



# **Demonstration Projects Service**

Call for Ideas to Boost the Competitiveness of the Estonian Health
Technologies Industry

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# Content

Introduction	3	
Objective	3	
The Applicant	4	
The Development Team	5	
The Process	5	
Requirements	6	
Application	6	
Timeframe	7	
Proposed Technical Solution	7	
Expected Results	8	
Publication	8	
Intellectual Property	9	
Expected Impact	9	
How to apply?	11	
Funding	12	
The State Aid Regulation	13	
Self-financing	15	
Eligibility of Expenditure	15	
Evaluation	16	
Technical Evaluation	16	
Expert Evaluation	16	
Advisory Board Evaluation	17	
What's next?	17	
Glossary	18	
Annex 1. AIRE Demonstration Projects Service Application		
Annex 2. AIRE Demonstration Projects Service Application Evaluation	20	
Annex 3. AIRE Demonstration Project User Experience Story	20	
Annex 4. AIRE Demonstration Project Final Report	20	
Annex 5. AIRE Demonstration Project Standard Contract	20	
Annex 6. Code Repository Template for the Development Team	21	
Annex 7. AIRE eligible technology examples (tailored for manufacturing industry, to be taken as example for health technologies)	22	

# Introduction

Al & Robotics Estonia (AIRE) is a member of the <u>European Digital Innovation Hub</u> (EDIH) network. Our larger aim is to increase the competitiveness of Estonian enterprises. We do this by offering a range of services to businesses.

The AIRE demonstration projects service allows health technology (incl. medical devices) companies and/or health and social care providers to test AI and robotics technologies for healthcare before investing, encouraging further investment in the health technologies. Based on the call for ideas, AIRE's team provides extensive support for selected demonstration projects, which justifiably leverage AI and AI-enabling technologies (including robotics). The technology, methodology, or prototype tested and validated during the demonstration project must bring novelty and a degree of uncertainty (e.g., a tailor-made solution). The expected results of AIRE demonstration projects are at least partly reusable in other enterprises and economic sectors.

AIRE does not give grants to companies (no cascade or third-party funding allowed). AIRE enables collaboration with universities and other AIRE consortium partners for the purpose of knowledge transfer.

Health technologies according to World Health Organisation include applications of organised knowledge and skills in the form of devices, medicines, vaccines, procedures, and systems developed to solve a health problem and improve quality of lives. This includes pharmaceuticals, devices, procedures, and organisational systems used in healthcare industry as well as computer supported information systems. This includes also artificial intelligence powered smart robotics.

# Objective

The AIRE demonstration projects service supports **knowledge transfer** from AIRE partner R&D institutions to companies for acquiring, collecting, and sharing explicit and tacit knowledge, including skills and competence mainly in the form of consultancy, testing, and research collaboration. Besides scientific and technological knowledge, it includes other kinds of knowledge such as knowledge on the use of standards and regulations embedding them and on conditions of real-life operating environments and methods for organisational innovation.

As a part of its awareness-raising mission, AIRE provides preliminary feedback to all businesses applying to join the demonstration projects service before finalising the application. If needed, we can briefly validate the idea on a technical level and explain the funding methods from your perspective. Additionally, we will answer specific questions about intellectual property procedures. To gain access to this preliminary feedback, the applicant should reach out to AIRE demonstration projects service lead Katre Eljas.

When AIRE traditional target group involves manufacturing companies, then this Call for Ideas is focussed on health and social care providers and technology companies in

**health technologies sector**. Applicants can familiarise themselves with previous demonstration projects for industry via <u>AIRE demonstration projects portfolio</u>.

When applying for AIRE demonstration project in this Call for Ideas, the applicant shall be fully responsible for the fulfilment of <u>Medical Device Regulation</u> (EU 2017/745) / <u>In-vitro Diagnostic Medical Devices regulation</u> (EU 2017/746), EU <u>AI Act</u> and <u>General Data Protection Regulation</u> (GDPR).

Ideas applicable for applying to the AIRE demonstration projects service in health technologies include, among others:

- Testing and validating Al algorithms for analysing medical images;
- Testing and validating Al-based prediction models;
- Testing and validating AI for remote patient monitoring, including analysis of patient generated health data;
- Testing and validating Al algorithms to generate personalize treatment plans and predict treatment outcomes;
- Testing and validating Al-powered virtual assistants and chatbots, including assisting
  in administrative tasks (appointment scheduling, management of patient journey in
  health system etc);
- Testing and validating Al algorithms for healthcare administrative tasks, quality and resources management;
- Testing and validating Al algorithms for drug discovery and development;
- Testing and validating AI based clinical research support tools;
- Robots in healthcare setting: Al-powered tools or robots for administrative, logistics or other tasks;
- Testing and validating Al-based healthcare personnel training;
- Testing and validating computer vision solutions in a novel way;
- Testing and validating speech detection solutions in a novel way;
- Testing and validating Al-solutions for mental health technologies.

