Rialtas na hÉireann
Government of Ireland

AI na Gaeilge

Gap Analysis and Stakeholder Insights Report

March 2026

Údarás na Gaeltachta

EY
Shape the future with confidence

Executive Summary

This report presents a comprehensive gap analysis and set of stakeholder insights to guide the future of Artificial Intelligence (AI) in supporting the Irish language across public services.

Commissioned by Údarás na Gaeltachta, the study assesses current capabilities, identifies high-impact opportunities, and outlines a practical roadmap for implementation.

Despite growing AI adoption across Ireland, integration of the Irish language into AI-enabled public services remains limited to date. Through stakeholder engagement and targeted research, the report highlights three priority use cases: voice-based public service chatbots, an AI-powered conversational assistant for Irish speakers of all abilities, and voice-interactive language education tools. Each of these leverages a common foundation of speech-to-text, text-to-speech, and large language model (LLM) technologies.

The report also examines key enablers—including legislative backing, emerging research, and public sector interest—as well as persistent challenges such as data access, dialectal variation, and limited vendor support.

By developing a unified voice-to-voice AI platform, the public sector can deliver transformative services in Irish, meet policy obligations under the Official Languages Act, and contribute to a broader revival of the language in daily life in line with upskilling the talent required to meet the 2030 targets of having 20% new public sector recruits being proficient in Irish.

By embedding Irish language communities into the country's digital transformation agenda, the entity will act as a strategic enabler for public service innovation, dissemination of STEM expertise, societal inclusivity, and linguistic revitalisation.

CONTENTS

Údarás na Gaeltachta envisions this work as the first major step toward embedding the Irish language meaningfully within Ireland's digital future.

Click on a section title above to find out more

Introduction

€250bn

Expected contribution of AI to the Irish GDP by 2035

15%

Of Irish organisations are leveraging AI technologies

The accelerated development and adoption of Artificial Intelligence (AI) present both a significant opportunity and a critical challenge for the Irish language

As digital technologies increasingly shape how we communicate, work, and access services, it is essential to ensure that the Irish language is not only preserved but meaningfully integrated into the digital future.

Údarás na Gaeltachta (Údarás), as the statutory authority responsible for the economic, social, and cultural development of the Gaeltacht regions, recognises the unique role it must play in ensuring the Irish language remains vibrant and relevant in an AI-enabled world.

Recent data indicates a substantial increase in AI adoption across Ireland. In 2024, over 15% of enterprises reported using AI technologies, nearly doubling from 8% in 2023. Among large enterprises, more than half have integrated AI into their operations, with 30% employing it for automated workflows or decision-making, and 28% for data mining (RTÉ, 2025). Furthermore, a joint report by Trinity College Dublin and Microsoft projects that AI will contribute at least €250bn to Ireland's GDP by 2035 (AI Expected to Add €250bn to Ireland's Economy by 2035 - News & Events | Trinity College Dublin, 2025).

Despite this rapid adoption, the integration of the Irish language into AI applications remains limited. The National AI Strategy for Ireland has predominantly focused on English-language systems, highlighting a significant gap in technological support and digital resources for the Irish language (Springer, 2023). This disparity underscores the urgent need for targeted initiatives to develop AI solutions that actively support and promote the Irish language.

This report presents a Gap Analysis and Stakeholder Insights study, commissioned by Údarás to assess the current state of Irish-language AI, identify opportunities for advancement, and provide a roadmap for future action.

The report is structured around four key areas:

1

Current activities and progress

An overview of the work undertaken to date by Údarás to incorporate AI in the promotion and preservation of the Irish language, including early initiatives, pilots, and partnerships.

2

Observations and opportunities

Insights gathered by Údarás through its ongoing engagement with the Irish public sector, highlighting specific areas where AI solutions with Irish-language capability are in demand or could add tangible value.

3

Market enablers

A review of the current landscape of available tools, technologies, datasets, and collaborative initiatives that could support the development and deployment of Irish-language AI solutions.

4

Future roadmap

A strategic outline of recommended next steps to address existing gaps, strengthen stakeholder engagement (both business and technical), foster innovation, and promote collaboration across the AI and language ecosystems in Ireland.

Through this report, Údarás na Gaeltachta seeks to inform strategic decision-making, encourage coordinated action, and lay the foundation for a future in which the Irish language is not only preserved but thrives within the rapidly evolving landscape of AI and digital innovation.

Realising this vision will require the active participation of government, industry, educators, and communities. Údarás na Gaeltachta is uniquely positioned to coordinate these efforts, fostering a collaborative ecosystem that places the Irish language at the heart of Ireland's digital transformation.

