2016-2020 RESTART SEARCH

RESEARCH, TECHNOLOGICAL DEVELOPMENT AND INNOVATION PROGRAMMES

FUNDING SCHEME

«RESTART 2016-2020» Programmes for Research, Technological Development and Innovation

PROGRAMME

«AI in Government»

CALL FOR PROPOSALS

AIINGOVT/0725

Republic of Cyprus

RESEARCH & INNOVATION FOUNDATION

DEPUTY MINISTRY OF RESEARCH, INNOVATION AND DIGITAL POLICY
REPUBLIC OF CYPRUS

INTRODUCTION

The Research and Innovation Foundation, in collaboration with the Deputy Ministry of Research, Innovation, and Digital Policy, announces the Call for Proposals for the **«AI in Government» Programme** within the framework of the **«RESTART 2016-2020» Programmes for Research, Technological Development and Innovation (RTDI) – Programmes for the period May 2022- June 2025** and invites potential beneficiaries to submit relevant Project Proposals (Proposals).

The present Call will be funded by the Republic of Cyprus.

GENERAL CALL INFORMATION

Pillar	**II. SUSTAINABLE RTDI SYSTEM**
Programme	**AI in Government**
Call Identifier	**AIINGOVT/0725**
Funding Source	**NATIONAL FUNDING**
Call Budget	**5.000.000 Euro**
Maximun Funding Per Challenge	**Challenge Meteorology 1: 1.000.000 Euro** **Challenge Meteorology 2: 500.000 Euro** **Challenge by Ministry of Education, Sport and Youth 3: 500.000 Euro**
Publication Date	**24 July 2025**
Deadline	**Deadline Challenge Meteorology 1:** **17 October 2025, time 13:00** **Deadline Challenge Meteorology 2:** **17 October 2025, time 13:00** **Deadline Challenge by Ministry of Education, Sport and Youth 3:** **31 October 2025, time 13:00**

The English version of the Call, even though an official translation endorsed by the Research and Innovation Foundation, is provided for information purposes only. Only the Greek version of the Call is legally binding and shall prevail in case of any divergence in interpretation.

OBJECTIVES

The aim of this call is to develop innovative solutions that utilize Artificial Intelligence (AI) to address specific challenges faced by public authorities. Through the program, participants have the opportunity to receive financial support for the development and testing of a prototype in a real environment, with the aim of subsequently developing it into a marketable product, service, or solution. Participants will retain full Intellectual Property Rights (IPR) generated from the process, along with full ownership of the resulting innovation for future commercial use.

DESCRIPTION

Phase A: Prototype Development

Duration: Up to 9 months

Funding: As stated in the Annex describing each Challenge

The purpose of Phase A is to create a functional prototype that demonstrates its technical and commercial viability. The prototype may be based on open data, synthetic data, or virtual data, which will be used to simulate real-world scenarios as described in the challenge.

Phase B: Pilot Installation and Further Development

Duration: Up to 27 months

Funding: As specified in the Annex describing each Challenge.

Phase B involves installing and testing the prototype in a real environment, as well as developing it into a fully functional product, service, or solution. This phase constitutes an iterative development process and requires cooperation with the competent public authority for each Challenge, as well as access to proprietary or sensitive data of the competent public authority. Where required, lawful access, security, and anonymization of data must be ensured in accordance with applicable law and regulatory framework.

Proposals must address one of the Challenges presented in the Annexes to this Call and demonstrate clear innovation that provides a sustainable competitive advantage in addressing the Challenge. This call is an opportunity to develop solutions that meet real public sector needs while also having the potential to penetrate the domestic or international market.

To support the successful implementation of the projects, the relevant public authorities facing these challenges have committed to assigning dedicated personnel who will offer substantial support, allocate sufficient time, and make timely decisions to ensure effective progress and completion. Further details are included in the description of each challenge.

BENEFICIARIES

Enterprises, Research Organisations and Other Private and Public Organisations

SPECIFIC RESTRICTIONS AND CONDITIONS FOR PARTICIPATION

The Host Organisation must be an Enterprise (Small, Medium or Large).

