



Rialtas na hÉireann
Government of Ireland

Digital Decade Policy Programme

Ireland's National Strategic Roadmap



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gov.ie

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1 Overall analysis of state of play of digital transformation

1.1 Introduction and State of Play

Ireland is strongly committed to supporting and progressing the digital transformation of our economy and society, and to building on our position as a digital leader at the heart of Europe and globally. To that end, *Harnessing Digital – The Digital Ireland Framework*¹, Ireland's National Digital Strategy, was published in February 2022, to drive a coherent and impactful approach to our digital agenda. *Harnessing Digital* is aligned with the EU's Digital Decade 2030 Programme and seeks to contribute to the achievement of its targets to progress the digitalisation of enterprise and public services, supported and enabled by digital infrastructure and digital skills at all levels. Targets and related workstreams and deliverables are included across each of these four dimensions, in line with – and in some cases more ambitious than – the EU's Digital Decade targets.

Harnessing Digital aligns with the **European Declaration on Digital Rights and Principles for the Digital Decade**², with a strong focus on balance, security, safety, trust and inclusion for all groups across society. It complements efforts towards achieving Ireland's climate targets, and it re-enforces the Government's commitment to a modern, cohesive, well-resourced digital regulatory framework, recognising the important role Ireland plays in enforcing existing and new digital regulation. There is strong, cross-Government approach to implementation of *Harnessing Digital*, with coordination structures led from the Department of the Taoiseach.

Harnessing Digital was informed by extensive **stakeholder consultation**, and regular stakeholder engagement has continued as implementation has progressed, including regular engagement with industry, and with digital regulators. Related sectoral strategies, which underpin *Harnessing Digital* and the Digital Decade programme, follow a similar approach and areas informed by expert and stakeholder engagement. Additional detail on stakeholder engagement is included under Section 6³

Overall, significant progress has been achieved across the four dimensions of *Harnessing Digital* and related targets to date, and by extension to the Digital Decade targets.⁴ This progress is reflected in Ireland's positive position in the **2023 Digital Economy and Society Index (DESI)**. Ireland has continued to perform well under many indicators across all four dimensions of skills, infrastructure and connectivity, enterprise take-up, and digital public services.

However, while acknowledging our positive performance as a digital leader in Europe, this Roadmap acknowledges and takes into account the country-specific recommendations in the European Commission's **Report on the State of the Digital Decade 2023**, which are reflected in the challenges outlined below. Ireland remains focused on continuing to drive further progress across all aspects of our digital transformation. In this context, it is important to note that this first National Roadmap reflects policies and measures currently in place. These will continue to evolve over the course of the decade as we move towards achieving our national targets and contributing to the achievement of the EU Digital Decade 2030 targets.

¹ [Harnessing Digital – The Digital Ireland Framework](#)

² [European Declaration on Digital Rights and Principles for the Digital Decade \(2023/C 23/01\)](#)

³ [Connecting Government 2030: A Digital and ICT Strategy for Ireland's Public Service](#)

⁴ See [Harnessing Digital 2022 Progress Report](#). The 2023 annual Progress Report is due for publication shortly.

1.2 Challenges

On **Digital Skills**, the Government is conscious that despite Ireland's above average scores across many of the indicators in the area, it is imperative that we **continue to provide the digital skills needed to support** the specific needs of the labour market across all areas of the economy. Although we are excelling in the provision of highly skilled ICT graduates at 8.6%, over double the EU average of 3.9%, further increases are required to ensure that our workforce is well-equipped to face the continuous rapid changes brought about by global digitalisation.⁵

The **National Skills Bulletin 2023**⁶ noted that despite recent retrenchments in the tech sector, employment in the sector reached its highest ever levels in Q2 2023, with demand for a range of digital skills strong across sectors, and shortages likely to persist. A key challenge for Irish businesses at all levels, including SMEs and micro-enterprises, is how to **attract and retain employees with high quality digital skills**. Some of the many issues faced by industry and the workforce include the cost of living and accommodation, work permits, and the supply of quality technology graduates. Continuing to ensure adequate provision of **digital skills, both basic and high-level** will continue to be a central area of focus for Ireland, including in relation to ensuring gender parity.

As we work to support businesses to digitalise, we recognise that the **digital economy in Ireland is running at two speeds**. Reducing this digital divide is a priority. While a small proportion of the enterprise base has fully embraced digitalisation, digital adoption must be accelerated across the entire enterprise base, with a particular emphasis on the adoption of big data, cloud and AI, where our performance to date, as measured under the DESI, continues to fall short. Government measures to date have ranged from awareness-raising and initial guidance for businesses at the early stages of digitalisation, to targeted interventions for companies at more advanced stages, will continue. Nine new **Regional Enterprise Plans (REPs)** have been launched since 2022. With a horizontal focus on digital, these are part of efforts to achieve more balanced regional enterprise development. In addition, a new **Digital Portal** will be launched as part of an awareness-raising campaign to encourage and support all businesses to digitalise and a review of existing funding schemes is underway, with a view to expanding eligibility.

Ireland is progressing well towards Digital Decade **connectivity** targets. Nevertheless, with regard to infrastructure, additional **international subsea cable routes**, both transatlantic (EU to North/South America) and between Ireland and our EU neighbours, are required to meet growing demand for secure and resilient connectivity capable of meeting significant projected data flows, and will require significant investment.

While Ireland scores strongly in the digitalisation of Government, with a 100% score relation to services to businesses, further efforts are needed to digitalise the health sector in order to meet the objective of access for all EU citizens to their **Digital Decade Digital Health Records** for all EU citizens. A number of enabling projects are being progressed, and the forthcoming **Digital Health and Social Care Roadmap (2024 – 2030)**⁷, will establish a roadmap for digital health in Ireland to the end of this decade and articulate the objective that all Irish citizens have access to their digital health records by 2030.

⁵ [National Skills Strategy 2025](#)

⁶ [National Skills Bulletin 2023](#)

⁷ Document forthcoming

We recognise that Ireland is currently lagging in terms of digitisation of the health service, and overcoming this presents a challenge. With regard to the **Digital Decade Digital Health Records target** for all EU citizens to have access to their digital health records, the forthcoming **Digital Health and Social Care Roadmap (2024 – 2030)**⁸, will establish a roadmap for digital health in Ireland to the end of this decade. It will present options for electronic health record (EHR) investment in Ireland and articulate the objective that all Irish citizens should have access to their digital health records by 2030. A number of enabling projects are currently underway such as ePharmacy, continued EHR deployments across major hospitals, and roll-out of the national individual health identifier into GP practice systems and hospital patient administration systems. New legislation, the Health Information Bill, is in preparation, that will provide a clearer legal basis for the sharing of health information appropriate governance arrangements for health data.

Finally, as the **digital regulatory environment** becomes increasingly complex and cross-cutting for stakeholders, including businesses, consumers and the public, it is increasingly important that new horizontal regulations are designed, implemented and communicated in a coherent, effective and efficient way. We are mindful of Ireland's important role in enforcing digital regulations in this context and are committed to providing the necessary legislation and resources, including for the Digital Services Act, in strong cooperation with our partners across the EU.

1.3 Strengths and assets to be leveraged

Ireland's strong performance to date, and our ambition to maintain our position as a digital leader reflect a number of strengths and assets which Ireland intends to leverage fully to ensure the full and inclusive digital transformation of our society and economy.

In supporting acceleration in the digitalisation of enterprise, Ireland has a strategic advantage with our **strong ecosystem of multinational and indigenous technology companies**, as well as **research and academic institutions** focused on digital technologies, which will be leveraged to create opportunities to deliver on our ambitions. This includes achieving a significant productivity dividend from a further and sustained uptake in digital adoption across the Irish enterprise base.

In the area of AI, Ireland launched our *National AI Strategy, Here for Good*⁹, in 2021, and has since made significant progress taking a human-centred ethics-based approach, including appointing an **AI Ambassador** to lead debate on AI at a national level; establishing **CeADAR as Ireland's AI Innovation Hub** (one of four EDIHs); progressing work on **skills** and **standards development**; and establishing a **new AI Advisory Council**.

On **semiconductors**, Ireland is a leading centre for semiconductor technology, and some of the most advanced chip manufacturing in Europe happens here. The Irish ecosystem benefits from the over 100 semiconductor companies across the value chain who have a presence here, as well as our advanced research expertise and infrastructure, which continues to develop and evolve. There are over 20,000 people currently employed in Ireland's semiconductor industry and we export €13.5 billion worth of products annually. The industry support infrastructure has been greatly enhanced by advanced research at several institutes across Ireland, and participation in the **IPCEI on**

⁸ Document forthcoming

⁹ [National AI Strategy, Here for Good](#)

Microelectronics and Communication Technologies¹⁰ is an example of our ability and commitment to play our part in realising the ambitions of the EU, outlined in the European Chips Act, to strengthen our capacity and capability in semiconductor production. Ireland is developing proposals to strengthen the alignment of Ireland's semiconductor ecosystem to the **European Chips Act**.

Our strong performance across the DESI human capital indicators is reflective of the **broad and impactful skills provision network** established across the education and training spectrum, underpinned by a number of strategic policy frameworks such as the *Digital Strategy for Schools to 2027*,¹¹ *Adult Literacy for Life*¹², and *Digital Inclusion – Digital for Good*¹³, are designed to futureproof Ireland's skills ecosystem and ensure that all cohorts are supported in accessing digital skills and digital literacy, to enable everyone to engage with and benefit from the digital transformation.

Implementation of the **Digital Connectivity Strategy**¹⁴ is underway, and good progress is being made towards achieving objectives in terms of coverage and quality of connectivity. The **National Broadband Plan**¹⁵, started in 2020, is scheduled to be completed by 2027 and will ensure all premises across the State, regardless of how rural their location, have access to high-speed broadband, delivered through commercial investment coupled with State-led intervention where required. A long-term **multi-band spectrum allocation** this year¹⁶, will allow for investments that will improve wireless and mobile broadband services and increase network capacity. The licenses come with obligations relating to population and geographic coverage, as well as quality of services, including for major roads and key public buildings. Options regarding 26GHz spectrum are being kept under review.

Ireland has reached the target for **digital public services for business** (100%). We are performing well on our target regarding digital **public services for citizens** (81% versus an EU average of 77%), and our national target is more ambitious than the EU-level target (90% of applicable services to be consumed online by 2030). In addition, we have seen **high take-up of MyGovID**, with close to 2.2 million verified accounts by the end of Q3 2023.¹⁷ Ireland is committed to maintaining its progress and implementation across the continuing digitalisation of public services. Work is also underway to begin implementation of the **Digital Wallet**.

The following sections set out in further detail our approach to delivering under each of the EU's digital targets, including national trajectories to 2030, and budgetary break-down where available.

¹⁰ See <https://www.ipcei-me.eu/>

¹¹ [Digital Strategy for Schools to 2027](#)

¹² [Adult Literacy for Life: A 10-year adult literacy, numeracy, and digital literacy strategy](#)

¹³ [Digital for Good: Ireland's Digital Inclusion Roadmap](#)

¹⁴ [The Digital Connectivity Strategy for Ireland, December 2022](#)

¹⁵ [National Broadband Plan](#)

¹⁶ [Multi Band Spectrum Award 2022 \(MBSA2\) | Commission for Communications Regulation \(comreg.ie\)](#)

¹⁷ This equates to 76% of adults according to the 2022 census.

2 Trajectories and target values to contribute to the EU's digital targets

2.1 Overview of Ireland's national targets

	EU TARGET	IE TARGET
SKILLS		
<i>Basic Digital Skills</i>	A digitally skilled population and highly skilled digital professionals, with the aim of achieving gender balance, where: (a) at least 80 % of those aged 16-74 have at least basic digital skills; (b) at least 20 million ICT specialists are employed within the Union, while promoting the access of women to this field and increasing the number of ICT graduates.	A digitally skilled population and highly skilled digital professionals, where at least 80 % of those aged 16-74 have at least basic digital skills, with the aim of achieving gender balance.
<i>ICT Specialists</i>	As above.	Increase graduates with higher-level digital skills to over 12,400 by end-2022, with ambition to further increase digital skills provision in following years.
DIGITAL INFRASTRUCTURE		
<i>Connectivity</i>	Secure, resilient, performant and sustainable digital infrastructures, where: all end users at a fixed location are covered by a gigabit network up to the network termination point, and all populated areas are covered by next-generation wireless highspeed networks with performance at least equivalent to that of 5G, in accordance with the principle of technology neutrality.	All Irish households and businesses will be covered by a Gigabit network no later than 2028. All populated areas covered by 5G by no later than 2030.
<i>Cutting edge Semiconductors</i>	Secure, resilient, performant and sustainable digital infrastructures where the production, in accordance with Union law on environmental sustainability, of cutting-edge semiconductors in the Union is at least 20% of world production in value.	Secure, resilient, performant and sustainable digital infrastructures where the production, in accordance with Union law on environmental sustainability, of cutting-edge semiconductors in the Union is at least 20% of world production in value.
<i>Data – Edge & Cloud</i>	Secure, resilient, performant and sustainable digital infrastructures where at least 10 000 climate-neutral highly secure edge nodes are deployed in the Union, distributed in a way that guarantees access to data services with low latency (i.e., a few milliseconds) wherever businesses are located.	23 public sector edge nodes by 2025.
<i>Computing</i>	Secure, resilient, performant and sustainable digital infrastructures where the Union has, by 2025, its first computer with quantum acceleration, paving the way for the Union to	Secure, resilient, performant and sustainable digital infrastructures where the Union has, by 2025, its first computer with quantum acceleration,

	be at the cutting edge of quantum capabilities by 2030.	paving the way for the Union to be at the cutting edge of quantum capabilities by 2030.
DIGITAL TRANSFORMATION OF BUSINESSES		
<i>Late Adopters</i>	The digital transformation of businesses where more than 90% of the Union SMEs reaching at least a basic level of digital intensity.	90% of SMEs at Basic Digital Intensity level by 2030.
<i>Tech up-take</i>	The digital transformation of businesses where at least 75 % of Union enterprises having taken up one or more of the following, in line with their business operations: (i) cloud computing services; (ii) big data; (iii) artificial intelligence (AI).	Enterprise take-up of 75% in Cloud Computing, Big Data, AI by 2030.
<i>Innovators</i>	The digital transformation of businesses where the Union facilitating the growth of its innovative scale-ups and improving their access to finance, leading to at least doubling the number of unicorns.	At least 800 businesses supported by 2026 under the €85 million Digital Transition Fund to support businesses to digitalise. At least 35% of State funding for start-up and early-stage businesses to be invested in innovative digital businesses from 2022.
DIGITALISATION OF PUBLIC SERVICES		
<i>Key Public Services</i>	The digitalisation of public services where 100 % online accessible provision of key public services and, where relevant, the possibility for citizens and businesses in the Union to interact online with public administrations.	Through a trusted, user-driven, intuitive, inclusive and efficient world-leading digital government service, 90% of applicable services will be consumed online by 2030.
<i>eHealth</i>	The digitalisation of public services where 100 % of Union citizens have access to their electronic health records.	The digitalisation of public services where 80% of Irish citizens have access to core components of their digital health record.
<i>Digital Identity</i>	The digitalisation of public services where 100 % of Union citizens have access to secure electronic identification (eID) means that are recognised throughout the Union, enabling them to have full control over identity transactions and shared personal data.	80% of eligible citizens using MyGovID by 2030.

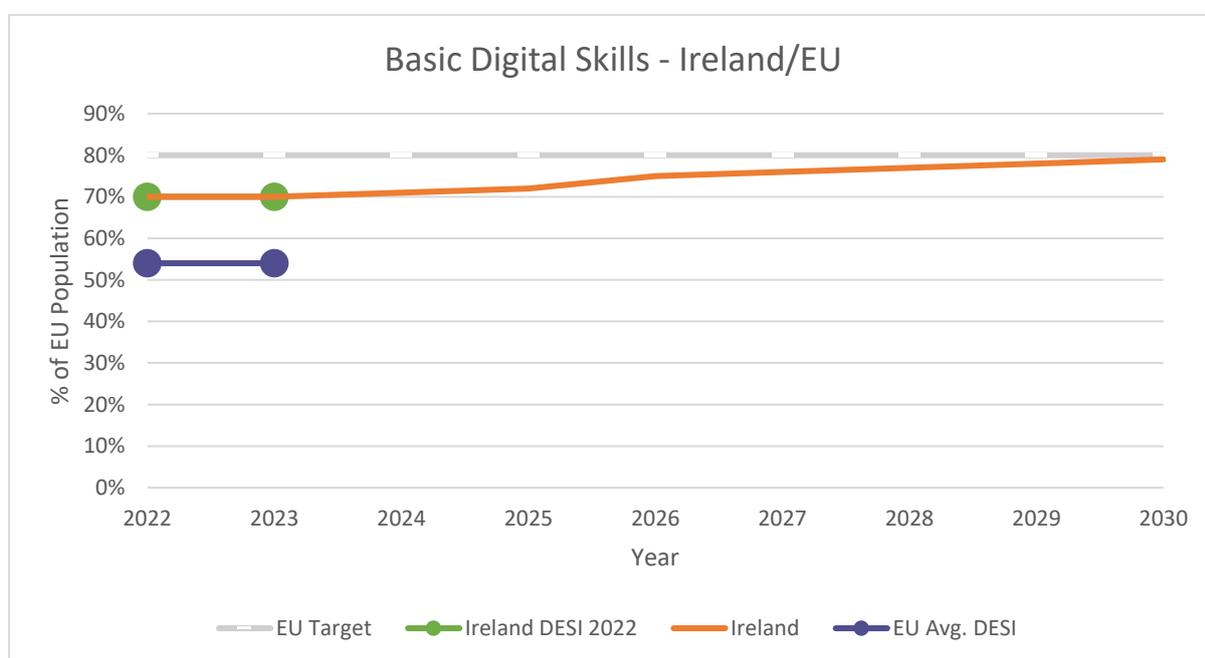
2.2 Trajectories for each target

2.2.1 SKILLS

2.2.1.1 Basic Digital Skills

Target: A digitally skilled population and highly skilled digital professionals, where at least 80 % of those aged 16-74 have at least basic digital skills, with the aim of achieving gender balance.

KPI Definition: Percentage of individuals (80%) aged between 16 and 74 years old disaggregated by sex with ‘basic’ or ‘above basic’ digital skills in each of the following five dimensions: information, communication, problem solving, digital content creation and safety skills. It is measured based on the activities that individuals carried out during the previous three months; and gender convergence, measured as the percentage of women and men among those individuals with “basic” or “above basic” digital skills.



Basic Digital Skills	[DESI] 2022	[DESI] 2023	2024	2025	2026	2027	2028	2029	2030
Ireland	70%	70%	71%	72%	75%	76%	77%	78%	80%
EU Average	54%	54%							
Target									80%

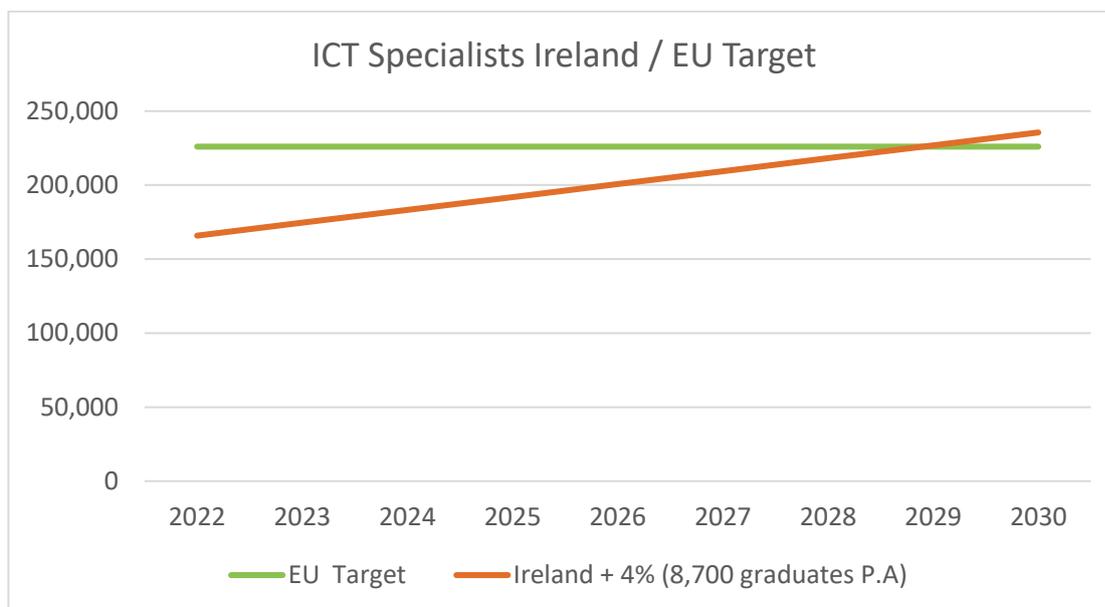
[Source: DESI]

2.2.1.2 ICT Specialists

EU Target: A population with at least 20 million ICT specialists employed within the Union, while promoting the access of women to this field and increasing the number of ICT graduates.

IE Target: The target for 2023 is for 15,000 graduate ICT specialists. At the time of writing data isn’t available on whether this target has been met. A proportionate target for Ireland of the EU target of 20 million ICT specialists in the workforce by 2030 is 226,000 people, equating as circa 8,700 additional graduates per year.

KPI Definition: Number of individuals aged 15-74 who are employed as ICT specialists; and gender convergence, measured as the percentage of women and men among those individuals employed as ICT specialists. In accordance with the ISCO classifications, ICT specialists are workers who have the ability to develop, operate and maintain ICT systems, and for whom ICT constitutes the main part of their job, including but not limited to ICT service managers, ICT professionals, ICT technicians, ICT installers and servicers. The gender gap in ICT employment is computed as share of female ICT specialists in total ICT employment. This part of the target is not treated as a separate KPI.



ICT Specialists	2022	2023	2024	2025	2026	2027	2028	2029	2030
Ireland	165,847	174,561	183,275	191,989	200,703	209,417	218,131	226,845	235,559
Proportional 2030 target									226,000
EU Target									20,000,000

2.2.2 DIGITAL INFRASTRUCTURE

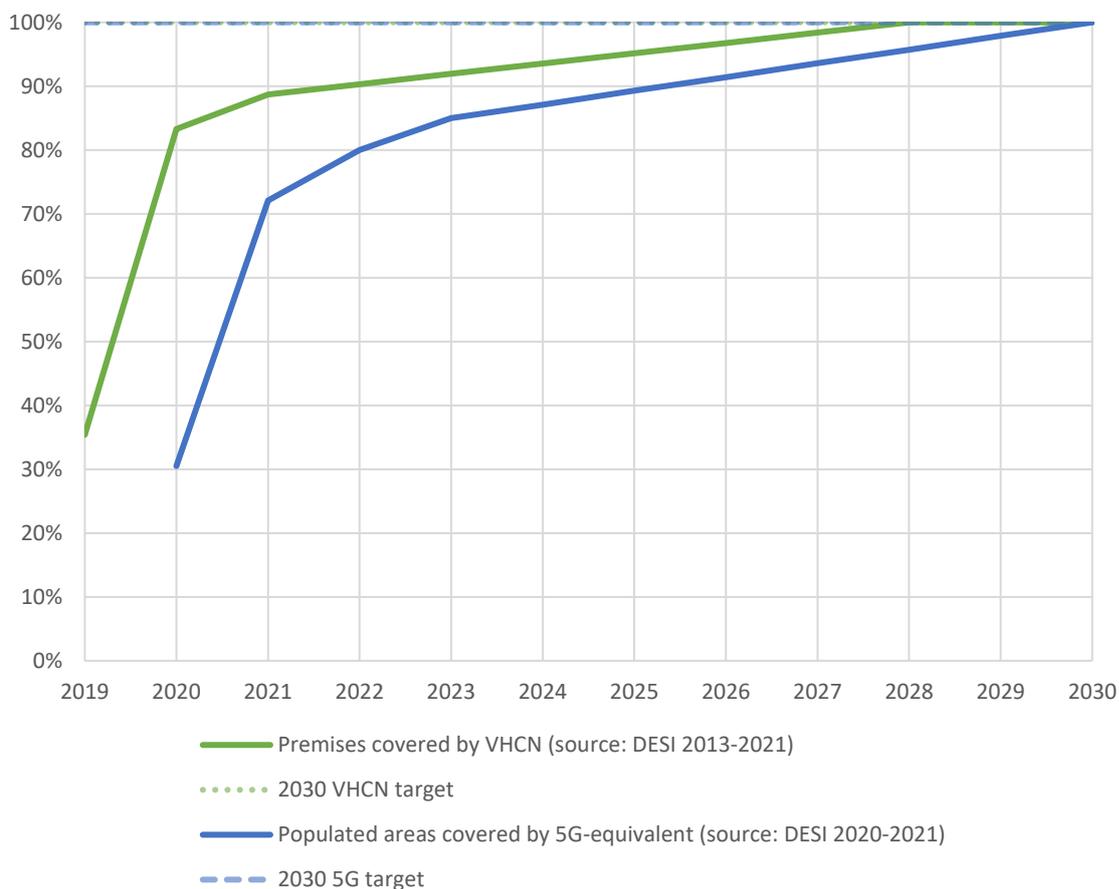
2.2.2.1 Connectivity

IE Target VHCN: All Irish households and businesses will be covered by a Gigabit network no later than 2028.

IE Target 5G: All populated areas covered by 5G by no later than 2030.