AI na Gaeilge: Developments to date

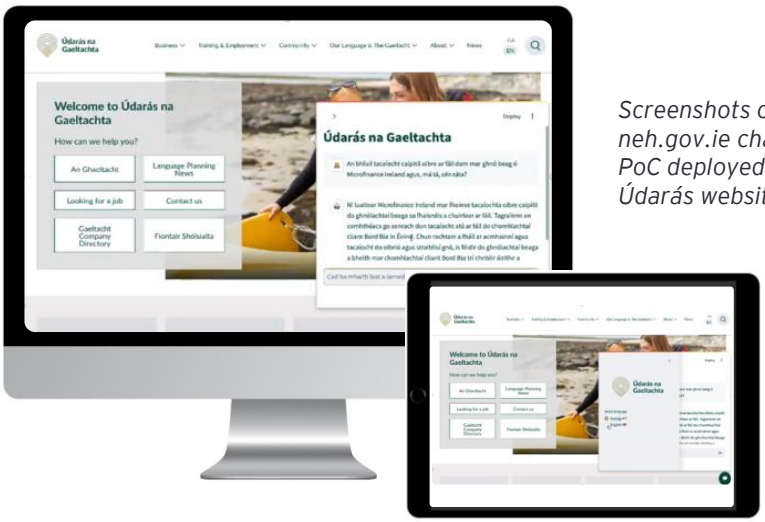
In alignment with its mission to promote and sustain the Irish language within the Gaeltacht regions, Údarás na Gaeltachta has proactively engaged in several initiatives to date to ensure the integration of the Irish language into the evolving landscape of Artificial Intelligence (AI)

These efforts underscore the Údarás' commitment to preserving linguistic heritage while embracing technological advancement.

Developing a Proof of Concept for Irish Chatbots

Údarás partnered with EY to identify potential AI applications for the Irish language and develop an initial Proof of Concept (PoC). This collaboration resulted in the development of a PoC which demonstrated how Generative AI can transform an English-language chatbot into an Irish-language counterpart without any additional IT development.

The PoC highlights the viability of scalable Irish-language AI integration across existing systems, and was developed as a reuseable component which could be used by any Irish public sector organisation. In addition to this, the project resulted in a technology roadmap which set out the foundational technologies which can be adopted over the next years as well as key use cases which can be delivered with these foundational technologies.



Screenshots of the neh.gov.ie chatbot PoC deployed on the Údarás website

Evaluation of AI Models for Irish Language Capabilities

To better understand the capabilities and limitations of different AI models in processing the Irish language and to provide a longer-term ability to benchmark different Large Language Models (LLMs) in the market, Údarás will work with its partners to develop a comprehensive benchmark suite for evaluating the performance of LLMs in Irish.

This initiative aims to establish high-quality, dynamic benchmarking standards that will serve as the authoritative measure of Irish language AI capabilities while maintaining data protection and preventing model contamination.

The benchmark suite will evaluate five key areas: language proficiency, measuring grammatical correctness and fluency; bidirectional translation between Irish and English; general knowledge of Irish history, culture, and society; common-sense reasoning in Irish contexts; and performance on dialectal variations and historical forms of the language.

This comparative evaluation will identify the best-performing models and suitable entry points for future development and optimisation of Irish-language AI tools.

Ollscoil na Gaillimhe – Dataset Evaluation

Údarás na Gaeltachta is undertaking a comprehensive partnership with Ollscoil na Gaillimhe (University of Galway) to create a systematic catalogue of Irish language digital collections.

This collaborative initiative involves conducting a thorough audit of publicly funded institutions, academic organisations, and Irish language bodies to identify and document digitised Irish language materials suitable for AI training models.

The project will systematically gather detailed information about existing resources, analysing their quality, extent, and format while cataloguing content from key sources including Raidió na Gaeltachta, RTÉ, TG4, and An Gúm.

A critical component involves examining the technical, legal, and ethical considerations that collecting organisations must address before contributing their datasets to large language model training, with the aim of producing both an audited inventory of available collections and a framework of questions to guide future AI development in Irish language processing.

Learning from other Public Sector Bodies

Article published by OpenAI about the significant use of OpenAI's GPT models in conserving the Icelandic language.

Údarás has explored international best practices by consulting public sector organisations in other countries with low-resource languages.

Collaboration with Iceland has proven helpful as their 370,000 citizens see similar challenges to Ireland in preserving their language at the same time as making incredible strides in collaborations globally to preserve their language. April 2024,

Ceo of Miðeind, Linda Heimisdóttir, presented at the event for the AI Digital Plan for the Irish Language to share their process and learnings, with presentations from participants from the Basque country and Scotland.

A similar event was hosted in May, 2025 with participants from the Basque country, Scotland and other countries.

Understanding Trends Through Patent Research

To gain a better understanding of the technological landscape across the tech industry in Irish-language AI, Údarás worked with Corvers, a legal firm specialising in innovation procurement and IP analysis.

This collaboration supported a comprehensive patent search, offering insights into emerging technologies and areas where innovation is already taking place in the Irish-language AI domain – ensuring that future steps in AI na Gaeilge are not duplication of effort.

University Partnership for Speech-to-Speech Solution development

Screenshot of the abair.ie, built to prove the capabilities of AI conversing in Irish through voice.

Working alongside an established research team in Trinity College Dublin, Údarás supported the development of a proof of concept for a speech-based AI solution. The system is capable of listening to spoken Irish and responding in a chosen Irish dialect.

