

# AI - Opportunities for the Public Sector

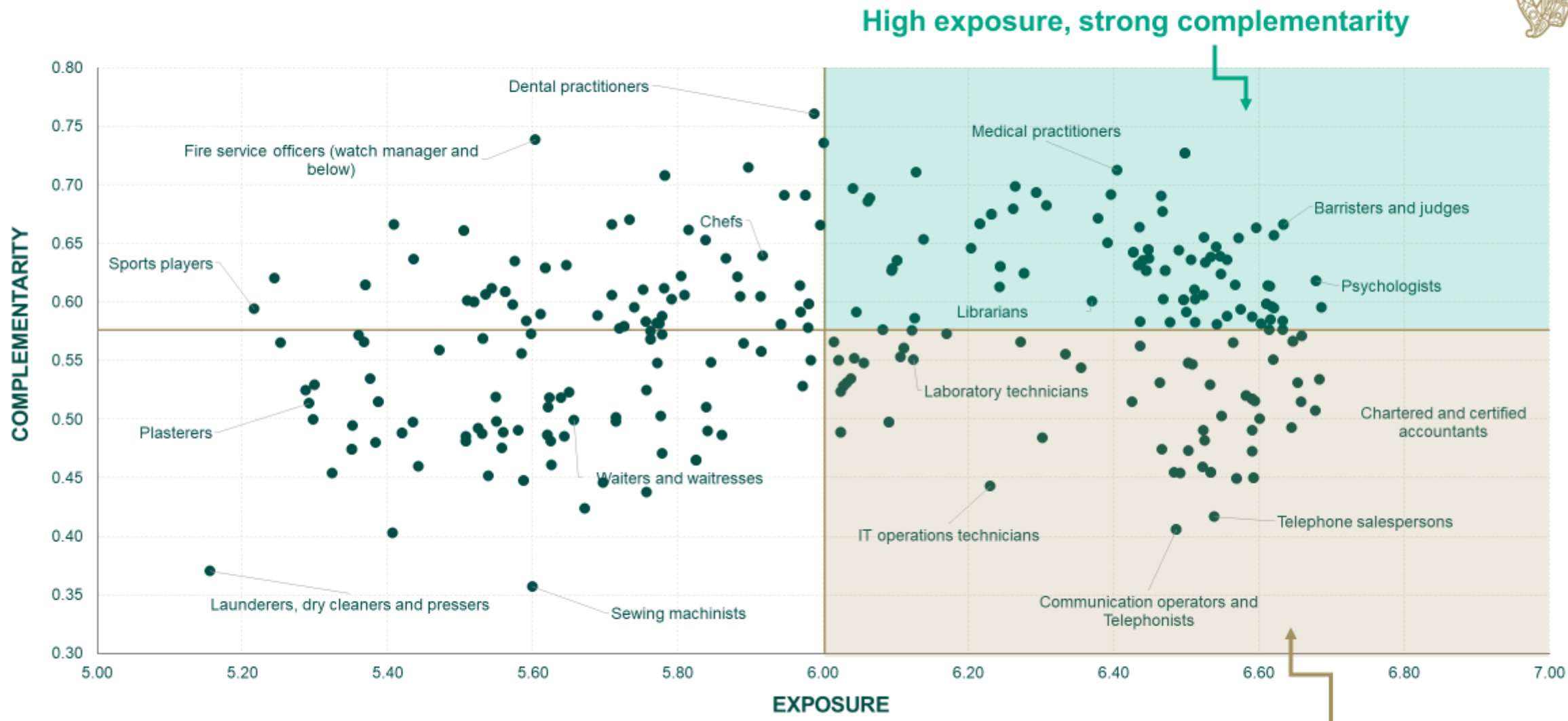
# This afternoon:



1. AI -Threat or Opportunity?
2. The Possibilities for AI in Public Service;
3. The Legal/Governance Underpinnings;
4. Things to Think about Going Forward;

# 1. AI - Threat or Opportunity?

# AI Exposure and Potential Complementarity ( $\theta$ )



When using public services, the majority of people access these services online. There is potential for increased usage through addition of an app and by adding additional online services, in particular for life events.