KPI Definition: Gigabit connectivity, measured by the percentage of households covered by fixed Very High-Capacity Networks (VHCN). The technologies considered are those currently able to deliver gigabit connectivity, namely Fibre to the Premises (FTTP) and Cable DOCSIS (12) 3.1. The evolution of the FTTP coverage will also be monitored separately and taken into consideration when interpreting VHCN coverage data. 5G coverage, measured as the percentage of populated areas covered by at least one 5G network regardless of the spectrum band used.

KPI Definition: 5G coverage, measured as the percentage of populated areas covered by at least one 5G network regardless of the spectrum band used.



Connectivity	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
	[DESI]	[DESI]	[DESI]	[DESI]	[DESI]							
VHCN												
Ireland	35.4%	83.3%	88.7%	90.3%	91.9%	93.5%	95.2%	96.8%	98.4%	100%	100%	100%
EU Average												100%
5G												
Ireland		30.5%	72.1%	80%	85%	87.1%	89.3%	91.4%	93.6%	95.7%	97.9%	100%
EU Average			13.93%	65.78%	81%							100%

2.2.2.2 Cutting edge semiconductors

Target: Secure, resilient, performant and sustainable digital infrastructures where the production, in accordance with Union law on environmental sustainability, of cutting-edge semiconductors in the Union is at least 20% of world production in value.

KPI definition: Semiconductors, measured as value generated, in terms of revenues, by semiconductor activities in the Union, in all stages of the value chain, with respect to the global market value. For the first year, reporting will be done on the basis of those activities in Europe. European Commission guidance states that no trajectory is available yet as the study by IDC (International Data Corporation) is still in progress. Baseline value, according to the latest available historical data point is around 10% of the global market share in 2022.¹⁸

At present the Irish authorities are working to articulate and project a possible trajectory for the semiconductor industry. Ireland will conduct a study to identify key semiconductor market actors, with a target of enabling and supporting the semiconductor ecosystem in Ireland to develop in line with EU targets for the sector. Ireland is also developing proposals to strengthen the alignment of Ireland’s semiconductor ecosystem to the European Chips Act.

¹⁸ [Communication from the Commission establishing Union-level projected trajectories for the digital targets, C\(2023\)7500 final](#)

2.2.2.3 Edge nodes

EU Target: Secure, resilient, performant and sustainable digital infrastructures where at least 10 000 climate-neutral highly secure edge nodes are deployed in the Union, distributed in a way that guarantees access to data services with low latency (i.e., a few milliseconds) wherever businesses are located.

IE Target: 23 public sector edge nodes by 2025; no target available on private sector deployment.

KPI Definition: Edge nodes, measured as the number of compute nodes providing latencies below 20 milliseconds; such as an individual server or other set of connected computing resources, operated as part of an edge computing infrastructure, typically residing within an edge data centre operating at the infrastructure edge, and therefore physically closer to its intended users than a cloud node in a centralised data centre.

The OGCIO’s public sector nodes project began in 2022 and so far, 8 edge nodes have been installed. The programme is estimated to deliver 23 edge nodes by 2025.

2.2.2.4 Quantum Computing

EU Target: Secure, resilient, performant and sustainable digital infrastructures where the Union has, by 2025, its first computer with quantum acceleration, paving the way for the Union to be at the cutting edge of quantum capabilities by 2030.

KPI definition: Quantum computing, measured as the number of operational quantum computers or quantum simulators, including accelerators of High Performance Computing supercomputers, deployed and accessible to the user communities.

Quantum computing	2022	2023	2024	2025	2026	2027	2028	2029	2030
Ireland									
EU Average	0	0	1	1	1	2	2	2	3
Target									3

[Source: European Commission¹⁹]

No EU level baseline trajectory has been established due to the specificity of this target. The Commission has advised that it is expected that at least one operational quantum computer will be deployed by 2024, ahead of the target timeline, followed by a second in 2027 and at least 3 by 2030. Ireland is unable to provide a national target or trajectory at this time, however on 15th November 2023 the Department of Further and Higher Education, Research, Innovation and Science launched *Quantum 2030*, Ireland’s first national strategy for quantum technologies. The measures under this strategy are expected to contribute to the target of paving the way for the Union to be at the cutting edge of quantum capabilities by 2030.

¹⁹ [Communication from the Commission establishing Union-level projected trajectories for the digital targets, C\(2023\)7500 final](#), p21

2.2.3 DIGITAL TRANSFORMATION OF BUSINESSES

2.2.3.1 Late Adopters

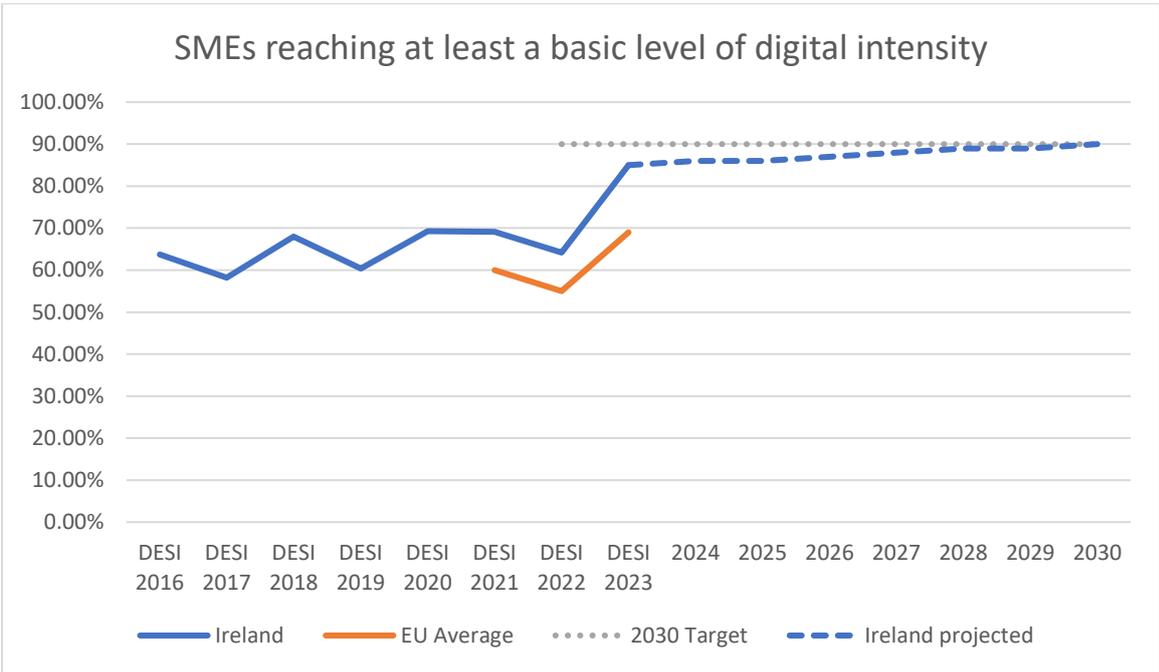
Target: At least 90% of SMEs at basic level of digital intensity by 2030

KPI definition: SMEs with at least a basic level of digital intensity, measured as the percentage of SMEs using at least 4 of 12 selected digital technologies.

SMEs with Basic Digital Intensity

SMEs with at least basic digital intensity	DESI 2021	DESI 2022	DESI 2023	2024	2025	2026	2027	2028	2029	2030
Ireland	69%	64%	85%	86%	86%	87%	88%	89%	89%	90%
EU Average	60%	55%	69%							
Target										90%

[Source: DESI]



2.2.3.2 Tech up-take

EU Target: At least 75% of enterprises having taken up one of more of the following: cloud, big data, AI.

IE Target: 75% enterprise take-up in cloud, big data and AI by 2030.²⁰

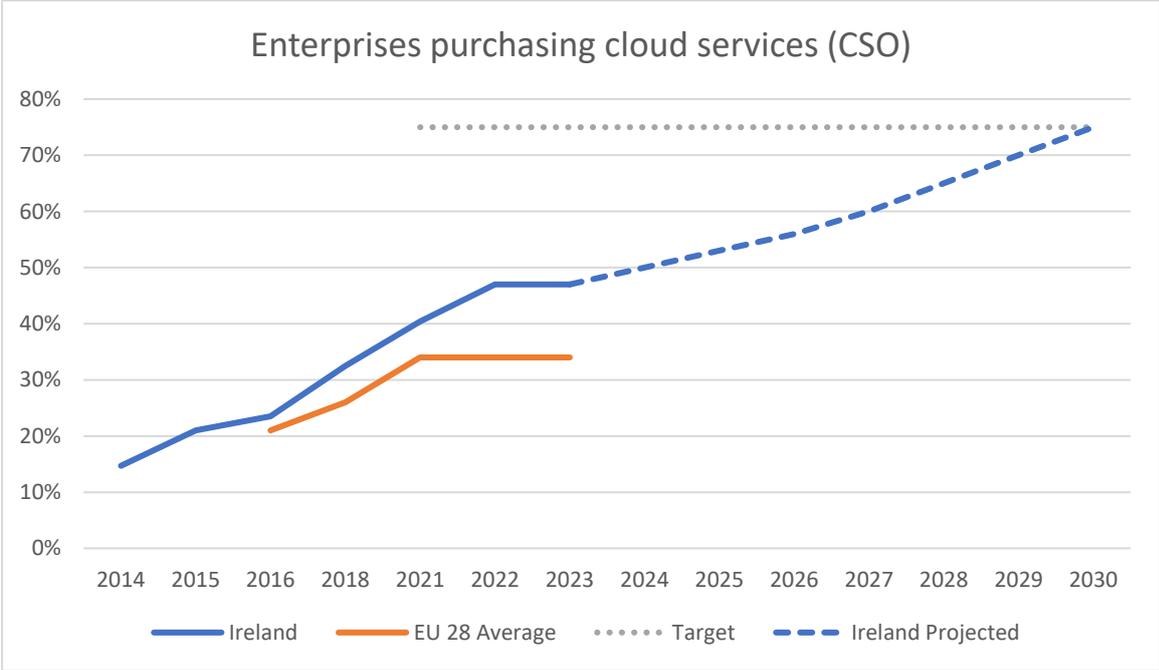
KPI definition:

I. *Cloud computing*, measured as the percentage of enterprises using at least one of the following cloud computing services: finance or accounting software applications, enterprise resource planning (ERP) software applications, customer relationship management (CRM) software applications, security software applications, hosting the enterprise’s database(s), and computing platform providing a hosted environment for application development, testing or deployment.

II. *Big data*, measured as the percentage of enterprises analysing big data from any data source (internal or external). As of the 2024 report, big data will be measured by the percentage of enterprises performing data analytics (internally or externally).

III. *Artificial intelligence*, measured as the percentage of enterprises using at least one artificial intelligence technology.

Uptake of Cloud Computing by businesses

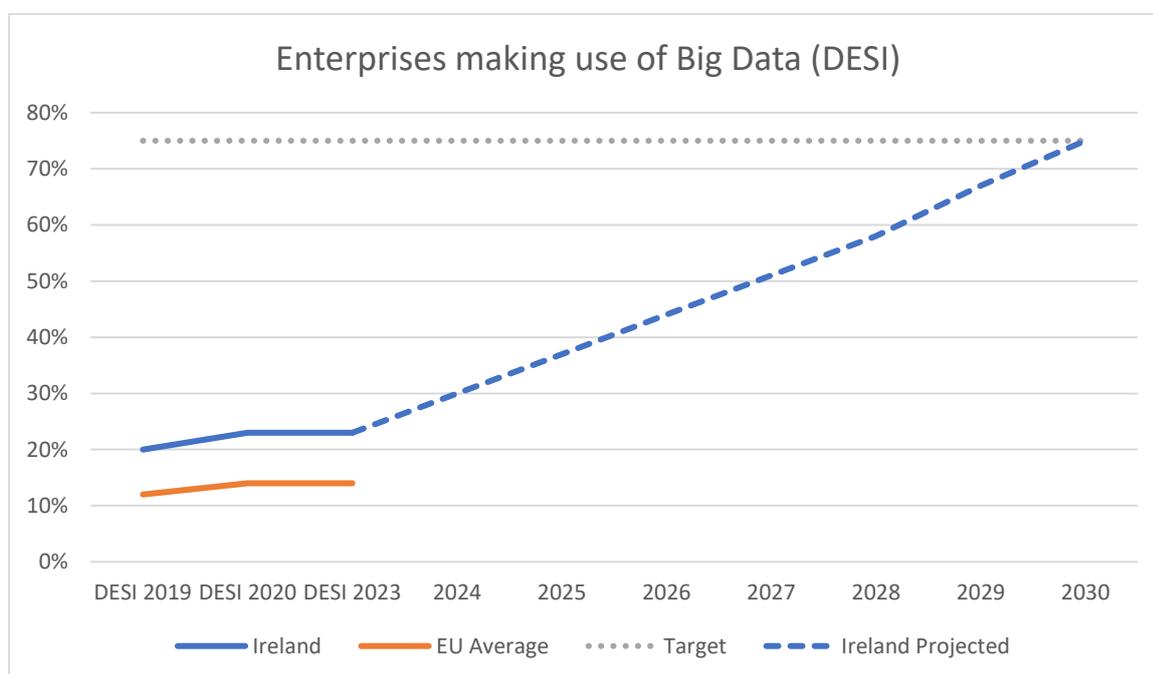


²⁰ [Harnessing Digital](#)

Use of Cloud Computing	2018	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Ireland	32.5 %	40.4 %	47.4 %	47.4 %	47.4 %	50%	53%	56%	60%	65%	70%	75%
EU average	18%	26%	34%	34%	34%							
Target												75%

[Source: CSO, DESI]

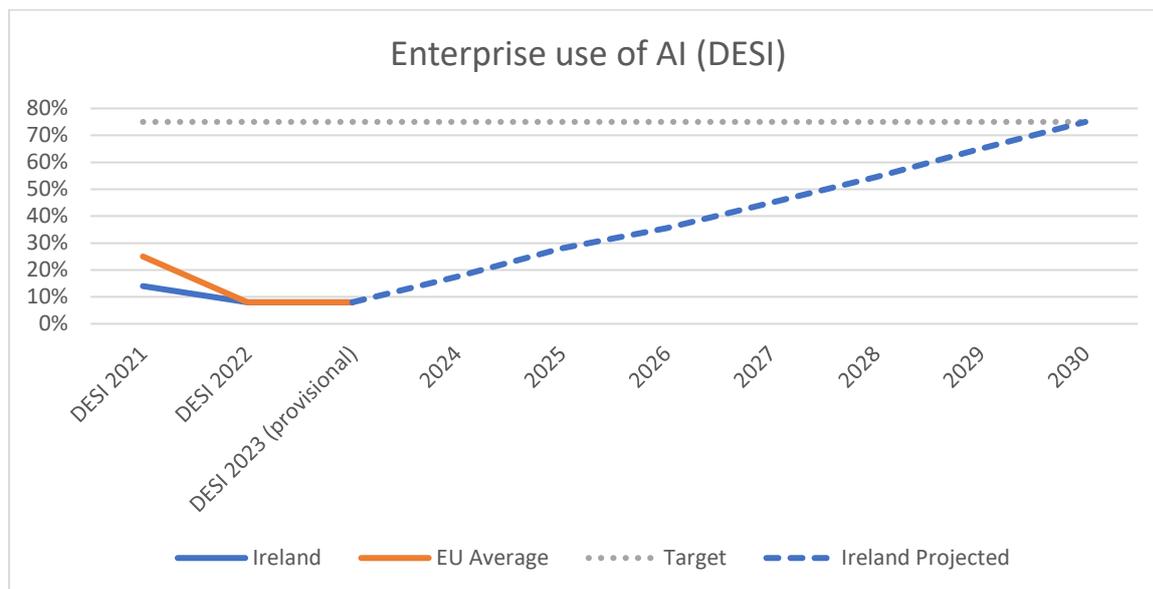
Big Data take-up by businesses



Enterprises using Big Data	[DESI] 2019	[DESI] 2020	[DESI] 2023	2024	2025	2026	2027	2028	2029	2030
Ireland	20%	23%	22.7%	30%	37%	44%	51%	58%	67%	75%
EU Average	12%	14%	14.2%							
Target										75%

[Source DESI]

AI take-up by businesses



Use of Artificial Intelligence	[DESI] 2021	[DESI] 2022	[DESI] 2023	2024	2025	2026	2027	2028	2029	2030
Ireland	14%	8%	8%	18%	28%	36%	45%	55%	65%	75%
EU Average	25%	8%	8%							
Target										75%

[Source DESI]

2.2.3.3 Innovators

EU Target: The EU digital target is “the digital transformation of businesses, where the Union facilitates the growth of its innovative scale-ups and improves their access to finance, leading to at least doubling the number of unicorns.”

KPI definition: Unicorns are measured as the sum of unicorns referred to in Article 2, point (11)(a), of the Decision and those referred to in Article 2, point (11)(b), of that Decision. Source: Dealroom platform. Available data points: from 2008 to 2022.

In relation to the digital transformation of businesses, particularly with regards to facilitating the growth of innovative scale-ups and increase in Unicorns, Ireland has two targets.

Target: At least 800 businesses supported by 2026 under the €85 million Digital Transition Fund to support businesses to digitalise.

Target: At least 35% of State funding for start-up and early-stage businesses to be invested in innovative digital businesses from 2022.

No EU level trajectory has been provided due to the current instability of trends. The Commission has advised that the number of unicorns recorded in the EU in 2022 was 249, and considers 500 as the 2030 target.²¹

At present, seven companies in Ireland have been categorised as Unicorn. Due to the instability of trends, Ireland is unable to provide a trajectory at this time, however it is envisioned that initiatives at EU and national level, by the Department of Enterprise, Trade and Employment and its Agencies, targeted specifically towards the creation of Unicorns, will facilitate the Union's target of doubling the number of unicorns in the EU.

2.2.4 DIGITAL PUBLIC SERVICES

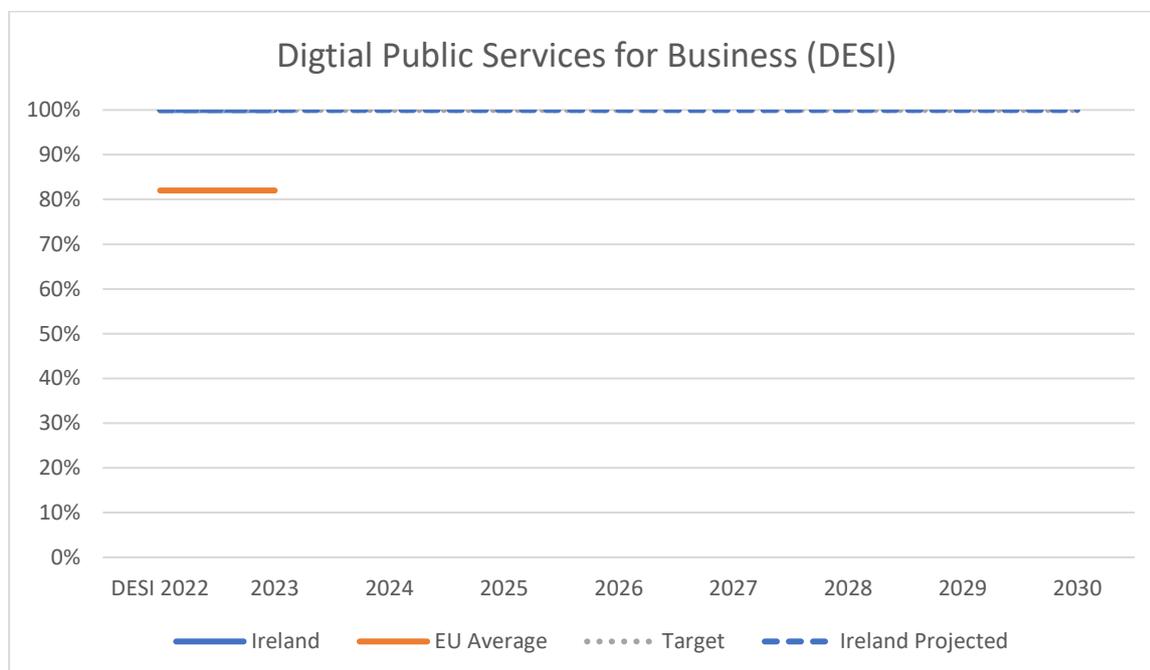
2.2.4.1 Key Public Services

EU Target: 100% online provision of key public services available for European citizens and businesses.

IE Target: 100% online provision of key public services available for = citizens and businesses and 90% online consumption of applicable services.

KPI Definition: The online provision of key public services for businesses measured as the share of administrative steps needed to start a business and conduct regular business operations, which can be done fully online.

Digital Public Services for Businesses



²¹ [Communication from the Commission establishing Union-level projected trajectories for the digital targets, C\(2023\)7500 final](#), p28

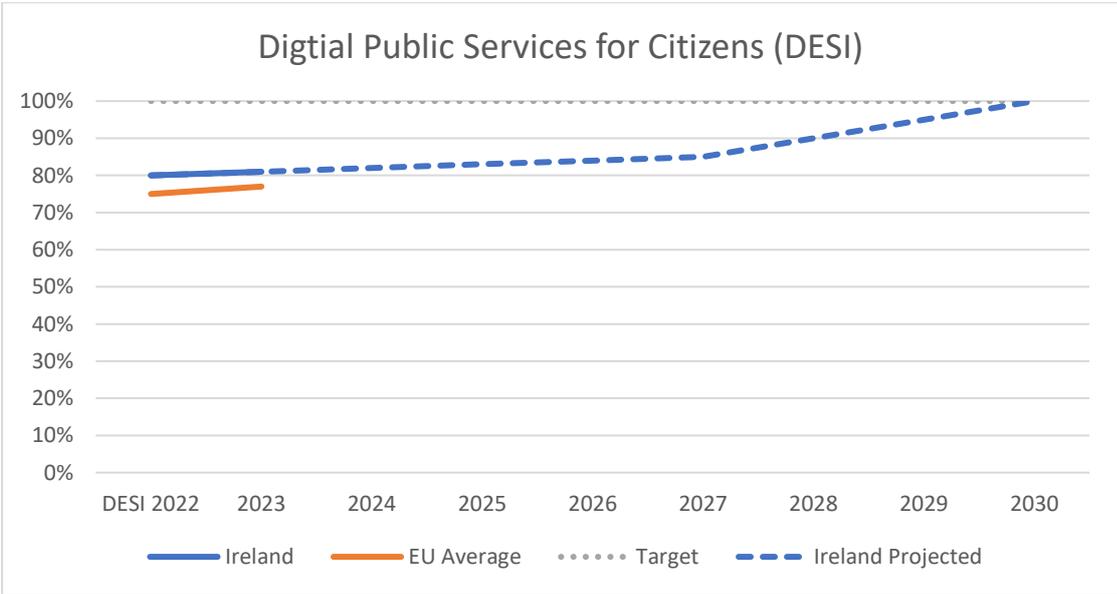
Digital Public services for Business	[DESI] 2022 (new indicator)	[DESI] 2023	2024	2025	2026	2027	2028	2029	2030
Ireland	100%	100%	100%	100%	100%	100%	100%	100%	100%
EU Average	82%	84%							
Target									100%

[Source: DESI]

Digital Public services for Citizens

Target: 100% online provision of key public services available for European citizens and businesses. Ireland aims to not only achieve the target of 100% of key public services will be online by 2030 but also the national digital strategy target that 90% of applicable services are consumed online.

KPI Definition: Online provision of key public services for citizens, measured as the share of administrative steps that can be done fully online for major life events for citizens. The following life events are considered: transport; starting a small claims procedure; family; career; and studying.



Digital Public services for Citizens	[DESI] 2022 (new indicator)	[DESI] 2023	2024	2025	2026	2027	2028	2029	2030
Ireland	80%	81%	82%	82%	84%	85%	90%	95%	100%
EU Average	75%	77%							
Target									100%

[Source: DESI]

2.2.4.2 Electronic Health Records

EU Target: 100% of citizens have access to medical records online

Access to eHealth Records	[DESI] 2023 (new indicator)	2024	2025	2026	2027	2028	2029	2030
Ireland	0%							80%
EU Average	71.7%							100%

[Source: DESI]

While we take note of the methodology²² and indicators provided by the Commission, due to the complexity of mapping existing and planned initiatives and calculating expected progress, it is not possible to calculate a trajectory for the achievement of Ireland’s objective of 80% by 2030 at present.

Ireland is preparing a new digital health and social care framework (2024 – 2030). The framework will establish a roadmap for digital health in Ireland to the end of this decade, present options for electronic health record (EHR) investment in Ireland and articulate the objective that all Irish citizens should have access to their digital health records by 2030.

The framework will set out the stages to full digitalisation of health records; establishing digital health identifiers for health records and citizens (underway), procurement of national digital platform to integrate digital records from existing sources, developing interfaces to digital health data sources, and providing access to health data through secure patient portal(s) or app(s).

²² Digital Decade eHealth Indicators Development CNECT/LUX/2022/MVP/0027 Annexes

2.2.4.3 Digital Identity

Target: *The digitalisation of public services where 100% of Union citizens have access to secure electronic identification (eID) means that are recognised throughout the Union, enabling them to have full control over identity transactions and shared personal data.*

IE Target: *80% of eligible citizens using MyGovID by 2030.*

KPI definition: Access to eID is measured by two KPIs: (1) the number of Member States that have notified at least one national eID scheme in accordance with Regulation (EU) No 910/2014; and (2) as the number of Member States that have provided access to secure privacy-enhancing eID via the European Digital Identity Wallet in accordance with the Proposal for a Regulation of the European Parliament and of the Council amending Regulation (EU) No 910/2014 as regards establishing a framework for a European Digital Identity).

eID/eWallet

Ireland expects to meet the 2030 target agreed for eWallet and eID from the European Commission. Ireland has submitted a note to the Commission on how it plans to successfully notify and meet this target for both eID and the digital wallet. It is not possible at present to provide a trajectory to achieving this target.

