property rights that will arise as a result of the project will be shared among the partners.

#### C. PROJECT PLAN AND ESTABLISHMENT INFRASTRUCTURE

#### C.1. BUSINESS PLAN

# Detailed Work-Time Bar Chart Detailed Job Time Bar Chart

| List of Work   | List of Work Packages                                 |   |                         |  |  |  |  |
|--|---|---|-------------------------|--|--|--|--|
| Sequence<br>No.  | Code  | Work Package Name                               | Start-End Dates         |  |  |  |  |
| 1  | 0001  | Requirements Analysis and Feasibility Study     | 01-06-2024 - 01-10-2024 |  |  |  |  |
| 2  | 2 0002 Domain-Specific Functionalities Development    |   | 01-10-2024 - 01-02-2025 |  |  |  |  |
| 3  | 3 Large Language Model (LLM) Integration and Training |   | 01-11-2024 - 01-02-2025 |  |  |  |  |
| 4  | 4 0004 Web Intelligence and System Development        |   | 01-12-2024 - 01-06-2025 |  |  |  |  |
| 5  | 5 0005 User Acceptance Testing (UAT) and Deployment   |   | 01-04-2025 - 01-09-2025 |  |  |  |  |
| 6 0006 Dissemination and Sustainability (Month 12-18): |   | Dissemination and Sustainability (Month 12-18): | 01-06-2025 - 01-12-2025 |  |  |  |  |

| Work Package Identification Form(A separate form will be prepared for each work package) |   |  |
|--|---|--|
| Work Package Number: 0001  |   |  |
| Work Package Name:   | Requirements Analysis and Feasibility Study |  |
| Starting date:   | 01-06-2024                                  |  |
| End Date:  | 01-10-2024                                  |  |
| Related Organizations(In joint projects, please tick the ones included in this work      |   |  |
| package from the project partners)   |   |  |
| List work package activities (Maximum 3.000 characters):                                 |   |  |

- 1. Stakeholder & Requirements:
  - o Identify key users, developers, decision-makers.
  - O Gather needs & expectations through interviews/workshops.
  - O Document requirements (use cases, user stories).
- 2. Feasibility Analysis:
  - Assess technical suitability for meeting requirements.
  - Estimate development & deployment costs.
  - o Evaluate operational impact & user adoption.
- 3. Scope Definition & Recommendations:
  - o Prioritize functionalities & define project scope.
  - Develop high-level system architecture.
  - o Identify & mitigate potential risks.
  - Prepare final feasibility study report.

Describe the methods to be used in the work package and your unique contributions to them, and list the parameters to be examined (Maximum 3,000 characters):

## Methods:

- Stakeholder Interviews & Workshops
- Document Analysis (if available)
- Technology Research & Cost Estimation
- User Story & Use Case Development
- High-Level System Architecture Design
- Risk Assessment

#### My Contributions:

- Leading stakeholder engagement activities
- Analyzing requirements and translating them into technical specifications

- Evaluating technical feasibility of proposed solutions
- Contributing to system architecture design
- Identifying and mitigating potential project risks

#### Parameters:

- Functional Requirements (what the system should do)
- Non-Functional Requirements (performance, security, usability)
- Technical Suitability (existing technologies to meet needs)
- Development & Deployment Costs
- Operational Impact & User Adoption
- Project Risks (technical, budgetary, schedule)

List the experiments, tests and analyzes in the work package with their reasons in the table below (specify where the experiments and tests will be carried out, give detailed justification for the ones to be carried out abroad. If no experiments / tests / analyzes will be performed in this work package, specify):

| Experiment / Test / Analy<br>Name | sis Reason<br>for<br>Making | Where it will be carried out (in the company, domestic or international organizations) | (If it will be held abroad)<br>Materials |
|-----------------------------------|-----------------------------|--|--|
|                                   |                             |  |  |
|                                   |                             |  |  |

Specify the measurable/concrete technical intermediate outputs (milestones) that enable the monitoring of this work package activities and indicate their completion:

| F 8                               |                            |                                       |
|-----------------------------------|----------------------------|---------------------------------------|
| <b>Definition of Intermediate</b> | Expected Realization Date: | Work Package for Which Output Will Be |
| Output                            |                            | Used                                  |
| Search output-1                   | /                          |                                       |
| Search output-2                   | /                          |                                       |

| Work Package Identification Form(A separate form will be prepared for each work package) |   |  |
|--|---|--|
| Work Package Number:   | 0002  |  |
| Work Package Name:   | Domain-Specific Functionalities Development |  |
| Starting date:   | 01-10-2024                                  |  |
| End Date:  | 01-02-2025                                  |  |
| Related Organizations(In joint projects, please tick the ones included in this work      |   |  |
| package from the project partners)   |   |  |
| List work package activities (Maximum 3,000 characters):                                 |   |  |