1

Over half of the 16+ population uses government services at least 5+ times per year, with vast majority being via online. Even amongst older cohorts, who tend to have greater difficulty with online services, level of usage is high.

2

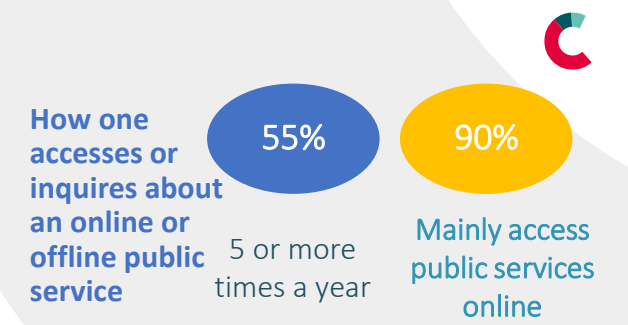
Although not used as frequently as some other services, the most widely used online public service, by far, relates to tax. However, tax related services are not associated with being easy to use, which suggests opportunities for improvements along with Gov.ie, online Health and Welfare/Social Protection services.

3

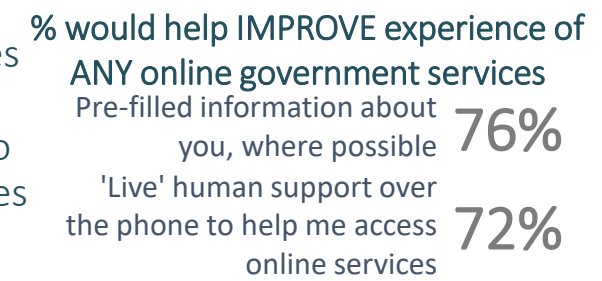
One of the challenges in using online government services is in finding relevant service information and in having some sort of assistance to fall back on if one is not able to find this information. This is especially relevant for services which are used more widely and/or more regularly, such as Gov.ie, health, welfare/social, and revenue and tax.

4

Outside of improving what is already available, there is pent up demand for other services, especially pertaining to life events including employment, birth, death, and housing. Majority find the idea of one central app for these services to be appealing.



**Only 32% find Tax services easy to use**



# Life Events

Life events refer to significant experiences or changes in an individual's life that can have a profound impact on their circumstances and/or well-being. These events often necessitate interactions with multiple services or agencies



**Renting, Buying,  
Moving House**




**Having a baby &  
early childhood**



**Owning &  
Driving a Car**



**Setting up a  
Business**



**Finding &  
losing a job**



**Moving to  
Ireland**



**Marriage/  
Divorce**



**End  
of life**

# 10 Design Principles for Government in Ireland



Principle 01/

**We will put  
people first**

Principle 03/

**We will design  
services together**

Principle 05/  
**We will design  
so knowledge  
can be reused  
& shared**

Principle 02/

**We will design  
to be inclusive**

Principle 04/

**We will design  
for trust**

Principle 06/

**We will challenge  
assumptions  
& design  
with evidence**

Principle 08/

**We will design  
to deliver value  
- in all its forms**

Principle 10/

**We will work  
to make  
things simpler**

Principle 07/

**We will design  
from the top  
down & the  
bottom up**

Principle 09/

**We will build,  
test, learn &  
iterate**



## 2. The Possibilities for AI in Public Service





## Successful use of AI to assess patient scans at Mater hospital

Updated / Thursday, 14 Dec 2023 14:26



By **Brian O'Donovan**  
Work & Technology Correspondent

The Mater Misericordiae University Hospital in Dublin has announced that it has become the first hospital in Ireland to use Artificial Intelligence (AI) across its radiology department.