Research organizations, enterprises, and other public and private sector Organizations can participate as Partners. It should be noted that Ministries, Deputy Ministries and their Departments are not eligible to participate.

Partner Organisations may only participate in Industrial Research and Experimental Development Activities.

PROJECT ACTIVITIES

Phase A: Industrial Research, Experimental Development, Feasibility Study

Phase B: Experimental Development, Feasibility Study, Innovation Activities

MAXIMUM AID INTENSITY

Aid Intensity is calculated separately for each organisation and according to the type of activity, as follows:

- The Maximum Aid Intensity, pursuant to the State Aid framework, for each beneficiary category, is summarised in Table III.1 that follows.
- For beneficiaries classified under Category A as "Research Organisations" and Category C.2 as "Other Public and Broader Public Sector Organisations," the aid intensity covers 80% of the project's eligible costs. This funding is not subject to state aid control regulations.
- The Maximum Aid Intensity for beneficiaries not classified as one of the above type of organisations, will be that of the Type of Enterprise to which they belong (Small, Medium-size or Large Enterprise).

Table III.1 MAXIMUM AID INTENSITY FOR RESEARCH AND DEVELOPMENT ACTIVITIES			
A. BASIC INTENSITY **Calculated according to the project research character**			
The Project's Research Character	**Small Enterprise**	**Medium Enterprise**	**Large Enterprise**
Industrial Research Activities	**70%**	**60%**	**50%**
Experimental Development Activities	**45%**	**35%**	**25%**
Feasibility Studies	**70%**	**60%**	**50%**

15% can be added to the Basic Intensity in the event that the project covers one of the following special provisions (besides Feasibility Studies), if one of the following conditions is met:

- The Project involves effective collaboration between enterprises of which at least one is an SME, or
- between one enterprise and one or more research and knowledge-dissemination organisations, where the latter bear at least 10 % of the eligible costs and have the right to publish their own research results, or
- The Project results are widely disseminated through open source software.

The maximum permissible aid intensity for start-ups is equal to the maximum aid intensity applicable to small enterprises.

The maximum aid intensity for innovation activities is 50% for small and medium-sized enterprises. For large enterprises, innovation activities will be financed on the basis of the de minimis aid regulation.

Enterprises and other private law entities may alternatively use de minimis aid, and the aid intensity may reach up to 100% of the eligible project costs. However, it may not exceed the amount specified in Regulation (EU) 1407/2013 on de minimis aid (which has been replaced by Commission Regulation (EU) 2023/2831 of 13 December 2023).

DURATION OF PROJECT IMPLEMENTATION

For Phase A, up to 9 months

For Phase B, up to 27 months

The total duration of the two phases cannot exceed 36 months.

BUDGET

€5.000.000

MAXIMUM FUNDING PER PROJECT

As stated in the Annex describing each Challenge

ELIGIBLE COSTS

Personnel Costs, Costs for Instruments and Equipment, Costs for External Services, Consumables, Other Specific Costs, Overheads.

Please note that dissemination activities are eligible only for entities classified under Category A (“Research Organisations”) and Category C.2 (“Other Public and Broader Public Sector Organisations”).

Cost for External Services must not exceed 40% of the total project budget for each Phase in accordance with the Project Contract.

In cases of Cost for Instruments and Equipment, three (3) offers from three (3) independent suppliers must be submitted in Annex II.

RESTART 2016-2020 WORK PROGRAMME

All general rules and procedures for the participation of organisations and individuals, the eligible activities and costs, as well as the specific information regarding the Programmes RESTART 2016-2020 **are included in the RESTART 2016-2020 Work Programme for the period May 2022 - June 2025**, which is the main reference document and an important information source for interested parties and can be found on the Research and Innovation Foundation's **IRIS (Innovation Research Information System) Portal** (**https://iris.research.org.cy/#/documentlibrary**).