#### Activities:

- Industry Research & Needs Analysis (Specific to chosen domain. Bakery selected as a start)
- Domain-Specific Form & Workflow Design
- Integration of Pre-built Functionalities
- Development of Custom Functionalities (if required)
- Unit Testing of Developed Functionalities

Describe the methods to be used in the work package and your unique contributions to them, and list the parameters to be examined (Maximum 3,000 characters):

#### Methods:

- Industry Benchmarking & Best Practices Research
- User Interface Prototyping & User Feedback Sessions
- API Integration & Data Mapping for Pre-built Functions
- Agile Development Methodology (if applicable)
- Unit Testing Frameworks & Code Reviews

#### My Contributions:

- Analyzing industry data and user needs to define functionalities
- Designing user interfaces and workflows for domain-specific tasks
- Integrating pre-built functionalities with the core system
- Developing custom functionalities to address unique domain requirements

• Ensuring code quality through unit testing and code reviews

#### Parameters:

- Industry Alignment (functionalities address chosen domain needs)
- User Interface Usability & Efficiency
- Functionality Completeness (covers essential domain tasks)
- Integration Success (seamless interaction with pre-built functions)
- Code Quality & Maintainability (unit test coverage, code clarity)

List the experiments, tests and analyzes in the work package with their reasons in the table below (specify where the experiments and tests will be carried out, give detailed justification for the ones to be carried out abroad. If no experiments / tests / analyzes will be performed in this work package, specify):

| Experiment / Test / Analysis<br>Name | Reason<br>for<br>Making | Where it will be carried out (in the company, domestic or international organizations) | (If it will be held abroad)<br>Materials |
|--------------------------------------|-------------------------|--|--|
|                                      |                         |  |  |
|                                      |                         |  |  |

Specify the measurable/concrete technical intermediate outputs (milestones) that enable the monitoring of this work package activities and indicate their completion:

| Definition of Intermediate Output | Expected Realization Date: | Work Package for Which Output Will Be<br>Used |
|-----------------------------------|----------------------------|---|
| Search output-1                   | /                          |   |
| Search output-2                   | /                          |   |

| Work Package Identification Form(A separate form will be prepared for each work package) |            |  |
|--|------------|--|
| Work Package Number:   | 0004       |  |
| Work Package Name: Large Language Model (LLM) Integration and Training                   |            |  |
| Starting date:   | 01-11-2024 |  |
| End Date:  | 01-02-2025 |  |
| Related Organizations(In joint projects, please tick the ones included in this work      |            |  |
| package from the project partners)   |            |  |
| List work package activities (Maximum 3,000 characters):                                 |            |  |

#### **Activities:**

- LLM Selection & Integration Framework Development
- Data Anonymization & LLM Training Data Preparation
- LLM-powered Automation Functionalities Development
- LLM-based Data Insights & Reporting Design
- Integration Testing of LLM Modules

Describe the methods to be used in the work package and your unique contributions to them, and list the parameters to be examined (Maximum 3,000 characters):

#### **Methods:**

- Open-Source LLM Framework Evaluation & Selection
- Data Security & Privacy Protocols Implementation
- Machine Learning Techniques for Data Cleaning & Preprocessing
- Natural Language Processing (NLP) Techniques for LLM Tasks
- System Integration Testing with LLM Functionality Focus

#### **My Contributions:**

- Selecting and integrating an appropriate open-source LLM framework
- Developing secure processes for data anonymization and training data preparation
- Designing LLM functionalities for data entry automation and information extraction
- Creating LLM-based features for data analysis, generating reports, and providing insights
- Ensuring seamless integration of LLM modules with the overall system

#### **Parameters:**

- LLM Suitability (capability to handle project-specific tasks)
- Data Security & Privacy Compliance

- Effectiveness of LLM Automation (accuracy, efficiency)
- Quality & Relevance of LLM-generated Insights & Reports
- Successful Integration of LLM Modules (no functionality conflicts)

List the experiments, tests and analyzes in the work package with their reasons in the table below (specify where the experiments and tests will be carried out, give detailed justification for the ones to be carried out abroad. If no experiments / tests / analyzes will be performed in this work package, specify):

| Experiment / Test / Analysis<br>Name | Reason<br>for<br>Making | Where it will be carried out (in the company, domestic or international organizations) | (If it will be held abroad)<br>Materials |
|--------------------------------------|-------------------------|--|--|
|                                      |                         |  |  |
|                                      |                         |  |  |