AIRE does not support clinical research or validation of medical device.

AIRE does not support applied research, the demonstration project is aimed to test, experiment or validate technology before making an investment (test before invest).

# The Applicant

The eligible Applicant is:

- 1) a small or medium-sized enterprise (SME) based on its last two fiscal years:
  - Up to 250 employees;
  - Turnover up to €50 million;
  - Balance sheet total up to €43 million;

The company has no tax debts or payment difficulties.

For verification, the Applicant can use the <u>SME self-assessment tool</u> provided by the European Commission.

- 2) Small middle-sized enterprises (small mid-caps) with at least 250, but less than 499 employees.
- 3) In exceptional cases also large middle-sized enterprises with more than 500, but less than 3000 employees (up to 10% from all AIRE clients)

The Applicant is health and social care provider or technology company providing health technology solutions registered in Estonia. This includes start-ups in the field with relevant business plan showing the ambition to provide health technologies or healthcare services. Demonstration projects will be implemented in collaboration with the Applicant and AIRE consortium partner (see section 'The Development Team'). In case the Applicant is a technology company, a third party (health and social care provider) can also be involved.

# The Development Team

The Development Team is a **team of researchers** from AIRE partner R&D institutions. AIRE partner R&D institutions are:

- Estonian University of Life Sciences;
- Tallinn University of Technology;
- University of Tartu;
- Innovative Manufacturing Engineering Systems Competence Centre (IMECC);
- o Tartu Science Park;
- o Tehnopol Science and Business Park.

All demonstration projects must be implemented in collaboration of an enterprise and an R&D institution. The enterprise brings an idea to be solved and this is the task of the Development Team to offer a solution and implement it. While enterprise is an Applicant, the Development Team lead is a project leader of a demonstration project.

The Development Team carries out AIRE demonstration project on an <u>open research principle</u> - the results of the demonstration project must be worthy of publication (i.e., the Development Team must have scientific expertise).

# The Process

- 1. The Applicant and Development Team prepare the application and supporting documents:
- 2. The Applicant submits the application;
- AIRE collects all submitted applications of the health technologies Call for Ideas by 30<sup>th</sup> of April 2024;
- 4. AIRE evaluates the applications in three stages:

- Technical evaluation
- Expert evaluation
- Advisory Board Evaluation
- 5. AIRE comprises all relevant details about the demonstration projects for the AIRE Steering Committee to approve;
- 6. AIRE provides the standard cooperation agreement to start the project;
- 7. The Development Team creates a detailed time plan for the project and prepares the cooperation agreement;
- 8. The Applicant and R&D institution of the Development Team sign the cooperation agreement;
- 9. After the cooperation agreement is signed, the work on the demonstration project can officially start;
- 10. The results of the demonstration project will be published in preferably 4 9 months.

# Requirements

# **Application**

To apply for AIRE's demonstration project service, the Applicant needs to fill in and submit application.

Requirements for the application:

- 1) The application must be filled in on an application form (Annex 1)
- 2) The application has to be filled in either in English or in Estonian
- 3) By applying to run a demonstration project, the Applicant agrees to:
  - Have the application signed by a registered board member;
  - Provide details of the whole group in case holding over 50% share in the group;
  - Familiarize and follow the <u>Ethics and Governance of Artificial Intelligence for</u> health rules and principles defined by the World Health Organisation;
  - Follow data protection rules as defined in <u>General Data Protection</u>
     <u>Regulation</u> and <u>national legislation</u> when personal data will be used during
     the demonstration project, incl. necessary approval(s) from the ethics
     committees.
  - Follow the EU <u>Al Act</u> in developing and testing the technological solution in healthcare sector during the demonstration project.
- 4) The application has to be accompanied with
  - a. Development Team members CVs or at least CV of the team lead is required;

- b. It is recommended that AIRE <u>Digital Maturity Assessment</u> report is added to the application (if possible);
- c. Any other document describing technical solution, if needed.
- 5) The Application must involve:
  - Self-assessment of Innovation Readiness based on the <u>Healthcare Innovation</u> <u>Cycle framework;</u>
  - a preliminary assessment (regulatory qualification and risk-classification on the basis of MDR or IVDR) whether the technical solution involves or is a medical device<sup>1</sup>;
  - a roadmap or strategy for go-to-market and steps for the solution implementation to healthcare.