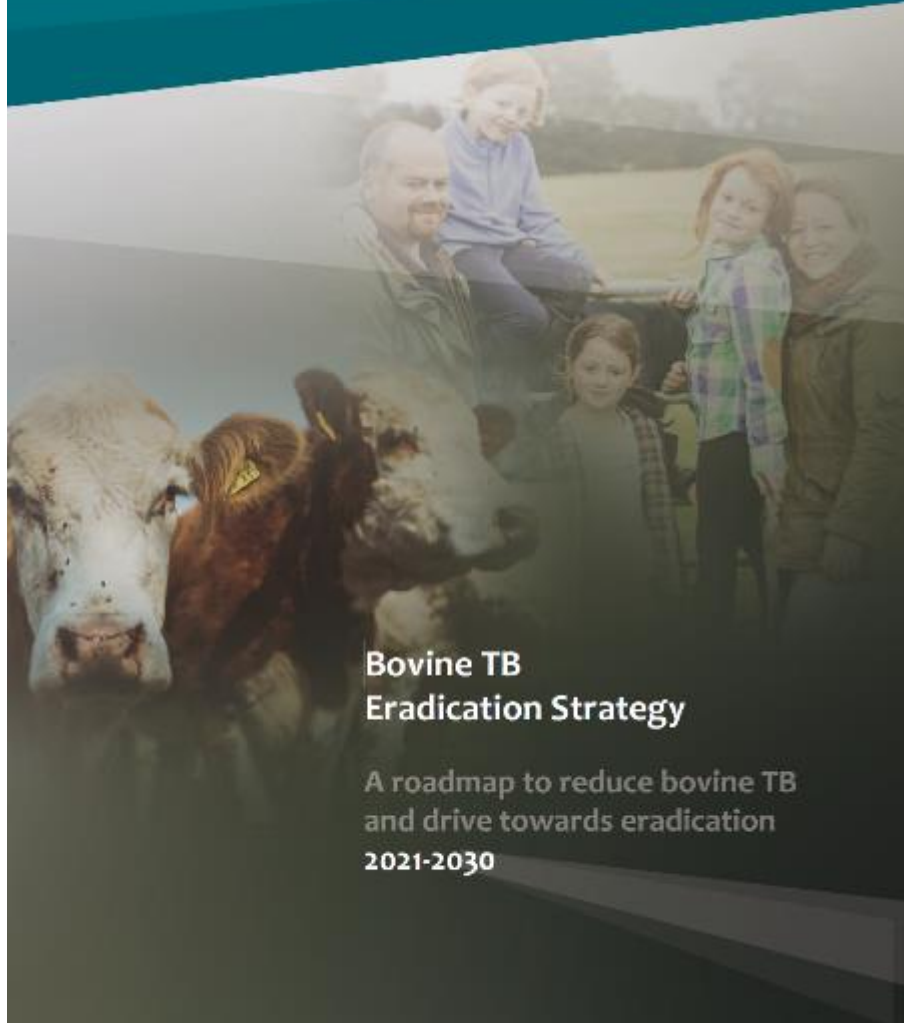
The Mater said the new AI software has aided in the assessment of more than 15,600 patient scans, rapidly notifying radiologists of suspected haemorrhages and pulmonary emboli, reducing the time it takes to initiate life-saving treatments in the emergency department.

- Since the software was introduced earlier this year, over 700 pathologies were correctly flagged by AI within two to three minutes of the scan being completed, with 500 intracranial haemorrhages and 200 pulmonary emboli being identified.
- On out-patient scans, 50 pulmonary emboli were also flagged where the scans were being performed to assess other medical conditions.
- The overall accuracy of the software in real Irish clinical practice has been deemed to be highly sensitive and specific, with an accuracy rate of more than 90%.
- The Mater said the use of the software has significantly reduced report turnaround times, while also improving diagnostic accuracy and streamlining workflows.
- The hospital said the software underwent rigorous scrutiny, verification and testing during a trial phase from April until August before the technology was fully deployed across the radiology department.
- According to the Mater, the software is used to augment rather than replace the capabilities of radiologists at the hospital in emergency settings, with human scrutiny and verification still at the centre of reading the scans.