This initiative not only shows the ability of AI to converse in Irish in real time, but also shows the significant improvements in AI's capacity to distinguish different Irish dialects which will be an important part of future Irish AI solutions.

Coordination with the Department of Public Expenditure, NDP Delivery and Reform (DPENDR)

Údarás has closely coordinated with DPENDR to align its various AI-related efforts with national digital strategies. This collaboration ensures that Irish-language AI initiatives are integrated with broader public sector transformation goals.

A significant recent milestone was the launch of a national initiative to develop an AI tool capable of real-time processing of speech queries and responses in Irish. In October 2024, it was announced by the Minister for Tourism, Culture, Arts, Gaeltacht, Sport and Media, Catherine Martin TD, and the Minister of State for the Gaeltacht, Sports and Physical Education, Thomas Byrne TD, that the National Plan for Irish Language Public Services 2024-2030 had been published, including the announcement for the tender process for this initiative - entitled Ard-Intleacht na Gaeilge (Gov.ie, 2024)[1].

[1] Ard-Intleacht na Gaeilge (gov.ie)

National Speech AI Initiative Milestone

Through an EU Innovation Partnership Procedure, Údarás na Gaeltachta issued a Prior Information Notice (PIN) to assess market interest and capacity. Following receipt of responses, the Údarás is currently reviewing the next stage of the procurement process to determine the scope and requirements for formal tender procedures. This review incorporates findings from a literature review of existing IP in this area as well as insights gathered through a public consultation conducted in Q4 2024, with responses analysed in Q1 2025. The Open Market Consultation engaged technology providers, researchers, and stakeholders to provide their expertise and perspectives on Irish language AI technologies. These contributions are informing the Údarás's strategic direction for this initiative by providing essential market intelligence regarding the procurement challenge.

In June 2025, Údarás na Gaeltachta developed a strategic plan called 'AI Tools for Irish: Opportunities and Challenges'. This document provides a comprehensive review of all current AI-related projects across the organisation and outlines plans for expanding these initiatives over the next twelve months. The plan examines existing workstreams, evaluates current progress, and establishes a clear roadmap for future development while consolidating all AI activities into a single document to provide stakeholders with a clear overview of what the Údarás intends to accomplish in this area. It also provides interested stakeholders an opportunity to feedback on the document and make any relevant recommendations or observations.

The strategic plan reflects Údarás na Gaeltachta's vision of seamlessly integrating technology with Irish language use to create an environment that reduces the digital divide for Irish speakers and supports and enhances linguistic engagement in Gaeltacht communities. As a living document, the plan is designed to be flexible and adaptive, subject to ongoing revision and refinement as circumstances evolve in the rapidly changing landscape of artificial intelligence. The paper has been presented to the Committee on the Irish Language, Gaeltacht and the Irish-speaking Community and An Coiste Comhairleach um Ghaeilge sa Réimse Digiteach. It is available to the public on the Údarás na Gaeltachta Website.

Observed market opportunities

Part of Údarás' engagement with public sector stakeholders has been focused on identifying the opportunities which AI can bring to the Irish public sector in the form of specific ideas created and evaluated by public sector stakeholders

This stakeholder engagement has been revolving around the **8 May 2025** where Údarás hosted an interactive workshop in Galway to develop these ideas through a qualitative approach, engaging representatives from various public sector organisations.

Professional facilitation of discussions were provided by EY where participants:

- Discussed current capabilities
- Identified key gaps
- Explored innovative AI-driven use cases through structured conversations guided by defined personas as inspiration

During the workshops, the public sector stakeholders consistently recognised AI's potential to significantly enhance public sector operations and services by improving service accessibility, administrative efficiency, and compliance management. AI-driven solutions were perceived as tools that could overcome resource constraints, streamline routine tasks, and enhance user satisfaction through responsive and linguistically accurate interactions.

By automating and augmenting tasks currently handled manually, AI can help redirect human resources towards higher value activities, thus fostering more effective service delivery.

Additionally, significant focus was put on AI's ability to support compliance with the Official Languages Act by automating monitoring, reporting thus potentially reducing compliance risks and improving overall transparency and accountability.

The range of AI-driven opportunities which were identified as part of this stakeholder engagement, presents considerable potential for positively impacting the Irish public sector by improving linguistic inclusivity, operational efficiency, and regulatory compliance. The collective enthusiasm for these technologies underscores their potential to transform how Irish language services are delivered. We provide an overview of key ideas which were evaluated by participants in this analysis on the next page.

These ideas which were identified during ideation, were then evaluated in relation to their potential to deliver value to the public sector and citizens as well as an evaluation in relation to the complexity of delivering the solutions.

They were derived from discussions during the engagement and not specific opportunities for the use of AI in specific organisations.

On the following pages is more context on how some of these categories are relevant to several specific use cases in different organisations or contexts.