3 Policies, measures and actions to achieve the digital targets

3.1 Basic Digital Skills

Source: Eurostat - European Union Survey on ICT Usage in Households and by Individuals.

Available data points: 2015, 2016, 2017, 2019, 2021 (with a break in series in 2021).

Baseline value (latest available historical data point): 54% (2021)

Overall timeline:

	2023	2024	2025	2026	2027	2028	2029	2030
<i>Measures that contribute to the target</i>								
Measure 1 – Adult Literacy for Life (ALL) Strategy [DFHERIS]								
Measure 2 – Digital Strategy for Schools [DE]								
Measure 3 – Digital Skills in Early Learning and Care, Primary School, and Junior/Senior Cycles [DE]								
Measure 4 – New Literacy, Numeracy and Digital Literacy Strategy [DE]								
Measure 5 – STEM Education Implementation Plan [DE]								
Measure 6 – OECD/Ireland Review of the National Skills Strategy [DFHERIS]								
Measure 7 – Development of a Single Portal for Skills and Guidance Information [DFHERIS]								

How to address the challenges

The challenge in this area is to providing digital skills needs across the economy and society, including to foster digital inclusion.

The strategic policy frameworks for skills development in Ireland – *Harnessing Digital – the Digital Ireland Framework*, the *Roadmap for Digital Inclusion – Digital for Good*, and the *National Skills Strategy* – contain targeted objectives to improve the identification, provision and support for digital skills development from pre-school years through to adult education and lifelong learning. Initiatives currently underway in this area exist for all cohorts of learners.

3.2 ICT Specialists

Source: Eurostat - Labour Force Survey

Available data points: 2011-2022

Baseline value (latest available historical data point): Total ICT specialists = 9.37 million (2022),
Share of female ICT specialists = 18.9% (2022)

Overall timeline:

	2023	2024	2025	2026	2027	2028	2029	2030
<i>Measures that contribute to the target</i>								
Measure 1 – DFHERIS/ESRI Research Programme on Irish Skills Requirements [DFHERIS]								
Measure 2 – Skillnet Ireland workforce development funding [DFHERIS]								
Measure 3 – Skills to Advance [SOLAS]								
Measure 4 – eCollege [SOLAS]								
Measure 5 – Establishment of a National Apprenticeship Office [DFHERIS]								
Measure 6 – SLMRU National Skills Bulletin [SOLAS]								
Measure 7 – Human Capital Initiative [HEA/DFHERIS]								
Measure 8 – Springboard+ [HEA/DFHERIS]								
Measure 9 – [SFI]								

How to address the challenges

The challenges in this area are developing, attracting and retaining high-level digital skills professionals.

Dimension 3 (Skills) of *Harnessing Digital – the Digital Ireland Framework*, is the key strategic direction for high-level digital skills development in Ireland. **Measures** as outlined above are specific to high-level digital skills development. Given the critical nature of foundational digital skills for ICT studies in tertiary education, **Measures 2 to 5 of KPI 1** addressing introductory skills from Early Years to Secondary education are also valuable to this target.

Recognising that the ambitious targets for highly skilled ICT professionals will require upskilling and reskilling in the face of digital transformation, the strategic targets of the *National Skills Strategy* as

referenced by **Measures 8 and 9 of KPI 1** for the provision of lifelong guidance and support for upskilling/reskilling are also expected to play a key role in delivering on **KPI 2 – part (b) of the target**.

3.3 Connectivity

3.3.1 VHCN

National baseline value (latest available historical data point): 84% for VHCN (2022),

EU baseline value (latest available historical data point): 73% for VHCN (2022)

Overall timeline:

	2023	2024	2025	2026	2027	2028	2029	2030
<i>Measures that contribute to the target</i>								
Measure 1 – Commercial investment in connectivity [industry]								
Measure 2 – National Broadband Plan (NBP) [DECC]								
Measure 3 – Connecting Broadband Connection Points and Schools [DECC]								

3.3.2 5G

National baseline value (latest available historical data point): Over 85% for 5G (highest % 5G population coverage claimed by an operator in Ireland, 2023);

EU baseline value (latest available historical data point): 81.2% for 5G (2022).

Overall timeline:

	2023	2024	2025	2026	2027	2028	2029	2030
<i>Measures that contribute to the target</i>								
Measure 4 – Mobile Phone and Broadband Taskforce								
Measure 5 – 5G spectrum award								
Measure 6- Implement the EU Toolbox on 5G Security								
Measure 7 – Enhancing mobile connectivity for specific locations								
Measure 8 – National Cyber Security Strategy 2019- 2024.								

Budget of all the measures that can be attributed to the target:

- Public investment:
 - Already allocated:
 - EUR 19 million under Ireland's National Recovery and Resilience Plan for the development of a high-speed low latency network
 - EUR 378.54 million under the National Broadband Plan (as of Q1 2023)
 - Planned:
 - A total investment of EUR 2.7 billion under the National Broadband Plan
 - €10.7 million investment in the National Cyber Security Centre (NCSC) in 2024. This investment is in addition to cyber security investment by Government Departments and State Agencies who have responsibility for the security of their own networks and systems.
- Private investment (if known):
 - Circa EUR 3.3 billion invested over the past 5 years in the telecoms sector
 - EUR 448 million for the Multi Band Spectrum Award 2 (MBSA2)
- Estimated investment gap

The existing funding committed to the measures above is expected to reach the national target value, which in itself aims to achieve the Digital Decade ambition by 2028.

How measures will address the challenges

Challenge 1 – High proportion of the population live in rural areas

Ireland is a very rural country, with a markedly lower population density than other European countries. There are 69.3 persons per square kilometre in Ireland compared to the European average of 117.5 persons per square kilometre. There are a number of associated environmental barriers (trees, hills, etc.) which can pose difficulties in providing connectivity in rural areas.

67% of the population is urban, but this population is located in just 5% of the total area of Ireland. Alternatively, 37% of the rural population is spread across 95% of the total area of Ireland, leading to increased costs for infrastructure deployment. Of EU Member States, Ireland has the highest proportion of population that live in NUTS 3 areas.²³ By contrast, across the EU as a whole, only 22% of the population live in areas defined as rural regions.

Challenge 2 – High percentage of standalone houses

71.8% of houses in rural areas are categorised as one-off houses. This can pose challenges in providing connectivity to sparsely populated areas due to the high fixed costs of network infrastructure over thinly distributed populations.

Challenge 3 – High percentage of farmland/forestry cover

76% of Ireland is covered by either farmland or forestry, about 5.2 million hectares. The ratio between farmland and the total area of Ireland is the highest in the EU. This creates challenges in reaching

²³ According to Eurostat (2018), 72% of the Irish population live in NUTS 3 areas that are defined as predominately rural areas. [Principles and Characteristics - NUTS - Nomenclature of territorial units for statistics - Eurostat \(europa.eu\)](https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&plugin=1)

sparsely populated areas due to the high fixed costs of laying infrastructure and maintaining it over thinly distributed populations.

Challenge 4 – High road density

Ireland's road density is twice the EU average. Ireland has one of the highest road networks per population. This means it is more difficult to provide coverage on the road network.

Challenge 5- Cyber Skills Gap

While considerable progress in growing cyber capacity and bridging the cyber skills gap has been made in recent years, the challenge of hiring and retaining staff with critical cyber skillsets persists.

The National Broadband Plan addresses challenges 1-3 by ensuring that all premises across the state, no matter how rural, will have access to high-speed broadband. This will be delivered through investment by commercial enterprises coupled with intervention by the State in those parts of the country where private companies have no plans to invest. Due to the high proportion of rural populations, it is unlikely that commercial operators would choose to connect large portions of the country. Under the Strategic Connection Points programme, BCPs and school SCPs across the State have been provided by advance wireless connections, allowing them to avail of connectivity prior to the fibre rollout in their area. The focus on 5G connectivity in particular will address challenges 1, 3 and 4. Ireland will ensure that 5G Spectrum continues to be made available, with appropriate coverage and deployment obligations, to ensure it is used efficiently and effectively. Three operators are currently deploying 5G services across the State with all cities and over 85% of the population now covered.

The National Cyber Security Strategy 2019-2024 and Mid-Term Review include a range of measures to increase the number of skilled cyber security professionals in the labour market. There continues to be significant growth in the number of places available on cyber security courses at third level institutions and further education centres, in collaboration with industry partners. Science Foundation Ireland has incorporated cyber security as a career option in its Smart Futures Programme delivered in schools and colleges. This programme provides information on the range of career opportunities available in the field and has a particular focus on promoting STEM careers to girls and young women. In addition, a Cyber Security Education Working Group has been established and is overseeing a pilot Junior Cycle Short Course in Cyber Security.

Estimated investment gap and possible actions to reach the national target values

The existing funding committed to the measures above is expected to reach the national target value, which in itself aims to achieve the Digital Decade ambition by 2028.

3.4 Semiconductors

National baseline value (latest available historical data point): 0

EU baseline value (latest available historical data point): Around 10% of the global market share value in 2022.

	2023	2024	2025	2026	2027	2028	2029	2030
<i>Measures that contribute to the target</i>								
Measure 1 – Mapping the Irish semiconductor ecosystem								
Measure 2 – Engagement with EU bodies including the European Semiconductor Board and Chips Joint Undertaking								

Budget of all the measures that can be attributed to the target:

- Public investment:
 - already allocated: TBC
 - planned: TBC
 - Thereof from national sources:
 - already allocated: TBC
 - Thereof from EU sources:
 - already allocated: TBC
- Private investment (if known): Not known

How to address the challenges

Ireland is planning to conduct a study to identify key semiconductor market actors, with a target of enabling and supporting the semiconductor ecosystem in Ireland. This study will provide insight into the challenges faced in this sector, and clarity on how we can develop the sector in line with EU targets for the sector.

Estimated investment gap and possible actions to reach the national target values

This is not easily quantified at present. Once the study mentioned above has been conducted, we will be better able to understand the challenges and identify possible investment gaps and actions.

3.5 Edge Nodes

National baseline value (latest available historical data point): 0

EU baseline value (latest available historical data point): 0 (2022)

Overall timeline:

	2023	2024	2025	2026	2027	2028	2029	2030
<i>Measures that contribute to the target</i>								
Measure 1 – Public sector edge node project [OGCIO]								

Budget of all the measures that can be attributed to the target:

- Public investment:
 - already allocated: circa EUR 41.5 million
 - planned: circa EUR 63.4 million estimated
 - Thereof from national sources:
 - already allocated: circa EUR 23 million
 - Thereof from EU sources:
 - already allocated: circa EUR 18.5 million (RRF)
- Private investment (if known): Not known

How to address the challenges

Challenge 1 -Early stage of development of edge node technology

Edge nodes are not yet widely deployed, and their use has been largely in pilot form thus far. The OGCIO RRF co-funded project to roll out edge node infrastructure for public service use, which commenced in 2022, is expected to provide a positive example of their deployment, upon which other entities can build and replicate if it proves successful.

Estimated investment gap and possible actions to reach the national target values

This is not easily quantified at present given the factors outlined above. Commercial investment in edge node deployment is continuous and expected to ramp up later in the decade.

3.6 Quantum Computing

National baseline value (latest available historical data point): 0

Baseline value (latest available historical data point): Quantum volume = 0 (2022)

Overall timeline:

	2023	2024	2025	2026	2027	2028	2029	2030
<i>Measures that contribute to the target</i>								
Measure 1 – Supporting Excellent Fundamental and Applied Quantum Research								
Measure 2 – Fostering Top Science and Engineering Talent								
Measure 3 – Enhance National and International Collaboration and Innovation								
Measure 4 – Innovation, Entrepreneurship and Economic Competitiveness								
Measure 5 – Building Awareness of Quantum Technologies and Real-World Benefits								

Budget of all the measures that can be attributed to the target:

- Public investment:
 - already allocated: TBC
 - planned: TBC
 - Thereof from national sources:
 - already allocated: TBC
 - planned: TBC
 - Thereof from EU sources:
 - already allocated: TBC
 - planned use - TBC
- Private investment (if known): not known

How to address the challenges

Challenge 1 – Excellence in Research

Intensified and sustainable support is required for fundamental and applied research in quantum technologies and fields underpinning their development. This includes investment in infrastructure for quantum technologies and enabling technologies and targeted measures to build cohesion and momentum in Ireland’s quantum research community. Funding of quantum technologies will be

strategically aligned with areas of high strength (quantum computing, quantum internet and enabling technologies) and priority for Ireland.

Challenge 2 – Enhance collaboration, innovation, entrepreneurship and competitiveness

Stronger collaborative relationships in Ireland between actors across academia, industry and Government must be facilitated to translate science to innovation and nurture the growth of quantum technologies. As a small country with finite resources, it is also essential that we foster relationships and collaborations internationally to bring knowledge and experiences into Ireland without duplicating efforts on a smaller scale in Ireland. A truly cohesive and economically competitive quantum research and innovation ecosystem in Ireland will require seamless integration between all actors across the higher-education sector, enterprise and Government.

3.7 Late Adopters, Tech Up-take & Innovators

3.7.1 LATE ADOPTERS

National baseline value (latest available historical data point):

- 85% for SMEs at basic digital intensity (2023)

EU baseline value (latest available historical data point):

- 69% for SMEs at basic digital level (2023)

Overall timeline:

	2023	2024	2025	2026	2027	2028	2029	2030
<i>Measures that contribute to the target</i>								
Measure 1 – Digital Transition Fund and other funding schemes for digitalisation [DETE]								
Measure 2 – Digital Portal [DETE]								

3.7.2 TECH UP-TAKE

National baseline value (latest available historical data point):

- 47% for Cloud (2023)
- 23% for Big Data (2023)
- 8% for AI (2023)

EU baseline value (latest available historical data point):

- 34% for Cloud (2023)
- 14% for Big Data (2023)
- 8% for AI (2023)

Overall timeline:

	2023	2024	2025	2026	2027	2028	2029	2030
<i>Measures that contribute to the target</i>								
Measure 1 – Digital Transition Fund and other funding schemes for digitalisation [DETE]								
Measure 2 – Digital Portal [DETE]								
Measure 3 – European Digital Innovation Hubs [DETE]								
Measure 4- SME and Entrepreneurship Growth Plan Taskforce [DETE]								

3.7.3 INNOVATORS

National baseline value (latest available historical data point):

- 7 (2022)

EU baseline value (latest available historical data point):

- 249 (2022)

Overall timeline:

	2023	2024	2025	2026	2027	2028	2029	2030
<i>Measures that contribute to the target</i>								
Measure 6 – Nurturing Start-Ups and Unicorns [DETE]								
Measure 7 - Seed & Venture Capital Scheme [EI]								
Measure 8 - Finance for Scaling Group								
Measure 9 - Irish Innovation Seed Fund Programme								

Measure 10 - Evaluation of State Supports for Equity Investments in Ireland								
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Budget of all the measures that can be attributed to the target

- Public investment:
 - Already allocated:
 - Circa EUR €85 million multi-annual Digital Transition fund to run to 2026 and to be divided between direct grant funding for businesses and the EDIHs. Circa EUR €10 million allocated and grant approved in 2022. In 2023, €16 million has been allocated.
 - Circa EUR €983,000 approved for Digital Start Scheme for 2023.
 - Circa EUR €3 million allocated for Trading Online Voucher Scheme for 2023.
 - Circa EUR €2.3 million allocated for the latest round of the competitive call for the Online Retail Scheme.
 - Circa EUR €111,238 allocated to the development and maintenance of the Digital Portal over a two-year period.
 - The EDIHs are funded from both DIGITAL and the RRF (€27 million of the total €85 million will be allocated to the EDIHs), distributed between the hubs as follows:
 - CeADAR and FactoryxChange (FxC) will be funded on a pro-rata basis with 50% of the total costs paid by DIGITAL and 50% of the total costs paid by RRF (subject to milestones and targets). This will ensure there is no double funding.
 - ENTIRE and Data2Sustain will be 100% financed by RRF under the proposed ‘Seal of Excellence’ provision under the DIGITAL.
 - Circa EUR €175 million of funding between 2019 – 2024 for the 5th programme of the Seed and Venture Capital Scheme.
 - Circa EUR €90 million allocated to the Irish Innovation Seed Fund.

How to address the challenges

Challenge 1– Addressing the digital divide

Ireland is acutely aware that there is a two-speed economy in relation to digitalisation. This has been identified in reports from the Commission and the OECD. While a small proportion of the enterprise base has fully embraced digitalisation, with an associated productivity boost, there is a need to accelerate and enhance digital adoption right across Irish businesses. Our ambition is to achieve a significant productivity dividend from a further and sustained uptake in digital adoption across the Irish enterprise base. A focus on digital and innovation is also crucial for the achievement of our climate targets.

Given the unique and specific nature of the Irish economy, the Department of Enterprise, Trade and Employment have commissioned, with the Economic and Social Research Institute, research on enterprise digitalisation across sectors and firm size categories by deploying data on both the usage of digitalisation technologies (stock of digital activities) as well as investment in new digital activities

(flow). It is expected that this research will support further of a sector-specific targeted policy approach that can cater for heterogenous challenges faced by different firms.

In December 2022, Ireland published the White Paper on Enterprise (2022 – 2030)²⁴ which places digital transformation at the heart of Ireland's enterprise policy. To ensure competitiveness, drive productivity and enable a decoupling of economic growth from resource consumption, we will aggressively pursue our ambition to become a digital leader as set out the National Digital Strategy. Our enterprise agencies will act as advocates for digital transformation, with the agenda being integral to their engagement with business. We will accelerate adoption of digital technologies across enterprise through capital grants, training, and consultancy. Increased investment in high-level digital skills, accompanied by efforts to boost digital education across the wider workforce, will complement this.

We will continue to invest in digital infrastructure and progress digitalisation of the public service, using public procurement to support innovative digital Small and Medium Enterprises (SMEs). Building on existing strengths, we will position Ireland at the frontier of Advanced Manufacturing. We will continue to advocate for a digital trade approach that is open and air, enabling Irish-based firms to avail of global digital opportunities.

Measure 1 - The Digital Transition Fund and other funding schemes for digitalisation

Measure 1 will contribute to the achievement of the targets in relation to digital intensity and also the adoption of AI, cloud and big data by enterprises. By introducing the Digital Transition Fund, in addition to existing schemes (Trading Online Voucher, Online Retail Scheme, Digital Start), the Government is seeking to stimulate increased digitalisation. In addition, work is underway to examine how to broaden eligibility for digital funding schemes to increase access for businesses which are currently not eligible to receive Government supports. Efforts are also underway to ensure that existing schemes are more closely aligned with the metrics of the DDPP and the DESI.

Through the Digital Transition Fund, we are enabling the digitalisation of businesses across products, processes, supply chains and business models. This will bring about productivity gains, access to new markets, increased innovation, and improved competitiveness. This funding is in place to help companies at all stages of their digital journey – from the early days of simply going online to digitalisation of products and business processes, to facilitating exporting and to using digital technologies to develop new markets and business models.

Measure 2 - The Digital Portal

Measure 2 will contribute to the achievement of the targets in relation to digital intensity and also the adoption of AI, cloud, and big data by enterprises.

For businesses with low levels of digital maturity, Government interventions focused on awareness-raising and basic guidance will make a significant difference. At the other end of the spectrum, larger firms and digital native companies need targeted interventions to support their continued digital growth. Reducing the digital divide between early adopters and firms that have not yet started their digital journey is a priority. To that end, the Government will roll out an ambitious awareness-raising campaign to encourage all businesses to digitalise. This will include a new Digital Portal open to all enterprises with information on available supports.

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This Digital Portal will be open to all businesses with the aim of simplifying and demystifying the process of digitalisation and will play a key role highlighting the importance of digitalisation through awareness raising, information, case studies, and tailored advice. This project is prompted by the need for tools to enable business to benefit from the digital transition, regardless of their existing level of digitalisation. The Digital Portal will also bring together a range of sources of information for the user, to present options, supports, and grants that are applicable to them in an intuitive and accessible manner.

Measure 3 - European Digital Innovation Hubs

Measure 3 will contribute in particular to the achievement of targets in relation to AI, cloud, and big data.

As part of the Digital Europe Programme (DIGITAL), the European Commission and EU Member States are establishing and co-funding a network of European Digital Innovation Hubs (EDIHs). These hubs support digital transformation in SMEs and public sector organisations by encouraging the adoption of the latest advances in the three DIGITAL key technologies of Cybersecurity, Artificial Intelligence and High-Performance Computing. EDIHs serve as “one-stop-shops” providing access to technical expertise and experimentation, as well as innovation services and the training and skills development necessary for successful digital transformation for the public and private sector alike.

EDIHs combine the benefits of a regional presence with the opportunities available to a pan-European network, while facilitating exchange of best practices, as well as the provision of specialised services across regions when the needed skills are not locally available. The EDIHs will support digital transformation in SMEs and public sector organisations by encouraging the adoption of digital technologies.

Measure 4 - SME and Entrepreneurship Growth Plan Taskforce

The SME and Entrepreneurship Growth Plan²⁵, published in January 2021, reported on a broad range of measures to help SMEs and entrepreneurs to start up, scale up and access foreign markets, as well as recommendations aimed at helping SMEs to become more productive and ready for the transition to a digital, green economy.

The continued implementation of the SME and Entrepreneurship Growth Plan will support the further digitalisation of SMEs in Ireland.

Measure 5 - Enterprise Digital Advisory Forum

In May 2022, the Government established the Enterprise Digital Advisory Forum. The Forum, which meets quarterly, was established to support and advise the Government in driving the digitalisation of enterprise across Ireland and brings together representatives of indigenous enterprise of all sizes, multi-national companies, and experts in digital technologies and their adoption by enterprise. The Forum provides a focused body for Government to hear the views and perspectives of enterprise and experts on digitalisation and technology. The Enterprise Digital Advisory Forum plays an important consultative function to advise Government on how to drive digitalisation.

²⁵ [Report of the SME Taskforce: National SME and Entrepreneurship Growth Plan](#)

Its Work Programme and Work Streams²⁶ are designed to address the challenges that Ireland faces in terms of the digitisation of enterprise by drawing on the voices and expertise of enterprise, reflecting Ireland’s mix of the location of some of the world’s leading technology companies and a vibrant SME and start-up ecosystem. Notably, it has a work stream dedicated to the adoption of AI by enterprises which Ireland acknowledges it needs to improve on.

Measure 6 – Nurturing Start-Ups and Unicorns

It is clear that the number of Unicorns created in the EU lags behind the US and China in the number of Unicorns created. Based on the Joint Research Council’s 2020 analysis, the EU has just 6.8% of the world’s unicorns. For comparison, that is about a tenth of the number created in the US and a third of China’s total.

At present, there are seven Irish companies that have been categorised as Unicorns and the majority of these companies have had continued support and guidance from Enterprise Ireland. While there is no single established way to measure financing gaps, the weight of evidence and insights emerging from various studies and analyses by academic and financial experts, is that the EU has a significant scale-up financing gap, which is hampering the growth and expansion of innovative start-up companies when they reach a certain threshold.

To counter this issue, the Department and its Agencies have seen several initiatives at national and EU level which are targeted specifically towards the creation of Unicorns.

3.8 Digital Public Services

3.8.1 KEY PUBLIC SERVICES

	2023	2024	2025	2026	2027	2028	2029	2030
<i>Measures that contribute to the target</i>								
Measure 1 – Implement a Life Events Portal to enable inclusive, accessible, literacy-friendly services for citizens [OGCIO]								
Measure 2 – Digital Inclusion Roadmap [DPENDER]								
Measure 3 – MyGovID adoption by citizens [OGCIO]								
Measure 4 –								

²⁶ [Enterprise Digital Advisory Forum Work Programme 2023](#)

	2023	2024	2025	2026	2027	2028	2029	2030
MyGovID adoption – % of Public Services that accept MyGovID [OGCIO]								
Measure 5- Public Service Data Strategy [OGCIO]								
Measure 6 – Continued communication of benefits of digital public services [OGCIO]								
Measure 7 – MyData portal for citizens [OGCIO]								
Measure 8 – Shared Government Data Centre [OGCIO]								
Measure 9- Better Public Services 2030 – the public service transformation strategy [DPENDER]								
Measure 10- Online Response Option for the Census of Population as part of Census 2026 [CSO]								

Budget of all the measures that can be attributed to the target:

- Public investment:
 - Already allocated:
 - Circa EUR €10m from the RRF for the Provision of an Online Response Option for the Census of Population as part of Census 2026 which could also be used for other CSO and Government surveys;
 - Circa EUR €40m from the RRF for Development of a Shared Government Data Centre;
 - Funding of the measures outlined form part of the annual budget as allocated during the Estimates process and as such are not explicitly categorised, rather form part of the digital programme allocation of the relevant government organisations.
 - Planned:

- Funding of the measures outlined form part of the annual budgetary cycle as allocated during the Estimates process for voted monies. These are not explicitly categorised, rather form part of the digital programme allocation of the relevant government organisations.
- Identification and provision of a specific allocation for digital transformation programmes contributing to the Digital Decade targets is under consideration for 2024 and future years. This will address funding of the Life Events programme over the coming years and the related projects to achieve the EU target and Single Digital Gateway requirements.
- Private investment (if known): n/a

How to address the challenges

Digital technologies play an increasingly important role in the way we live, learn, work, and participate in the economy and in society. Digital technologies can and should make the lives of all our people better, for example through:

- the creation of new job opportunities and new, more efficient ways of working;
- greater and more equitable access to personal, social and civic opportunities; and
- improved accessible, inclusive and literacy-friendly public services, designed for everyone.