#### **Timeframe**

The call for ideas is open until 30<sup>th</sup> of April 2024. All applications submitted by deadline will proceed to evaluation.

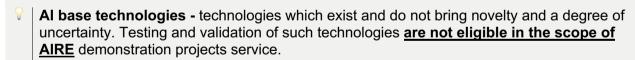
The duration of the demonstration project is preferably to be between 4 and 9 months.

The Development Team **can not** incur costs before signing the cooperation agreement.

# **Proposed Technical Solution**

The technical solution used in the demonstration project has to be either AI prerequisite or AI technology, AI base technologies are not eligible in the scope of AIRE. Also, AIRE does not support the acquisition or deployment of AI base technologies or 'off-the-shelf' solutions (see Annex 7). The technical solution has to be new in the market (i.e. the technological solution tested to solve particular challenge has to be novel).

When defining the solution, please follow the following definitions:



**Al prerequisite technologies** - context-aware technologies that create or process data automatically. There is a degree of uncertainty - the technical solution will emerge as the work progresses. Testing and validation of such technologies are eligible actions in the scope of the AIRE demonstration projects service if these test before invest activities lead

Al & Robotics Estonia (EDIH) is co-financed by European Digital Innovation Hubs Programme of the Digital Europe Programme and the Estonian Ministry of Economic Affairs and Communications

<sup>&</sup>lt;sup>1</sup> For Medical Device please see the <u>Guidance on classification of medical devices</u>
For software in Medical Device please see the <u>Guidance on Qualification and Classification of Software</u>

to adaption of AI technologies in the future. The company must have a clear plan to implement AI technologies as the follow-up action.

8

**Al technologies** - technologies which apply generally accepted Al algorithms and methods. Testing and validation of such technologies are eligible actions in the scope of the AIRE demonstration projects service.

## **Expected Results**

There are for results expected by the end of the demonstration project:

- A user experience story the company reflects on the project's user experience (see Annex 3);
- A final report a comprehensive report on the project is essential for AIRE coordination. The Development Team lead is responsible for finalising the report before the end of the project. AIRE will publish the document at the end of the project in AIRE GitHub (see Annex 4);
- A technological deliverable the Development Team works in a GitHub environment; the code repository with the documentation is made public at the end of the project (see Annex 6);
- Informational video the Development Team collaborates with the AIRE marketing team to create a video or other marketing material about the project (see AIRE demonstration project portfolio for examples).

All demonstration projects must follow the **reusability principle** - the demonstration project results can be reused by other companies in any or similar economic sector – the Development Team lead ensures the reusability by uploading the technological deliverable into AIRE GitHub.

#### **Publication**

AIRE demonstration projects service performs based on open science principle, where results of the projects are made public as much as possible. Publicity does not apply to enterprises' confidential data.

In principle, AIRE expects the publication of project results (this includes the final report and technological deliverable).

AIRE publishes the results on AIRE website and the AIRE GitHub organisation.

Exceptions are made only on an individual basis, project by project (e.g., the enterprise self-finances the project and wishes to keep all the technological deliverables afterward).

## Intellectual Property

As stated before, the AIRE demonstration projects service supports knowledge transfer from universities to manufacturing companies. The service does not expect the creation of new intellectual property. At the same time, creating intellectual property during the project is highly encouraged.

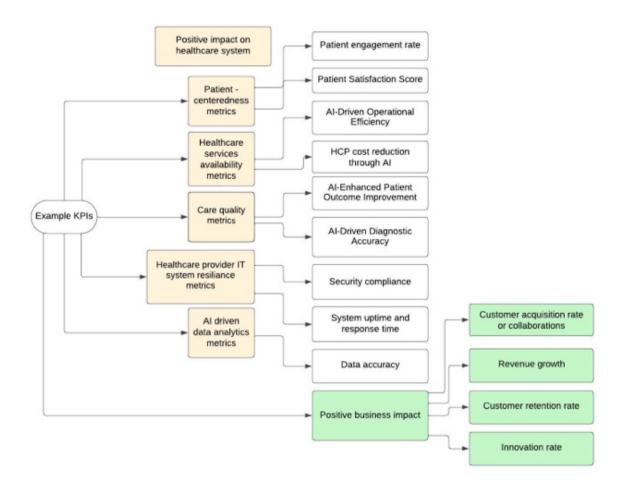
Intellectual property created during the demonstration project might be considered indirect state aid. AIRE will help navigate these situations case by case and in communication with the company and the Development Team.