Specify the measurable/concrete technical intermediate outputs (milestones) that enable the monitoring of this work package activities and indicate their completion:

| Definition of Intermediate<br>Output | <b>Expected Realization Date:</b> | Work Package for Which Output Will Be<br>Used |
|--------------------------------------|-----------------------------------|---|
| Search output-1                      | /                                 |   |
| Search output-2                      | /                                 |   |

| Work Package Identification Form(A separate form will be prepared for each work package) |   |  |  |
|--|---|--|--|
| Work Package Number:   | 0004                                    |  |  |
| Work Package Name:   | Web Intelligence and System Development |  |  |
| Starting date:   | 01-12-2024                              |  |  |
| End Date:  | 01-06-2025                              |  |  |
| Related Organizations(In joint projects, please tick the ones included in this work      |   |  |  |
| package from the project partners)   |   |  |  |
| List work package activities (Maximum 3,000 characters):                                 |   |  |  |

#### Activities:

- Web Scraping & Information Extraction (if applicable)
- Data Filtering & Analysis Techniques Development
- System Development & Integration (all core functionalities)
- Comprehensive System Testing (functional & non-functional)

Describe the methods to be used in the work package and your unique contributions to them, and list the parameters to be examined (Maximum 3,000 characters):

### Methods:

- Web Scraping Framework Selection & Ethical Data Collection Practices (if applicable)
- Machine Learning Techniques for Data Filtering & Feature Engineering
- Agile Development Methodology (or similar iterative approach)
- System Integration Testing Tools & Techniques
- Functional & Non-Functional Testing Strategies (performance, usability)

#### My Contributions:

- Designing and implementing web scraping functionalities (if aligned with project goals and data privacy regulations)
- Developing algorithms for filtering and analyzing data extracted from web sources
- Participating in the overall system development process, focusing on LLM integration and data functionalities
- Conducting comprehensive testing of the system, ensuring all features work as intended and meet user needs
- Identifying and resolving any bugs or integration issues during testing

#### Parameters:

- Web Scraping Compliance (if applicable, adheres to ethical data collection practices)
- Accuracy & Relevance of Extracted Information
- Functionality Completeness (all core features developed and integrated)
- System Performance & Scalability (meeting user demands and future growth)
- Usability & User Experience (system is easy to learn and use)

List the experiments, tests and analyzes in the work package with their reasons in the table below (specify where the experiments and tests will be carried out, give detailed justification for the ones to be carried out abroad. If no experiments / tests / analyzes will be performed in this work package, specify):

| Experiment / Test / Analysis<br>Name | Reason<br>for<br>Making | Where it will be carried out (in the company, domestic or international organizations) | (If it will be held abroad)<br>Materials |
|--------------------------------------|-------------------------|--|--|
|                                      |                         |  |  |
|                                      |                         |  |  |

Specify the measurable/concrete technical intermediate outputs (milestones) that enable the monitoring of this work package activities and indicate their completion:

| Definition of Intermediate<br>Output | Expected Realization Date: | Work Package for Which Output Will Be<br>Used |
|--------------------------------------|----------------------------|---|
| Search output-1                      | /                          |   |
| Search output-2                      | /                          |   |

| Work Package Identification Form(A separate form will be prepared for each work package) |  |  |  |
|--|--|--|--|
| Work Package Number: 0005  |  |  |  |
| Work Package Name: User Acceptance Testing (UAT) and Deployment                          |  |  |  |
| <b>Starting date:</b> 01-04-2025   |  |  |  |
| <b>End Date:</b> 01-09-2025  |  |  |  |
| Related Organizations(In joint projects, please tick the ones included in this work      |  |  |  |
| package from the project partners)   |  |  |  |
| List work package activities (Maximum 3,000 characters):                                 |  |  |  |

#### Activities:

- UAT Test Case Development & User Recruitment
- UAT Sessions with SME Representatives
- System Refinement Based on User Feedback
- System Deployment Strategy & Security Configuration
- User Training Material Development & Delivery

Describe the methods to be used in the work package and your unique contributions to them, and list the parameters to be examined (Maximum 3,000 characters):

### Methods:

- User Story-based Test Case Creation & Usability Testing Techniques
- Recruitment of SMEs from the Chosen Industry for UAT
- Agile Development Principles for Iterative Refinement Based on Feedback
- Cloud Deployment Strategy or On-premise Server Configuration (depending on needs)
- User Manual & Training Materials Creation tailored for SME audience

### My Contributions:

- Collaborating on developing UAT test cases based on functionalities and user stories
- Facilitating UAT sessions with SME representatives, observing user interactions
- Analyzing user feedback and translating it into actionable improvements for the system
- Participating in deployment strategy discussions and ensuring secure system setup
- Developing user training materials (manuals, tutorials) to empower SME users