Identified AI use categories at 8th May Workshop

Chatbots/Virtual Assistants

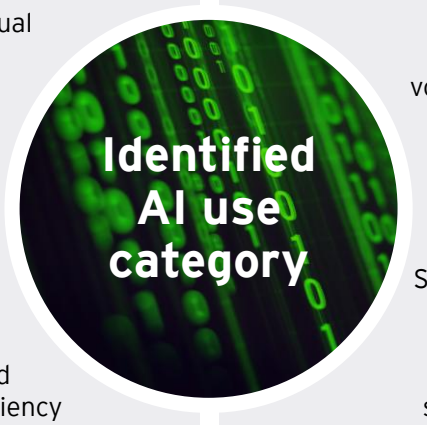
Generative AI has highly increased the conversational abilities of AI solutions and the opportunities which this brings to public sector has been voiced in many different contexts; from AI-based delivery of public services on the phone in contact centres to the provision of new conversational tools which can support administrative processes as well as assistive tools for educational purposes - delivering value both in the form of cost reduction and citizen experiences.

Translation & Proofing

Translation and proofing of Irish texts are currently mostly achieved through the leveraging of internal capacity or outsourcing. With a limited internal capacity for translation and proofing, many organisations lean on the costlier outsourcing option. AI can significantly reduce the amount of time for translation and proofing either through development of e.g., new AI translation tools or enablement of Irish capabilities in existing proofing tools.

Document Automation

Automated generation of bilingual documents, such as meeting summaries, administrative reports and routine correspondences, could significantly reduce manual translation workloads, ensuring consistent, timely and linguistically accurate documentation. This capability would be particularly beneficial in maintaining transparency and enhancing communication efficiency within and across public sector bodies.



Irish Data Analysis & Reporting

AI-driven analytical tools can process and interpret large volumes of data related to public service delivery, community feedback, and compliance performance, generating actionable insights and comprehensive reports in Irish. Such tools enable data-informed decision-making, helping authorities better understand community needs and strategically allocate resources.

Training, resourcing & upskilling

AI not only provides the possibility of teaching Irish through conversing in the Irish language, but also makes it possible to provide training content in the Irish language where this is not available currently. This has the potential to significantly increase the quality of Irish teaching as well as help drive higher Irish proficiency across public organisations and in turn improve the delivery of Irish public services in line with the requirements of the Official Languages act.

Audio Content Generation

AI-driven creation of Irish-language podcasts and audio content could broaden public engagement by offering an enhanced range of innovative and accessible materials to the general public. This format is particularly beneficial for learning, public information dissemination, and cultural promotion, reaching diverse audiences and fostering greater language use in everyday contexts.

Understanding the benefits of key ideas

Of the many ideas which emerged during this process, three were highlighted as the key AI solutions which could provide the best possible value to the Irish public sector.

These ideas were selected by individual focus groups working in collaboration on the 8th of May. While the 3 ideas share common AI-enabled capabilities, they provide benefit in separate ways.

In the following pages, we present an overview of the use case ideas.

1 Public Services Chatbot

Public services delivered to citizens in Irish via phone is a challenge for some public organisations.

Often, a limiting factor for these services becomes the number of fluent Irish speakers available in these organisations. This not always leads to an unavailability of certain services, but leads to a lower standard of civil services provided as public servants with both the services expertise and the language fluency may not be available. Séamas Ó Concheanainn, An Coimisinéir Teanga, identified the lack of interactive online services, telephone information services and helpdesks through Irish as being one of the biggest gaps in the public services at present (An Coimisinéir Teanga,2025)

This challenge can, to a certain extent, be mitigated by AI having conversations in Irish on phone lines (and other channels) to solve routine queries which citizens have for different public sector bodies. By leveraging voice-to-voice technology, AI can listen to users queries, formulate useful answers and respond on the phone as if it was a human.

Benefits

- Efficiencies in the provision of public services through Irish
- Increased service availability (possibility for 24/7 service)
- Consistent high quality of Irish-based services provision – addressing gaps as identified by key Irish language stakeholders
- Nudging for general increased use of Irish language in day-to-day life

The average hourly cost of a contact centre employee in Ireland is €16.7/hr (payscale.com) which provides a very conservative estimate for a public service representative providing on-phone public services. According to the 2022 census, there were ~72,000 daily Irish conversations outside of education (cso.ie).

Assuming that a mere 2% of these conversations happened with public services at an average conversation length of only 5 minutes, an automated AI-system could save more than €440,000 every year in call staffing costs alone. In addition to this, more than €1m has been assigned in the period 2024-2026 to enable Irish skills in public servants (gov.ie) which could be leveraged to enhance Irish language service provision across a broader range of contexts.

2 Irish Conversational Chatbot

The challenge

A challenge described mainly for young people in Ireland, is the wish for many to use Irish in their day-to-day lives, but they lack access to a community in which the Irish language can be used i.e. not living in Gaeltacht area.

Anecdotal descriptions of individuals wanting to use the Irish language with no channel for this, has been described several times in the sessions. In order to combat this, a key idea was to create 'Cara', an AI enabled chatbot to encourage people of all ages to engage with the Irish language in everyday and informal settings, on a range of topics (within guardrails and in line with all safety and privacy guidelines), to simply use their Irish in an informal setting which promotes more casual use of the Irish language.