In general, we expect the technological results of the project to be published by the Development Team under an MIT license via GitHub. To discuss other options (e.g., if intellectual property created independently by the applicant or third parties is used for the project), the applicant should reach out to AIRE demonstration projects service lead Katre Elias.

## **Expected Impact**

It is expected that all demonstration projects would have economic impact on healthcareand/or social care provider and/or healthcare technology company level. The technical solution should either lead to increased sales or quality, show efficiency in input resources or have any other positive business and /or healthcare system impact. It is necessary to describe the measurable economic impact of the project on the applicant (a percentage is also suitable). It is also required to describe the expected positive impact over the next three years to the healthand/or social care system.

The figure below shows examples of indicators that can be measured before, during, and after running the demonstration project. It is possible to create several sub-metrics within each metric. The Applicant should select the metrics based on the purpose of his demonstration project and the expected benefit. Please follow the Figure below to identify and describe your project's expected impact.



# How to apply?

The call for ideas for AIRE demonstration projects is open since 1<sup>st</sup> of April 2024. Deadline for submission of applications on health technology Call for Ideas is 30<sup>th</sup> of April 2024.

It is recommended that the Applicant has completed AIRE <u>Digital Maturity Assessment</u> before applying the demonstration project (alternatively, it can also be completed in parallel with application process).

To get started with preparing the demonstration project:

- 1. Find a partner from one of the AIRE partners' R&D institutions for forming a Development Team (see Section 'The Development Team');
- 2. Formulate your idea to be solved, be precise with:
  - What problem is to be solved
  - What is the expected outcome
  - To what extent can the enterprise commit itself
  - Expectations to the Development Team
  - 3. Take your time to discuss the idea, focus of the project and expected outcome with the Development Team
  - 4. In case of any questions feel free to contact demonstration project lead **Katre Eljas** (demonstration-projects@aire-edih.eu) to discuss the open issues.
  - 5. Fill in the <u>application</u> and submit via e-mail (<u>demonstration-projects@aire-edih.eu</u>). Make sure you have attached all necessary attachments.
  - 6. AIRE team will come back to you to conform that the application is received and forwarded to evaluation.

# **Funding**

AIRE is funded by European Commission Digital innovation Hubs (EDIH) programme (50%), co-funded by the Estonian State through the Ministry of Economic Affairs and Communications (40%) and self-financed by demonstration project (10%).

The funding and budget division principles of the project are described below:

The demonstration project **is funded** 50% by European Commission, 40% by Estonian state and 10% self-funded either by company or by AIRE partner organisation (the Development Team).

Due to the state co-funding AIRE demonstration projects service falls partly under <a href="the state">the state</a> <a href="mailto:aid regulation">aid regulation</a> for manufacturing companies. The state co-financed part of the demonstration project can be financed through one of the following state aid schemes:

- The de minimis aid regulation the Estonian state covers up to €24,000 of the total cost of the project (40% of the total cost of up to €60,000);
- <u>The General Block Exemption Regulation Article 25</u> each demonstration project application leveraging this measure is analysed individually;
- <u>The General Block Exemption Regulation Article 28</u> each demonstration project application leveraging this measure is analysed individually;
- The **total cost** for running a demonstration project is up to **€60,000** (including direct costs up to **€49,500** as well as AIRE management and indirect costs, AIRE <u>Digital Maturity</u> <u>Assessment</u> and <u>AIRE Club</u> participation and dissemination costs).
- Up to **25** % of the cost incurred by the Development Team can be the sub-contracting costs to acquiring IT development services from IT companies.

# The State Aid Regulation

AIRE services fall under <u>state aid regulation</u>. AIRE can fund projects under <u>the de minimis aid regulation</u>, <u>the General Block Exemption Regulation article 25</u>, <u>the General Block Exemption Regulation article 28</u>, and a mixture of all the listed state aid measures.

The state aid regulation does not apply if the company self-finances and covers the total cost of the demonstration project.

#### The de minimis Aid Regulation (VTA)

The de minimis aid regulation translates to vähese tähtsusega abi (VTA) in Estonian.

The de minimis aid is an aid which, because of its small amount, does not distort competition within the European Union. AIRE can leverage this measure.

While using VTA only, the total cost of running a demonstration project can be up to €60,000. The Estonian state covers up to €24,000 of the total cost of the project (40 % of the total cost of up to €60,000).