SPECIFIC CONDITIONS

Within the framework of the present Call the following specific conditions also apply:

- In Phase A, a milestone should be set for the completion of the prototype, at which time the prototype should be ready for pilot implementation in the field. Upon reaching the "Prototype Ready" milestone, RIF will conduct an evaluation with the participation of an independent evaluator in order to determine whether the prototype complies with the contract (i.e., it receives a grade of A or B in the technical-scientific evaluation stage by the independent evaluator). Otherwise (grade C, D, or E), the evaluator will propose corrective measures to be implemented without additional funding. In order to proceed to Phase B of implementation, the Host Organisation must be able to demonstrate that the prototype and all the necessary documentation for installation in a real environment are ready for pilot implementation in the field, and obtain the evaluator's approval.
- Upon completion of Phase B, the projects will be subject to a new evaluation by an independent evaluator.
- Intellectual Property Rights Protection Obligation: The aim of this Call is to fund the development of innovative solutions. The Host Organisation and Partner Organisations must ensure that new knowledge and technology are adequately protected by one or more appropriate means of intellectual property protection prior to any publication. Protection methods may include patents, copyrights, trade secrets, etc. Adequate protection must cover, at a minimum, the European Union in order to ensure commercial viability.
- Open Access to Instruments and Equipment to be acquired with public funding under the project: The Host Organisation and Partner Organisations are required to provide transparent and non-discriminatory access to ecosystem entities for equipment valued at over €100,000.
- Impact Report: Within six months of completing the project, the Host Organisation must submit an impact report to RIF describing and quantifying the benefits of the solution to the specific challenge.
- The proposal must include the following mandatory deliverables: Prototype for Phase A, final product/service for Phase B, and Intellectual Property Protection (in Phase B).

The final product/service for Phase B should include manuals and other educational material that facilitates or is necessary for the effective use of the deliverables.

- The Host Organisation may, if it so wishes, make use of the services of the Central Knowledge Transfer Office through Path 2, but this is not mandatory.
- All publicly funded organizations that provide access to research or technological infrastructure to third parties must ensure that access is provided on terms of equal and fair treatment, based on transparent, clearly defined and publicly available procedures. Equal access to information—such as the terms, conditions, and available possibilities for utilizing the infrastructure—is an integral part of transparency and strengthening competition. The Deputy Ministry of Research, Innovation, and Digital Policy encourages all stakeholders in the ecosystem, and in particular publicly funded organizations, to facilitate access to research infrastructure, thereby contributing to the collective strengthening of research, innovation, and the country's extroversion.
- The Host Organisation should submit to Competent National Registries updated data regarding their ultimate beneficial owners as per «The prevention and suppression of money laundering and terrorist financing Law of 2007 (188(I)/2007)». RIF reserves the right to carry out checks in the competent Registers and to request an official proof for the registration. Furthermore, during contract preparation, all private law entities are obliged to submit the Declaration of Beneficial Owners accompanied by the official proof of registration. In addition, all Private Law Entities applying for funding exceeding EUR 150.000 must also submit in the Declaration of Beneficiaries the details of their actual beneficiaries (Name, Identity Card/Passport Number and Date of Birth).

SUBMISSION

Proposals are submitted through the Research and Innovation Foundation's **IRIS Portal** (**https://iris.research.org.cy**).

The Project Coordinator and all local participating organisations in the Project Consortium, should register in advance on the IRIS Portal.

Potential applicants are advised to use the **«Guide for Applicants»**, which contains guidelines and clarifications regarding the Submission procedure and the **«IRIS Portal User Manual»** which can be found on the IRIS Portal (**https://iris.research.org.cy/#/documentlibrary**).