An Roinn Talmhaíochta,  
Bia agus Mara  
Department of Agriculture,  
Food and the Marine

[www.gov.ie/agriculture](http://www.gov.ie/agriculture)



## Bovine TB Eradication Strategy

A roadmap to reduce bovine TB  
and drive towards eradication  
2021-2030



*Governments need to start looking to—and learning from—the leaders when it comes to AI implementation. Many governments have begun to implement AI across various small-scale pilots. But they are still limited to experimentation, and few have achieved true AI at scale.*



2021

*Implemented effectively, AI can generate benefits for public-sector organizations in three ways:*

- smarter policymaking: AI and data analytics , natural language processing & social media sensing*
- reimaged service delivery: a single entry point connecting people with all relevant government services, personalized to their individual needs*
- more efficient operations: AI used in the back office for procurement, recruitment etc.*

*Thus, the technology can help governments better meet the needs of their citizens while making better use of taxpayer dollars.*

# 3. The Legal/Governance Underpinnings



# Artificial Intelligence Act: MEPs adopt landmark law

Press Releases [PLENARY SESSION](#) [IMCO](#) [LIBE](#) 13-03-2024 - 12:25



• Safeguards on general purpose artificial intelligence



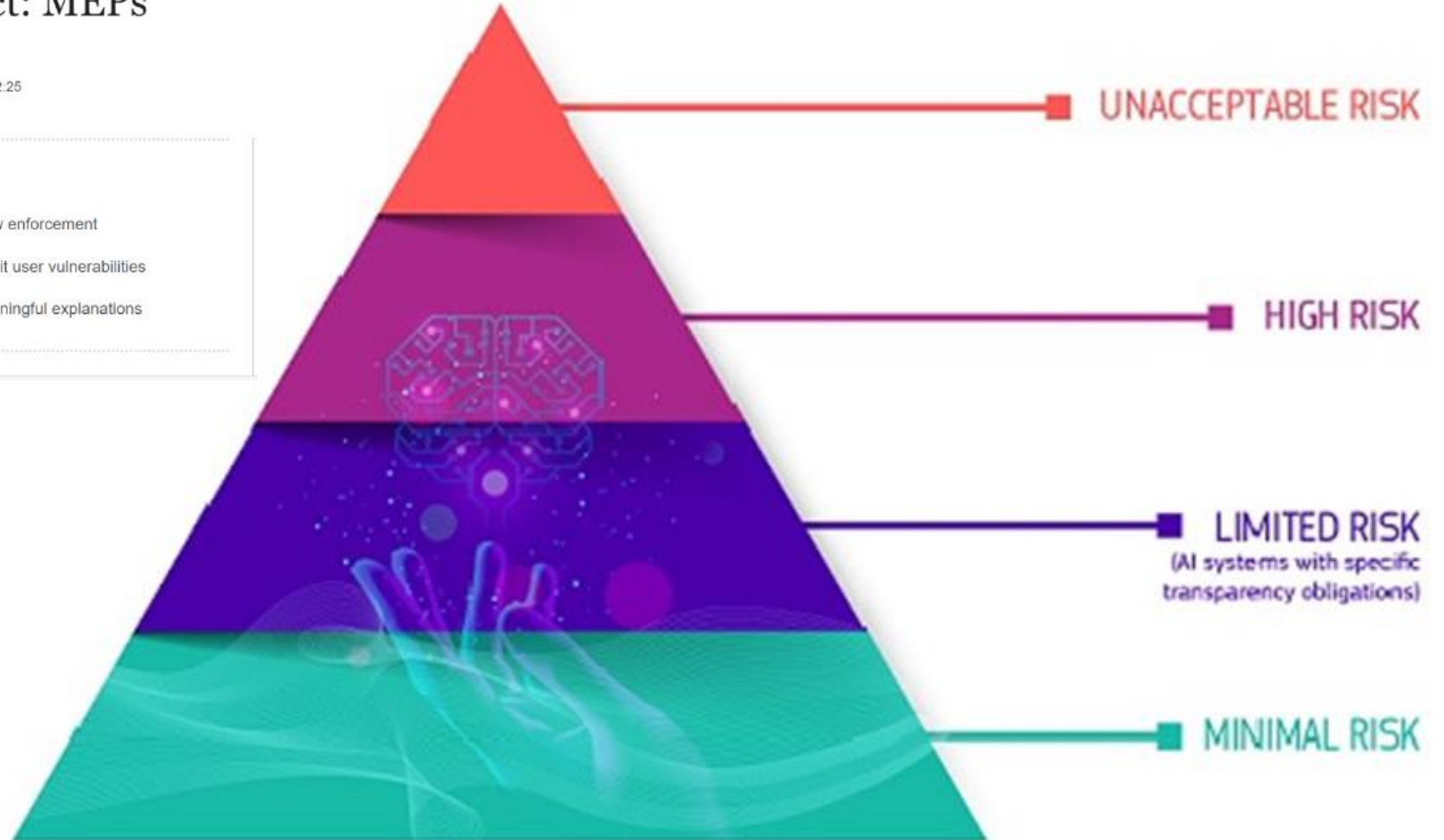
• Limits on the use of biometric identification systems by law enforcement