By applying to run a demonstration project following the de minimis aid (VTA), the Applicant confirms the following:

- They are eligible to receive aid under the VTA regulation;
- They have a sufficient balance of aid left (for the whole group) under the VTA regulation.
   The Applicant can check their current aid balance using a tool on the state aid and VTA registry website (in Estonian);
- They agree to AIRE reserving necessary aid balance in the VTA registry at the start of the demonstration project, right after the legal documents (including the cooperation agreement) are signed (e.g., for a demonstration project with a total cost of €60,000, AIRE will reserve €24 000 in the VTA registry).

#### The General Block Exemption Regulation (GBER) Article 25

There are different provisions under the General Block Exemption Regulation (GBER) to give aid. AIRE can leverage Section 4 - aid for research and development and innovation, and Article 25 - aid for research and development projects. Each demonstration project application leveraging this measure is analysed individually.

Please be aware of:

- 1. Aid for research and development projects, including research and development projects having received a Seal of Excellence quality label under the Horizon 2020 or under the Horizon Europe programme and co-funded research and development projects and, where applicable, aid for co-funded Teaming actions, shall be compatible with the internal market within the meaning of Article 107(3) of the Treaty and shall be exempted from the notification requirement of Article 108(3) of the Treaty, provided that the conditions laid down in this Article and in Chapter I are fulfilled;
- 2. The aided part of the research and development project shall completely fall within one or more of the following categories:
  - fundamental research (not applicable for AIRE);
  - industrial research (not applicable for AIRE);
  - experimental development (<u>not applicable for AIRE</u>);
  - · feasibility studies;

- 3. The eligible costs of research and development projects shall be allocated to a specific category of research and development and shall be the following:
  - Personnel costs: researchers, technicians and other supporting staff to the extent employed on the project;
  - Costs of instruments and equipment to the extent and for the period used for the
    project. Where such instruments and equipment are not used for their full life for the
    project, only the depreciation costs corresponding to the life of the project, as
    calculated on the basis of generally accepted accounting principles are considered
    as eligible;
  - Costs for of buildings and land, to the extent and for the duration period used for the
    project. With regard to buildings, only the depreciation costs corresponding to the
    life of the project, as calculated on the basis of generally accepted accounting
    principles are considered as eligible. For land, costs of commercial transfer or
    actually incurred capital costs are eligible;
  - Costs of contractual research, knowledge and patents bought or licensed from outside sources at arm's length conditions, as well as costs of consultancy and equivalent services used exclusively for the project;
  - Additional overheads and other operating expenses, including costs of materials, supplies and similar products, incurred directly as a result of the project;
- 4. The eligible costs for feasibility studies shall be the costs of the study;
- 5. The aid intensity for each beneficiary shall not exceed:
  - 100 % of the eligible costs for fundamental research (not applicable for AIRE);
  - 50 % of the eligible costs for industrial research (not applicable for AIRE);
  - 25 % of the eligible costs for experimental development (not applicable for AIRE);
  - 50 % of the eligible costs for feasibility studies;
- 6. The aid intensities for industrial research and experimental development may be increased up to a maximum aid intensity of 80 % of the eligible costs as follows:
  - by 10 percentage points for medium-sized enterprises and by 20 percentage points for small enterprises;
  - by 15 percentage points if one of the following conditions is fulfilled:
    - i. the project involves effective collaboration:
      - ✓ between undertakings among which at least one is an SME, or is carried out in at least two Member States, or in a Member State and in a Contracting Party of the EEA Agreement, and no single undertaking bears more than 70 % of the eligible costs, or
      - ✓ between an undertaking and one or more research and knowledgedissemination organisations, where the latter bear at least 10 % of the eligible costs and have the right to publish their own research results;
    - ii. the results of the project are widely disseminated through conferences, publication, open access repositories, or free or open source software.
- 7. The aid intensities for feasibility studies may be increased by 10 percentage points for medium-sized enterprises and by 20 percentage points for small enterprises.

#### The General Block Exemption Regulation (GBER) Article 28

There are different provisions under the General Block Exemption Regulation (GBER) to give aid. AIRE can leverage Section 4 - aid for research and development and innovation, and Article 28 - innovation aid for SMEs. Each demonstration project application leveraging this measure is analysed individually.

#### Please be aware of:

- 1. Innovation aid for SMEs shall be compatible with the internal market within the meaning of Article 107(3) of the Treaty and shall be exempted from the notification requirement of Article 108(3) of the Treaty, provided the conditions laid down in this Article and in Chapter I are fulfilled:
- 2. The eligible costs shall be the following:
  - costs for innovation advisory and support services.
- 3. The aid intensity can be up to 100% of the eligible costs provided that the total amount of aid for innovation advisory and support services does not exceed EUR 220 000 per undertaking within any three year period.