List the experiments, tests and analyzes in the work package with their reasons in the table below (specify where the experiments and tests will be carried out, give detailed justification for the ones to be carried out abroad. If no experiments / tests / analyzes will be performed in this work package, specify):

| Experiment / Test / Analysis<br>Name | Reason<br>for<br>Making | Where it will be carried out (in the company, domestic or international organizations) | (If it will be held abroad)<br>Materials |
|--------------------------------------|-------------------------|--|--|
|                                      |                         |  |  |
|                                      |                         |  |  |

Specify the measurable/concrete technical intermediate outputs (milestones) that enable the monitoring of this work package activities and indicate their completion:

| Definition of Intermediate<br>Output | Expected Realization Date: | Work Package for Which Output Will Be<br>Used |
|--------------------------------------|----------------------------|---|
| Search output-1                      | /                          |   |
| Search output-2                      | /                          |   |

| Work Package Identification Form(A separate form will be prepared for each work package) |  |  |  |
|--|--|--|--|
| Work Package Number: 0006  |  |  |  |
| Work Package Name: Dissemination and Sustainability                                      |  |  |  |
| <b>Starting date:</b> 01-06-2025   |  |  |  |
| <b>End Date:</b> 01-12-2025  |  |  |  |
| Related Organizations (In joint projects please tick the ones included in this work      |  |  |  |

**Related Organizations**(In joint projects, please tick the ones included in this work package from the project partners)

List work package activities (Maximum 3,000 characters):

#### **Activities:**

- Project Results Dissemination Strategy Development
- Conference Presentations & Publications (considering TEYDEB requirements)
- Pilot Programs with SMEs from the Chosen Industry (optional)
- Business Model Development for Ongoing System Support

Describe the methods to be used in the work package and your unique contributions to them, and list the parameters to be examined (Maximum 3,000 characters):

#### **Methods:**

- Identifying relevant conferences, workshops, and publications aligned with EUROSTARS goals
- Preparing presentations and publications showcasing project outcomes and impact
- Partnering with SMEs for potential pilot programs to demonstrate system value (if feasible)
- Exploring revenue models (subscriptions, service fees) or grant opportunities for ongoing maintenance and updates

#### **My Contributions:**

- Contributing to the development of a dissemination strategy for project results
- Preparing materials for presentations or publications, highlighting the project's achievements
- Facilitating communication with potential pilot program partners (if applicable)
- Analyzing different business models to ensure the system's long-term sustainability
- Identifying potential funding opportunities for ongoing system support

List the experiments, tests and analyzes in the work package with their reasons in the table below (specify where the experiments and tests will be carried out, give detailed justification for the ones to be carried out abroad. If no experiments / tests / analyzes will be performed in this work package, specify):

| Experiment / Test / Analysis<br>Name | Reason<br>for<br>Making | Where it will be carried out (in the company, domestic or international organizations) | (If it will be held abroad)<br>Materials |
|--------------------------------------|-------------------------|--|--|
|                                      |                         |  |  |
|                                      |                         |  |  |

Specify the measurable/concrete technical intermediate outputs (milestones) that enable the monitoring of this work package activities and indicate their completion:

| <b>Definition of Intermediate</b> | <b>Expected Realization Date:</b> | Work Package for Which Output Will Be |
|-----------------------------------|-----------------------------------|---------------------------------------|
| Output                            |                                   | Used                                  |
| Search output-1                   | /                                 |                                       |
| Search output-2                   | /                                 |                                       |

# C.2. PROJECT MANAGEMENT AND ORGANIZATION

| <b>Explanations About Project Management</b> |  |
|--|--|
|  |  |
|  |  |

| - | Project Personnel List  |   |                |                 |            |     |            |        |  |  |
|---|---|---|----------------|-----------------|------------|-----|------------|--------|--|--|
| ١ | In this form, informatio  | In this form, information about the personnel working on the project will be added. For each project personnel, |                |                 |            |     |            |        |  |  |
|   | Fill out the Personnel Resume Form, convert it to PDF format from the "Add Personnel" screen and attach it. |   |                |                 |            |     |            |        |  |  |
|   |   |   |                |                 | Undongradu |     |            |        |  |  |
|   | Personnel Name  | Title   | TR ID/Passport | Educatio<br>nal |            | D-4 | Opinionato | Resume |  |  |

| Personnel Name       | Title | TR ID/Passport<br>Number | Educatio<br>nal<br>Status | Undergradu<br>ate<br>Graduation<br>Date | Date of start | Opinionato<br>r | Resume    |
|----------------------|-------|--------------------------|---------------------------|---|---------------|-----------------|-----------|
| GDPR: Use Fake names |       | GDPR: Use Fake numbers   |                           |   |               |                 | Z         |
|                      |       |                          |                           |   |               |                 | K         |
|                      |       |                          |                           |   |               |                 | <u>**</u> |

## C.3. ORGANIZATION INFRASTRUCTURE (\*)

(\*)This section will be filled out separately for each organization in collaborative projects offered by more than one organization.)