The Project Proposal consists of the following parts:

1. Part A – General Information & Budget (electronic form (fields) to be completed online through the IRIS Portal).
2. Part B – Technical Annex (document to be uploaded as an Annex on the IRIS Portal in PDF format). ***Note:*** *The template provided for this Call must be submitted* ***without any alterations****. The Part B template for this Call can be found on the IRIS Portal, under the relevant Call for Proposals (Call Documents).*
3. ANNEX I – Curricula Vitae (document to be uploaded as an Annex on the IRIS Portal in PDF format and includes the CVs of the Coordinator and the key personnel of the

project team). *It is recommended that, CVs are created according to the EUROPASS format and do not exceed 5 pages per person* - ***Optional Submission***

4. ANNEX II – – Call Specific Information – ***Obligatory submission when the acquisition of instruments and equipment is required*** (document to be uploaded as an Annex on the IRIS Portal in PDF format)**:**

    (a) Estimation of the cost of the equipment based on a minimum of 3 offers from 3 different suppliers who can meet the Host Organisation's requirements. (financial offers must be submitted).

It is noted that if the required documents are not submitted at the proposal submission stage, the proposal will not be forwarded for scientific evaluation.

PROJECT SELECTION

Evaluation Procedure

The evaluation of the proposals for the Program will follow a Preliminary Check procedure, as outlined in the Call for Proposals of the RESTART 2016-2020 Programs, followed by an evaluation by an Independent Thematic Evaluation Committee consisting of five (5) experts. Each Committee will draw up a ranking list of proposals submitted in each Challenge.

Before scoring each Proposal according to the evaluation criteria, the members of the Independent Committees will check the Proposal's compatibility with the objectives of the Program and the Call. This check includes the requirement that the Proposal addresses one of the Challenges presented in the Annexes to this Call, as well as incorporating clear innovation that provides a sustainable competitive advantage in solving a specific Challenge, which falls into at least one of the following categories as described below:

- Innovation/Originality: New technology, process, or solution that is not currently available on the market.
- Significant Modifications: Substantial improvements to existing technologies or processes, enabling their use in environments or conditions where existing solutions are not feasible.
- Performance Upgrade: Improvement in functionality, cost, or performance compared to existing technologies or market best practices.

If the Proposal is not compatible with the above, the Committee rejects the Proposal and does not proceed with the examination of the evaluation criteria.

After completion of the procedure, the relevant Evaluation Report will be communicated to the Project Coordinator, stating the rationale behind the Committee's decision. The Committee's decision is final and cannot be appealed against.

Evaluation Criteria

1. Excellence – Weight 30%

Scientific and Technical Quality: Clarity of objectives, documented methodology, and innovation potential.

Innovation in the Field of Artificial Intelligence: Degree of innovation of the proposed solution (using artificial intelligence) and degree of utilization and application of artificial intelligence to meet the needs of the Challenge. Alignment with the latest techniques and relevance to the needs of the competent public authority. Degree of utilization of advanced or emerging technologies.

Degree of Addressing the Challenge: Extent to which the proposed solution responds effectively and specifically to the defined challenge.

Technical Approach: Clarity and completeness of the technical methodology, including how the approach will address known issues of the artificial intelligence methods used, such as the production of inaccurate or false information (hallucination) from large language models.

Ethical and Responsible Artificial Intelligence: Emphasis on fairness, transparency in how conclusions are drawn and the critical data used, verification of results, and limitation of bias.

2. Added Value and Benefit – Weight 40%

Policy Relevance: Alignment with national or local government priorities (e.g., meteorological needs, digital transformation, public health, climate resilience).

Effectiveness and Efficiency: Potential to improve the operational efficiency and effectiveness of relevant activities and tasks.

Benefits for the Public Sector, Industry, and the Environment: Expected positive impacts on the performance of the activities of the relevant public authorities in Cyprus, which are documented through specific Key Performance Indicators (KPIs), including competitive advantages over existing and emerging competitors and reflecting the “Voice of the Customer” in Cyprus.

Social Benefit: Documented potential for improving the quality of services or the efficiency of the competent public authorities covered by the activity.

Scaling Up and Wider Application: Potential for replication and widespread adoption in the EU and other geographical areas.

Results and Public Funding: Degree to which the expected results justify the investment of public resources.

3. Implementation – Weight 30%

Project Management: Realistic work plan, clear milestones, and risk management strategies.

Maintenance and Upgrade Capability: Ability to maintain and upgrade the proposed solution during Phase II, including a clear and adequate plan for its continuous improvement, support, and further development through regular updates, improvements, and new releases.