Benefits

- Increased language adoption, meeting 2030 daily users policy targets
- Improved Irish speaking community
- Data insights on informal Irish language use

In 2022, there was approximately 72,000 daily Irish speakers according to census (cso.ie) which was an unfortunate reduction from previous years. With an ambition of 250,000 daily users in 2030 (gov.ie), there is significant gaps to close.

This solution would not only provide a new method for increasing adoption, but would be an additional source of data enabling the further measurement and documentation of the use of the Irish language.

Voice-based Chat Education

AI is often promised to revolutionise education, but with minority languages, it is a big challenge to make this a reality

Getting regular education materials in Irish has been mentioned as a challenge, and so the idea of conversation-based Irish education has been brought forward as a great use of AI.

This idea seeks to create a voice interactive solution, utilising existing curriculum and educational source materials, which enables conversations between Irish students (either through education institutions or privately) to communicate in Irish and get their language skills (both vocabulary and pronunciation) assessed automatically in real-time, as well as over time, to understand the development of their Irish language skills.

Benefits

- Educational support which strengthens quality of Irish in schools
- Increased efficiency in education, lowering cost per student
- 2030 policy metric for daily Irish speakers
- Increased support for enablement of public services in Irish

Teaching Irish in secondary schools presents significant challenges, including varying student abilities, limited exposure to real-life conversational Irish, and resource constraints for teachers. Feedback from stakeholder sessions emphasised that traditional classroom methods often struggle to engage every learner and adapt to their specific needs.

A key theme from discussions was that AI-powered conversational solutions could provide highly tailored, adaptive learning experiences—helping students build confidence, receive instant feedback, and advance at their own pace. This approach could address gaps in current teaching methods by making Irish more accessible and engaging for students of all backgrounds.

As of 2025, the most popular language learning app in the world, Duolingo, has 1.95m Irish learners registered. This illustrates the growing interest and demand for accessible Irish-language education beyond traditional classrooms.

Market enablers & challenges

Despite a growing national interest in AI and an estimated €250bn contribution to the Irish economy by 2035 according to a report by TCD and Microsoft*, there is currently no significant adoption of AI technologies within the Irish public sector to deliver services in the Irish language.

Report reveals vast economic potential of AI - (Trinity Centre for Digital Business and Analytics (CDBA), 2025)

This lack of progress stands in stark contrast to expected wider public effects of the technology and the growing body of international examples, such as Iceland's national AI strategy for preserving linguistic heritage with AI.

The absence of Irish-language AI in public service delivery is not necessarily a reflection of lacking ambition or awareness - but may instead be indicative of a systemic challenge in making the business case for such investments.

Today, public services are being delivered in Irish only to a small degree, meaning the user base for Irish-language AI solutions is relatively small and often viewed as niche. Consequently, public bodies may struggle to justify investment in AI solutions that serve only a fraction of their overall service population, particularly in the face of constrained resources and competing digital transformation priorities.

Moreover, without widespread use cases, it is difficult to establish strong demand signals for the private sector (e.g., big tech) to respond to - resulting in a cycle where limited investment leads to limited innovation, which in turn reinforces the lack of adoption.

With limited development done in the area of Irish, the accessibility of data to support the training of Irish AI language models becomes crucial. Some sources of such data have already been identified through organisations such as RTE and TG4, where not only textual but also audio and to some extent video data is present which could enable development of Irish AI models. But enabling the access to such data requires a clear understanding of the scope of use of the data, including potential legal challenges in relation to e.g. fair use, consent, etc. Therefore the seemingly available high quality data may come with accessibility challenges.

Despite the mentioned challenges, the legislative landscape in relation to the use of the Irish language does seem to necessitate the use of AI which helps drive a positive association with AI across public services as a valuable augmentation and automation tool – rather than a technology to be feared.

On the following pages, are graphics that set out the key enablers and associated challenges which have been mentioned and observed through the engagement with different public sector organisations

ENABLERS

1 Strong Irish and European legislative background

Ireland's public sector is governed by a legal framework requiring the provision of services in Irish, including the Official Languages Acts (2003, 2021) and the National Plan for Irish Language Public Services 2024-2030. These mandates establish clear obligations, creating a sustained policy-driven demand for Irish-language solutions.

2 Growing interest in AI across the Irish public sector

The widespread enthusiasm for AI, evident across Irish public bodies, provides a fertile environment for piloting new Irish-language use cases. Public servants have shown a willingness to adopt innovative solutions—provided these are trustworthy and culturally sensitive.

3 Strong Údarás experience and collaboration

Údarás na Gaeltachta has led initial exploratory projects, such as AI pilots and chatbot prototypes, proving technical feasibility. Additionally, successful case studies from other countries show that low-resource languages can thrive when public institutions make targeted investments.