## **R&D** Opportunities of the Organization

Describe your organization's R&D opportunities and experience under the following headings:

- a) Your organization's current R&D structure (R&D unit, laboratory and test environments, tools-equipment and software tools, library facilities, dedicated platform for R&D purposes, etc.),
- b) Consultancy services received from outside your organization and joint work with other organizations.
- c) Explain the measures you have taken to make the knowledge that will emerge as a result of the project permanent in your organization.
- d) Provide information about your new product development and design ability.

# D. CONVERTERABILITY OF THE PROJECT INTO ECONOMIC BENEFIT AND NATIONAL GAIN D.1 ECONOMIC FORECASTS

| Potential for Commercial Success   |   |  |  |  |  |  |  |  |
|--|---|--|--|--|--|--|--|--|
| By evaluating the potential of the project output to be commercialized   |   |  |  |  |  |  |  |  |
| a) Provide information about the targeted areas of use, the size of the domestic and international markets, the strategy to access these markets, potential customers and the current market shares of competitors. (Up to 3,000 characters)   |   |  |  |  |  |  |  |  |
| access these markets, potential customers and the current market   | et shares of competitors. (Up to 3,000 characters)      |  |  |  |  |  |  |  |
|  |   |  |  |  |  |  |  |  |
|  |   |  |  |  |  |  |  |  |
|  |   |  |  |  |  |  |  |  |
| b) 1641:   |   |  |  |  |  |  |  |  |
| b) If there is a need for additional investment to commercialize the significant cost items and how these costs will be covered / final  |   |  |  |  |  |  |  |  |
| commercialization process and their experiences on the subject.  |   |  |  |  |  |  |  |  |
| In order for the project output to become commercialized / provide ed  |   |  |  |  |  |  |  |  |
| There is NO Need for Additional Investment.  |   |  |  |  |  |  |  |  |
| THERE IS A NEED FOR THAT ADDITIONAL INVESTME   | ENT.  |  |  |  |  |  |  |  |
|  |   |  |  |  |  |  |  |  |
|  |   |  |  |  |  |  |  |  |
|  |   |  |  |  |  |  |  |  |
|  |   |  |  |  |  |  |  |  |
|  |   |  |  |  |  |  |  |  |
| Economic Return Estimate   | <u> </u>  |  |  |  |  |  |  |  |
| (NOTE: If the project output is a "product" that will be marketed by t (a) is included. If it is a product or process that will be developed in li   |   |  |  |  |  |  |  |  |
| specific), part (b) is part (b) only. If it is a new or improved process of  |   |  |  |  |  |  |  |  |
| complete part (c).)  | of product to be used by your organization, prease      |  |  |  |  |  |  |  |
| O a) It will be offered to the market.   |   |  |  |  |  |  |  |  |
| O b) To be developed for a single customer.  |   |  |  |  |  |  |  |  |
| O b-1) Customer demand is NOT expected to be repeated.   |   |  |  |  |  |  |  |  |
| O b-2) Continuity of customer demand is expected.  |   |  |  |  |  |  |  |  |
| O c) To be used within the organization.   |   |  |  |  |  |  |  |  |
| a) Please indicate your numerical predictions regarding the econon   | mic return that the project output will provide to your |  |  |  |  |  |  |  |
| organization in the table below. Please explain below your calcu   | ulations/approaches that form the basis of your         |  |  |  |  |  |  |  |
| predictions. (Up to 3,000 characters)  |   |  |  |  |  |  |  |  |
| O i) The project output will be offered to the domestic market   |   |  |  |  |  |  |  |  |
| O ii) It is aimed to present the project output to foreign market  |   |  |  |  |  |  |  |  |
| Time to enter the domestic market from the beginning of the  | he project (Months):                                    |  |  |  |  |  |  |  |
| Time to enter the foreign market from the haginning of the   | (Months)(*)   |  |  |  |  |  |  |  |
| Time to enter the foreign market from the beginning of the   | e project (Months)(*):                                  |  |  |  |  |  |  |  |
| After the project is completed, your organization;   | end of 1st end of year 3 Year 5 and                     |  |  |  |  |  |  |  |
| Trice the project is completed, your organization,   | year beyond   |  |  |  |  |  |  |  |
| Expected total domestic sales revenue (TL)   |   |  |  |  |  |  |  |  |
| Expected total foreign sales (export) revenue (TL) (*)   |   |  |  |  |  |  |  |  |
| Expected increase in domestic sales revenue (%)  |   |  |  |  |  |  |  |  |
| Expected increase in foreign sales revenue (%)(*)  |   |  |  |  |  |  |  |  |
| Expected increase in domestic market share (%)   |   |  |  |  |  |  |  |  |
| Expected increase in foreign market share (%)(*)   |   |  |  |  |  |  |  |  |
| (*)It will be filled in if the project output is intended to be  | e presented to foreign markets.                         |  |  |  |  |  |  |  |
|  |   |  |  |  |  |  |  |  |
|  |   |  |  |  |  |  |  |  |
|  |   |  |  |  |  |  |  |  |
| 1) Dunid information of and the surface of the surf | (   |  |  |  |  |  |  |  |
| b) Provide information about the customer of the project output (do the potential to provide import substitution to our country, the ex  |   |  |  |  |  |  |  |  |
| the potential to provide import substitution to our country, the ex-   |   |  |  |  |  |  |  |  |
| characters)  | The project output after the project. (Op to 5,000      |  |  |  |  |  |  |  |