Budget Justification: Adequate justification of proposed expenses in accordance with the proposed activities and work packages and their distribution by expense category, with a clear distinction between Phase A and Phase B.

Cost Justification: Adequate justification of costs with calculations where applicable and/or indicative offers for the purchase of equipment.

Quality of Implementation Plan and Risk Management Plan: Completeness and effectiveness of the implementation plan, including risk management. Risk management should include execution risks related to the development of the product/service by the team — including freedom to operate and securing intellectual property rights, co-invention, and execution risks from suppliers and external partners. In addition, it should cover adoption risks, such as the need for regulatory approvals, potential resistance from end users, and reluctance to adopt innovation by public and private entities in Cyprus and other countries. It should also include an adequate contingency plan to be implemented in case of need.

Team Capabilities and Experience: Assessment of the technical and managerial capabilities of the project team, as well as its experience in activities related to the project, or explanation of how the lack of relevant experience within the team is compensated for.

Timeline and Deliverables: Clear and well-documented planning of phases, deliverables and detailed timelines.

Use of Public Resources: Efficiency in the use of public funding.

Solution Integration Capability: The degree to which the solution can be integrated with existing public sector infrastructure and support open standards.

User Research: Documented understanding of end-user needs.

User Participation and Testing: Specific plans for user participation and testing of the solution during development and implementation.

Quality and effectiveness of the pilot implementation, with an emphasis on measurable results.

Selection

The first eligible proposal achieving the highest score per Challenge is selected for funding.

Contract Preparation

After completion of the evaluation process and announcement of the results for each Challenge, RIF invites the Host Organisation and Project Coordinators (PC) of the eligible project proposal achieving the highest score in each Challenge to the contract preparation process. The signing of the Contracts must be completed within 1 month from the date of the invitation to prepare the Contract.

In the event where the Contract preparation procedure with the Host Organisations of one or more Proposals is terminated, the following Proposals with the highest rank will be invited to the Contract Preparation stage. This procedure may only be applied once for each Challenge.

It should be noted that two separate Contracts will be prepared for each proposal, one for Phase A and one for Phase B. The Phase B Contract will only come into effect if Phase A receives a score of A or B in the scientific evaluation stage by the independent evaluator.

Funding Payment

Within the framework of this Call and provided that the financial viability criteria as set out in Chapter 4.4. of the RESTART Program Announcement are met, the funding will be paid in instalments as follows:

Phase A:

- **Pre-financing:** pre-financing corresponds to 60% of the Requested Funding and will be paid upon Contract signature.
- **Final Payment:** the Final Payment, may correspond to up to the balance of the Requested Funding, taking into consideration the eligible costs of the project and the Final Aid Intensity.

Phase B:

- **Pre-financing:** pre-financing corresponds to 40% of the Requested Funding and will be paid upon Contract signature.
- **Interim Payment**, which may correspond to up to **40%** of the Requested Funding.
- **Final Payment:** the Final Payment, may correspond to up to the balance of the Requested Funding, taking into consideration the eligible costs of the project and the Final Aid Intensity.

INFORMATION – CONTACT DETAILS

RIF Support Service

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The Research and Innovation Foundation may at its discretion, proceed to the extension or revocation of the present Call by applying the same publication procedure.

Annex I

Meteorology Challenge 1 – Early Warning System for Extreme Weather Events

BUDGET

- **Phase A:** Up to €100,000
- **Phase B:** Up to €900,000

Introduction

The challenges outlined by the Meteorology Department, as detailed in the "AI in Gov't" Call, focus on the development of (a) an integrated agro-meteorological warning system and decision support system, and (b) an advanced Early Warning System for extreme weather events, based on Artificial Intelligence technologies. These align with the priority axes of the Ministry of Agriculture, Rural Development, and Environment's Strategic Plan 2025-2027, as well as national and European policies related to the Green Deal and climate change adaptation.

Specifically, these actions support:

- The promotion of climate-smart agriculture and resilient agri-food systems.
- Improving resilience to climate risks and preventing natural disasters, with emphasis on wildfires and extreme weather events.