4 Existing research ecosystem for AI in Irish

Although still maturing, the Irish research ecosystem includes promising initiatives aimed at developing Irish-compatible AI solutions. These efforts and existing involvement from Údarás provide a starting point for collaboration and potential scaling.

5 Known large data sources for AI model training

Several sources of very valuable data for Irish AI model training have been identified with organisation such as TG4 and RTE, leading to extensive possibilities for training.

CHALLENGES

1 Lack of clarity in practical adoption of AI technologies

While the Irish public sector has published a set of clear guidelines for the development of responsible AI solutions, the practical experience with implementing these principles is still limited, leading to a perceived risk in the individual public organisations abilities to deploy these technologies responsibly.

2 Perceived trust, performance and quality Issues

Stakeholders frequently cited a lack of confidence in the maturity and accuracy of Irish-language AI. Errors in translation or misrepresentation of dialects are seen not only as technical flaws but as risks to institutional credibility and public trust due to the Irish speaking population being very protective of the language.

3 Linguistic and Cultural Complexities

Due to challenges with Irish including it being a Low resource language, Localisation obstacles and potential for AI Hallucinations – create non-trivial challenges for AI and the Irish language.

These limitations are exacerbated when trying to extend general-purpose AI models into production-grade services that meet user expectations.

4 Lack of awareness among Big-tech vendors towards Irish language investments

While a strong ecosystem is building, big tech seems to be a missing piece of the puzzle. Adding Irish capabilities to existing tools from e.g., GAMAM[2] is proving challenging due to the limited volume of language use and hence business case for deploying these.

5 Accessing and using fit-for-purpose data sources

Irish language datasets for specialised domains (e.g. legal, health, education) remain limited. Even where data exists, issues related to intellectual property, fair use, and public access often constrain their use for training AI models.

[2] Google, Amazon, Meta, Apple and Microsoft

Leading Companies Powering AI Capabilities

Section 1: Large Language Models (LLMs)

Companies providing foundational models for understanding and generating human language.

ChatGPT Claude BY ANTHROPIC Gemini

LLaMA LE CHAT MISTRAL_ Grok

Section 2: Text-to-Speech (TTS)

Turning text into realistic human-like speech for apps, voice assistants, and more.

IIElevenLabs PLAY.HT coqui

Section 3: Speech-to-Text (STT)

Extracting accurate transcripts and voice commands from audio input.

OpenAI Whisper AssemblyAI DEEPGRAM

Roadmap

Our findings clearly indicate that while the Irish public sector has both the appetite and legal imperative to provide services in Irish, technical and operational gaps remain

However, the path forward is also clear. As identified through stakeholder engagement and evaluated collaboratively during the Galway workshop on 8th May 2025, the three high-impact use cases emerged as priority candidates for initial implementation: Public service delivery chatbots, 'Cara' the Irish chat friend and Voice-based chat education.

These use cases were selected for their possibilities to alleviate significant pain points for both citizens and public servants, but also for their alignment with public value and policy goals. An additional benefit to the prioritisation of these 3 use cases, is their shared reliance on a common technological foundation.

Speech-to-text (STT)

Speech-to-text is a technology that listens to what a person says and converts it into written words. It works by using AI software to recognise the sounds of speech and match them to the correct words. This is useful for things like dictating messages, taking voice notes, or helping people interact with systems hands-free, such as over the phone or in voice-based applications.

Text-to-speech (TTS)

Text-to-speech takes written text and turns it into spoken words using a computer-generated voice. It allows devices like phones, computers, or automated systems to 'speak'" information out loud. This can be helpful for reading messages, providing spoken directions, or making services accessible to people with visual impairments or reading difficulties.

Conversational AI engine (typically powered by an LLM)

A conversational engine based on a Large Language Model (LLM) is a type of AI that can understand natural language and respond in a way that feels like a real conversation. It takes what a user says or types, understands the meaning, and then generates a smart and relevant response. This technology powers things like chatbots, virtual assistants, and automated helpdesks, and can be used across different channels – including voice and text – to provide quick and helpful interactions without needing a human agent.

This commonality of foundational technologies presents a strategic opportunity to design and deploy a unified platform that supports all three use cases—maximising reuse of infrastructure, accelerating delivery timelines, and creating a scalable foundation for future innovation.

While there are many use cases for application AI in the Irish language, establishing a platform for voice interactions is the first step. Doing so not only consists of provisioning the three separate components required, but also requires them being integrated in a single platform as well as the unified platform to be put into the context of each of the use cases. Hence, the following steps are required to unlock the first of the 3 prioritised use cases:

Develop and deploy the required AI components in Irish in a safe environment (STT, TTS and LLM)

As part of deploying the required AI components, key steps are required:

1. Analysing and deciding whether current market options for out-of-the-box deployments are sufficient for delivering on requirements of current and future Irish uses of the technology
2. Where existing systems are available in the market, deployment of these systems in a safe environment and/or under applicable contractual terms
3. Where new AI systems must be developed, data gathering, engineering, training, testing and deployment of the required AI model must be done