Citizens want and expect their public services to be as personalised and responsive as the services they get from the private sector. Ireland's ambitions for 2030 are to have democratic life and public services online in a best-in-class, fully accessible format, providing for easy-to-use, efficient and personalised services and tools with high security and privacy standards. These ambitions are reflected in a range of national strategies including *Harnessing Digital – The Digital Ireland Framework*, *Connecting Government 2030: A Digital and ICT Strategy for Ireland's Public Service*, *Digital for Good: Ireland's Digital Inclusion Roadmap*, *AI – Here for Good*, and *Better Public Services*²⁷.

Ensuring that digital public services are designed from the outset to be inclusive, accessible and literacy-friendly, leads to the development of better services not only for the groups of people at risk but for all users. Furthermore, trust and confidence are also central to digital literacy so that people can manage personal information and understand and avoid potential scams, harmful communication and misleading information. It is critical that our digital public services provide consistent and integrated digital solutions, which through transparency and safety will instil public trust.

A number of key initiatives will drive up the extent to which digital public services are available to be consumed online. These include:

- Taking a life events approach to the delivery of services to the public will make complex processes such as registering birth/death, finding/losing a job, applying for a driving licence;
- Adopting a user-centred approach to delivering digital public services. To that end the *Designing our Public Services* guide²⁸ is a set of principles to empower the public service to

²⁷ [Better Public Services - A transformation strategy to deliver for the public and build trust](#)

²⁸ [Designing our Public Services, Design principles for Government in Ireland](#)

embrace a new way of working, to incorporate powerful tools and techniques, and to deliver human centric solutions to complex social issues. It is a key underpinning to the development of *Better Public Services* transformation strategy for the Public Service.

- Maximising the value of digital public services to individuals by empowering them to use their own data as they chose. Critical to achieving this will be the implementation of an appropriate digital wallet enabled with key credentials, e.g., drivers' licence.
- Driving adoption of the secure electronic identity service, MyGovID both in terms of the numbers of people with such eID and the numbers of public services using the national eID for authentication.
- Initiatives around transparency and trust are essential elements for the public to use digital public services and eID. Through legislation, such as the Data Sharing and Governance Act,²⁹ underpins data sharing across government and the introduction of a MyData Portal will further build the trust of the public.
- By taking forward the Digital Inclusion Roadmap and making digital inclusion a core part of designing and delivering quality digital public services and by doing so, to encourage people to choose to use digital public services and at the same time, free up resources to assist those who cannot.

Furthermore, as we work to evolve our digital public services, it is important that we seek on-going feedback and engagement with the users of those services. Rather than making assumptions about the experiences and preferences of those using public services, the consultation will help government better understand, from individual users, their wants and preferences for digital public services.

Measure 1 – Implement a Life Events Portal to enable inclusive, accessible, literacy-friendly services for citizens

Taking a life events approach to digital public services recognises that no member of the public should need to be aware of every government service or requirement. This is particularly the case for complex life events such as registering a birth or death, owning a vehicle, finding/losing a job, starting a new business or returning to Ireland.

The Life Events initiative gives government the opportunity to redesign these services and adopt a user-centred approach. The principles set out in *Designing our Public Services* will be applied to the design of all life events and will be a key evolution with the next generation of the gov.ie portal, which proved so popular over recent years.

Measure 2 – Progress Ireland's Digital Inclusion Roadmap ensuring no one is left behind in our digital society

Digital technologies have become increasingly woven into our daily lives and at a pace that has accelerated in recent years. This poses a risk that some people could be disadvantaged and therefore left behind for reasons such as socio-economic factors, age, digital or language literacy, and location.

The Government is committed to ensuring that no one is left behind as the country works towards its national, and EU Digital Decade 2030 targets. *Digital for Good: Ireland's Digital Inclusion Roadmap* illustrates how Government continues to empower and support everyone to use digital services in a meaningful way.

²⁹ [Data Sharing and Governance Act](#)

Measure 3 – MyGovID adoption – uptake of verified MyGovID accounts by citizens

Government continues to develop and promote shared digital assets that improve consistency and efficiencies in the front and back-end provision of public services. Increasing adoption of MyGovID, a common online authentication mechanism for use by public bodies reached close to 2.2 million verified accounts by the end of Q3 2023. Government continues to push for more and more public services to offer the option to use MyGovID verified accounts to access these services. This, alongside other initiatives such as digital inclusion and measures to build trust and confidence in the use of digital public services in turn will continue to drive up the numbers of individual with verified MyGovID accounts.

Measure 4 – MyGovID adoption – % of Public Services that accept MyGovID

MyGovID is one of the core building blocks enabling the delivery of easy-to-use, inclusive, literacy-friendly and accessible digital public services. The introduction of the life events portal and the redesign and improvement of digital government services is increasing the numbers of services that accept MyGovID for authentication purposes. Adoption of MyGovID for all new and redesigned digital public services is mandatory and a condition of the oversight approval by the Office of the Government CIO for any such initiatives.

Measure 5 - Ensure all data sharing, across government, is underpinned by appropriate legislation, e.g., the Data Sharing and Governance Act

The government continues to improve how data is governed and managed. For example, the Data Sharing and Governance Act 2019 allows data to be re-used in a secure, efficient and transparent way. This benefits citizens, businesses and policy makers in government by facilitating a more consistent approach to data sharing. It will allow us to deliver integrated digital services for citizens and businesses, enabling transparency and building trust in the use of digital public services and as we work to achieve the targets for the Digital Decade.

Measure 6 – Continue to consult and communicate with citizens on how they can benefit by using digital public services

Understanding the views of the public is a key part of the design and delivery of digital public services. The public consultation on digital public services, undertaken in late 2022, set out to understand the needs, expectations and experiences of public service users which concluded in November. The feedback from the consultation is being used to set priorities for the life events programme and to identify the public's priorities for new and enhanced digital public services. Consultation and communication with the public will continue to be an important element of the Government's digital public services programme as we work to achieve the EU targets for the Digital Decade.

Measure 7 – Implement a MyData portal for citizens

Transparency is key to building trust with the public. People must be confident in the knowledge that they can find out what personal data Government holds, which Public Service Bodies use that data and for what reason, who accessed that data and when it was accessed. To help achieve openness and transparency with respect to data management, we will develop a Personal Data Portal, accessible via the national eID. This measure will directly impact the targets for 100% applicable services available online and access to secure eID means recognised across the Union.

Measure 8 - Development of a Shared Government Data Centre

The building of a State Centre presents an opportunity for sharing of infrastructure, enabling public service bodies to locate their ICT infrastructure in a purpose-built Government owned and run facility. The design phase is complete, and building commenced in early 2023. The new data centre will also contribute to Government's commitment on green initiatives.

This measure is part-funded by the Recovery and Resilience Facility.

Measure 9 - Better Public Services 2030 – the public service transformation strategy

Better Public Services is the new Strategy for Public Service Transformation. The vision set out in the ambitious Strategy is for inclusive, high quality and integrated Public Service provision that meets the needs, and improves the lives of the people of Ireland. The Public Service Transformation Framework, which is at the core of the Strategy, comprises three central themes: Digital and Innovation at Scale, Workforce and Organisation of the Future, and Evidence-Informed Policies and Services Designed for and with our Public.

Measure 10 - Provision of an Online Response Option for the Census of Population as part of Census 2026 which could also be used for other CSO and Government surveys

The main objective of this project is to develop a platform that will be used for the first online Census of Population in the State. The platform will be developed by the Central Statistics Office and will enable citizens to complete their census returns online. The platform will have reuse potential across other areas of data collection, and the wider public sector, and will facilitate an increase in digital data collection enabling the provision of more timely, relevant and better quality data to inform policy making. This measure is part-funded by the Recovery and Resilience Facility.

3.8.2 E-HEALTH

National baseline value (latest available historical data point):

- 0% (DESI 2023 new indicator)³⁰

EU baseline value (latest available historical data point):

- 72% (DESI 2022 new indicator)

Overall timeline:

	2023	2024	2025	2026	2027	2028	2029	2030
<i>Measures that contribute to the target</i>								
Measure 1 – ePharmacy (digital prescriptions)								
Measure 2 – Roll-out of national individual health identifier								
Measure 3– EHR deployment in the National Children’s Hospital								
Measure 4 – Digital Health and Social Care Roadmap (2024-2030), <i>forthcoming</i>								

³⁰ [Digital decade e-Health indicators development - Publications Office of the EU \(europa.eu\)](https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&plugin=1)

Measure 5 – Health Information Bill <i>forthcoming</i>								
Measure 6 – cross-border project on ePrescription and summary care records								

Budget of all the measures that can be attributed to the target:

- Public investment:
 - already allocated: TBC
 - planned: TBC
 - Thereof from national sources:
 - already allocated: TBC
 - planned: TBC
 - Thereof from EU sources:
 - already allocated: TBC
 - planned use - TBC
- Private investment (if known): not known

How to address the challenges

Achieving this target remains a challenge for Ireland, however the development of a new Digital Health and Social Care Roadmap (2024 – 2030) will be the first step in establishing a roadmap for digital health in Ireland to the end of this decade. A number of other projects are also underway which will help us to work towards the EU’s 2030 target.

3.8.3 DIGITAL IDENTITY

National baseline value (latest available historical data point):

- 80% (DESI 2022 new indicator)

EU baseline value (latest available historical data point):

- 77% (DESI 2022 new indicator)

Overall timeline:

	2023	2024	2025	2026	2027	2028	2029	2030
<i>Measures that contribute to the target</i>								
Measure 1 – Initial Proof of Concept Digital Wallet with Credentials								

Budget of all the measures that can be attributed to the target:

- Public investment:
 - already allocated: TBC
 - planned: TBC
 - Thereof from national sources:
 - already allocated: TBC
 - planned: TBC
 - Thereof from EU sources:
 - already allocated: TBC
 - planned use - TBC
- Private investment (if known): not known

How to address the challenges

The digitalisation of other public services will enable the widescale deployment of the digital wallet (MyID). This will further allow the digital delivery of key government services online and provide a seamless and inclusive user experience for citizens and will contribute to the overall EU target where 100% of Union citizens have access to secure electronic identification that are recognised throughout the Union.

3.9 Description of the measures

3.9.1 BASIC DIGITAL SKILLS

Measure 1 – Adult Literacy for Life (ALL) Strategy

New measure	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Short description of the measure: The Adult Literacy for Life (ALL) Strategy was launched in September 2021 and sets out an ambitious 10-year strategy to transform adult literacy, numeracy and digital literacy in Ireland.	<i>Content of the measure:</i> The ALL Strategy makes a number of commitments, including reducing the share of adults in Ireland without basic digital skills from 47% to 20% Chapter 5 of the <i>Roadmap for Digital Inclusion</i> focuses on Skills, and it contains a number of high-level commitments from the ALL Strategy to be delivered over the next 12-24 months. This chapter also highlights the benefits of the REACH Fund in helping to support digital inclusion for learners wishing to reengage with education and training. The ALL Strategy commitments set out in the Roadmap are set out below; <ul style="list-style-type: none"> • In 2023, to finalise the collaborative and integrated framework, at national and regional level, to progress the implementation of the ALL Strategy • Over the next two years, continue to roll out a range of national, regional and local media campaigns to further promote and raise awareness of the opportunities available under the ALL Strategy

	<ul style="list-style-type: none"> • In 2023, allocate up to €1m following a call for proposals under the ALL Innovation and Collaboration Fund, which will include digital literacy projects • In 2023, map all informal and accredited public and private onsite and online digital literacy opportunities and provisions • In 2023, further develop the ALL website, bringing together all relevant information and advice on literacy, and linking to further resources that will allow people to take the next step in accessing support and services <p>The benefits of the ALL Strategy are not confined to the Skills chapter. Throughout the Roadmap, ALL is cited as having a significant impact across other chapters, including;</p> <ul style="list-style-type: none"> • achieving the aims of the ALL Strategy and overcoming digital literacy barriers will act as key drivers in the use of digital public services • how the successful implementation of the ALL Strategy could have huge potential for businesses to expand digital literacy supports to their employees and the broader society • both Harnessing Digital and the ALL recognise that access to widespread stable and resilient infrastructure is required to ensure that no one is left behind in our increasingly digital world. <p><i>Link to the target:</i> The ALL Strategy is focused on addressing unmet literacy needs, including digital literacy needs across all adult learners. The strategy includes digital literacy measures in recognition that driving digital inclusion is integral for people’s ability to fully participate in society, the workplace, and daily life.</p> <p><i>Tentative timeline:</i> The ALL Strategy is intended to run until 2031, with new initiatives under the strategy commencing on a rolling basis.</p>
<p>Budget allocated or planned:</p>	<p>In 2023, €1 million was available for grants under the strategy’s Collaboration & Innovation Fund. Public, non-profit, community and voluntary organisations are all eligible to apply to a maximum of €50,000 each.</p> <p>The ALL National Programme Office within SOLAS oversees implementation of the Strategy, working together with 16 Regional Literacy Coordinators corresponding to 16 Education & Training Boards nationwide.</p>
<p>Expected impact and related timing:</p>	<p>The Strategy sets a target of decreasing the share of adults in Ireland without basic digital skills from 47% to 20% by 2030.</p>

Measure 2 – Digital Strategy for Schools

New measure	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Short description of the measure: This strategy will empower schools to harness the opportunities of digital transformation to build digital competence and an effective digital education ecosystem.	<p><i>Content of the measure:</i></p> <p>The high-level objectives of the strategy have been developed around three pillars, which aim to ensure that the school system is prepared for and continues to progress the embedding of digital technologies in teaching, learning and assessment:</p> <ul style="list-style-type: none"> • Pillar 1: Supporting the embedding of digital technologies in teaching, learning and assessment • Pillar 2: Digital Technology Infrastructure • Pillar 3: Looking to the future: policy, research and digital leadership <p>They also address inclusion, supporting curricular reform, online safety, technical support and include consideration for areas, particularly emerging technologies, where further research is required.</p> <p><i>Link to the target:</i></p> <p>This initiative directly relates to the development of digital literacy in adulthood by addressing the foundational digital skills needs required from early years to tertiary education, and includes the upskilling/reskilling of workers within the education sector. Early adoption of digital skills during childhood, and opportunities to develop skills capabilities when working in education roles can contribute to both KPI 1 and KPI 2 of the target.</p> <p><i>Tentative timeline:</i></p> <p>The strategy is intended to run to 2027.</p>
Budget allocated or planned:	The strategy will be supported through a capital investment of some €200 million over its lifetime under the National Development Plan 2018-2030. The first tranche of this funding in respect of the 2021-2022 school year, €50m, issued in December 2021.
Expected impact and related timing:	The strategy supports the development of competent, critically engaged, active learners while supporting them to reach their potential and participate fully as global citizens in a digital world.

Measure 3 – Digital Skills in Early Learning and Care, Primary School, and Junior/Senior Cycles

New measure	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Short description of the measure: The curriculum from early learning and care to senior cycle offers multiple opportunities	<p><i>Content of the measure:</i></p> <p>Reform of the curriculum at primary school and senior cycle is underway which will build on the development of digital skills provision to ensure that young people are equipped with digital literacy and skills to participate fully in society.</p>

<p>for the development of digital skills and digital literacy through integration into the curriculum and the classroom. Additional explicit curriculum provision is made through digital skills-based curriculum components.</p>	<p>In the Primary Curriculum, new curriculum specifications will be developed by the NCCA for the five curriculum areas which includes Science, Technology, Engineering and Mathematics (STEM) Education.</p> <p>In secondary education the Junior Cycle short course in Coding aims to develop the student’s ability to formulate problems logically, to design, write and test code through the development of programmes, apps, games, animations or websites, and, through their chosen learning activities to learn about Computer Science.</p> <p>Leaving Certificate Computer Science was introduced on a phased basis to 40 schools in September 2018. From September 2020, it was available nationally as a full (optional) subject. There are now approximately 145 schools across the country offering this subject to their students.</p> <p>At secondary level, an ambitious programme of work is underway for a reimagined Senior Cycle of education where the student is at the centre of their Senior Cycle experience. The programme includes initiatives to evolve subject content to incorporate a better balance between the acquisition of knowledge and skills on the one hand, and on developing students’ ability to apply this knowledge and skills, on the other. Recently developed subject specifications and those in development place an increased emphasis on the development and active use of digital skills in the junior and senior cycles.</p> <p><i>Link to the target:</i> This addresses both KPI 1 and KPI of the target insofar as they provide for both basic digital literacy skills, and introductory experiences to high-level digital skills.</p> <p><i>Tentative timeline:</i> Redevelopment of the Senior Cycle commenced in 2022. The Primary Curriculum Framework for all primary and special schools was launched on the 9th of March 2023 and is ongoing. The National Council for Curriculum and Assessment is currently conducting an early enactment review of the Leaving Certificate Computer Science course, to explore how the curriculum is being enacted and identify any improvements that may be required.</p>
<p>Budget allocated or planned:</p>	<p>N/A at this time.</p>
<p>Expected impact and related timing:</p>	<p>N/A at this time.</p>

Measure 4 – New Literacy, Numeracy and Digital Literacy Strategy

New measure	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Short description of the measure: Development of a new strategy with an increased focus on digital literacy objectives for early years and primary/secondary level education.	<p><i>Content of the measure:</i> Under the Programme for Government a successor strategy to the National Strategy: Literacy & Numeracy for Learning and Life 2011-2020 is being developed by the Department of Education and the Department of Children, Equality, Disability, Integration and Youth. The strategy is for all learners in early learning and care, primary and post primary schools. Development of digital literacy is one of the key focusses of the new strategy which will be published in 2023.</p> <p><i>Link to the target:</i> The new strategy will focus on developing digital literacy skills in early education to provide fundamental digital literacy skills required for future generations in like with KPI 1.</p> <p><i>Tentative timeline:</i> The strategy is anticipated to be published in Q3 2023 and will be a multi-year strategy.</p>
Budget allocated or planned:	N/A at this time.
Expected impact and related timing:	N/A at this time.

Measure 5 – STEM Education Implementation Plan

New measure	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Short description of the measure: Publication of the second STEM Education Implementation Plan.	<p><i>Content of the measure:</i> The policy statement sets out the ambitious areas for action considered necessary to achieve and improve the STEM education experiences and outcomes for all learners, from early childhood and care post-primary school level. The policy statement is supported by the 2017 STEM Education Implementation Plan and the second Implementation Plan which was published on 2 March 2023. The Implementation Plan to 2026 sets out a programme of work in order to provide a continued focus on the implementation of STEM education.</p> <p><i>Link to the target:</i> The implementation plan supports KPI 1 and KPI 2 by supporting interest in STEM subjects and the development of related skills while assisting in generating interest in STEM career paths for future generations.</p>

	<i>Tentative timeline:</i> The second Implementation Plan will run from 2023-2026
Budget allocated or planned:	N/A at this time.
Expected impact and related timing:	N/A at this time.

Measure 6 – OECD/Ireland Review of the National Skills Strategy

New measure	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Short description of the measure: The OECD Skills Strategy Report published on 9th May concludes a 15-month project led by DFHERIS in partnership with the OECD, to comprehensively review Ireland's skills strategies, structures and approaches.	<p><i>Content of the measure:</i> The Review took the form of extensive policy analysis and a range of stakeholder engagements, including national and regional workshops, bilateral and small group meetings, stakeholder surveys and three Extraordinary meetings of the National Skills Council.</p> <p>The main conclusions from the OECD review are that:</p> <ul style="list-style-type: none"> • Skills are vital for enabling individuals and countries to thrive in an increasingly, interconnected and rapidly changing world; • The scale and pace of change globally is such that Ireland's skills ecosystem is now required to take a leap forward; • It is timely that Ireland now considers how to build ambitiously on its strengths to put skills at the centre of a broad policy response and significant investment. • Ireland's National Skills Strategy might need to be adapted to ensure that it is still fit for purpose. <p><i>Link to the target:</i> The review identifies areas for improvement to support the efficacy and the relevance of Ireland's skills policies to support digital transition for the workforce, and for wider society.</p> <p><i>Tentative timeline:</i> Minister for DFHERIS intends to address the National Skills Council in Q3 2023 with regard to examining options for the way forward.</p>
Budget allocated or planned:	N/A at this time.
Expected impact and related timing:	N/A at this time.

Measure 7 – Development of a Single Portal for Skills and Guidance Information

New measure	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Short description of the measure:	<i>Content of the measure:</i>

<p>Development of a Single Portal for Careers and Skills Information across all tertiary learning options.</p>	<p>Initial findings of the OECD Skills Strategy project 2022 outline a critical need to provide coherent mapping, messaging and supportive guiding, to enterprises and individuals, regarding education and training opportunities; the value of, and support and incentives for, engaging in continuous learning.</p> <p>The Oversight Group on a Single Portal for Careers and Skills Information was established to address the need to improve career and skills information. The group's membership comprises diverse representation from DFHERIS, Dept. of Education, Dept. of Social Protection, ETBI, QQI, SOLAS, HEA, Skillnet Ireland, IGC, CAO, IUA and THEA.</p> <p>The group is working to provide expertise, experience and advice, to collectively support the development of a single portal/one stop information resource in relation to all tertiary learning options by DFHERIS. Its work aligns with the work done in the Department of Education, who are leading the Policy Group on Lifelong Guidance Strategy. It is expected that the Group will finalise their report and bring advice to the Minister FHERIS in September 2023.</p> <p><i>Link to the target:</i> The measure will support the development of high-level digital skills (KPI 2) by supporting navigation of opportunities/funding for upskilling and reskilling for all cohorts of learners and employers.</p> <p><i>Tentative timeline:</i> The recommendations of the Oversight Group are anticipated in Q3 2023.</p>
<p>Budget allocated or planned:</p>	<p>N/A at this time.</p>
<p>Expected impact and related timing:</p>	<p>N/A at this time.</p>

3.9.2 ICT SPECIALISTS

Measure 1 – DFHERIS/ESRI Research Programme on Irish Skills Requirements

<p>New measure</p>	<p><input checked="" type="checkbox"/> yes <input type="checkbox"/> no</p>
<p>Short description of the measure: A collaborative joint research programme to assess and support development of Ireland's future skills requirements</p>	<p><i>Content of the measure:</i> This joint programme will run for 3 years and comes amid a backdrop of rapid transformation affecting skills and labour market needs. The objective of the programme is to undertake and disseminate research on skills and human capital requirements to account for developments in the labour market, and the shifting nature of demand for skills. This will help guide</p>

	<p>public policy in this area and assist policymakers, institutions, industry and the general public.</p> <p><i>Link to the target:</i> The research programme will support skills development including the identification of specific high-level ICT skills deficits and requirements within the labour market and will inform future skills provision and supports for KPI 2.</p> <p><i>Tentative timeline:</i> The programme will run to 2026.</p>
Budget allocated or planned:	N/A at this time.
Expected impact and related timing:	N/A at this time.

Measure 2 – Skillnet Ireland workforce development funding

New measure	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Short description of the measure: Provision of funding to Skillnet Ireland to support Ireland's workforce development agenda	<p><i>Content of the measure:</i></p> <p><u>Digital Upskilling</u> Skillnet Ireland delivers digital skills programmes through dedicated Digital focused networks, to over 12,000 workers across multiple sectors in 2021 with a two-pronged focus on specialised talent for new or emerging technologies, and in enabling digital transformation within the SME sector. 48% of the total trainees in Skillnet Ireland are female with approximately 35% of the 12,000 trainees undertaking digital and ICT Skills are female. Skillnet Ireland's specialist technology-based Networks provide upskilling solutions to maintain Ireland's position as a leading global technology hub by supporting the growth and competitiveness of ICT enterprises through cutting edge and highly specialised education and training.</p> <p><u>IDA Partnership</u> Skillnet Ireland has a partnership with the IDA with programmes including:</p> <ul style="list-style-type: none"> • Strategic Talent Development Program • Joint IDA & Skillnet Ireland FDI Growth Plan • IDA directing client companies to Skillnet Ireland <p><i>Link to the target:</i> As the workforce development agency, Skillnet Ireland is expanding its engagement with companies and the tertiary education system to ensure enterprise has the talent to meet challenges such as the need for Digital Advancement. This recognises that speed and agility are essential components of workforce development in the 21st century</p>

	<p>and aims to support the development of high-level ICT skills in the workforce (KPI 2).</p> <p><i>Tentative timeline:</i> Skillnet Ireland programmes and supports are provided on an ongoing basis.</p>
Budget allocated or planned:	<p>Government funding to Skillnet Ireland is provided through the DFHERIS Budget allocation, including the National Training Fund, on a rolling basis. Skillnet Ireland's allocation from the National Training Fund (NTF) amounts to €5.499 million for training network programmes for employment, and €53.692 for programmes for those already in employment.³¹</p>
Expected impact and related timing:	<p>N/A at this time.</p>

Measure 3 – Skills to Advance [SOLAS]

New measure	<p><input type="checkbox"/> yes</p> <p><input checked="" type="checkbox"/> no</p>
Short description of the measure:	<p><i>Content of the measure:</i> Working closely with small and medium-sized enterprises, Skills to Advance helps employers identify skills needs and invest in their workforce by providing subsidised education and training to staff. In 2022, ICDL has the third highest course delivered through Skills to Advance by ETBs. A broad range of other digital upskilling opportunities are also available for businesses across sectors.</p> <p><i>Link to the target:</i> The technical qualifications provided through Skills to Advance support the objective of KPI 2 to further develop high-level ICT professionals.</p> <p><i>Tentative timeline:</i> The Skills to Advance programme is intended to run until 2034.</p>
Budget allocated or planned:	<p>SOLAS total allocation for training people for employment under the National Training Fund amounts to €297.927 million for 2023, and traineeship funding for those already in employment of €2.9 million.³²</p>
Expected impact and related timing:	<p>N/A at this time.</p>

³¹ [Parliamentary Budget Office: National Training Fund Overview 2023](#)

³² [Parliamentary Budget Office: National Training Fund Overview 2023](#)

Measure 4 – eCollege [SOLAS]

New measure	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Short description of the measure: eCollege offers online courses across Digital Skills, ICT, Office Productivity, Coding Languages, Visual Design and Business skills areas.	<p><i>Content of the measure:</i> eCollege courses range from an average commitment of 4 weeks to 26 weeks on a part-time basis, but this is flexible and tailored to the progress of the individual learner. The certified programmes are industry recognised qualifications awarded by Microsoft, Adobe, CompTIA, Digital Marketing Institute, Pearson IT Specialist, People Cert, and the ICDL Foundation.</p> <p><i>Link to the target:</i> The average age of an eCollege learner is 37 with around 50% of learners in employment and 50% holding a third level qualification. The flexibility of the service lends itself well to adult learners with busy work and life commitments, whether seeking employment or looking to upskill or re-skill, supporting the ambitions of KPI 2 to further develop high-level ICT specialists.</p> <p><i>Tentative timeline:</i> TBC</p>
Budget allocated or planned:	SOLAS total allocation for training people for employment under the National Training Fund amounts to €297.927 million for 2023, and traineeship funding for those already in employment of €2.9 million. ³³
Expected impact and related timing:	N/A at this time.