Additionally, the solutions provided are expected to integrate innovative technological approaches, contributing to the Meteorology Department's strategic goal of modernizing operational capabilities through AI and Big Data, and reinforcing the Ministry's role in the national digital transformation strategy.

Challenge Description

The Meteorology Department of the Republic of Cyprus promotes the development of a modern Early Warning System for extreme weather events, utilizing Artificial Intelligence technologies.

Despite the progress in existing numerical weather models, traditional methods often present delays and limitations in forecasting sudden developments such as severe storms, wind gusts, lightning strikes, or flash floods. The integration of AI solutions could significantly enhance the accuracy and speed of diagnosing these phenomena, utilizing real-time data from various sources (radars, satellites, ground measurements, GNSS receivers, vertical atmospheric temperature and moisture profile sensors, lightning protection networks).

The development of an intelligent machine learning system capable of detecting hazardous phenomena early and providing immediate and targeted warnings to relevant authorities and the public will significantly improve preparedness and crisis management.

The expected benefits include enhancing human life protection, safeguarding critical infrastructure (electric grids, telecommunications), reducing the economic impacts of natural disasters on agriculture and public life in general, and improving emergency services' response and communication.

Strategic Framework

The proposal for the development of an Early Warning System based on AI aligns directly with

the Ministry's strategic goals (page 8 of the Strategic Plan), especially the goal of "Reducing greenhouse gas emissions, adapting to climate change, and preventing risks" and the "Effective management of forest fires" action of the Department of Forests (page 96). The project contributes substantially to strengthening the resilience of the country's rural and natural environment and aligns with international guidelines, promoting the protection of forest resources, agricultural production, and local communities from increasingly extreme weather phenomena.

Estimated Time Commitment from the Meteorology Department
A total of 6 person-months per year, contributed by 2 officers.

Relevant National Strategy Documents

- National Strategy for Artificial Intelligence
- National Research and Innovation Strategy 2024-2026
- Ministry of Agriculture, Rural Development and Environment: Strategic Plan 2025-2027

Annex II

Meteorology Challenge 2 – Agro-Meteorological Support

BUDGET

- **Phase A:** Up to €100,000
- **Phase B:** Up to €400,000

Introduction

The challenges outlined by the Meteorology Department, as part of the "AI in Gov't" Call, focus on the development of (a) an integrated agro-meteorological warning system and decision support system, and (b) an advanced Early Warning System for extreme weather events, based on Artificial Intelligence technologies. These align fully with the priorities of the Ministry of Agriculture, Rural Development, and Environment's Strategic Plan 2025-2027, as well as national and European policies for the Green Deal and climate change adaptation. Specifically, these actions support:

- The promotion of climate-smart agriculture and resilient agri-food systems.
- Improving resilience to climate risks and preventing natural disasters, with emphasis on wildfires and extreme weather events.

Additionally, the solutions provided are expected to integrate innovative technological approaches, contributing to the strategic goal of the Meteorology Department to modernize operational capabilities through AI and Big Data, and strengthening the Ministry's contribution to the national digital transformation strategy.

Challenge Description

The Meteorology Department of the Republic of Cyprus, in collaboration with agricultural sector entities, is promoting the development of an integrated agro-meteorological service platform, utilizing Artificial Intelligence technologies. Cyprus already has an extensive network of 52 meteorological stations collecting data every ten minutes, as well as a high-resolution forecasting model (2x2 km). However, current forecasting services do not fully integrate local specifics nor provide targeted and timely warnings for extreme weather events that directly affect the agricultural sector.

The proposed solution aims to develop an intelligent AI system that integrates real-time data and forecasts to produce highly accurate, personalized warnings (e.g., frost, heatwaves, rainfall) for farmers. Notifications will be delivered through user-friendly channels (mobile app, SMS, etc.), enhancing the resilience and efficiency of agricultural production.

The system is expected to offer multiple benefits: improving water resource management, crop protection, reducing financial losses, and optimizing decision-making for farmers. Additionally, the system could expand to other critical sectors, such as public health, energy, and transportation.