Unify the AI capabilities into a single hosted tool for Irish AI conversations

For the individual components not to be stand-alone components, but instead part of a voice-to-voice capability, the tools must be unified into a single platform. This requires several steps, including:

1. Integration of the tools, enabling communication between them through a single application
2. Orchestration of workflows, ensuring that the right tools are being leveraged at the right time in the voice-to-voice conversational flow

Localise the tool for a specific use case

Beyond simply being able to speak with users, the unified solution only becomes a true delivery of the use case once it has the right knowledge, memory, and other essential capabilities. Therefore, the final steps to delivery requires:

1. Onboarding the right knowledge sources to enable conversational answers for the specific use case
2. Memory and incorporation of logic to derive decision-based functionality to the users based on conversations
3. Front-end integrations to enable the solution to live in the environment intended for user interaction

The ambition of Údarás na Gaeltachta is to launch a proof-of-concept voice-to-voice AI tool for the public sector by late 2026, with selected test sites used to pilot and assess the solution in real-world settings. This will not only enable the highest value use cases but will also pave the way for delivery of many other Irish language AI use cases which have been previously identified as well as those that will emerge in the coming year.

Conclusion

This report has outlined the need and tangible opportunity for harnessing Artificial Intelligence to support and revitalise the Irish language across public services

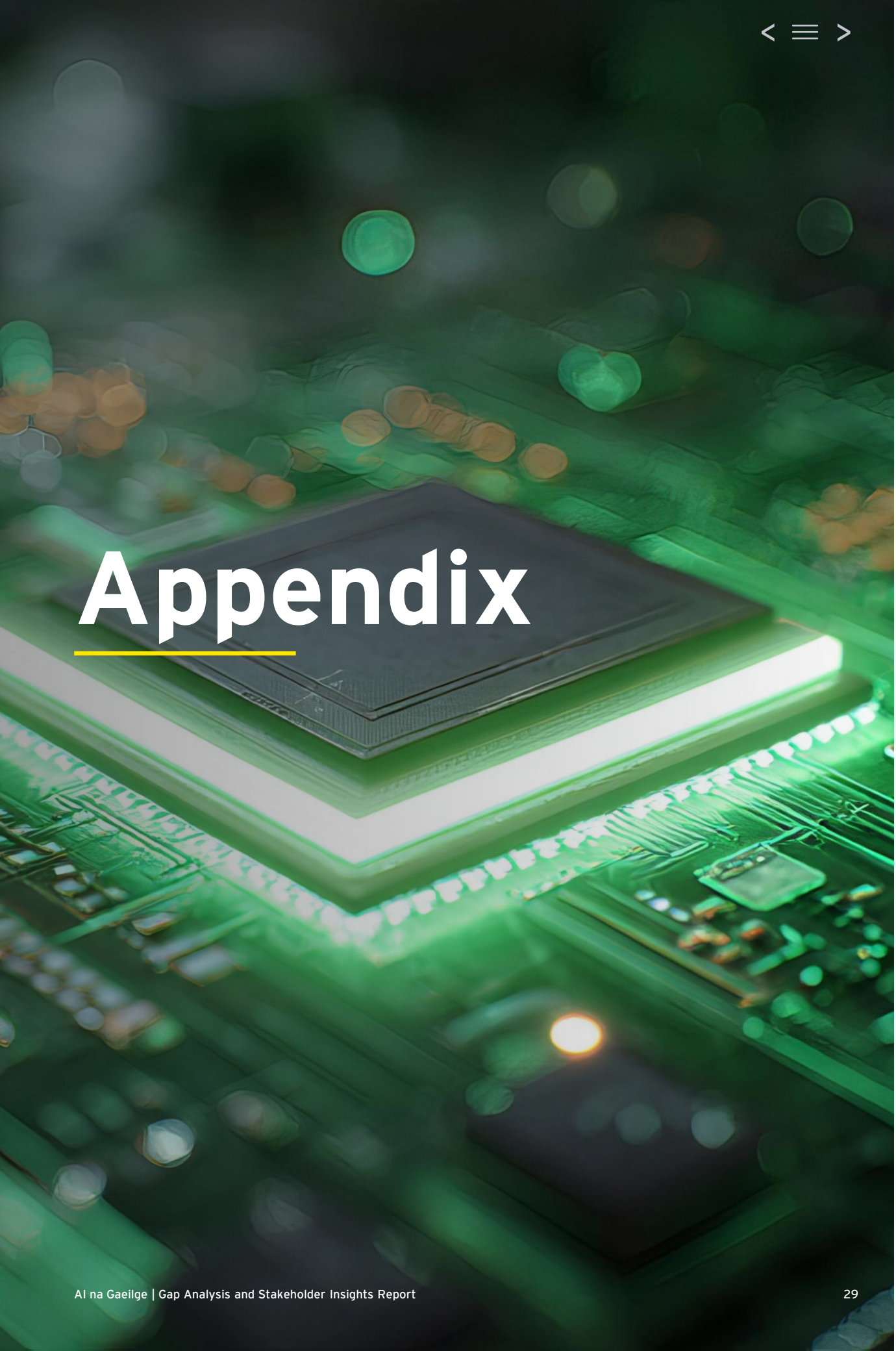
Through a gap analysis and active engagement with stakeholders, centred around a workshop day held in Galway on the 8th of May, it is clear that there is strong alignment between policy ambitions, technological capabilities, and public sector appetite.