| b-1) Total sales revenue expected to be obtained with the project ou          | tput (TL):         |                     |                |  |  |  |  |  |  |
|---|--------------------|---------------------|----------------|--|--|--|--|--|--|
| b-2)  |                    |                     |                |  |  |  |  |  |  |
| O i) The project output will be offered to the domestic market only.          |                    |                     |                |  |  |  |  |  |  |
| O ii) It is aimed to present the project output to foreign markets.           |                    |                     |                |  |  |  |  |  |  |
| Time to enter the domestic market from the beginning of the project (Months): |                    |                     |                |  |  |  |  |  |  |
| <i></i>   |                    |                     |                |  |  |  |  |  |  |
| Time to enter the foreign market from the beginning of the                    | e project          | (N                  | Months)(*):    |  |  |  |  |  |  |
| After the project is completed, your organization;                            | end of 1st         | end of year 3       | Year 5 and     |  |  |  |  |  |  |
|   | year               |                     | beyond         |  |  |  |  |  |  |
| Expected total domestic sales revenue (TL)                                    | ·                  |                     | •              |  |  |  |  |  |  |
| Expected total foreign sales (export) revenue (TL) (*)                        |                    |                     |                |  |  |  |  |  |  |
| Expected increase in domestic sales revenue (%)                               |                    |                     |                |  |  |  |  |  |  |
| Expected increase in foreign sales revenue (%)(*)                             |                    |                     |                |  |  |  |  |  |  |
| Expected increase in domestic market share (%)                                |                    |                     |                |  |  |  |  |  |  |
| Expected increase in foreign market share (%)(*)                              |                    |                     |                |  |  |  |  |  |  |
| (*)It will be filled in if the project output is intended to b                | e presented to for | eign markets.       |                |  |  |  |  |  |  |
|   |                    |                     |                |  |  |  |  |  |  |
|   |                    |                     |                |  |  |  |  |  |  |
|   |                    |                     |                |  |  |  |  |  |  |
|   |                    |                     |                |  |  |  |  |  |  |
| c) State the expected contributions of the project output to organiz          |                    | cost reduction, qu  | ality increase |  |  |  |  |  |  |
| and competitiveness, using numerical data. (Up to 3,000 charac                | ters)              |                     |                |  |  |  |  |  |  |
|   |                    |                     |                |  |  |  |  |  |  |
|   |                    |                     |                |  |  |  |  |  |  |
|   |                    |                     |                |  |  |  |  |  |  |
|   |                    |                     |                |  |  |  |  |  |  |
|   |                    |                     |                |  |  |  |  |  |  |
| Transition Point to Profit  |                    |                     |                |  |  |  |  |  |  |
| Explain how and how long it will take to recover the resources spent          | on the project Sn  | acify the time to n | rofit from the |  |  |  |  |  |  |
| beginning of the project - together with your calculations. (Up to 3,00       |                    | echy me mile to pi  | ioni nom me    |  |  |  |  |  |  |
| or the project - together with your calculations. (Op to 3,00                 | o characters)      |                     |                |  |  |  |  |  |  |
|   |                    |                     |                |  |  |  |  |  |  |
|   |                    |                     |                |  |  |  |  |  |  |
|   |                    |                     |                |  |  |  |  |  |  |

#### **D.2 NATIONAL ACHIEVEMENTS**

Please indicate the national gains that the project can provide, taking into account the following headings that you deem relevant:

- a) Contribution to national knowledge and technological development,
- b) The potential to initiate new applications or R&D projects in the same or different technology areas, within or outside the organization,
- c) Anticipation of obtaining patents and licensing/know-how sales (outputs of the project that may be subject to patent, utility model and industrial design registration),
- d) Creating new business areas and employment impact,
- e) Sectoral contribution (contribution of the project to the creation and development of sub-industry, the relevant sector and other sectors),
- f) The impact of the project and its outputs on socio-cultural life, the potential to provide improvements in issues such as education, health, and reducing the development gap between regions,
- g) Positive effects of project activities and output on the environment and living things
- h) Outputs of project studies that can be subject to scientific publication.