# Self-financing

The level of self-financing is at least 10% of the total cost of the demonstration project. Self-financing is covered by the Applicant (company) or by the Development Team (AIRE partner organisation) or by sharing it.

The state aid regulation does not apply if the company finances and covers the total cost of the demonstration project. While financing the whole project budget by the company, the total cost of running a demonstration project can be discussed (the default is €60,000). AIRE will help determine the total cost of the demonstration project in direct discussions with the applicant based on the applicant's needs and the idea.

# Eligibility of Expenditure

The costs necessary for the realisation of the demonstration project (salaries, rental and depreciation of equipment during the project, supplies, licences, transport and other costs directly justified by the realisation of the project) are all allowed. **Costs made before the signature of the cooperation agreement are not eligible**.

Eligible expenditure for aid falling exclusively under GBER Article 25 or GBER Article 28 is, however, limited to the costs stipulated above.

The project funding may only cover the costs incurred by AIRE partners:

- Innovative Manufacturing Engineering Systems Competence Centre (IMECC);
- Estonian University of Life Sciences:
- Tallinn University of Technology;
- University of Tartu;
- Tartu Science Park;
- · Tehnopol Science and Business Park.

Costs incurred by the Applicant are not eligible. The Applicant receives state aid in the form of the AIRE demonstration projects service.

## **Evaluation**

The Call for Ideas in health technologies is open until 30<sup>th</sup> of April 2024. AIRE publishes the date via AIRE website.

AIRE evaluates applications in three stages:

- 1) Technical evaluation;
- 2) Expert evaluation;
- 3) Advisory board evaluation.

#### **Technical Evaluation**

AIRE will check all the technical details described on the application to validate the idea's eligibility. If the application does not meet the necessary criteria, AIRE will give feedback to the Applicant to improve the application or apply again (depending on the feedback).

All successfully passed applications will be forwarded to expert evaluation.

## **Expert Evaluation**

AIRE comprises an Expert Committee to dive deeper into the AI component of the proposed idea. This is done in two parts:

- Expert assessment;
- Expert scoring.

AIRE has procured AI experts from the health technology industry to evaluate applications (Expert Committee). The task of the expert committee is to provide expert evaluation.

#### **Expert Assessment**

The Expert Committee will investigate the proposed solution details described on the application to validate the idea's eligibility. The experts will take and express a position on the AI component in the context of AIRE and the proposed demonstration project. If the application does not meet the necessary criteria, AIRE will give feedback to the applicant. The feedback includes details on what to improve to apply again (if possible).

#### **Expert Scoring**

The Expert Committee will score the applications based on set criteria. The experts score a potential demonstration project using the evaluation form that logically corresponds to the application form. Every committee member will assess the applications individually, in a total of 4 main categories. In addition, every committee member will provide free-form feedback and comments.

The experts score in 4 categories:

- 1) General (30 %):
  - 5 % Demonstration Project Objectives:
  - 5 % Clinical or healthcare system need statement (problem description);
  - 10% Roadmap for go-to-market and solution implementation to healthcare.
  - 5 % Expected Results;
  - 5 % Reusability;

- 2) Development Team (20 %)
- 3) Novelty (20 %)
- 4) Expected Impact and KPIs (30 %)

AIRE presents the scoring to the Advisory Board with summary of the application.

Successful Applicants will be asked to present their project idea and solution to the Advisory Board round table discussion.

# **Advisory Board Evaluation**

AIRE has a group of international business leaders to help determine the economic impact of its actions based on the KPIs. The Advisory Board does not evaluate the project quantitatively, it gives qualitative advice and recommendations instead. Currently, AIRE Advisory Board for health technology Call for Ideas consists of the following members:

- Andre Koit, Roche
- Mart Toots, Estonian Business and Innovation Agency
- Erki Mölder, Verge HealthTech Fund

All Advisory Board members have signed the Non-Disclosure Declaration.

#### **The Project Presentation**

The Applicant who is invited to join the round-table discussion will get a chance to present their idea to the Advisory Board:

- The presentation is individual per applicant;
- The presentation is confidential and not shared publicly in any way:
- The presentation is expected to be up to 10 minutes;
- The Advisory Board is encouraged to give feedback and ask additional questions to determine the economic impact of the potential demonstration project if not clear. A discussion between the applicant and the advisory board is encouraged.