Údarás na Gaeltachta's leadership to date has laid a strong foundation through early pilots, inter-agency collaboration, and the identification of high-value use cases. The prioritisation of three core use cases; voice-based public service delivery, conversational language learning, and youth-oriented chat companions, demonstrates how AI can meet diverse user needs while supporting national policy goals such as the 20-Year Strategy for the Irish Language.

The roadmap ahead is both practical and scalable: by investing in a shared technical platform based on speech-to-text, text-to-speech, and conversational AI technologies, Údarás can accelerate implementation, avoid duplication, and maximise impact. However, success will require continued collaboration, careful attention to linguistic and cultural sensitivities, and a proactive approach to governance and responsible AI deployment.

Údarás na Gaeltachta is uniquely positioned to play the central coordination role in this national effort. As the best-placed public body, Údarás na Gaeltachta can unify stakeholders, drive adoption, and champion the visibility and relevance of the Irish language in a digital era.

Now is the time to act: by stepping forward as coordinator and driver for Irish-language AI, Údarás na Gaeltachta can ensure that the Irish language not only survives in a digital future, but thrives for generations to come.



Appendix

Appendix A
Glossary

This table provides a glossary which explains the terms used through the report.

Term	Abbreviation	Description
Artificial Intelligence	AI	The simulation of human intelligence in machines, enabling them to perform tasks such as understanding language, recognising patterns, and making decisions.
Large Language Model	LLM	A type of AI model trained on vast datasets to generate human-like text and understand complex language queries.
Small Language Model	SML	A more compact version of an LLM, often used in resource-constrained environments while maintaining reasonable performance.
Speech-to-Text	STT	Technology that converts spoken language into written text, used in transcription and voice interface systems.
Text-to-Speech	TTS	Technology that converts written text into spoken voice output.
General Data Protection Regulation	GDPR	A regulation in EU law on data protection and privacy for individuals.
An Coimisinéir Teanga	–	The Irish Language Commissioner, responsible for monitoring compliance with Irish language legislation.
Official Languages Act	–	Legislation enacted to promote the use of Irish in official public communications and services in Ireland.
Application Programming Interface	API	A set of rules that allows different software applications to communicate and share data.
Machine Learning Operations	MLOps	Practices that combine machine learning and IT operations to manage and deploy AI models reliably and efficiently.
Key Performance Indicator	KPI	A measurable value used to assess how effectively objectives are being achieved.
Public-Private Partnership	PPP	A cooperative arrangement between public and private sectors to deliver a public service or project.
Foundation Model	–	A large-scale AI model trained on broad data and adaptable to multiple tasks with fine-tuning.
Gaeltacht	–	Regions in Ireland where Irish is the predominant spoken language.
Digital Transformation	–	The integration of digital technologies into all aspects of an organisation, fundamentally changing operations and service delivery.
Model-Agnostic	–	A system or platform that is compatible with multiple AI models, not dependent on a single proprietary solution.
Proof of Concept	POC	A demonstration to verify that certain concepts or theories have the potential for real-world application.
Data Augmentation	–	Techniques used to increase the amount and diversity of training data available for machine learning models.
Return on Investment	ROI	A measure used to evaluate the efficiency or profitability of an investment.
Linguistic Inclusion	–	Ensuring that all language communities, particularly minority language speakers, have equitable access to public services and communication.
Natural Language Processing	NLP	A branch of AI focused on enabling machines to understand, interpret, and generate human language.
Full-Time Equivalent	FTE	A unit that indicates the workload of an employed person in a way that makes workloads comparable across contexts.
Centre of Excellence	CoE	A team or entity that provides leadership, best practices, and support in a focused area, such as Irish-language AI.
Small and Medium-sized Enterprise	SME	Businesses whose personnel numbers fall below certain limits.
Generative AI	GenAI	A class of AI systems capable of generating text, audio, images, or other media, often based on prompts or previous context.

EY | Building a better working world

EY is building a better working world by creating new value for clients, people, society and the planet, while building trust in capital markets.

Enabled by data, AI and advanced technology, EY teams help clients shape the future with confidence and develop answers for the most pressing issues of today and tomorrow.

EY teams work across a full spectrum of services in assurance, consulting, tax, strategy and transactions. Fueled by sector insights, a globally connected, multi-disciplinary network and diverse ecosystem partners, EY teams can provide services in more than 150 countries and territories.

All in to shape the future with confidence.

CI_10261.pptx. Produced by Creative (Ireland). 07/25. ED none.

The Irish firm Ernst & Young is a member practice of Ernst & Young Global Limited.

Ernst & Young, Harcourt Centre, Harcourt Street, Dublin 2, Ireland.

ey.com