Measure 5 – Establishment of a National Apprenticeship Office

New measure	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Short description of the measure: Establishment of a National Apprenticeship Office	<p><i>Content of the measure:</i> The National Apprenticeship Office (NAO) was established in 2022 by SOLAS and the Higher Education Authority. The Office is implementing the Government's Action Plan for Apprenticeship 2021-2025, with responsibility for managing, overseeing and developing the apprenticeship system, while acting as a single point of contact for employers, apprentices and providers in accessing information and guidance on apprenticeship.</p> <p>As of the end of July 2023, there are 25,090 apprentices in training in Ireland which includes 535 apprentices on six ICT apprenticeship</p>

³³ [Parliamentary Budget Office: National Training Fund Overview 2023](#)

	<p>programmes. For the same period, there are 123 employers employing ICT apprentices. September to December of each year is the busiest period for apprentice registration and the consortia involved forecast a combined 255 registrations on tech apprenticeships over this period, with a further estimate of a combined 600 registrations across 8 ICT programmes in 2024. There are currently two additional new ICT apprenticeships in development, Digital Marketing Level 6 is due to be launched in late Q4 2023 and Immersive Technology Level 6 is due to be launched in Q1 2024.</p> <p><i>Link to the target:</i> Dedicated apprenticeships offer an additional pathway to ICT sector employment and hands-on skills development in niche subject areas within the ICT sector, supporting the development of high-level ICT skills for the workforce.</p> <p><i>Tentative timeline:</i> Ongoing</p>
Budget allocated or planned:	N/A at this time.
Expected impact and related timing:	N/A at this time.

Measure 6 – SLMRU National Skills Bulletin [SOLAS]

New measure	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Short description of the measure: The National Skills Bulletin is an annual series of reports produced by the Skills and Labour Market Research Unit (SLMRU) in SOLAS and is produced on behalf of the National Skills Council (NSC). It presents an overview of the Irish labour market at occupational level.	<p><i>Content of the measure:</i> The Bulletin aims to assist policy formulation in the areas of employment, education/training, and immigration (particularly the sourcing of skills which are in short supply in the Irish and EU labour market from the EEA); it also aims to inform career guidance advisors, students and other individuals making career and educational choices.</p> <p>The analysis presented in the Bulletin reflects the data gathered by the SLMRU across a range of data sources, including the CSO’s Labour Force Survey; it spans 95 occupational groups and examines a number of labour market indicators.</p> <p>The National Skills Bulletin 2023 notes that although strong demand for ICT occupations continues, it is at a lower rate than in 2022. ICT occupations represented 4.8% of the workforce in 2023, but demand for ICT roles is evident in all sectors of the economy with ICT skills the second most frequently mentioned skill in job adverts across all occupations. The Bulletin notes that demand for a range of ICT skills remains strong across sectors, with shortages likely to persist, although possibly less acute than in earlier years.</p>

	<p>Particular shortages noted in 2023 included IT Project Managers, software developers/engineers, and IT analysts.</p> <p><i>Link to the target:</i> This forecasting mechanism assists in the formation of targeting interventions for labour market skills needs, including the provision of high-level ICT skills programmes as reflected in KPI 2.</p> <p><i>Tentative timeline:</i> The National Skills Bulletin is published annually, in Q4.</p>
Budget allocated or planned:	The National Training Fund has allocated €3.427 million for the provision of information on skills requirements in 2023. ³⁴
Expected impact and related timing:	N/A at this time.

Measure 7 – Human Capital Initiative

New measure	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Short description of the measure: HCI Pillar 3 will deliver 24 projects in higher education institutions, 19 of which involve collaborations between institutions. 24 projects have been funded since 2020, including 9 ICT related projects.	<p><i>Content of the measure:</i></p> <p>Pillar 3 of the Human Capital Initiative is enabling innovation in modes and methods of teaching and learning delivery and agility in response to future skills needs. HCI Pillar 3 will deliver 24 projects in higher education institutions, 19 of which involve collaborations between institutions. 24 projects have been funded since 2020, including 9 ICT related projects.</p> <p>The funding for HCI is for 5 years, up to and including 2024. The projects will run into the first half of 2025. The mid-term review of the HCI Pillar 3 programme has been completed, and the subsequent report was launched on 29 June 2023. The report shows that the programme is exceeding targets on the creation of new courses, with over 1,000 created – 800 more than the initial target. Over 4,000 additional student places have been achieved through direct funding, with a significant number still expected as projects mature.</p> <p>All 24 HCI Projects have been successfully initiated and are largely on target, while governance structures have been established at project level, and the HEA has instituted a strong level of monitoring of progress against pre-agreed targets.</p> <p>There have been strongly positive responses reported by the 400+ enterprise partners, with whom intensive collaboration has seen</p>

³⁴ [Parliamentary Budget Office: National Training Fund Overview 2023](#)

	<p>over 33,000 engagements, leading to innovation in terms of new technologies, learning methods and curriculum design.</p> <p><i>Link to the target:</i> Increased provision of student places and collaboration with enterprise partners will further support the creation of highly-skilled ICT specialists.</p> <p><i>Tentative timeline:</i> The HCI funding will expire in 2024, with the projects funded under the Initiative continuing to 2025.</p>
Budget allocated or planned:	€300 million will be provided through the National Training Fund over the lifetime of the projects. €60 million of this was allocated for 2023.
Expected impact and related timing:	N/A at this time.

Measure 8 – Springboard+

New measure	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Short description of the measure: Springboard+ complements the core State-funded education and training system and provides free and heavily subsidised upskilling and reskilling higher education opportunities in areas of identified skills need.	<p><i>Content of the measure:</i> Springboard+ ICT skills Conversion Courses were introduced in 2012 as a means to address concerns by industry and the enterprise development agencies about continuing difficulties in sourcing ICT graduates with requisite skills. Springboard+ courses are at Level 6 (Certificate) to Level 9 (Masters) on the National Framework of Qualifications (NFQ) and are delivered by public and private higher education providers around the country. Courses are not all a full award at each level – they may also be minor awards or special purposes awards. All courses provide job-readiness training and most offer the opportunity for work placement, project-based learning or industry site visits where appropriate.</p> <p><i>Link to the target:</i> Provision of educational pathways for the development of high-level ICT skills, supporting KPI 2.</p> <p><i>Tentative timeline:</i> Funding for Springboard programmes is provided via the National Training Fund on an annual basis.</p>
Budget allocated or planned:	Springboard+ received funding of €6.888 million in 2023 via the National Training Fund.
Expected impact and related timing:	N/A at this time.

Measure 9 – Science Foundation Ireland

<p>New measure</p>	<p><input type="checkbox"/> yes</p> <p><input checked="" type="checkbox"/> no</p>
<p>Short description of the measure: Science Foundation Ireland (SFI) partners with the Department of Education, DCEDIY and DFHERIS on the STEM Education Implementation Plan.</p>	<p><i>Content of the measure:</i> Joint funding of approximately €6 million was provided by DFHERIS and DE to the SFI Discover Programme on 6 March 2023, to fund 40 projects to empower diversity and inclusion in STEM. SFI Discover Programme awardees will be encouraged to use the funding to build connections with less-represented voices, or with those who would not typically engage with STEM (Science, Technology, Engineering and Mathematics).</p> <p><i>Link to the target:</i> The programme seeks to target underrepresented voices in STEM as outlined by the overall target. SFI programmes support the development of key skills, public engagement and STEM career consideration across all cohorts. The SFI Discover programme encourages applications which support increased female participation in STEM, supporting both KPI’s under the target.</p> <p><i>Tentative timeline:</i> Ongoing</p>
<p>Budget allocated or planned:</p>	<p>Joint funding of approximately €6 million was provided by DFHERIS and DE to the SFI Discover Programme on 6 March 2023, to fund 40 projects.</p> <p>SFI is part-funded through the DFHERIS expenditure allocation for Research, Innovation and Science. The allocation for 2023 totals €264.8 million, with an additional €22 million in targeted funding for SFI to support the implementation of the National Grand Challenges Programme and increased stipends for PhD Research under SFI/Irish Research Council Funding.³⁵</p> <p>Initial funding of €6 million in 2023</p>
<p>Expected impact and related timing:</p>	<p>N/A at this time.</p>

³⁵ [Budget 2023: Part II – Expenditure Allocations](#)

3.9.3 CONNECTIVITY

Measure 1 - Commercial investment in connectivity

New measure:	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Short description of the measure: Commercial investment in connectivity	<p><i>Content of the measure:</i> To have all Irish households and businesses covered by a Gigabit network no later than 2028, through a combination of commercial investment and State-led intervention</p> <p><i>Link to the target:</i> This project directly contributes to the target that all end users at a fixed location will be covered by a very high-capacity network up to the network termination point.</p> <p><i>Tentative timeline:</i> All Irish households and business covered by a Gigabit network by 2028.</p>
Budget allocated or planned:	N/A at this time.
Expected impact and related timing:	<ul style="list-style-type: none"> • Eir is building a FTTP (Fibre to the Premises) network to up to 1.9 million premises and to date has passed over 1.1 million homes; • SIRO has recently reached a milestone of enabling over 555,000 premises for full fibre and is on track to reach 700,000 premises by 2026; and • Virgin Media recently announced a €200 million investment plan to upgrade its cable network to bring full fibre to up to 1 million premises over the next three years, to date it has passed 252,000 premises with full fibre.

Measure 2 - National Broadband Plan (NBP)

New measure:	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Short description of the measure: Delivery of the National Broadband Plan	<p><i>Content of the measure:</i> To have all Irish households and businesses covered by a Gigabit network no later than 2028, through a combination of commercial investment and State-led intervention.</p> <p><i>Link to the target:</i></p>

	<p>This project directly contributes to the target that all end users at a fixed location will be covered by a very high-capacity network up to the network termination point.</p> <p><i>Tentative timeline:</i></p> <p>All Irish households and business covered by a Gigabit network by 2028.</p>
Budget allocated or planned:	National: EUR 2.7 billion (planned) for the NBP and EUR 19 million for the EUR 19 million under Ireland's National Recovery and Resilience Plan for the development of a high-speed low latency network.
Expected impact and related timing:	The impact will be the circa 560,000 new premises across 96% of Ireland's landmass, encompassing 1.1 million people, over 65,000 farms, 44,000 non-farm businesses and over 670 schools able to avail of gigabit broadband under the National Broadband Plan. It will also encompass the 77% premises in the State outside the National Broadband Plan Intervention Area able to avail of gigabit broadband through commercial investment.

Measure 3 - Connecting Broadband Connection Points and Schools

New measure:	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Short description of the measure: Connecting Broadband Connection Points and Schools	<p><i>Content of the measure:</i></p> <p>Strategic Connection Points (SCPs) are a key element of the NBP providing high speed broadband in every county in advance of the roll out of the fibre to the home network. The high-speed broadband service will be switched on in these locations through service provider contracts managed by the Department of Rural and Community Development for publicly accessible sites and the Department of Education for school BCPs</p> <p>952 SCP sites have been installed (923 by NBI and 29 have been installed by other operators, as agreed with the Department of Education).</p> <p>The Government and NBI agreed to accelerate the rollout of high-speed broadband to some 672 schools across the State in the Intervention Area. NBI reports that the necessary infrastructure is now installed in all schools. This ensures that all schools across the State in the Intervention Area will have the necessary infrastructure to carry out their critical day to day educational activities unimpeded by poor broadband.</p> <p><i>Link to the target:</i></p>

	<p>This project directly contributes to the target that all end users at a fixed location will be covered by a very high-capacity network up to the network termination point</p> <p><i>Tentative timeline:</i> Completed in 2023</p>
Budget allocated or planned:	National: EUR 2.7 billion (planned) for the NBP in total
Expected impact and related timing:	The provision of high-speed connectivity to BCPs and all schools across the state completed in 2023.

Measure 4 - Mobile Phone and Broadband Taskforce

New measure:	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Short description of the measure: Mobile Phone and Broadband Taskforce ("Taskforce")	<p><i>Content of the measure:</i></p> <p>The Taskforce was re-established in December 2021. The Taskforce actively promotes positive stakeholder engagement, spanning Central and Local Government, industry, regulators, public bodies and consumer groups. Specific actions for delivery are identified in the context of working to develop the new work programme of the Taskforce. This will help to ensure that, where barriers to telecoms infrastructure rollout are identified, appropriate assessment and intervening measures are identified, and that action is taken.</p> <p><i>Link to the target:</i></p> <p>Key priority areas the new work programme of the Taskforce is addressing include:</p> <ul style="list-style-type: none"> • Improving outdoor mobile phone coverage in both rural and urban areas; • Ensuring the efficient use of infrastructure and assets to support the rollout of telecoms networks; • Removing remaining barriers in permit granting, planning and licencing procedures; and • Improving both the quality and availability of information to consumers regarding telecoms products and services on the market. <p><i>Tentative timeline:</i></p> <p>The Taskforces current workplan spans a 3-year period (2022-2025), with specific actions for delivery in the Short, medium and long-term.</p>

Budget or planned:	N/A at this time.
Expected impact and related timing:	The actions identified in the MPBT work programme will support the roll out of the National Broadband Plan and the deployment of high quality networks by other operators providing fixed and mobile data and telephony services.

Measure 5 - 5G Spectrum Award

New measure:	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Short description of the measure: 5G spectrum award	<p><i>Content of the measure:</i></p> <p>The regulator concluded a significant spectrum award in early 2023 - the Multi Band Spectrum Award (MBSA2), awarding long term (20 years) rights across bands suitable for providing wireless and mobile broadband services and increasing network capacity.</p> <p><i>Link to the target:</i></p> <p>Significant coverage obligations apply under these licences; with a key focus is on delivering coverage to the population rather than on geographical or area coverage.</p> <p><i>Tentative timeline:</i></p> <p>The 20-year licences have certain coverage obligations to be achieved over a period of 3 to 7 years.</p>
Budget or planned:	National: EUR 448 million by commercial investors over 20 years.
Expected impact and related timing:	<p>This is a significant spectrum award. It represents a 46% increase in the harmonised spectrum assigned for the provision of wireless and mobile broadband services in Ireland and will significantly enable the market to provide improved services to meet increasing consumer demand for mobile data and new services.</p> <p>AS above, the licences have certain coverage obligations to be achieved over a period of 3 to 7 years.</p>

Measure 6- Implement the EU Toolbox on 5G Security

New measure:	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Short description of the measure: Delivering 5G Mobile Connectivity	<p><i>Content of the measure:</i> Ireland has endorsed the 'EU 5G Security Toolbox' as the framework by which Ireland will secure its next generation electronic communications networks.</p> <p>The Communications Regulation and Digital Hub Development Agency (Amendment) Act 2023 and the European Union (Electronic Communications Code) Regulations 2022, each</p>

	<p>commenced in June 2023, transpose the European Electronic Communications Code. This represents a revision of the entire EU regulatory framework for the telecommunications sector. The legislation provides greater protections and means of redress for customers.</p> <p>The Government agreed a consultation on the Electronic Communications Security Measures (or ECSMs), a detailed set of technical and organisational measures that providers of public electronic communications networks and publicly available electronic communications services will be required to implement.</p> <p><i>Link to the target:</i></p> <p>Under the Digital Connectivity Strategy, the government has committed to ensuring that all populated areas will have 5G coverage by 2030. This measure will contribute to ensuring that all populated areas are covered by secure and resilient next-generation wireless high-speed 5G networks.</p> <p><i>Tentative timeline:</i></p> <p>The measures within the 5G Toolbox to be implemented by the end of 2024.</p>
Budget or planned:	N/A at this time.
Expected impact and related timing:	This measure will reduce and mitigate the risks and concerns about the future security of 5G networks particularly arising from the risk of third country interference. Equally important are the technical factors such as inevitable cybersecurity vulnerabilities which if exploited could lead to widespread social and economic disruptions.

Measure 7 - Delivering 5G Mobile Connectivity

New measure:	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Short description of the measure: Delivering 5G Mobile Connectivity	<p><i>Content of the measure:</i></p> <p>Under the Digital Connectivity Strategy, the government has committed to ensuring that all populated areas will have 5G coverage by 2030.</p> <p><i>Link to the target:</i></p>

	<p>This project directly contributes to the target by ensuring that all populated areas are covered by next-generation wireless highspeed networks with performance at least equivalent to that of 5G.</p> <p><i>Tentative timeline:</i></p> <p>All populated areas to be covered by 5G by no later than 2030.</p>
Budget or planned:	National: EUR 448 million by commercial investors.
Expected impact and related timing:	The impact will be that all populated areas can avail of 5G coverage by 2030.

Measure 8 – Ensure secure and resilient connectivity through the implementation of the National Cyber Security Strategy 2019-2024

New measure:	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Short description of the measure: Ensure secure and resilient connectivity through the implementation of the National Cyber Security Strategy 2019-2024	<p><i>Content of the measure:</i></p> <p>The National Cyber Security Strategy (NCSS) includes 38 collaborative measures, to be delivered by the end of 2024, to enhance the cyber security and resilience of public bodies, providers of essential services, businesses and households, to support the continued development of the cyber security industry and research community, and to ensure Ireland plays an active role in international discussions on the security and stability of a free and open cyberspace.</p> <p>These measures are grouped according to thematic areas:</p> <ul style="list-style-type: none"> •National Capacity Development: which will see the capacity and statutory footing of the NCSC enhanced. •Critical National Infrastructure Protection: which will see the resilience of CNI enhanced through ongoing audits, risk assessments, information sharing fora, and supervisory and enforcement regimes. •Public Sector Data and Networks: which includes the introduction of baseline security standards and expansion of the State's Sensor programme. •Skills: which will see the development of second and third level training in Cyber Security and the promotion of the cyber security career path •Enterprise Development: which will see investment in the growth of the Cyber Security Industry in Ireland •Engagement: which will see Ireland reinforce our diplomatic commitment to cyber security,

	<ul style="list-style-type: none"> •Citizens: which includes tailored and targeted national cyber security information campaigns •Governance and Oversight: which includes increasing transparency and visibility of the National efforts in building our cyber resilience. <p><i>Link to the target:</i></p> <p>The implementation of the National Cyber Security Strategy directly contributes to the target of a secure, resilient, performant and sustainable digital infrastructures, where all Irish households and businesses will be covered by a Gigabit network no later than 2028.</p> <p><i>Tentative timeline:</i></p> <p>While the current National Cyber Security Strategy runs until the end of 2024, the measures lay the groundwork for an ambitious successor to this Strategy for the post-2024 period, which will fulfil the State’s obligations as set out in the proposed successor to the EU Network and Information Security Directive (NIS2).</p>
<p>Budget allocated or planned:</p>	<p>National: EUR Budget 2024 provides for the continued expansion of the National Cyber Security Centre, to strengthen cyber security and build resilience, address the cyber skills gap and develop the cyber security industry in Ireland. This includes a €10.7 million investment in the National Cyber Security Centre (NCSC) in 2024.</p> <p>Ireland’s Cyber Security Budget beyond 2024 may be extrapolated to be of an equal or greater magnitude per year to maintain existing services and address the evolving technological and threat landscape.</p>
<p>Expected impact and related timing:</p>	<p>The implementation of this Strategy and the 38 measures within in a more secure and resilient connected Ireland and a decrease in volume, scale and impact of cyber attacks on the state with an increase in recovery rate in the event of a cyber security incident. Measures within the current strategy are to be delivered by the end of 2024. This will be succeeded with a new National Cyber Security Strategy for the post 2024 period.</p>

3.9.4 SEMICONDUCTORS

Measure 1 – Mapping the Irish semiconductor ecosystem

New measure	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Short description of the measure Ireland will identify key semiconductor market actors and develop a more complete understanding of all relevant undertakings active in Ireland's semiconductor ecosystem.	<p><i>Content of the measure:</i> Ireland will create a contact list of all relevant undertakings in the national semiconductor ecosystem and identify Ireland's key semiconductor market actors. This will enable a better understanding of the semiconductor ecosystem and facilitate the sharing of information and best practice internationally.</p> <p><i>Link to the target:</i> A more complete understanding of the ecosystem in Ireland will facilitate the development of policy to support the semiconductor ecosystem in Ireland to develop in line with EU targets for the sector.</p> <p><i>Tentative timeline:</i> Work began on this measure in 2023. It is intended to build on this progress in 2024.</p>
Budget allocated or planned:	N/A at this time.
Expected impact and related timing:	N/A at this time.

Measure 2 – Engagement with EU bodies

New measure	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Short description of the measure Ireland will fully engage with EU bodies including the European Semiconductor Board and Chips Joint Undertaking.	<p><i>Content of the measure:</i> The semiconductor value chain is extremely international in nature. It is important to stay engaged with likeminded countries and international institutes to further develop the sector.</p> <p><i>Link to the target:</i> We recognise the global nature of semiconductor supply chains, and we are open to building partnerships and creating stronger linkages within the global industry. Ongoing work with partners in the EU and globally will enable Ireland to contribute to EU ambitions in this sector.</p> <p><i>Tentative timeline:</i></p>

	This work will be ongoing throughout the lifetime of this roadmap.
Budget allocated or planned:	N/A at this time.
Expected impact and related timing:	N/A at this time.

3.9.5 EDGE NODES

Measure 1 – Public sector edge nodes

New measure	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Short description of the measure Enabling Stand Alone 5G and other low latency technologies to be integrated into a High Speed Low Latency National Platform (LLNP).	<p><i>Content of the measure:</i></p> <p>The Office of the Government's Chief Information Officer (OGCIO) is building a transport mechanism to ensure that the Public Service maximises the benefits and outcomes from 5G, and develops its capacity for public service innovation through increasing connectivity and using new technologies.</p> <p>This will be done by enabling Stand Alone 5G and other low latency technologies to be integrated into a High Speed Low Latency National Platform (LLNP).</p> <p>The first phase is the creation of a platform that consists of compute nodes interconnected with a high speed Low Latency backbone. The compute nodes are made up of servers that can perform a specific set of computational tasks, such as data processing, simulation, or scientific computing. In such environments, it is essential to have a high-speed, low-latency backbone network that can efficiently interconnect the compute nodes and provide fast data transfer rates with minimal delay or latency. The backbone network consists of Reconfigurable Optical Add-Drop Multiplexer (ROADM) using Dense Wavelength Division Multiplexing (DWDM).</p> <p><i>Link to the target:</i></p> <p>This project directly contributes to the target by deploying a number of edge nodes, within Public Service buildings spread across the regions.</p> <p><i>Tentative timeline:</i></p> <p>The project is due to roll out edge nodes gradually, expecting that by end-2025 the total should be 23 edge nodes installed in total. Further timeline details are below.</p>
Budget allocated or planned:	National: circa EUR 23 million EU: circa EUR 18.5 million

<p>Expected impact and related timing:</p>	<ul style="list-style-type: none"> • In 2022, OGCIO-DPENDPR carried out procurement processes to purchase necessary components. • In 2023, OGCIO will start rolling out the nodes and expect to have 8 edge OGCIO nodes installed in 2023. • By the end-2024, OGCIO will have a total of 18 edge nodes installed. • By the end-2025, OGCIO will have a total of 23 edge nodes installed.
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3.9.6 QUANTUM COMPUTING

Measure 1 – Supporting Excellent Fundamental and Applied Quantum Research

<p>New measure</p>	<p><input checked="" type="checkbox"/> yes</p> <p><input type="checkbox"/> no</p>
<p>Short description of the measure: Supporting Excellent Fundamental and Applied Quantum Research</p>	<p><i>Content of the measure:</i></p> <p>Under Pillar 1 of Quantum 2030, Ireland is working to support excellent fundamental and applied quantum research, of which development of quantum technologies is reliant.</p> <p>Ireland has a strong track record in researching fundamental quantum science and some of the key enablers for quantum technologies. To maintain this strength, to accelerate and advance research in quantum technologies and to compete on the global stage, Ireland will intensify sustainable support in fundamental and applied research in quantum technologies and the fields underpinning their development.</p> <p>Actions under this pillar include:</p> <ul style="list-style-type: none"> • Investing in new quantum-technology research to accelerate growth in the Irish quantum technology system. • Continuing to support Ireland’s internationally excellent research in fields underpinning the development of quantum technologies. • Establishing a virtual centre of excellence to provide a platform for collaboration and to create a critical mass of researchers and partners from the public and private sector working across the country in quantum technologies. • Working with academia, enterprise and Government to identify the needs and opportunities for investment and collaboration with new and existing quantum technology research infrastructure.