Strategic Framework

The proposal for the development of an innovative agro-meteorological support system directly supports the Ministry of Agriculture, Rural Development, and Environment's strategic objectives, particularly Goal 2 of the General Directorate of Agriculture and Rural Development for "Promoting Climate-Smart Agriculture and Green Development" and "Ensuring the sustainable management of natural resources in the agricultural sector" (pages 28, 29 of the Plan). Through the use of advanced meteorological data and technologies, the system strengthens the resilience of agricultural production against climate challenges, boosts the sustainability of the primary sector, and supports its smart adaptation to the needs of the modern agricultural world.

Estimated Time Commitment from the Meteorology Department
A total of 6 person-months per year, contributed by 2 officers.

Relevant National Strategy Documents

- National Strategy for Artificial Intelligence
- National Research and Innovation Strategy 2024-2026
- Ministry of Agriculture, Rural Development and Environment: Strategic Plan 2025-2027

Annex III

Challenge by Ministry of Education, Sport and Youth

Using Artificial Intelligence Tools to Forecast Labour Market Needs and Trends for better alignment between the Educational System and the Labour Market

	BUDGET
PHASE A	€100,000
PHASE B	€400,000

Introduction

The challenge set by the Ministry of Education, Sport and Youth (MESY) is to create a smart and dynamic mechanism for analysing and forecasting the demand of skills, qualifications and occupations using advanced Artificial Intelligence (AI) tools. The ultimate goal is to support evidence-based decision-making and educational policy-making with the aim at the systematic alignment of the education system with the labour market.

The purpose of the proposed solution is the rapid and automated processing of large volume of data from multiple sources - both within and outside the Ministry - such as administrative data, national and European surveys, job advertisements, online data and other sources - with the aim of generating reliable information and forecasts on labour market needs in terms of skills, qualifications and occupations. Specifically, the solution offered is expected to enable:

- Provision of real-time information on labour market need in terms of skills, qualifications and occupations (real-time labour market intelligence)
- Measurement and monitoring of skills mismatch indicators.
- Forecasting future demand for skills, qualifications and occupations
- Career Pathway Modelling

Challenge description

The labour market is facing rapid changes due to technological developments, the green and digital transition, demographic change and new forms of employment. These changes are significantly affecting the demand for skills, creating new needs. Although the supply of skills seems to be sufficient - according to Eurostat data (2022), over 40% of people aged 25–34 in the EU had completed higher education and over 84% of those aged 20–24 had completed at least secondary education - there is an increasingly widening gap between the skills and qualifications provided by the education system and those required by the labour market.
Many graduates struggle to find jobs that match their level and field of study[1]. At the same time, many workers find it difficult to adapt to the constantly changing job requirements, while businesses are unable to find a sufficient and well-trained workforce. The skills mismatch has

[1] Results Reports of the first and second cycles of the National Monitoring Survey of Higher Education Graduates https://skilltracking.highereducation.ac.cy/reports/

emerged as a major challenge at both national and European level, highligting the weaknesses in education and training systems to timely respond to labour market needs.
At national level, skills mismatches are identified as a significant weakness in several policy reports on Cyprus, such as the Cyprus Competitiveness Report by the Council of Economy and Competitiveness, the European Commission's Annual Education and Training Monitor Report, etc. Recognising the need to address skills mismatches and with the aim of improving the alignment of the education system with the labour market, the three Directorates of the Ministry of Education, Sport and Youth (Directorate of Higher Education - DHE, Department of Secondary General Education - DSGE and Department of Secondary Technical, Vocational Education and Training - DSTVET) have secured funding from the Recovery and Resilience Facility (RRF) to implement the project "Addressing mismatches between the education system and the labour market" (CR5.1). As part of this project, the Directorate of Higher Education is implementing the project: "Development of a National Alumni Monitoring Mechanism and Design and Implementation of an Employer Skills Needs Survey", which includes two national surveys (National Graduate Tracking Mechanism – CYGraduates, National Employers' Skills Survey - CYEmployers) as well as a European survey (European Alumni Monitoring Survey EUROGRADUATE) aiming to provide long-term scientific data on the post-graduation outcomes of Higher Education graduates as well as data regarding the labour market's needs in term of skills and qualifications. The Department of Secondary Technical, Vocational Education and Training is implementing actions such as the upgrading of the Directorate's curricula, the introduction of the Technical High School institution, the laboratory upgrades at the Post Secondary Institutes of Vocational Education and Training and the professional development of STVET educators.