• Bans on social scoring and AI used to manipulate or exploit user vulnerabilities



• Right of consumers to launch complaints and receive meaningful explanations



# AI - Here for Good: A National Artificial Intelligence Strategy for Ireland



## AI Strategy: structure and objectives



### BUILDING PUBLIC TRUST

- **AI and society**
  - *Strong public trust in AI as a force for societal good in Ireland*
- **Governing for trustworthy AI**
  - *An agile and appropriate governance and regulatory environment for AI*

### LEVERAGING AI FOR ECONOMIC AND SOCIETAL BENEFIT

- **Driving adoption of AI in Irish enterprise**
  - *Increased productivity through a step change in AI adoption by Irish enterprise*
- **AI serving the public**
  - *Better delivery of public services through a step change in AI adoption by the Irish public sector*

### ENABLERS FOR AI

- **A strong AI innovation ecosystem**
  - *A strong Irish ecosystem for high-quality and responsible AI research and innovation*
- **AI education, skills and talent**
  - *A workforce prepared for and adopting AI*
- **A supportive data and digital infrastructure for AI**
  - *Providing a strong foundation for AI development and use in Ireland*



AI Advisory Council



Press release

# Government commits to using trustworthy AI in the Public Service

From [Department of Public Expenditure, NDP Delivery and Reform](#)

Published on 9 January 2024

Last updated on 10 January 2024

Government has today (9th January 2024) approved guidance on the use of AI in the Public Service, brought to Cabinet by Minister for Public Expenditure, NDP Delivery and Reform, Paschal Donohoe TD, and Minister for Enterprise, Trade and Employment, Simon Coveney TD.

In the wake of agreement on a new European AI Act reached between the European Parliament and the Council, the Government has instructed that all AI tools used by the Irish Public Service should comply with seven requirements for ethical AI that have been developed by the European Commission's High Level Expert Group on AI in their 'Ethical Guidelines for Trustworthy AI' document.

The seven requirements for Ethical AI, as set out in these Guidelines, fall under the headings of:

- Human agency and oversight
- Technical Robustness and safety
- Privacy and data governance
- Transparency
- Diversity, non-discrimination and fairness
- Societal and environmental well-being
- Accountability

# 4. Going Forward





# The Challenges of AI



- Data Privacy & Security
- Data/AI Governance
- Data Readiness/Poor Information Management
- Access to Tools
- Access to Training

# The “Classic” AI Critical Success Factors



Generative AI is a type of artificial intelligence (AI) that uses machine learning algorithms to create new and original content like images, videos, text, and audio.