	<ul style="list-style-type: none"> • Maintaining existing infrastructure and support the development of new state-of-the-art infrastructure to sustain excellent research and investment in quantum technologies in Ireland. • Working across the public and private sectors to map out the opportunities to leverage, repurpose and extend existing infrastructure. • Playing an active role in designing, developing and deploying the European Quantum Communication Infrastructure (EuroQCI) to maximise the benefit for RD&I in Ireland. <p><i>Link to the target:</i></p> <p>This project directly contributes to the target of paving the way for the Union to be at the cutting edge of quantum capabilities by 2030.</p> <p><i>Tentative timeline:</i></p> <p>Ongoing to 2030.</p>
Budget allocated or planned:	N/A at this time.
Expected impact and related timing:	By supporting excellent fundamental and applied quantum research this measure will enable breakthrough discoveries and feed the pipeline of innovations and technologies.

Measure 2 – Fostering Top Science and Engineering Talent

New measure	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Short description of the measure: Fostering Top Science and Engineering Talent	<p><i>Content of the measure:</i></p> <p>Under Pillar 2 of Quantum 2030, Ireland is working to foster top science and engineering talent.</p> <p>Actions under this measure include:</p> <ul style="list-style-type: none"> • Delivering a review of the skills implications of quantum technologies over the next ten years and the skills-related actions needed to realise the potential of quantum technologies in Ireland. • Investing in a range of research training activities to grow and develop a talent pipeline in Ireland across the spectrum of quantum science and technology. • Promoting the establishment of a national quantum-technologies training framework. • Identifying and addressing skills gaps by providing

	<p>supports for the upskilling of personnel.</p> <ul style="list-style-type: none"> • Developing, attracting and retaining world-leading researchers and rising talent in quantum technologies in Ireland to carry out excellent research and to collaborate across sectors nationally and internationally. • Ensuring appropriate conditions are in place to support the development and retention of the technical support and expertise required for quantum-technologies research and infrastructure use in Ireland • Focusing on improving EDI, with a particular focus on gender, in the quantum-technologies research community across all career stages, by leveraging existing EDI initiatives of research performing bodies and funders. <p><i>Link to the target:</i></p> <p>This project directly contributes to the target of paving the way for the Union to be at the cutting edge of quantum capabilities by 2030.</p> <p><i>Tentative timeline:</i></p> <p>Ongoing to 2030.</p>
Budget allocated or planned:	N/A at this time.
Expected impact and related timing:	It is expected that this measure will enable Ireland to develop a pipeline of agile, innovative and highly skilled individuals across the spectrum of quantum science, engineering and technology.

Measure 3 – Enhance National and International Collaboration and Innovation

New measure	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Short description of the measure: Enhancement of international, national collaboration, innovation and entrepreneurship	<p><i>Content of the measure:</i></p> <p>Under Pillar 3 of Quantum 2030, Ireland is working to enhance national and international collaboration in the field of quantum technologies.</p> <p>The scale of the challenges and investment required to realise quantum technologies means that some projects are only feasible through large-scale national and international collaborations, often involving partners from multiple sectors. Ireland already participates in several European academic collaborations on quantum technologies and related areas.</p>

	<p>Ireland will foster collaboration at national, All-Island, European and global levels between actors across academia, industry and Government must be facilitated to translate science to innovation and nurture the growth of quantum technologies.</p> <p>Actions under Pillar 3 of Quantum 2030 include:</p> <ul style="list-style-type: none"> • Establishing a coordinated and connected stakeholder network of quantum science and technologies researchers, engineers, entrepreneurs, enterprise, policymakers, and research-funding partners across Ireland. • Building and maintaining collaboration with international partners. In particular, develop stronger links with the EU, USA and UK on quantum-technologies research. • Developing mechanisms to facilitate the flow of people, knowledge, skills and innovation between academia, enterprise and Government, nationally and internationally. • Facilitating stronger relationships nationally and internationally between industry and the higher-education sector in Ireland. • Incentivising Irish partners from academia and enterprise to compete for the funding and collaboration opportunities that come with the EU Quantum Technologies Flagship programme, launched in 2018 with a commitment of €1bn over ten years. • Utilising existing and developing new mechanisms that support the access of Irish researchers to competitively engage with international partners, such as the EuroQCI and similar programmes internationally. <p><i>Link to the target:</i></p> <p>This project directly contributes to the target of paving the way for the Union to be at the cutting edge of quantum capabilities by 2030.</p> <p><i>Tentative timeline:</i></p> <p>Ongoing to 2030.</p>
<p>Budget allocated or planned:</p>	<p>N/A at this time.</p>
<p>Expected impact and related timing:</p>	<p>It is expected that this measure will increase and strengthen collaboration nationally and internationally.</p>

Measure 4 – Innovation, Entrepreneurship and Economic Competitiveness

<p>New measure</p>	<p><input checked="" type="checkbox"/> yes</p> <p><input type="checkbox"/> no</p>
<p>Short description of the measure: Stimulating Innovation, Entrepreneurship and Economic Competitiveness</p>	<p><i>Content of the measure:</i></p> <p>Under Pillar 4 of Quantum 2030, Ireland is working to stimulate innovation, entrepreneurship and economic competitiveness.</p> <p>Actions under this pillar include:</p> <ul style="list-style-type: none"> • Building quantum technologies RD&I into existing and new Government research and innovation programmes to improve SME and entrepreneur engagement. • Incentivising the involvement of enterprise from an early stage in quantum-technologies research. • Encouraging and supporting HEIs to foster collaboration, entrepreneurship and commercialisation in quantum-technologies research to align with enterprise needs and standards. • Ensuring all necessary Government Departments and agencies stay abreast of the implications of quantum technologies and help balance the benefits of economic growth with new risks created, as well as being prepared to be early adopters of quantum technologies in the public sector. • Ensuring enterprise working in quantum technologies work closely with traditional industrial sectors across the regions and the public sector to identify first use cases and to develop quantum-enabled solutions for tomorrow's digital world. • Ensuring Ireland plays an active role in securing the EU supply chains in quantum technologies and key enabling technologies. • Developing a network between research performers and enterprise across the full supply chain for developing quantum technologies. <p><i>Link to the target:</i></p> <p>This project directly contributes to the target of paving the way for the Union to be at the cutting edge of quantum capabilities by 2030.</p> <p><i>Tentative timeline:</i></p> <p>Ongoing to 2030.</p>
<p>Budget allocated or planned:</p>	<p>N/A at this time.</p>

Expected impact and related timing:	It is expected that this measure will stimulate innovation and entrepreneurship in quantum technologies and related areas, including in indigenous SMEs.
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Measure 5 – Building Awareness of Quantum Technologies and Real-World Benefits

New measure	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Short description of the measure: Building Awareness of Quantum Technologies and Real-World Benefits	<p><i>Content of the measure:</i></p> <p>Under Pillar 5 of Quantum 2030, Ireland is working to increase efforts to better communicate the value of quantum science and technologies and their associated opportunities.</p> <p>Actions under this pillar include:</p> <ul style="list-style-type: none"> • Promoting nationally and internationally the ongoing research in quantum technology in Ireland and its associated benefits to attract talent and enterprise. • Raising awareness and understanding of emerging quantum technologies within enterprise, particularly SMEs, and the potential business benefits and opportunities to be derived from engaging in quantum technologies. • Promoting and expanding activities that inform and engage the general public in quantum science and technologies. • Developing and implementing courses to educate and stimulate children and young people’s interest in quantum science and technologies at an early stage. • Identifying and promoting opportunities for quantum technologies to address other Government priorities, for example in Ireland’s energy and climate plans for 2030 and the National Cybersecurity Strategy. • Establishing a quantum-technologies awareness Working Group with broad representation across society to identify use cases and to champion awareness of quantum technologies to economy and society. <p><i>Link to the target:</i></p> <p>This measure directly contributes to the target of paving the way for the Union to be at the cutting edge of quantum capabilities by 2030.</p> <p><i>Tentative timeline:</i></p> <p>Ongoing to 2030.</p>

Budget allocated or planned:	N/A at this time.
Expected impact and related timing:	It is expected that this measure will help Ireland to develop a quantum-literate society that takes full advantage, for everyone, of the benefits quantum technologies can bring.

3.9.7 DIGITAL TRANSFORMATION OF BUSINESSES

3.9.7.1 Late Adopters

Measure 1 – The Digital Transition Fund and other funding schemes for digitalisation

New measure	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Short description of the measure: The Digital Transition Fund and other funding schemes for digitalisation	<p><i>Content of the measure:</i></p> <p>As part of Ireland's National Recovery and Resilience Plan, funded by the EU Recovery and Resilience Fund, in order to boost the uptake of digital technology in enterprises, the Government launched the Digital Transition Fund (DTF) in June 2022. This is a €85 million multi-annual fund which will run until 2026. This is divided between direct grant funding for businesses and the EDIHs.</p> <p>The Government also has a number of other schemes, funded through the Exchequer that will also support the digitalisation of enterprises. These include Digital Start, the Trading Online Vouchers and the Online Retail Scheme.</p> <p>Digital Start is designed to help businesses prepare and implement a plan for the adoption of digital tools and techniques across the business and may be used to obtain digital strategy, technical and/or advisory services from approved providers. Maximum value of the Digital Start support per applicant business is €4,500 inclusive of VAT. This amount equates approximately to 4 days of consultancy. There is no applicant contribution. Digital Start is open to businesses in the manufacturing and internationally traded services sectors, including those with up to 50 employees.</p> <p>Digital Start will provide strategic intervention for businesses to work with third party consultants to:</p> <ul style="list-style-type: none"> • assist them in identifying where they are on their digital business journey, • develop a digital adaptation plan based on their identified need, • implement their digital adaptation plan.

	<p>The Trading Online Voucher Scheme offers a voucher of up to €2,500 (with 50% co- funding by the applicant) to help businesses develop their online trading capability and includes training sessions that cover various topics, including developing a website, digital marketing, social media for business and search engine optimisation.</p> <p>The Online Retail Scheme supports retailers, who already have an online presence and who have a physical store, to enhance their online capability and presence so as they can best exploit new opportunities and attract new customers. The grant is calculated at a maximum of 50% of eligible expenditure of up to €50,000 (€25,000 maximum grant). Since 2018 more than 700 projects from retailers based in Ireland have been approved for €28.3 million in funding through the government’s Online Retail Scheme.</p> <p>Work is also underway to examine how to broaden eligibility for digital funding schemes to increase access for businesses which are currently not eligible.</p> <p>To help activate and inform businesses, the Department of Enterprise, Trade and Employment has also undertaken a series of “Building Better Business” conferences across Ireland’s nine regions to encourage businesses to both decarbonise and digitalise.</p> <p>Furthermore, for Irish enterprises to effectively adopt and embed AI capabilities in their operations, it is imperative that they have the right foundations and infrastructure in place to collect, manage, and analyse their product, service, and customer data. Enterprise Ireland’s Operational Excellence and Digital Innovation team are actively working with Irish Enterprises, especially manufacturers, to modernise their existing business systems and infrastructure to put better data controls in place and optimise and connect systems to improve data flow and data quality across their operations.</p> <p><i>Link to the target:</i></p> <p>This project will contribute to the achievement of the targets in relation to digital intensity and also the adoption of AI, cloud and big data by enterprises by boosting the uptake of digital technologies in enterprises.</p> <p><i>Tentative timeline:</i></p> <p>Ongoing to 2026.</p>
<p>Budget allocated or planned:</p>	<p>The Digital Transition Fund is a multi-annual fund with an allocation of €85 million. In 2022, €10 million was allocated and grant approved. In 2023, €16 million has been allocated.</p> <p>The Digital Start Scheme has an approved budget of €983,000 for 2023.</p>

	<p>1,790 Trading Online Vouchers were approved in 2022, and the Trading Online Voucher scheme has been allocated €3m for 2023.</p> <p>The latest round of the competitive call for the Online Retail Scheme has a budget of €2.3 million.</p>
Expected impact and related timing:	<p>Under the Digital Transition Fund, there is a target to support at least 800 companies by mid-2026. 159 were approved for funding since the launch of the fund in in mid-2022 and to mid-2023.</p> <p>There were 137 Digital Start projects approved in 2022.</p> <p>1,790 Trading Online Vouchers were approved in 2022.</p> <p>Since 2018 more than 700 projects from retailers based in Ireland have been approved for €28.3 million in funding through the government's Online Retail Scheme.</p>

Measure 2 – The Digital Portal

New measure	<p><input type="checkbox"/> yes</p> <p><input checked="" type="checkbox"/> no</p>
<p>Short description of the measure:</p> <p>Development and launch of a new Digital Portal</p>	<p><i>Content of the measure:</i></p> <p>A Digital Portal is under development for the enterprise sector, to start and guide them on their digitalisation journey. This project will be delivered by the Department of Enterprise, Trade and Employment and Enterprise Ireland in collaboration with a steering board composed of representatives of relevant state agencies, including Enterprise Ireland, Údarás na Gaeltachta, IDA Ireland and the Local Enterprise Offices. This Digital Portal will also be accompanied by a broader public communications campaign around raising awareness of the need for digitalisation among businesses in Ireland.</p> <p>The Digital Portal will be open to all businesses with the aim of simplifying and demystifying the process of digitalisation and will provide enough information to those beginning to plan the digital transition of their business (for example, small shop owners). It will also provide a gateway for those who have already begun to digitalise their business, directing them to additional resources for their needs. This may include information on the adoption of digital technologies (including cloud services, AI, and big data) or the digitalisation of existing products and processes.</p> <p>The Digital Portal will need to contain two simple and connected tools: a simple “Digital self-assessment” tool and a “Recommended actions” generator. These tools will be required to be simple to use and should give an accessible and easy-to-understand introduction</p>

	<p>for enterprise users to some of the most likely elements of their business to benefit from digitalisation.</p> <p>The Portal will then further direct users to the existing supports already in place, (advisory as well as direct funding supports), that are most likely to be appropriate to their identified actions, and for which they are most likely to be eligible. This may include supports from Enterprise Ireland, Údarás na Gaeltachta, Local Enterprise Offices, IDA Ireland and others.</p> <p><i>Link to the target:</i></p> <p>This project will contribute to the achievement of the targets in relation to digital intensity and also the adoption of AI, cloud and big data by enterprises.</p> <p><i>Tentative timeline:</i></p> <p>The portal will be launched in Q1 of 2024.</p>
Budget allocated or planned:	The Digital Portal tender was awarded following the required tender application and assessment process. The development and maintenance of the Digital Portal will be €111,238 over a two-year period.
Expected impact and related timing:	The Digital Portal will be launched in Q1 2024.

3.9.7.2 Tech Up-Take

Measure 3 - European Digital Innovation Hubs

New measure	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> no
Short description of the measure: European Digital Innovation Hubs	<p><i>Content of the measure:</i></p> <p>The Department of Enterprise, Trade and Employment is supporting the establishment of four European Digital Innovation Hubs. The hubs have been designated by the European Commission as part of a European wide network, to act as one-stop-shops for SMEs to strengthen their digital capabilities. The EDIHs will provide access to technical expertise and experimentation, so that organisations can “test before invest”, as well as innovation services, financing advice, and the training and skills development necessary for successful digital transformation. These Hubs will specifically target emerging technology awareness and capacity-building, enhancing the uptake and deployment of</p>

	<p>Artificial Intelligence, high performance computing, and cybersecurity.</p> <p><i>Link to the target:</i></p> <p>This project will contribute to the achievement of the targets in relation to digital intensity and also the adoption of AI, cloud and big data by enterprises.</p> <p><i>Tentative timeline:</i></p> <p>Ongoing.</p>
<p>Budget allocated or planned:</p>	<p>The EDIHs have an allocation of €27 million until 2026. The EDIH network in Ireland is funded jointly through the Digital Europe Programme and the Recovery and Resilience Facility (RRF).</p>
<p>Expected impact and related timing:</p>	<p>All four of Ireland’s designated EDIHs passed the European Commission’s threshold to become part of the network, enabling Ireland to have one in each NUTS2 region along with a dedicated hub for AI. All EDIHs have a wide regional presence.</p> <p>The network of EDIHs in Ireland is administered by Enterprise Ireland. The four EDIHs are:</p> <ul style="list-style-type: none"> • FactoryxChange (FxC), led by the EI-funded Irish Manufacturing Research in Mullingar, will accelerate factories to become ‘Factories of the Future’ embracing the ecological, digital, and societal challenges. It was established in February 2023. • CeADAR, led by Ireland’s EI/IDA Technology Centre in Applied Data Analytics and Machine Intelligence (based in UCD), focuses on supporting Artificial Intelligence (AI) transformation in SMEs and public-service organisations. It was established in September 2023. • DATA2SUSTAIN, led by Atlantic Technological University Sligo, aims to increase the transformation capacity of SMEs in the Northern and Western Region (NWR) with a focus on circular economy, operations and sustainability areas. It was established in February 2023. • ENTIRE, led by Tyndall National Institute Cork, will help SMEs and start-ups to become more competitive in their business/production processes using digital technologies such as IoT and sensors. It was established in May 2023.

Measure 4 - SME Taskforce

New measure	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> no
Short description of the measure: SME Taskforce	<p><i>Content of the measure:</i></p> <p>The SME and Entrepreneurship Growth Plan under Recommendation 2.3 calls for the “Support of digital transformation of SMEs through a people centred and financially accessible approach.”</p> <p>Building on digital supports already provided by Enterprise Ireland and the Local Enterprise Offices, the Taskforce suggested that digitalisation supports must remain available for SMEs which are not suitable for transformative digitalisation, but rather, are suitable to undertake digitalisation in a step-by-step process.</p> <p><i>Link to the target:</i></p> <p>This project will contribute to the achievement of the targets in relation to digital intensity and also the adoption of AI, cloud and big data by enterprises.</p> <p><i>Tentative timeline:</i></p> <p>Ongoing.</p>
Budget allocated or planned:	N/A at this time.
Expected impact and related timing:	The Taskforce's Growth Plan sets out a wide range of recommendations with long-term strategic relevance for SME and entrepreneurs, including measures to assist companies to start up, scale up, enhance their digital capabilities, and increase export activity.

Measure 5 - Enterprise Digital Advisory Forum

New measure	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> no
Short description of the measure: Enterprise Digital Advisory Forum	<p><i>Content of the measure:</i></p> <p>The Enterprise Digital Advisory Forum is an important body for the Government to receive leading expert advice from industry and digitalisation practitioners. The Forum has an agreed Work Programme for each year. Its 2023 Work Programme has the following workstreams which will drive the digital transformation of enterprise in Ireland:</p> <p>Workstream 1: Awareness raising, driving digitalisation in enterprise & outreach</p>

	<p>Workstream 2: Leverage the European Digital Innovation Hubs</p> <p>Workstream 3: Advancing AI in Ireland</p> <p>Workstream 4: Digital Inclusion, Skills, GovTech & Cybersecurity</p> <p>Workstream 5: Technology, Regulatory & Digital Developments and Future Trends</p> <p><i>Link to the target:</i></p> <p>This project will contribute to the achievement of the targets in relation to digital intensity and also the adoption of AI, cloud and big data by enterprises.</p> <p><i>Tentative timeline:</i></p> <p>Ongoing.</p>
Budget allocated or planned:	N/A at this time.
Expected impact and related timing:	The Enterprise Digital Advisory Forum was established in May 2022 and will continue in its important role of providing Government with expertise advice and industry insights through its Work Programme.

**The measures described under Late Adopters (Section 3.9.7.1) will also contribute to the achievement of the Tech Up-take objectives.*

3.9.7.3 Innovators

Measure 6: Nurturing Digital Start-Ups and Unicorns

New measure	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Short description of the measure: Nurturing Digital Start-Ups and Unicorns	<p><i>Content of the measure:</i></p> <p>Ireland has a strong ecosystem for start-up and early stage companies, including a programme of financial and development supports for innovative start-ups provided by the enterprise agencies. This ecosystem will be leveraged to nurture a new generation of digital start-ups, including ensuring that at least 35% of State funding for start-ups and early stage companies is directed to innovative digital businesses, with the ambition of nurturing potential digital unicorns.</p> <p>At EU level, we have seen the development of the European Tech Champions Initiative. This €3.5 billion pan-European Scale-up Initiative aims to provide crucial financing for Europe's high-tech companies in their late-stage development when they want to scale up their business.</p>

	<p><i>Link to the target:</i></p> <p>This measure will support the continued investment of the State in start-ups and early-stage businesses, with a focus on innovative digital businesses.</p> <p><i>Tentative timeline:</i></p> <p>Ongoing.</p>
Budget allocated or planned:	N/A at this time
Expected impact and related timing:	N/A at this time

Measure 7 - Seed & Venture Capital Scheme

New measure	<p><input type="checkbox"/> Yes</p> <p><input checked="" type="checkbox"/> no</p>
<p>Short description of the measure: Seed & Venture Capital Scheme [EI]</p>	<p><i>Content of the measure:</i></p> <p>Since 1994 Enterprise Ireland (EI) has operated the Seed and Venture Capital Scheme which has been a key driver of major changes in the equity landscape in Ireland.</p> <p>The Scheme's role in providing essential finance and assistance to early-stage companies that are just beginning their journey to growth cannot be overestimated. Assistance provided as part of this Scheme has helped many Irish companies that may otherwise have failed to get off the ground.</p> <p>The fifth programme of the Seed and Venture Capital Scheme delivers an allocation of €175 million to be committed over the lifetime of the Scheme, from 2019 to 2024.</p> <p><i>Link to the target:</i></p> <p>This scheme will support the continued investment of the State in start-ups and early-stage businesses, with a focus on innovative digital businesses.</p> <p><i>Tentative timeline:</i></p> <p>Ongoing to 2024.</p>
Budget allocated or planned:	EI has invested over €700 million in this scheme, which has leveraged funds totalling €3.3 billion showing the positive impact the scheme has had on the Irish equity ecosystem.

	The current €175 million scheme has funded 14 venture funds with a combined size of approximately €1.05 billion, showing a significant leveraging effect.
Expected impact and related timing:	The initiatives under this measure are expected to support the continued investment of the State in start-ups and early-stage businesses, with a focus on innovative digital businesses.

Measure 8 - Finance for Scaling Group

New measure	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> no
Short description of the measure: Finance for Scaling Group	<p>Content of the measure: In 2022 the Finance for Growth Policy Unit established a Working Group of key State stakeholders from Enterprise Ireland, Ireland Strategic Investment Fund, Strategic Banking Corporation of Ireland and the Dept. Finance to examine the issue of finance for scaling (a scale up is a business that has a business model with potential for exceptional global growth).</p> <p>The Group is currently finalizing a report recommending future policies aimed at increasing scale-up activity in the Irish equity ecosystem by improving access to appropriate finance.</p> <p>Link to the target: This report will provide recommendations for future policies aimed at increasing scale-up activity in the Irish equity ecosystem. This will in turn support the continued investment of the State in start-ups and early-stage businesses, with a focus on innovative digital businesses.</p> <p>Tentative timeline: The review is expected by year end 2023, and additional funds are expected to be in place within 18 months.</p>
Budget allocated or planned:	N/A at this time.
Expected impact and related timing:	The initiatives under this measure are expected to support the continued investment of the State in start-ups and early-stage businesses, with a focus on innovative digital businesses.