To effectively address skills mismatches and develop policies that will enhance the alignment and harmonisation of skills/qualifications between Cyprus' education and training system and the labour market, it is necessary to have immediate, valid, systematic and easily available information. In this context, the use of Artificial Intelligence (AI) is a crucial support tool. The information produced will be used for:

a) Evidence-based decision-making and policy-making by bodies such as Ministries, Deputy Ministries, Higher Education Institutions, etc.,

b) Revision and development of curricula in Secondary Education, as well as creation of new programme types (e.g. micro-credentials) and revision of existing programmes in Higher Education,

c) Targeted career guidance for pupils, students and the unemployed,

d) Design and adaptation of upskilling/reskilling and lifelong learning programmes based on labour market needs.

Existing systems/interfaces/data

See attachment

Indicative time that may be allocated by the MESY

6 person-months in total per year (from two MESY officers)

Strategic Framework

The proposal of the Ministry of Education, Sport and Youth (MESY) is directly aligned with national and European strategic priorities. Specifically, it aligns with the Strategic Planning of the Directorate of Higher Education for the period 2025-2027, which sets the better alignment of Higher Education with labour market needs as a core objective. At the same time, it aligns with the Strategic Plan for the Improvement and Upgrading of Higher Education in Cyprus, approved by the Council of Ministers in December 2024, which highlights strengthening the link between Higher Education and the labour market as one of the four key pillars. Moreover, this proposal by MESY is an extension and development of the project implemented by two Directorates of the Ministry (DHE and DSTVET) under the Cyprus Recovery and Resilience Plan (2022-2026) to address skills mismatches, using data and findings from surveys conducted under the said project (CYGraduates, CYEmployers and EUROGRADUATE). Better alignment of skills and qualifications with labour market needs and the strengthening of education, training and lifelong learning are also at the heart of European strategic initiatives such as the European Skills Agenda (2020-2025), the European Year of Skills (2023), the Union of Skills 2025, the Strategic Plan for STEM Education: skills for competitiveness and innovation (2025) which strengthen the collective European effort to address skills challenges. In particular, the European Commission's initiative "The Union of Skills" (2025) encourages the development of skills forecasting mechanisms, recognising that timely and accurate skills information is crucial for evidence-based policy making. Finally, the Recommendation of the Council of the European Union on the economic, social, employment, structural and budgetary policies of Cyprus (1 July 2025) calls Cyprus to enhance monitoring and curriculum adaptability to the needs of the dynamic labour market.

Related Policy/Strategy Documents

1. Strategic Plan of the Ministry of Education, Sport and Youth 2025-2027[2]
2. Strategic Plan for the Improvement and Upgrading of Higher Education (December 2024)
3. Cyprus Recovery and Resilience Plan (2021-2026)[3]
4. EU Council Recommendation on the economic, social, employment, structural and budgetary policies of Cyprus[4] (1 July 2025)

[2] https://archeia.moec.gov.cy/mc/642/stratigiko_schedio_ypan_2025_2027.pdf
[3] https://cyprus-tomorrow.gov.cy/cypresidency/kyprostoavrio.nsf/home/home?opendocument
[4] https://www.mof.gov.cy/mof/dggrowth/dggrowth.nsf/0/B0A110A87F412B3DC2258CC70031478E/$file/%CE%91%CE%A7%CE%A3%202025.pdf

5. European Commission (2025). The Union of Skills[5]
6. European Commission (2025). Strategic plan for STEM education: skills for competitiveness and innovation[6]

[5] https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX%3A52025DC0090
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