(Up to 5,000 characters)

#### E. RISK AND FINANCIAL STRUCTURE

Risks That May Encounter and Precautions to be Taken During the Execution of the Project Indicate the technical, financial, administrative and legal risks that may be encountered during the execution of the project and what kind of measures you plan to take to minimize them ("your Plan B(s)").

| Risk | Precautions Taken<br>to Prevent the Risk<br>from Realizing | despite the measures | y of the risk occurring<br>taken, and what is the<br>have if it occurs?<br>Effect<br>(High / Medium / Low) | What to do if a risk occurs despite the precautions taken ("Plan B") |
|------|--|----------------------|--|--|
|      |  |                      |  |  |
|      |  |                      |  |  |

Risks that may be encountered and precautions to be taken during the commercialization phase of the project output

State the possible obstacles your organization may encounter during the commercialization phase (technical, financial, legal, intellectual property rights, etc.) and your plans to overcome these obstacles. In addition, if the project activities and project output have negative effects on the environment and living things, indicate the precautions you plan to take against them.

| Risk | Precautions Taken<br>to Prevent the Risk<br>from Realizing | despite the measures | y of the risk occurring<br>taken, and what is the<br>have if it occurs?<br>Effect<br>(High / Medium / Low) | What to do if a risk<br>occurs despite the<br>precautions taken<br>("Plan B") |
|------|--|----------------------|--|---|
|      |  |                      |  |   |

#### **Financial Management**

In the projects supported by the support program you are applying for, the project expenses are submitted to TUBITAK/SWE523 after they are made by the organization, and at the end of the evaluation, a certain percentage of the expenses related to the project is paid to the organization by TUBITAK/SWE523. Provide information about the adequacy of your equity and other financial resources and the measures you plan to take to carry out the project. (Up to 3,000 characters)

## F. PROJECT BUDGET

# F.1 - PERSONNEL EXPENSES ESTIMATED COST FORM (M011)

| iame | Role in the Work<br>Package | Title in the<br>Company | Man/Month<br>Ratio  | Moon                      | Total<br>Man-Moon              | Monthly Cost | Total   |
|------|-----------------------------|-------------------------|---------------------|---------------------------|--------------------------------|--------------|---|
|      |                             |                         |                     |                           |                                |              |   |
|      |                             |                         |                     |                           |                                |              |   |
|      |                             |                         |                     |                           |                                |              |   |
|      |                             |                         |                     |                           |                                |              |   |
|      |                             |                         |                     |                           |                                |              |   |
|      |                             |                         |                     |                           |                                |              |   |
|      |                             |                         |                     |                           |                                |              |   |
|      |                             |                         |                     |                           |                                |              |   |
|      |                             | WORK PACKAG             | GE MAN-MONT         | H TOTAL =                 |                                | TOTAL        | TL  |
|      | ame                         |                         | ame Package Company | ame Package Company Ratio | Ame Package Company Ratio Moon |              | Package Company Ratio Mon Man-Moon Monthly Cost |

# F.2 - TRAVEL EXPENSES ESTIMATED COST FORM (M012)

| Project name   |   |                    |   |              |             |
|--|---|--------------------|---|--------------|-------------|
| Name and Surname of<br>the Person Who Wil<br>Make the Travel |   | Travel Description | Relationship of Travel to Project<br>Activities | City Country | Amount (TL) |
|  |   |                    |   |              |             |
|  |   |                    |   |              |             |
|  |   |                    |   |              |             |
|  |   |                    |   |              |             |
|  |   |                    |   |              |             |
|  | l | 1                  | 1   | TOTAL        | TL          |