Measure 9 - Irish Innovation Seed Fund Programme

<p>New measure</p>	<p><input type="checkbox"/> yes</p> <p><input checked="" type="checkbox"/> no</p>
<p>Short description of the measure: Irish Innovation Seed Fund Programme</p>	<p><i>Content of the measure:</i></p> <p>The Irish Innovation Seed Fund Programme is a €90 million fund-of-funds, made up of a €30m investment from DETE, through Enterprise Ireland, which is matched by a €30m investment from the EIF, and a €30m co-investment from ISIF.</p> <p>As a fund-of-funds, the programme will invest in other specialist fund managers who will target high growth innovative companies based on disruptive intellectual property, who are at the early stages of external funding for innovative, high growth, scalable sectors. This initiative is expected to crowd in significant private investment.</p> <p>So far, funding under this initiative has been allocated to Wake Up Capital (€35 million) and Resolve Ventures (€20 million).</p> <p><i>Link to the target:</i> This programme will support the continued investment of the State in start-ups and early-stage businesses, with a focus on innovative digital businesses.</p> <p><i>Tentative timeline:</i> A third allocation of funding is expected to be announced in Q1 2024</p>
<p>Budget allocated or planned:</p>	<p>€90 million has been allocated to this fund-of-funds.</p>
<p>Expected impact and related timing:</p>	<p>The initiatives under this measure are expected to support the continued investment of the State in start-ups and early-stage businesses, with a focus on innovative digital businesses.</p>

Measure 10 - Evaluation of State Supports for Equity Investments in Ireland

<p>New measure</p>	<p><input type="checkbox"/> yes</p> <p><input checked="" type="checkbox"/> no</p>
<p>Short description of the measure: Evaluation of State Supports for Equity Investments in Ireland</p>	<p><i>Content of the measure:</i> The current €175 million multi-annual Seed and Venture Capital Scheme expires in 2024. The Finance for Growth Policy Unit has commissioned SQW, an independent research provider, to conduct external review of State equity finance programmes and initiatives, including the SVC programme, to inform future policy in this area.</p> <p>The review process will conclude before the end of the year. The final report will include logic models, a theory of change, econometric analysis, identification of market failures, benchmarking the Irish approach against comparable countries and assessing the effectiveness of the current approach versus alternatives. This analysis will be used to guide potential future interventions or programmes.</p> <p>A steering group of relevant actors in this field has been appointed to direct, support and guide the consultancy firm in their work by providing their expertise, experience and knowledge of the Irish equity ecosystem. The final meeting of this group took place in November 2023 and a report is due to be brought before the Department of Enterprise, Trade and Employments' Management Board.</p> <p><i>Link to the target:</i> The review is expected to make recommendations for future funding of innovative start-ups and potential unicorns, in addition to the existing Seed and Venture Capital Scheme and Irish Innovation Seed Fund Programme. This will support the continued investment of the State in start-ups and early-stage businesses, with a focus on innovative digital businesses.</p> <p><i>Tentative timeline:</i> Q4 of 2023.</p>
<p>Budget allocated or planned:</p>	<p>N/A at this time.</p>
<p>Expected impact and related timing:</p>	<p>The initiatives under this measure are expected to support the continued investment of the State in start-ups and early-stage businesses, with a focus on innovative digital businesses.</p>

3.9.8 DIGITAL PUBLIC SERVICES

3.9.8.1 Key Public Services

Measure 1 – Implement a Life Events Portal to enable inclusive, accessible, literacy-friendly services for citizens

<p>New measure</p>	<p><input type="checkbox"/> yes</p> <p><input checked="" type="checkbox"/> no</p>
<p>Short description of the measure: Implement a Life Events Portal to enable inclusive, accessible, literacy-friendly services for citizens</p>	<p><i>Content of the measure:</i></p> <p>The availability of a Life Events Service recognises that no one should struggle to find government services or go through undue administrative effort relating to a life event, such as registering a birth or death, starting a new business or returning to Ireland.</p> <p>In order to address this challenge, the Life Events programme is moving to a key stage in 2023. The aim is to enhance the gov.ie portal to support user-focused transactions by guiding individuals through important phases in their lives, or that of their business, in logical ways to reduce the administrative burden on individuals, demystify the process and eliminate repetitive interactions with multiple agencies.</p> <p>As part of the preparation for this initiative, a number of prototypes were developed for digital birth certificates and digital driving licenses. This programme of work is being led by both the Public Service Transformation and Office of the Government CIO, both divisions of the Department of Public Expenditure NDP Delivery and Reform (DPENDR) in partnership with a range of public service bodies.</p> <p><i>Link to the target:</i></p> <p>The Life Events programme will make a significant contribution to the target of 100% online provision of key public services available for European citizens and businesses and access to secure eID, as well as achieving the aims of the EU Single Digital Gateway. Furthermore, in Ireland's case, this initiative will also work towards achieving the aim 90% of applicable services will be consumed online by 2030.</p> <p><i>Tentative timeline:</i></p> <p>The first iteration of the Life Events Portal is planned for 2024. The programme will build onwards from there over the following period and will address areas such as transport; starting a small claims procedure; family; career; and studying.</p>
<p>Budget allocated or planned:</p>	<p>Initial allocation circa €3m for the first iteration of the life events. Future budget allocation will be made available as part of the annual Estimates cycle to enable delivery of the full programme.</p>
<p>Expected impact and related timing:</p>	<p>Early impacts are anticipated from mid-2024 when the first life events are launched. These will benefit individual members of the public and drive further adoption of eID, contributing to overall targets for digital public services for citizens.</p>

Measure 2 - Progress Ireland's Digital Inclusion Roadmap ensuring no one is left behind in our digital society

<p>New measure</p>	<p><input checked="" type="checkbox"/> yes</p> <p><input type="checkbox"/> no</p>
<p>Short description of the measure:</p> <p>Progress Ireland's Digital Inclusion Roadmap ensuring no one is left behind in our digital society</p>	<p><i>Content of the measure:</i></p> <p>The Government is committed to ensuring that no one is left behind as the country works towards its national, and EU Digital Decade 2030 targets. There are many initiatives and supports being progressed that will directly contribute to improving accessibility and reducing digital divides at national, local and community level right across the country.</p> <p><i>Digital for Good: Ireland's Digital Inclusion Roadmap</i> illustrates how Government continues to empower and support everyone to use digital services in a meaningful way. Much work is progressing across government to achieve digital inclusion through better skills, access and infrastructure, and this Roadmap brings together this work in a coherent manner and sets out key supplementary measures.</p> <p>The goal of the roadmap is that everyone should have the opportunity to use digital services, including digital public services, in a meaningful way.</p> <p>The Digital Inclusion Roadmap will ensure that those who are willing to do so will be able to benefit from digital public services for citizens and businesses. This initiative will also enable Government to put in place new methods of engagement with and supports for those who may need additional assistance or cannot access digital public services.</p> <p><i>Link to the target:</i></p> <p>This Roadmap will contribute to achieving the target of 100% online provision of key public services available for European citizens and businesses. Furthermore, in Ireland's case, this initiative will also work towards achieving the aim 90% of applicable services will be consumed online by 2030.</p> <p><i>Tentative timeline:</i></p> <p>The Digital Inclusion Roadmap brings together a range of initiatives already identified, many of which are underway. Timeline for any new measures identified begin in 2023 and continue through 2024 and beyond.</p>
<p>Budget allocated or planned:</p>	<p>Part of allocations to relevant government organisations and not identifiable specifically.</p>

<p>Expected impact and related timing:</p>	<p>Empowerment of individuals is vital for sustained digital engagement and broader inclusion. The Digital Inclusion Roadmap sets out Government's approach to addressing key barriers to digital inclusion, including access, affordability and ability, thereby leaving no one behind. In doing so, Government's aim is to make the digital transition a positive one for those who can engage digitally and to provide support or an alternative for those who cannot. Furthermore, at a national level, this will serve to ensure Ireland maximises the benefits and opportunities of the digital economy for all.</p> <p>Impacts are already being achieved with the implementation of associated strategies and funding programmes.</p>
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Measure 3: MyGovID adoption – uptake of verified MyGovID accounts by citizens

<p>New measure</p>	<p><input type="checkbox"/> yes <input checked="" type="checkbox"/> no</p>
<p>Short description of the measure:</p> <p>MyGovID adoption – uptake of verified MyGovID accounts by citizens</p>	<p><i>Content of the measure:</i></p> <p>The MyGovID digital identity service, a joint initiative by the Department of Public Expenditure and Reform and the Department of Social Protection, aims to provide individuals with a safe and secure access to digital public services in Ireland. It is designed to facilitate a more joined-up Government approach, with more sharing, more reuse and more integration between public bodies. It provides access to a range of public services including Revenue, student grant, national childcare scheme, registering a decision-support arrangement, social welfare services, applying/renewing a passport, registering to vote, apply for/renew a driving licence/learner permit and access to the government's digital post box service (uses include teacher payslips).</p> <p>MyGovID at close to 2.2 million verified accounts to Q3 2023, representing over 50% of the adult population, reflects very significant increase in uptake over the past two years.</p> <p>OGCIO continues to take the lead to promote adoption of MyGovID both in terms of the services and the numbers of citizens using it. These efforts will continue through the coming years to continue to drive up adoption to where all applicable services use the eID for authentication. Furthermore, the introduction of the life events portal and the redesign and improvement of digital government services is expected to further increase the numbers of people with verified MyGovID accounts.</p> <p><i>Link to the target:</i></p> <p>The MyGovID programme will make a significant contribution to the 100% targets for both applicable services and eID and achieving the aims of the EU Single Digital Gateway. Furthermore,</p>

	<p>this initiative will also work towards achieving the aim of 90% of applicable services will be consumed online by 2030.</p> <p><i>Tentative timeline:</i></p> <p>The service is currently available. Promotion of its use remains an on-going activity.</p>
Budget allocated or planned:	Resources involved and required are generally staff resources in the relevant public bodies in particular the Department of Social Protection and the Office of the Government CIO, DPENDR.
Expected impact and related timing:	The use of the MyGovID service is already positively received by the public, as is evidenced in the high level of take up. During 2020/2021 Ireland was one of the fastest growing countries in terms of eID actively using digital public services.

Measure 4 - MyGovID adoption – % of Public Services that accept MyGovID

New measure	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Short description of the measure: MyGovID adoption – % of Public Services that accept MyGovID	<p><i>Content of the measure:</i></p> <p>The MyGovID digital identity service, a joint initiative by the Department of Public Expenditure and Reform and the Department of Social Protection, aims to provide individuals with a safe and secure access to digital public services in Ireland. It is designed to facilitate a more joined-up Government approach, with more sharing, more reuse and more integration between public bodies. It is the only authentication approach approved for accessing digital government services; adherence to this policy is overseen by the Office of the Government CIO (OGCIO), DPENDR.</p> <p>MyGovID can already be used across a wide range of services, and this number is increasing steadily for new/enhanced digital public services. Services which use MyGovID include Revenue, student grant, national childcare scheme, registering a decision-support arrangement, social welfare services, applying/renewing a passport, registering to vote, apply for/renew a driving licence/learner permit and access to the government's digital postbox service.</p> <p>Adoption of MyGovID for all new and redesigned digital public services is mandatory and a condition of the oversight approval by the Office of the Government CIO for any such initiatives.</p> <p><i>Link to the target:</i></p> <p>Adoption of the national eID directly contributes to the target as well as the 100% target for applicable services. The introduction of the life events portal and the redesign and improvement of</p>

	<p>digital government services is increasing the numbers of services that accept MyGovID for authentication purposes. Adoption of MyGovID for all new and redesigned digital public services is mandatory and a condition of the oversight approval by the Office of the Government CIO for any such initiatives.</p> <p><i>Tentative timeline:</i></p> <p>Already underway and work will continue through the coming years.</p>
Budget allocated or planned:	Resources involved and required are generally staff resources in the relevant public bodies in particular the Department of Social Protection and the Office of the Government CIO, DPENDR.
Expected impact and related timing:	The use of the MyGovID service is already positively received by the public, as is evidenced in the high level of take up. During 2020/2021 Ireland was one of the fastest growing countries in terms of eID actively using digital public services.

Measure 5 - Ensure all data sharing, across government, is underpinned by appropriate legislation, e.g., the Data Sharing and Governance Act

New measure	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
<p>Short description of the measure:</p> <p>Ensure all data sharing, across government, is underpinned by appropriate legislation, e.g., the Data Sharing and Governance Act</p>	<p><i>Content of the measure:</i></p> <p>The Government wants to improve how data is governed and managed and the Data Sharing and Governance Act 2019 allows data to be re-used in a secure, efficient and transparent way. This benefits citizens, businesses and policy makers in government by facilitating a more consistent approach to data sharing. It will allow us to deliver integrated digital services for citizens and businesses, enabling transparency and building trust in the use of digital public services.</p> <p>Data sharing in general is a de facto part of the Public Service; with a vast range of organisations in its total make up it is essential in order to provide everyday services to citizens. The Data Sharing and Governance Act 2019 (the Act); enacted on 4 March 2019, gives further effect to the General Data Protection Regulation 2018 (GDPR) and Data Protection Act 2018. It specifically clarifies the rules and exceptions of sharing citizen's personal data between public bodies and gives surety and legality to those bodies wishing to begin disclosing or receiving data.</p> <p>In driving further digital transformation of public services, existing legislation will be reviewed and updated to enable delivery of a more joined-up Government approach, with more sharing, more</p>

	<p>reuse and more integration between public bodies and potentially with other sectors.</p> <p><i>Link to the target:</i></p> <p>This links directly to the target by enabling online delivery of applicable public services.</p> <p><i>Tentative timeline:</i></p> <p>Underway with some legislation already enacted and others under review.</p>
Budget allocated or planned:	N/A at this time.
Expected impact and related timing:	Transparency and building trust are critical to the use of digital public services by citizens and businesses. Ireland's approach to data sharing and governance is recognised as an exemplar in this space. Progress will be on-going with evidence of impact seen in the uptake of digital public services and eID.

Measure 6 - Continue to consult and communicate with citizens on how they can benefit by using digital public services

New measure	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Short description of the measure: Continue to consult and communicate with citizens on how they can benefit by using digital public services	<p><i>Content of the measure:</i></p> <p>Rather than making assumptions about the experiences and preferences of those using public services, the consultation will help government better understand, from individual users, their wants and preferences for digital public services. The views gathered as part of the public consultation will be important in helping government achieve the targets for the Digital Decade.</p> <p>This approach to understanding the needs, expectations and experiences of public service users shows that Ireland is leading the way in fully complying with the OECD's Good Practice Principles for Public Service Design and Delivery in the Digital Age. This also aligns with the Designing Our Public Services initiative.</p> <p>In 2022, Government conducted a consultation that asked the public how they want their digital public services to be enhanced or re-configured to provide a better user experience. The results of this are already helping to identify the public's priorities for enhancing existing services or new services they want to see. This includes identifying priorities for inclusion in the Life Events programme. It will also be important to follow a similar approach so that we can also better understand the public's views on non-digital and assisted digital channels.</p> <p>We will continue to gather views from the public on all service channels and use that feedback to improve and enhance digital</p>

	<p>public services to meet the targets in the Digital Decade. It will also be important to follow a similar approach so that we can also better understand the public's views on non-digital and assisted digital channels.</p> <p><i>Link to the target:</i></p> <p>This links directly to the target as it will serve to drive up the demand for and use of digital public services by citizens and businesses.</p> <p><i>Tentative timeline:</i></p> <p>This programme is already underway as the outcome of the 2022 consultations are identified and acted upon. Planning additional such activities will begin in 20203.</p>
Budget allocated or planned:	n/a at this time
Expected impact and related timing:	Communications with citizens and businesses will continue throughout the coming years. Specific consultation activities will align with the introduction of new services and as part of the inputs to planning future phases of programmes such as Life Events.

Measure 7 - Implement a MyData portal for citizens

New measure	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Short description of the measure: Implementation of a MyData portal for citizens	<p><i>Content of the measure:</i></p> <p>Transparency is key to building trust with our service users. People must be confident in the knowledge that they can find out what personal data Government holds, which Public Service Bodies use that data and for what reason, who accessed that data and when it was accessed. To help achieve openness and transparency with respect to data management, we intend to develop a Personal Data Portal, accessible through the national eID.</p> <p>Today's citizens expect seamless digital solutions from all service providers including Government, and demand a high level of transparency and openness, ensuring their privacy is respected. People must be confident in the knowledge that they can find out what personal data Government holds, which PSBs use that data and for what reason, who accessed that data and when it was accessed. To help achieve openness and transparency with respect to data management, we will develop a Personal Data Portal, accessible through MyGovID, which will:</p> <p>Enable people to see what personal data Government holds on them, which PSBs use that data and for what reason</p>

	<ul style="list-style-type: none"> • Allow people to see how their data is and has been processed • Facilitate the exercise of the rights of the individual under the GDPR • Help Public Service Bodies meet their Data Protection obligations. <p>This programme will run over a number of years with the initial phase being to implement the key building blocks for this service which will be accessed using the MyGovID eID service.</p> <p><i>Link to the target:</i></p> <p>This programme links directly to the targets for applicable services available online and access to secure eID.</p> <p><i>Tentative timeline:</i></p> <p>Early stage implementation is expected to begin in 2025.</p>
Budget allocated or planned:	N/A at this time.
Expected impact and related timing:	Impacts of this programme will be expected to emerge from 2025 onwards. The programme is a key part of build trust of citizens in digital public services through enabling them to understand what data government holds on them and who accesses this data.

Measure 8 - Development of a Shared Government Data Centre

New measure	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Short description of the measure: Development of a Shared Government Data Centre	<p><i>Content of the measure:</i></p> <p>The Office of the Government's Chief Information Officer (OGCIO), a division of the Department of Public Expenditure NDP Delivery and Reform (DPENDR), is leading the initiative to build a Shared Government Data Centre and working with The Office of Public Works (OPW) as the lead for the building programme itself.</p> <p>The objective of the Government Data Centre is to deliver high-quality Data Centre facilities which are fit for purpose and are capable of meeting the Government's requirements now and in the future. Many of the premises currently hosting Data Centre infrastructure are sub-optimal in terms of location and operational resilience. In view of the increasing importance of robust and secure data storage arrangements to Public Service organisations, the project promoters have identified a requirement for prompt action to establish and operationalise the proposed new Government Data Centre, in order to address the current 'burning</p>

	<p>platform’ which exists in relation to the provision of Data Centre facilities.</p> <p>The Government data Centre will provide the foundation and platform on which our digital and data reforms and transformations will be built. Whilst not directly within the scope of the RRP proposal the reforms the data centre will enable include:</p> <ul style="list-style-type: none"> • Digital – the Civil Service Renewal 2030 Strategy aims for the delivery of 95% of Government Services online; • Digital – The Government Data Strategy commits to implementing the “once only” principle and provide a better citizen experience by not requesting information it already possesses and using said information to be more proactive in meeting the needs of its people and businesses. • Environmental - the Programme for Government commits to achieving a 51% reduction in total green-house gas emissions by 2030. ICT is a significant contributor to power usage and therefore green-house gases. Government needs to make its own contribution in this area but also to be seen as an exemplar to both private sector and globally. • People – through use of ICT to create more interesting jobs and ensure our people are adequately trained to perform to their best in these new roles. <p><i>Link to the target:</i></p> <p>Digital delivery of key government service online. Achieve a seamless user experience and inclusive service delivery.</p> <p><i>Tentative timeline:</i></p> <p>Construction of the Data Centre began in March 2023. It is expected that the construction will be complete by end Q2 2025.</p>
<p>Budget allocated or planned:</p>	<p>National approx. EUR 40 million</p> <p>EU NRRP approx. EUR 40 million</p>
<p>Expected impact and related timing:</p>	<ul style="list-style-type: none"> • In 2022, OPW carried out procurement processes for a construction company and necessary components. • In 2023, the construction of the facility began in March 2023. • By the end of Q1 2025, the construction of the facility will be completed, and the internal rack and communication fit out will begin.

Measure 9 - Better Public Services 2030 – the public service transformation strategy

<p>New measure</p>	<p><input type="checkbox"/> yes</p> <p><input checked="" type="checkbox"/> no</p>
<p>Short description of the measure:</p> <p>Better Public Services 2030 – the public service transformation strategy</p>	<p><i>Content of the measure:</i></p> <p>The ambition of Better <i>Public Services</i> is to collaboratively deliver impactful outcomes for our public through implementing the Public Service Transformation Framework and the success of the strategy will be measured on the outcomes which it achieves to 2030. The strategy is designed to provide a direction for reform that will help the Public Service to identify and prioritise actions for Public Service Transformation. It will also support each sector of the Public Service to achieve its own sectoral level reform programmes.</p> <p>The objective of <i>Better Public Services</i> is inclusive, high quality and integrated Public Service. The aim is provision that meets the needs and improves the lives of the people of Ireland. The strategy will enable and scale user centric transformation across the Public Service using a set of design principles. The use of <i>Design Principles in Government</i> principles will be a key tool to support the Public Service to work collaboratively across organisational boundaries and silos; understand user-insights; and develop better public services and policies; and deliver tangible outcomes for users. This approach will underpin the development of the Life Events portal and associated digital transformation projects across the public service.</p> <p><i>Link to the target:</i></p> <p>This links directly with the target as it will drive implementation of human-centred, seamless and integrated applicable digital public services which citizens and business will choose to embrace over other channels of delivery.</p> <p><i>Tentative timeline:</i></p> <p>Implementation of the strategy is already underway, in particular as part of the design of the Life Events portal, and will continue over the coming years and enable and deliver digital public services at scale.</p>
<p>Budget allocated or planned:</p>	<p>N/A at this time.</p> <p>This strategy is being led by the Public Service Transformation Division of the Department of Public Expenditure NDP Delivery and Reform with supporting governance structures involving all sectors of the public service.</p>
<p>Expected impact and related timing:</p>	<p>Impacts will be seen as the outputs from the various work streams in the strategy are made available to the public. These</p>

	will benefit citizens and businesses in the use of digital public services.
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Measure 10 - Provision of an Online Response Option for the Census of Population as part of Census 2026

New measure	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Short description of the measure: Provision of an Online Response Option for the Census of Population as part of Census 2026 which could also be used for other CSO and Government surveys	<p><i>Content of the measure:</i></p> <p>The main objective of this project is to develop a platform by 2026 that will be used for the first online Census of Population in the State in 2027. A Census of Population is the only operation that gives a comprehensive picture of the social and living conditions of our people. It provides policy makers with invaluable information down to a small area level.</p> <p>The platform will be developed by the Central Statistics Office and will enable citizens to complete their census returns online. The platform will have reuse potential across other areas of data collection, and the wider public sector, and will facilitate an increase in digital data collection enabling the provision of more timely, relevant and better quality data to inform policy making.</p> <p><i>Link to the target:</i></p> <p>Digital delivery of key government service online. Achieve a seamless user experience and inclusive service delivery.</p> <p><i>Tentative timeline:</i></p> <ul style="list-style-type: none"> • In 2022, CSO ran a feasibility test of an online response platform for census • In 2024, A dress rehearsal will test online data collection on a sample of citizens • In 2026, the full online data collection system will be launched and tested • In 2027, the live Census will take place
Budget allocated or planned:	National (planned): circa EUR 100 million EU (planned): circa EUR 10 million
Expected impact and related timing:	Digital delivery of key government service online. Achieve a seamless user experience and inclusive service delivery. Reuse for future surveys.

3.9.8.2 E-Health

Measure 1 – ePharmacy (digital prescriptions)

New measure	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Short description of the measure: ePharmacy (digital prescriptions)	<p><i>Content of the measure:</i></p> <p>The national ePharmacy programme is established. Hospital pharmacy systems are already being replaced with the first sites completed in Galway in 2023. When complete, all public hospitals will have a new pharmacy system operational. The community ePrescription project is well established. It is clinically led and preparing to go to market in 2024. Finally, a national medicinal product catalogues to support the wider ePharmacy programme is currently being developed.</p> <p><i>Link to the target:</i></p> <p>This measure will contribute to the EU Target of 100% of citizens having access to their medical records online.</p> <p><i>Tentative timeline:</i></p> <p>2026</p>
Budget allocated or planned:	€2.9 million of public funding is allocated for delivery of the ePharmacy programme in 2024.
Expected impact and related timing:	N/A

Measure 2 – Roll-out of national individual health identifier

eHealth New measure	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Short description of the measure: Roll-out of national individual health identifier	<p><i>Content of the measure:</i></p> <p>A programme is underway to deploy individual health identifiers (IHI's) in accordance with the Health Identifiers Act. IHIs were deployed to GP practice systems and hospital patient administration systems in 2023 and will continue to be deployed to other core health systems in 2024.</p> <p><i>Link to the target:</i></p> <p>This measure will contribute to the EU Target of 100% of citizens having access to their medical records online.</p> <p><i>Tentative timeline:</i></p> <p>2026</p>

Budget allocated or planned:	€1.4 million of public funding is allocated for delivery of the IHI programme and solutions that enable patients and staff to securely identify themselves digitally in 2024
Expected impact and related timing:	N/A

Measure 3 – EHR deployment in the National Children's Hospital

New measure	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Short description of the measure: EHR deployment in the National Children's Hospital	<p><i>Content of the measure:</i></p> <p>An EHR system has been procured in the National Children's Hospital following Government approval in July 2022. The vendor is now on board and the programme is fully mobilised. The EHR system will be configured and tested in 2024 in preparation for the commissioning the new hospital.</p> <p><i>Link to the target:</i></p> <p>This measure will contribute to the EU Target of 100% of citizens having access to their medical records online.</p> <p><i>Tentative timeline:</i></p> <p>2026</p>
Budget allocated or planned:	€15 million of public funding is allocated for delivery of the EHR system at Children's Hospital Ireland in 2024.
Expected impact and related timing:	N/A

Measure 4 – Digital Health and Social Care Framework (2024-2030), forthcoming

New measure	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Short description of the measure: Digital Health and Social Care Framework (2024-2030), forthcoming	<p><i>Content of the measure:</i></p> <p>The framework will provide strategic direction for investment in digital health across the publicly funded Irish health system from now until the end of the decade. This framework includes all other initiatives listed individually in this section 3. For instance, it includes investment in infrastructure, electronic health records and the patient app.</p> <p><i>Link to the target:</i></p> <p>This measure will contribute to the EU Target of 100% of citizens having access to their medical records online.</p>

	<i>Tentative timeline:</i> 2030
Budget allocated or planned:	The total amount public funding /ICT capital allocation for 2024 (including other projects and programmes listed in this section) is €155 million in 2024
Expected impact and related timing:	N/A It is expected that this framework will provide strategic direction for investment in digital health across the publicly funded Irish health system.