## 1 Forming a Database

A neural network, consisting of various information or media files like images, text, data, sounds, etc., forms the basis of artificial intelligence.



## 2 Inputting a Prompt

The user provides the AI with a description or sample of the desired content...



Prompts can be any user-submitted material like words, numbers, or photos



## 3 Generating Content

...and the AI uses its neural network to generate new examples that are similar to the ones it has trained from.



This image was created on Midjourney using the following text prompt:

a technical illustration of a woman sitting behind a desktop computer on a long table, isometric view, 3D rendering, realistic, 4k

# Our three pilots:



1. Using AI within a Customer Service Bot (with Microsoft & Storm)
2. AI Policy Research Assistant (with IBM)  
(Structured data)
3. AI-driven Knowledge Database (with Storm)  
(Unstructured data)



User: What is a business expansion grant?

Assistant: A Business Expansion Grant is designed to assist businesses in their growth phase after the initial 18-month start-up period. It is intended for small enterprises, such as sole traders, partnerships, or limited companies, that meet specific criteria, including having no more than 10 employees, being established and operating within the geographic location of the Local Enterprise Office, operating in the commercial sphere, demonstrating a market for their product or service, and having potential for growth in domestic and/or export markets as well as potential for job creation. The grant can cover up to 50% of the investment or €150,000, whichever is less, and can be used for various expenditures such as capital items, salary costs, consultancy, innovation, marketing costs, and general overhead costs





## Here to Help

Start the conversation by asking a question in the chatbox below.

Listening...

Good morning. What can you tell me about priming grants?





Good morning, What can you tell me about priming grants?

Priming Grants are a type of business start-up grant available to micro enterprises within the first 18 months of start-up. They are designed to help offset some of the costs associated with getting a new business up and running, such as salary, capital expenditure, consultancy, and marketing costs. Priming Grants can be awarded to sole traders, partnerships, or limited companies that meet certain criteria, including employing no more than 10 people, operating within the geographic location of the Local Enterprise Office, and demonstrating a market for their product or service. The maximum Priming Grant payable is 50% of the investment or €150,000, whichever is the lesser. Eligible expenses under this grant include capital items, salary costs, consultancy/innovation/marketing costs, and general overhead costs.

1 2

AI-generated content may be incorrect



① Priming-Grants.html

② J4231\_LEO-Brochure\_National\_Digital\_FA.pdf

1. Can businesses with more than 10 employees qualify for Priming Grants under certain conditions?
2. Are there specific sectors or industries that Priming Grants target for eligibility?
3. What is the process for applying for a Priming Grant, and what documentation is required?

# Key Takeaways



1. The User Experience is your Primary Focus;
2. Content, Content, Content – Data Curation is key;
3. Planning & Understanding is crucial;
4. Get the fit right (with other work)
5. Don't underestimate the Resource requirements;
6. Different Products Can Have Different Strengths;
7. The Pace of Change is staggering

# L&D / AI Courses



- AI Masterclass for Senior Public Service Leaders: Equips senior leaders with the fundamentals of Artificial Intelligence (AI), as well as identifying its strategic potential and associated risks and implications for public service organisations. Typical content:
  - Application & impact of AI
  - AI technologies and their uses
  - Assessing the suitability of AI to solve a particular public service delivery problem
  - Data & Governance
  - Ethical & Legal Considerations
- AI Essentials Course: For civil and public servants who are interested in learning how AI could be used appropriately to transform public service delivery. The course will equip participants with basic understanding of AI, as well as its potential and implications for public service organisations.
- Foundation Certificate in AI: Equips public servants with the skills and knowledge needed to use AI when implementing service improvements or transformations that rely on significant AI components. Level 8 on NFQ (Level 6 on EQF).



Thank you!