AIRE expects the applicant to be present on-site or online. At least one representative from the Applicant (company) and the Development Team lead are expected to be present.

# What's next?

After evaluation, AIRE comprises the list of demonstration projects with evaluation results. AIRE presents this information to the AIRE Steering Committee, which will make the final decision. AIRE Steering Committee consists of at least one representative from each AIRE partner organisation.

In case the Application is not approved, the Steering Committee's reasoning has to be solid and understandable. AIRE will then give feedback to the applicant on what to improve to apply again (if possible).

When the application is approved, AIRE will notify the Applicant (in no more than five working days) via email. AIRE will then provide all legal documents (e.g. cooperation agreement) and helps the project team to start with the project.

Finally, the work can begin!

# Glossary

- Advisory Board a group of international business leaders to help AIRE determine the economic impact of its actions;
- Al Base Technology technology which exists and does not bring novelty and a degree of uncertainty;
- AIRE AI & Robotics Estonia;
- AIRE Demonstration Project a project to be carried out in or for the healthcare sector, which justifiably leverages AI and AI-enabling technologies (including robotics) by providing access to digital transformation expertise and testing and experimentation services/facilities. The technology, methodology, or prototype tested and validated during the demonstration project must bring novelty and a degree of uncertainty (e.g., a tailormade solution);
- Al Prerequisite Technology context-aware technology that creates or processes data automatically. There is a degree of uncertainty - the technical solution will emerge as the work progresses;
- Al Technology technology which applies generally accepted Al algorithms and methods;
- EDIH European Digital Innovation Hub;
- EMTAK The Estonian Classification of Economic Activities (Eesti Majanduse <u>Tegevusalade Klassifikaator</u>). This is the national version of the international harmonised NACE classification;
- GBER General Block Exemption Regulation, which enables EU governments to grant aid
  to a wider range of companies without having to request prior permission from the European
  Commission. The exemption is designed to reduce administrative burdens on national and
  local authorities and to encourage EU governments to channel aid towards economic
  growth without giving recipients an unfair competitive advantage. This is a specific domain
  under state aid regulation;
- GDPR General Data Protection Regulation.
- IMECC Innovative Manufacturing Engineering Systems Competence Centre (AIRE partner organisation);
- Innovation advisory services consultancy, assistance and training in the fields of knowledge transfer, acquisition, protection and exploitation of intangible assets, use of standards and regulations embedding them;
- IVDR In-vitro Diagnostic Medical Devices regulation (EU 2017/746)
- Knowledge Transfer any process which has the aim of acquiring, collecting and sharing explicit and tacit knowledge, including skills and competence in both economic and non-economic activities such as research collaborations, consultancy, licensing, spin-off creation, publication and mobility of researchers and other personnel involved in those activities. Besides scientific and technological knowledge, it includes other kinds of knowledge such as knowledge on the use of standards and regulations embedding them and on conditions of real-life operating environments and methods for organisational innovation, as well as management of knowledge related to identifying, acquiring, protecting, defending and exploiting intangible assets;
- KPI key performance indicator. KPIs are the critical (key) quantifiable indicators of
  progress toward an intended result. KPIs provide a focus for strategic and operational
  improvement, create an analytical basis for decision making and help focus attention on
  what matters most;
- MDR <u>Medical Device Regulation</u> (EU 2017/745)

- 'Off-the-Shelf' Commercial off-the-shelf or commercially available off-the-shelf products are packaged hardware or software, which are adapted aftermarket to the needs of the purchasing organisation, rather than the commissioning of custom-made, or <a href="bespoke">bespoke</a>, solutions:
- Test Before Invest a category of services, which may include: awareness raising, digital
  maturity assessment, demonstration activities, visioning for digital transformation, fostering
  the integration, adaptation and customisation of various technologies, testing and
  experimentation with digital technologies (software and hardware), knowledge and
  technology transfer. Special focus will be on the key technologies promoted in <u>Digital</u>
  Europe Programme: HPC, AI, and Cybersecurity;
- **SME** small and medium-sized enterprise;
- Steering Committee a group of representatives from the AIRE consortium. The steering committee validates and approves AIRE key decisions, including approving the demonstration projects as a last step before work can begin;
- VTA de minimis aid regulation (vähese tähtsusega abi).

### Annex 1. AIRE Demonstration Projects Service Application

The fillable form can be found on AIRE website.

Annex 2. AIRE Demonstration Projects Service Application Evaluation

The fillable form can be found on AIRE website.