# F.3 - ESTIMATED COST FORM FOR TOOLS/EQUIPMENT/SOFTWARE/PUBLISHING PURCHASES (M013)

| Proje<br>name       |  |  |   |   |   |                |                   |          |   |       |    |
|---------------------|--|--|---|---|---|----------------|-------------------|----------|---|-------|----|
| seque<br>nce<br>num | Software/Publication Piece Capacity Technical Purpose of Use in Project Activities the Proposed Project Activities |  | Place/Purpose of Use After<br>the Project |   | Purpose of Use After<br>the Project Unit Price<br>(USD) |                | Total Amount (TL) |          |   |       |    |
| ber                 | Name   |  |   | 1 |   | R&D Production | ,                 | (TL)     | , |       |    |
| one                 |  |  |   |   |   |                |                   |          |   |       |    |
| 2                   |  |  |   |   |   |                |                   |          |   |       |    |
| 3                   |  |  |   |   |   |                |                   |          |   |       |    |
| 4                   |  |  |   |   |   |                |                   |          |   |       |    |
| 5                   |  |  |   |   |   |                |                   |          |   |       |    |
| 6                   |  |  |   |   |   |                |                   |          |   |       |    |
| 7                   |  |  |   |   |   |                |                   |          |   |       |    |
| 8                   |  |  |   |   |   |                |                   |          |   |       |    |
| 9                   |  |  |   |   |   |                |                   |          |   |       |    |
| 10                  |  |  |   |   |   |                |                   |          |   |       |    |
| 11th                |  |  |   |   |   |                |                   |          |   |       |    |
| 12                  |  |  |   |   |   |                |                   |          |   |       |    |
|                     | 1  |  | ı   | 1 | 1   | 1              | 1                 | <u> </u> |   | TOTAL | TL |

# F.4 - ESTIMATED COST FORM FOR WORKS PERFORMED BY R&D AND TESTING ORGANIZATIONS (M014)

| Project name                               |                              |                                      |                        |             |
|--|------------------------------|--------------------------------------|------------------------|-------------|
| Organization from which R&D is carried out | Description of the Work Done | Relationship with Project Activities | Reason for Outsourcing | Amount (TL) |
|  |                              |                                      |                        |             |
|  |                              |                                      |                        |             |
|  |                              |                                      |                        |             |
|  |                              |                                      |                        |             |
|  | 1                            | <u> </u>                             | TOTAL                  | TI          |

# F.5 - SERVICE PROCUREMENT ESTIMATED COST FORM (M015)

| Project name                                    |                            |  |  |             |
|---|----------------------------|--|--|-------------|
| Organization from which the service is received | Description of the Service | The Relationship between Service<br>Procurement and Project Activities | Justification for Service<br>Procurement | Amount (TL) |
|   |                            |  |  |             |
|   |                            |  |  |             |
|   |                            |  |  |             |
|   |                            |  |  |             |
|   |                            |  | TOTAL                                    | TL          |

# F.6 - MATERIAL PURCHASES ESTIMATED COST FORM (M016)

| Project name        |              |   |                      |                         |                  |                 |                   |  |  |
|---------------------|--------------|---|----------------------|-------------------------|------------------|-----------------|-------------------|--|--|
| Sequ<br>ence<br>No. | Product name | Purpose of Use in Project<br>Activities | Quantity and<br>Unit | Justification of Amount | Unit Price (USD) | Unit Price (TL) | Total Amount (TL) |  |  |
|                     |              |   |                      |                         |                  |                 |                   |  |  |
|                     |              |   |                      |                         |                  |                 |                   |  |  |
|                     |              |   |                      |                         |                  |                 |                   |  |  |
|                     |              |   |                      |                         |                  |                 |                   |  |  |
|                     |              |   |                      |                         |                  |                 |                   |  |  |
|                     |              |   |                      |                         |                  |                 |                   |  |  |
|                     |              |   |                      |                         |                  |                 |                   |  |  |
|                     |              |   |                      |                         |                  |                 |                   |  |  |
|                     |              |   |                      |                         |                  | TOTAL           | TL                |  |  |

# F.7 - PERIODICAL AND TOTAL ESTIMATED COST FORM (TL) (M030)

| Project name :   |    |    |    |            |            |            |       |                     |
|--|----|----|----|------------|------------|------------|-------|---------------------|
| Cost Item -  | 20 |    | 20 |            | 20         |            | TOTAL | RATIO IN TOTAL COST |
|  | I  | II | I  | II         | I          | II         | (TL)  | (%)                 |
| Employee   |    |    |    |            |            |            |       |                     |
| Trip   |    |    |    |            |            |            |       |                     |
| Tool/Equipment/Software/Publication                        |    |    |    |            |            |            |       |                     |
| Works Outsourced to Domestic R&D and Testing Organizations |    |    |    |            |            |            |       |                     |
| Works Outsourced to Foreign R&D and Testing Organizations  |    |    |    |            |            |            |       |                     |
| <b>Domestic Service Procurement</b>                        |    |    |    |            |            |            |       |                     |
| Foreign Service Procurement                                |    |    |    |            |            |            |       |                     |
| Material   |    |    |    |            |            |            |       |                     |
| TOTAL COST   |    |    |    |            |            |            |       | one hundred         |
| CUMULATIVE COST  |    |    |    |            |            |            |       | one hundred         |
|  |    |    | 7  | TOTAL MAN- | MONTH IN T | HE PROJECT |       |                     |

## **G.ANNEXES**