



<b>1. Name of Governmental Department or Agency</b>
Reform Division, Department of Public Expenditure and Reform
<b>2. Title of the Project</b>
GovTech Solution – Matching challenges to solutions using AI and Machine Learning.
<b>3. Description of the Project</b>
<p>The Department of Public Expenditure and Reform (“DPER”) is responsible for the implementation of Our Public Service 2020, the framework for the modernisation of the Irish Public Service. Core commitments in this framework include accelerating the digital delivery of services to the public, improving services for our customer, making services more accessible, improving engagement and communication channels to our customers, driving efficiencies and promoting innovation (see Actions 1,2,3,4,5,6 <a href="http://www.ops2020.gov.ie">www.ops2020.gov.ie</a> ). Furthermore, as part of <a href="#">Future Jobs Ireland</a>, the Department is leading on the development of a GovTech strategy in Ireland.</p> <p>GovTech promotes greater interaction between Government, academia, industry and investment firms to accelerate the use of digital technology within Government so that the public and enterprises can conduct their business with the public service faster and at a reduced cost, while the public service can provide improved and expanded services to all customers in a cost-effective way for the Exchequer. GovTech spend globally is estimated at \$400bn.</p> <p>The Department of Public Expenditure and Reform is eager to advance emerging technologies to solve problems faced by our customers and to modernise public service organisations. The Department is especially keen to explore using the most suitable technology solution to solve a particular problem.</p> <p>Having regard to the foregoing, the Department would like to engage an expert technologist in the area of artificial intelligence and machine learning to undertake a feasibility study for the development of a solution that will use AI and machine learning to match challenges faced by the customer (members of the public and businesses) to the technological solutions that are available in Ireland and beyond.</p>
<b>4. Project Scope</b>
<p>It is proposed that the expert technologist would be expected to:</p> <ul style="list-style-type: none"><li>• Work closely with officials from the Department of Public Expenditure and Reform to understand the Government’s aims in delivering GovTech.</li><li>• Conduct a brief analysis of emerging and recently established technologies that are present in the market or at design stage, particularly in Ireland, but may not yet be pervasive in public service delivery.</li><li>• Devise a matrix potential thematic areas where GovTech solutions could be transformative for the citizen, e.g.:<ul style="list-style-type: none"><li>○ Agriculture, Fisheries and Food</li></ul></li></ul>



- Energy and Utilities
  - Tax and Financial Regulation ('RegTech')
  - Citizen Engagement, Communication and Engagement
  - Financial Inclusion and Welfare
  - Employment Affairs
  - Smart Cities and Infrastructure
  - Culture, Heritage and Tourism
  - Health and Social Care
  - Sports and wellbeing
  - Children and Youth Affairs
  - Cybersecurity
  - International Development and Diplomacy
  - Transport and Mobility
  - Education and Training
  - Justice, Court Access and the Legal Process
  - Trade and Logistics (Customs, Borders and Brexit)
  - Policing and National Security
- To develop a proposal, using knowledge of the most appropriate intelligent technology, for a hub or platform that would be able to suggest 'matches' (or degrees of similarity in terms of need-v-offering) from propositions concerning:
    - Available technology solutions
    - Potential technology solutions that are in development/testing
    - Thematic areas
    - Providers
    - Public Service Challenges (from public servants)
    - Citizen Challenges (from Members of the Public)
    - Business Challenges (from members of the business community in Ireland)
  - Conduct a proof of concept of the recommended solution.
  - Identify key enablers and barriers that exist in relation to rollout of such a solution in the Irish Public Service (potentially using a standard PESTEL analysis).
  - Produce a report on the work outlined above with recommendations for the Government to further pursue, or not to pursue, as part of the GovTech agenda to solve public service challenges and create an ecosystem for furtherance of the GovTech community.

#### **5. Skills/Expertise Required**

The researcher should have relevant qualifications in the area of Computer Engineering, Computer Science or intelligent automation.

The researcher must be an independent researcher willing to take a leadership role in the group and be able to influence and work with key decision-makers and policy architects.



The researcher should be well-organised and self-motivated with the ability to manage the day-to-day running of a research project, to identify research objectives and to carry out appropriate research activities within a given timescale.

### **Knowledge & Experience (Essential & Desirable)**

2+ years' research experience

Excellent oral and communication skills, including the proven ability to write in English at a suitable standard for the preparation of written reports, publications and presentations of the work at generalist and specialist levels, including discussions with policy specialists and experts in different fields.

#### **Desirable:**

An established track record of publication in leading journals/conference, on relevant topics.

### **6. Expected Outputs of Project**

The expected output of this project is:

- A matrix of GovTech areas for Government to categorise products
- A proposal for the development of a GovTech platform, using an appropriately intelligent technology, that would help match challenges facing Government/Public Service Organisations to new tech products or ones in development
- A proof of concept relating to an appropriate solution
- A report to the Minister of State for eGovernment and Public Procurement on the outcome of the research and analysis conducted and associated recommendations.

### **7. Working Arrangements**

The researcher would be based in the offices of the Department of Public Expenditure and Reform at St. Stephen's Green House, Dublin 2. Flexible and remote working arrangements will be accommodated.

### **8. Expected Timeline**

It is expected that this project could be completed within 6-12 months working on a full-time basis or 12-24 months on a part-time basis.