Annex 3. AIRE Demonstration Project User Experience Story

The fillable form can be found on AIRE website.

Annex 4. AIRE Demonstration Project Final Report

The fillable form can be found on AIRE website.

Annex 5. AIRE Demonstration Project Standard Contract

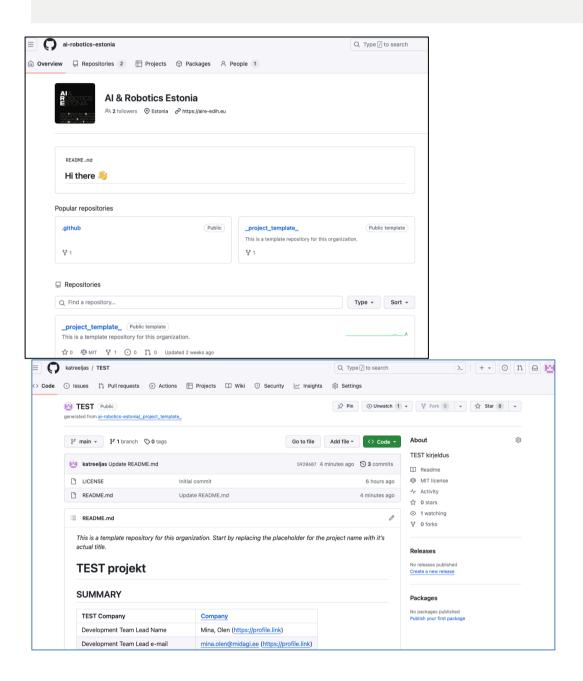
The contract can be found on AIRE website.

## Annex 6. Code Repository Template for the Development Team

The Development Team will have a dedicated team space on AIRE GitHub, including a code repository. For the duration of the demonstration project, the team can work privately in the code repository.

AIRE will publish the code repository after the completion of the demonstration project. The code repository will be shared through other public channels, such as <u>AIRE website</u> and <u>kratid.ee</u> website.

♥ Template code repository: https://github.com/ai-robotics-estonia/ project template



# Annex 7. AIRE eligible technology examples (tailored for manufacturing industry, to be taken as example for health technologies)

	Al Base Technology	Al Prerequisite Technology	Al Technology
Elibiligity	No	Depending on the idea	Yes
Data	Collection Processing	Electronic Data Interchange  Data Varehouse  Web Crawler  Algorithmic Predictive Processing  Algorithmic Predictive Predictive Modeling  Algorithmic Predictive Predictive Modeling  Algorithmic Predictive Predictive Modeling  Modeling  Algorithmic Predictive Predictive Modeling  Modeling	Al-based Data Processing  Al-based Predictive Modeling  Al-based Process Optimisation
Manufacturing and Processes	Planning Process Standardisation  Product Testing	Algorithmic Planning  Perspective Video/Photo Technologies  Collaborative  Statistical Process Control  Digital Product Lifecycle Management	Al-based Process Control  Al-based Video/Photo Interpretation
Equipment	Programming Robots CNC Workbench Programming  Preventive Measuring Overall Equipment Effectiveness	Robots  Automated Warehouse  Remote Maintenance  Blueprint > STEP & STEP > BoM/CNC Algorithmic Process Automation  Algorithmic Process Automation  Automation  Algorithmic Operating Program Automation	lations / al Twins  Al-powered Robots  Al-based Progamming in Offline Robots  Predictive Maintenance  Blueprint > STEP & STEP > BOM/CNC Al-based Process Automation
Employees and Clients	Online Order Form Interfacing with ERP/CRM  Tutorial Videos and Manuals	AugmentedReality TWIN/S	Al-based Customer Service Al-based Training
Technologies (non- exhaustive list)	ERP/MRP/CRM/;     Excel/Bl;     Robots, Cobots (predefined movements);     Web development;     Adoption of cloud technology and data warehouses;     CNC equipment and programming;     Simple interfaces;     (one-off) data analytics;     Web crawler;     OEE monitoring sensors;	Decision trees; Algorithmic problem solving; Complex interfaces; Cobots (real-time monitoring of signals from the outside world); Virtual/Augmented Reality; Digital twins and algorithmic simulation models; Building a data warehouse system; Data mining (incl. web scratching); Anomaly Detection (algorithmic); Intenet of Things devices;	Semantic Reasoning; Trustworthy Al solutions; Machine Learning; Reinforcement Learning; Monte Carlo simulations; Classification and regression analysis; Clustering; Prediction models; Anomaly Detection (pattern-based); Constraint solving solutions; Job shop scheduling;