Measure 5 – Health Information Bill, forthcoming

New measure	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Short description of the measure: Health Information Bill <i>forthcoming</i>	<i>Content of the measure:</i> The development of a Health Information Bill is well advanced, and the General Scheme was brought to the Government in December 2022. This will provide for the establishment of clearer guidelines for sharing of health information across the Irish health system, provide a clearer legal basis for the establishment of important digital health assets such as national and regional electronic health records and is an important enabler for Ireland to meet its obligations under the forthcoming EU European Health Data Space Directive. <i>Link to the target:</i> This measure will contribute to the EU Target of 100% of citizens having access to their medical records online. <i>Tentative timeline:</i> 2024
Budget allocated or planned:	No capital allocation is required for 2024 although additional staffing is required and committed by the Department of Health.
Expected impact and related timing:	The bill will ensure that Ireland has a fit for purpose national health information system, including by providing for a National Health Information Guardian (a standards-based approach to health information) and a National Health Information Authority.

Measure 6 – Cross-border project on ePrescription and summary care records

New measure	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Short description of the measure: Cross-border project on ePrescription and summary care records	<p><i>Content of the measure:</i></p> <p>As an EU Member States, Ireland is actively engaged in the EU eHealth Network programme to deliver summary care records and e-prescription for cross-border use. In 2023 Ireland participated in all test cycles and will continue to develop these capabilities in 2024.</p> <p><i>Link to the target:</i></p> <p>This measure will contribute to the EU Target of 100% of citizens having access to their medical records online.</p> <p><i>Tentative timeline:</i></p> <p>2026</p>
Budget allocated or planned:	Budget for this work is covered within the overall ICT capital allocation for 2024 and grant funding provided through the EU
Expected impact and related timing:	It is expected that this measure will deliver summary care records and e-prescription for cross-border use.

3.9.8.3 Digital Identity

Measure 1 – Deployment of the digital wallet*

New measure	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Short description of the measure: Initial Proof of concept of the Digital Wallet	<p><i>Content of the measure:</i></p> <p>Initial proof of concept of the Digital Wallet with credentials will go live in Q1 2024 with 50 volunteers</p> <p><i>Link to the target:</i></p> <p>This is a key first step towards deployment of the digital wallet (MyID)</p> <p><i>Tentative timeline:</i></p> <p>Proof of Concept will be live in Q1 2024 and will be extended across the public service and public thereafter</p>
Budget allocated or planned:	National (planned): N/A EU (planned): N/A
Expected impact and related timing:	Digital delivery of key government service online. Achieve a seamless user experience and inclusive service delivery.

*A number of the measures described under Key Public Services (Section 3.9.8.1) will also contribute to the achievement of the Digital Identity objective.

4 Section 4: Policies, measures & actions to contribute to the general objectives

	<i>General objectives</i>	<i>Examples of areas of possible contributions from Member States</i>
		<p>As detailed in the preceding sections, Ireland’s National Digital Strategy, <i>Harnessing Digital</i>, was developed to align with the Digital Decade Programme, and European Declaration on Digital Rights and Principles for the Digital Decade. To that end, it sets out a roadmap to drive the digitalisation of enterprise and public services, enabled by digital skills and infrastructure, underpinned by coherent regulatory and governance frameworks, and re-enforcing our climate ambitions.</p> <p>Across all of these areas, is a focus on ensuring people remain at the centre of our digital transition, with a focus on safety, security, and inclusion throughout. This includes the ongoing provision of digital skills, training and literacy supports, including at community level, as well as our significant connectivity initiatives, to ensure all cohorts (including across rural divides) can engage with and benefit from digital opportunities. Our recently published national digital inclusion roadmap reflects our commitment to ensure no cohort is left behind in the digital age, and significant work is also ongoing in the area of online safety, disinformation and misinformation and harmful online content. Further detail on these initiatives, as relevant to digital citizenship, fostering leadership and sovereignty, and contributing to the green transition is set out below.</p>
Digital citizenship	Please refer to the objectives mentioned under Article 3(1) (a), (b), and (g)	<p><i>Please describe briefly the key actions, policies and measures that help achieve the respective objectives</i></p> <p><u>Online Safety and Media Regulation Act 2022</u></p> <p>The Online Safety and Media Regulation (OSMR) Act 2022, which was commenced on 15 March 2023, amended the Broadcasting Act, 2009 and provided for:</p> <ul style="list-style-type: none"> • Establishment of a multi-person Media Commission (to be known as Coimisiún na Meán), • Dissolution of the Broadcasting Authority of Ireland, • Establishment a regulatory framework for online safety, • Updates to the regulation of television broadcasting and video on-demand services, and, • Partial transposition the revised EU’s revised Audiovisual Media Service Directive (AVMSD).

		<p>As part of separate legislation, An Coimisiún will also be designated as the Digital Services Coordinator for the purposes of overseeing the implementation of the Digital Services Act, which will lead to the assignment of further powers and functions.</p> <p>In addition to a lengthy period of pre-legislative scrutiny, the Act underwent intense scrutiny in both Houses of the Oireachtas, including 30 hours in the Seanad and around 10 hours in the Dáil. The Act was signed into law on 10 December 2022 and commenced on 15 March 2023. The Executive Chairperson and Commissioners within An Coimisiún were appointed on an administrative basis with effect from 13 February 2023, in advance of the formal establishment of the new regulator.</p> <p>The Act empowers An Coimisiún to develop and apply online safety codes which hold designated online services to account in relation to how they tackle the availability of defined categories of harmful online content. These categories include content linked to 42 existing criminal offences, such as child abuse material, hate speech, terrorism and harassment offences, as well as non-offence specific categories, including serious cyber-bullying, or material which is likely to encourage or promote eating disorders, self-harm or suicide. Crucially, the non-offence specific categories will be subject to there being a risk of significant harm to a person's physical or mental health.</p> <p>On 20 June 2023, An Coimisiún published its first work programme, which runs until February 2024, when the Digital Services Act is fully applied. This work programme envisages comprehensive stakeholder consultation before the adoption of the first online safety code, and its application to video-sharing platform services, before the end of the year.</p> <p>The OSMR Act provides Coimisiún na Meán with robust compliance and enforcement powers, including the power to appoint authorised officers to conduct investigations of suspected non-compliance with an online safety code. It may also require the provision of information related to such compliance and where there is a decision by An Coimisiún that there has been non-compliance, it may seek an appropriate sanction, including through financial penalties of up to €20m or 10% of annual turnover, whichever is higher.</p> <p>An Coimisiún also has a role in carrying out educational initiatives such as public information campaigns and will work with existing educational bodies such as the Department of Education, Webwise.ie, and the National Council for Curriculum and Assessment in this regard. In addition, An Coimisiún may endorse third party providers of online safety educational materials and assist schools in sourcing appropriate and robust online safety materials.</p>
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	<p><u>Disinformation</u></p> <p>Disinformation is a significant and complex issue and requires a distinct and targeted response. At a national level, Ireland has utilised a range of approaches designed to combat disinformation. Education plays such an important role for people to recognise false material and help to prevent its dissemination. Existing media literacy initiatives have supported digital literacy among Irish citizens and are a key tool in Ireland’s response to disinformation.</p> <p>Ireland has also established a working group to develop a National Counter Disinformation Strategy. The working group, which is operating with a view to publishing the strategy in early 2024, comprises representatives from industry, academia, civil society and Government Departments, and is independently chaired by Martina Chapman, the national coordinator for Media Literacy Ireland.</p> <p>The new strategy, the development of which was recommended by the Future of Media Commission in order to combat disinformation, will be informed by Ireland’s existing media literacy initiatives, legislation such as the OSMR Act 2022, and European regulatory measures such as the Digital Services Act. In particular, a new strategy that coordinates the approach to disinformation would be a useful tool in preserving interactivity and connectivity between existing measures, upcoming legislation and future policy developments.</p> <p>In terms of bridging digital divides, and ensuring online participation is accessible for all, a key priority for the Department of Rural and Community Development (DRCD) is to develop an online portal for the Programme Information Management system (PIMS) for funds, schemes and programmes managed by DRCD. This is Phase 1 of a long-term Digital Transformation process for DRCD outlined in DRCDs ICT vision “to deliver a more customer-driven innovative service by harnessing the latest and most appropriate digital technology to address the requirements and needs of our internal and external stakeholders’ country wide.” The development of the system proposed is a key enabler to support this vision. The Department’s key project objective is to develop a system that is easy to use, customised, flexible and scalable for DRCD’s current and future needs. Other initiatives include digital accessibility for harder to reach groups, access to information and connectedness, assisted through, for example, the Social Inclusion and Community Activation Programme, through Dormant Accounts Funding, through Libraries digital supports etc.; would be a key enabler in increasing digital literacy and access to online services & supports.</p> <p>Connectivity</p> <p>Ireland’s Digital Connectivity Strategy will arm different sectors with the connectivity needed to fully exploit the digital opportunities in their</p>
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		<p>respective areas and aligns with the EU’s Digital Decade. It sets out three main goals for digital connectivity:</p> <ul style="list-style-type: none"> • All Irish households and businesses to be covered by a Gigabit network no later than 2028 • All populated areas covered by 5G by no later than 2030 • Complete the delivery of digital connectivity to all Broadband Connection Points and all Schools by 2023 • All operators of essential services, Government Departments and key agencies verified to have implemented robust cyber security mitigation measures by 2024 <p>In concert with the Digital Connectivity Strategy, Ireland’s digital strategy, <i>Harnessing Digital – The Digital Ireland Framework</i>, aims to drive and enable increased uptake of digital technologies across all sectors of the economy and society. <i>Harnessing Digital</i> focusses on the digital transformation of business; skills; and digitalisation of public services.</p>
<p>Fostering leadership and sovereignty</p>	<p>Please refer to the objectives mentioned under Article 3(1) letters (c), (d), (e), (f), (i) and (k)</p>	<p>As detailed in sections above, in addition to progress achieved in the areas of digital infrastructure, skills and public services under <i>Harnessing Digital</i>, and related strategies, ongoing work includes supporting businesses across the enterprise base to digitalise, including SMEs and start-ups, with a particular focus on AI, Big Data and Cloud, as well as significant progress establishing Ireland’s Digital Innovation Hubs.</p> <p>Work is ongoing to continue strengthening Ireland’s cyber security capacities, including a recent Mid-Term Review of our National Cyber Security Strategy which includes the continued development of the National Cyber Security Centre (NCSC), through facilities with state-of-the-art connectivity and security, additional staff and enhanced capabilities, and strengthening the NCSC’s legislative footing. In addition, <i>Harnessing Digital</i> includes a target whereby all operators of essential services, Government Departments and key agencies are verified to have implemented robust cyber security mitigation measures by 2024.</p> <p>In addition, <i>Harnessing Digital</i> re-enforces the Government’s commitment to a modern, cohesive, well-resourced digital regulatory framework, recognising Ireland’s important role in this area. Significant progress has been made with our new media commission, Coimisiún na Méan, formally established in March 2023. The Government designated Coimisiún na Méan as Ireland’s Digital Services Coordinator (DSC), under the Digital Services Act, and work is ongoing to ensure the DSC is fully functioning, and operating effectively as quickly as possible, with a Digital Services Commissioner recently appointed and related legislation being progressed as a priority.</p>

<p>Contributing to the green transition</p>	<p>Please refer to the objectives mentioned under Article 3(1)(h) and (j).</p>	<p>Under the Programme for Government, Ireland has committed to reducing emissions by 51% across all sectors of the economy by 2030 and to become net zero by 2050. These commitments are enshrined in law under the Climate Action and Low Carbon Development (Amendment) Act 2021.</p> <p>Accordingly, all sectors of the economy must remain within defined five-year Carbon Budgets which align with our climate ambitions outlined above.</p> <p>The Sectoral Emissions Ceiling (SECs) prescribe how the Carbon Budgets are divided among different sectors of the economy. Annual Climate Action Plans thereafter outline the actions and measures which need to be taken across sectors to enable Ireland to deliver on its emission reduction targets.</p> <p>Central to achieving both the green and digital transitions is the decarbonisation of our electricity supply. Ireland is in the top five globally for installed wind power capacity per capita, while overall the renewable share of electricity in 2022 was 38.6%. The Climate Action Plan sets ambitious targets for further action in this area. This includes to achieve an 80% renewable electricity share by 2030, made up of at least 5GW of offshore, 8GW of solar and 9GW of onshore renewable energy. Renewable electricity will play an important role in the decarbonisation of other sectors through electrification, including transport, heating, and industry, and is critical to minimising the environmental impact of digital developments.</p> <p>In the industry sector specifically, under the Climate Action and Low Carbon Development (Amendment) Act 2021, the Department of Enterprise, Trade and Employment has responsibility to reduce industry on-site emissions (manufacturing, including cement and alumina) by 20% by 2025 and 35% by 2030, and alongside the Department of Environment, Climate and Communications, have also committed to reducing emissions from the heating of commercial buildings by 20% by 2025 and 45% by 2030.</p> <p>Progressing the circular economy is also key to shifting from linear "take-make-waste" supply chains and business models to more sustainable patterns of production and consumption. In Ireland, the Circular Economy and Miscellaneous Provisions Act was signed into law in 2022. It underpins Ireland’s shift to circularity, working to retain the value of resources in our economy for as long as possible, while also reducing GHG emissions.</p> <p>The next phase of Ireland’s enterprise development will be defined by the twin green and digital transitions. These transitions are mutually reinforcing; technology and data will play a key role in achieving sustainability goals while the sustainability imperative will unlock new opportunities and markets. Innovation in the digital economy can provide valuable tools to help tackle the climate crisis and also play a critical part in reshaping our society and economy to decouple economic growth from GHG emissions to</p>
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		<p>create a low carbon, green and circular economy. Innovative and creative approaches will also be needed to overcome the environmental challenges presented by the expanding digital sector itself, including the management of the energy demands of data centres.</p> <p>But this will require more than just investment in these specific sectors and technologies. It calls for a fundamental shift in our enterprise policy.</p> <p>The White Paper on Enterprise³⁶, published in December 2022, outlines the Government’s vision for Irish-based enterprise to succeed through competitive advantage founded on sustainability, innovation and productivity, delivering rewarding jobs and livelihoods. The White Paper on Enterprise places the green and digital transition at the centre of future enterprise policy. It will ensure policy is focused on business model transformation and resource circularity to reduce costs and emissions, increase sustainability and enable enterprises based in Ireland to compete on quality, reliability, value-added and customer service. Policy will be oriented to helping existing firms meet the costs of decarbonisation and positioning them to exploit the opportunities of a low carbon economy.</p> <p>Ireland’s Digital Connectivity Strategy will also lead to more balanced regional development, as well as supporting the green transition, including by the implementation of the Government’s Remote Working Strategy, Our Rural Future: Rural Development Policy 2021-2025, Project Ireland 2040 and facilitating greater access to regional talent and skills. The National Broadband Plan is a key enabler of this digital transformation, helping to ensure that citizens and businesses in remote areas enjoy the same opportunities to benefit from a connected and digital economy, and participate in the green transition, to the same extent as those in urban areas.</p>
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³⁶ [White Paper on Enterprise \(2022 – 2030\)](#)

5 EU level cooperation

5.1 Multi-Country projects

Name of the MCP	Description of the MCP
<p>Important Project of Common European Interest on Microelectronics and Communication Technologies (IPCEI ME/CT)</p>	<p>The IPCEI ME/CT concerns research and development projects covering microelectronics and communication technologies across the whole value chain from materials and tools to the chip designs and manufacturing processes. It aims to enable the digital and green transformation by: (i) creating innovative microelectronics and communication solutions, and (ii) developing energy-efficient and resource-saving electronics systems and manufacturing methods. It will contribute to the technological advancement of many sectors, including communications (5G and 6G), autonomous driving, AI and quantum computing. The IPCEI ME/CT will also support companies active in the energy generation, distribution and use in their green transition.</p> <p>Ireland is one of 14 Member States directly participating in IPCEI ME/CT (Austria, Czechia, Finland, France, Germany, Greece, Ireland, Italy, Malta, the Netherlands, Poland, Romania, Slovakia and Spain). Through this project, Member States have committed to jointly develop the microelectronics and communication technologies value chain, given its importance for the attainment of the Union’s digital targets and digital transformation. The IPCEI ME/CT brings together 56 participating undertakings, with 46 associated participants and approximately 600 indirect partners, aiming for the creation of an ecosystem of innovative start-ups, SMEs, large undertakings, and ROs/Universities. IPCEI ME/CT is expected to contribute, according to estimates provided by the Member States, to job creation by creating approximately 8,800 direct jobs over its implementation, including 600 new jobs in Ireland. The Member States will provide up to €8.1 billion in public funding, which is expected to unlock additional €13.7 billion in private investments.</p> <p>In its analysis of the IPCEI ME/CT, the Commission concluded that “the IPCEI ME/CT directly contributes to achieving several EU objectives of a greener, digital, more secure, resilient and sovereign economy set out in key EU policy initiatives, such as the Europe's Digital Decade and the European Green Deal.”</p> <p>The Irish Government have invested in a €630 million project led by Analog Devices Inc. (ADI) – Project FANFARE. The investment will enable the construction of a new, state-of-the-art, 45,000 sq-ft Research & Development and manufacturing facility which will support ADI’s development of next-generation signal processing innovations designed to accelerate the digital transformation of Industrial, Automotive, Healthcare, and other sectors. It is expected to triple ADI’s European wafer production capacity and aligns with the company’s goal of doubling its internal manufacturing capacity to enhance the resiliency of its global supply chain and better serve customer needs. This investment is expected to grow ADI’s employment footprint in the mid-west region of Ireland by 600 new positions, a significant increase to ADI’s current 1,500 employees in Ireland.</p>

5.2 European Digital Infrastructure Consortia

<p>Name of the European Digital Infrastructure Consortia</p> <p>Alliance for Language Technologies European Digital Infrastructure Consortium (ALT-EDIC)</p>	<p>Description of the European Digital Infrastructure Consortia</p> <p>The ALT-EDIC will establish a European-wide infrastructure and technology centre in the field of natural language processing. It will develop Large Language and Foundation Models optimising the uptake of European language technologies including through generative AI, will address the shortage of training data in European languages and contribute to digital sovereignty, promotion of EU's values and linguistic diversity. The main objective of the project is to preserve linguistic and cultural diversity in Europe as well as promote technological excellence and leadership.</p> <p>Ireland is one of the 11 Member States directly involved in the ALT-EDIC along with France, Latvia, Slovenia, Poland, Hungary, Portugal, Spain, Lithuania, Greece, Netherlands as members, and Austria, Belgium, Bulgaria, Malta, and Romania as observers. The proposed seat for this EDIC is France. The Working Group is currently drafting the EDIC formal application.</p> <p>The ALT-EDIC is specifically aligned with the following areas of activity:</p> <p>(a) European common data infrastructure and services;</p> <p>The language EDIC will be a common infrastructure coordinated with other existing parallel European initiatives (e.g. the DIGITAL Language dataspace);</p> <p>(d) Acquiring supercomputers and quantum computers, connected with the European high performance computing (EuroHPC);</p> <p>The language EDIC will require intensive use of HPC for computation and tuning of large language models.</p> <p>(g) Connected public administration;</p> <p>Some of the resources generated by the digitisation of public administrations (libraries, television, judicial system, etc.) will be the basis for some of the corpora processed in the language EDIC.</p> <p>(i) European digital innovation hubs (EDIHs)</p> <p>The Language EDIC will have high synergies and coordinate with the European Digital Innovation Hubs.</p> <p>(j) High tech partnerships for digital skills through the 'Pact for Skills';</p> <p>The Language EDIC will promote the development of highly skilled profiles in the area of language technologies.</p> <p>The Digital Plan for the Irish Language 2023-2027 was approved by the Government of Ireland in December 2022. Its objective is to enable the Irish-language community to build and revitalise the language by establishing and developing a vibrant Irish-language technology sector, enabling this community to take up new opportunities to participate fully in modern day society. Technologies in the field of speech and language, in particular, need to be developed, so that our language keeps pace with major European languages in terms of application and usage of those aspects of modern technology.</p>
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In April 2021, the Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media (DTCAGSM) awarded the ADAPT Research Centre in Dublin City University (DCU) project funding for 21 months for the National Relay Station (NRS). The NRS was the first platform to share bilingual (Irish/English) language data nationally and was originally developed by researchers at the ADAPT Centre through the EU-funded European Language Resource Infrastructure (ELRI) project (2017-2019).

Under the Irish government funded project, Irish/English language resources were collected and curated from people working with the Irish language in public administration. In October 2022, the NRS website was relaunched under the new name of eSTÓR (Sonraí Teanga Óstáilte i gcomhair Ríomhphróiseála)³⁷

The existence of this central repository for English/Irish translation data has supported the development of translation technology for the Irish language at a national level, whilst also continuing to improve the quality of Irish-language translations from the European Commission's MT system, eTranslation.

Since the introduction of the NRS/eSTÓR in Ireland, the number of Irish-language Language Resources (LRs) shared nationally and at a European level, has increased significantly, proving that the introduction of a national portal with a dedicated team has been a resounding success.

In December 2022, the DTCAGSM committed to funding the eSTÓR for a further three years (approx. €800,000 in total) meaning that eSTÓR can continue to be hosted by DCU until the end of 2025. Funding of €411,584 in 2023, €215,341 in 2024 and €249,098 in 2025 has been committed to maintain and develop the eStór/National Relay Station infrastructure.

The Irish Government (through DTCAGSM) has also committed direct funding of up to 1M euro for 2023 for the initial steps in the implementation of the Digital Plan for the Irish Language. It is anticipated that the Irish Government will commit similar annual funding up to 2027, some of which may be diverted to co-fund a language EDIC, subject to (1) alignment with the strategic priorities with respect to the Digital Plan for the Irish Language and (2) available resources and ministerial approval.

³⁷ <https://estor.ie/>

5.3 Joint Undertakings

Name of the Joint Undertaking	Description of the Joint Undertaking
Chips Joint Undertaking (Chips JU)	<p>As part of the Chips Act package, the Key Digital Technologies Joint Undertaking has been renamed the Chips Joint Undertaking and broadened to include activities around pilot lines, competence centres, design platform and skills. This body is to be responsible for the delivery of the Chips for Europe Initiative under Pillar 1 of the Act.</p> <p>Ireland is represented on the Chips Joint Undertaking to engage fully with the EU semiconductor ecosystem and realise opportunities for the sector in Ireland.</p> <p>The Chips Joint Undertaking will produce an annual activity report, which will include key metrics to measure reach and impact of the initiative.</p>

5.4 Initiatives

Name of the Initiative	Description of the Initiative
1+Million Genome Initiative (1+MG)	<p>In November 2022, Ireland formally joined Europe's 1+Million Genome Initiative (1+MG).³⁸ This work will be guided at a national level through a National Mirror Group which was established earlier this year by the Department of Health. Representatives from Ireland have also been appointed to each of the 1+MG working groups. The initiative forms part of the EU's agenda for the Digital Transformation of Health and Care³⁹ and is aligned with the goals of the European Health Data Space⁴⁰.</p> <p>The 1+MG initiative aims to enable secure access to genomics and the corresponding clinical data across Europe for better research, healthcare, and health policy making. This will entail collection of nationally representative genetic data, and genetic data from clinical settings to feed into the European dataset through the European Genomic Data Infrastructure (GDI) project.⁴¹ This will make a difference to patients and clinical care and will drive further research and innovation.</p> <p>The GDI project, co-funded under the Digital Europe Programme, will build a federated, sustainable and secure infrastructure for data access across Europe. The Genome of Europe (GoE), part of the 1+MG Initiative, is a multi-country project that aims to bring European countries together to develop a population genomic reference cohort of at least 500,000 citizens across Europe through the GDI. Each participating country will develop their own nationally representative genomic dataset that will not only benefit national personalised healthcare and prevention strategies, but also at a European level.</p>

³⁸ [1+Million Genome Initiative \(1+MG\)](#)

³⁹ [Digital Transformation of Health and Care](#)

⁴⁰ [European Health Data Space](#)

⁴¹ [European Genomic Data Infrastructure \(GDI\) project](#)

<p>Ireland’s participation in the 1+MG Initiative allows us to harness best practices and ensure national efforts are aligned with EU standards. It also provides a roadmap for the implementation of many aspects of the National Strategy for Accelerating Genetic and Genomic Medicine⁴² in Ireland, which was launched in December 2022. This includes legislative and data infrastructure requirements, as well as clinical best practices (e.g., diagnostic markers).</p> <p>To establish long-term sustainability of the 1+MG initiative at European and national level, the intention is to establish an EDIC as the legal framework for 1+MG. The purpose of the 1+MG EDIC is to allow federated data access for researchers by submitting one request to access data from multiple EU countries, rather than submitting individual data requests to each member state.</p>

⁴² [National Strategy for Accelerating Genetic and Genomic Medicine in Ireland - HSE.ie](#)

6 Stakeholder feedback

The development of *Harnessing Digital – The Digital Ireland Framework* was informed by extensive stakeholder engagement and consultation. During the development of an earlier draft digital strategy over the course of 2018/19, extensive stakeholder consultation took place with citizens, industry, academia and civil society – this included thematic roundtable sessions, direct engagement with experts and key stakeholders, and a widespread survey. While a strategy was not published at that time, much of the research, as well as additional engagement informed the development of *Harnessing Digital*, which was published in February 2022.

Harnessing Digital was developed under the aegis of the Cabinet Committee on Economic Recovery and Investment, in close cooperation with relevant Government Departments. Since its publication, consultation and engagement with stakeholders has formed an important part of its delivery. The second annual Progress Report for *Harnessing Digital* is due to be published in December 2023. It is planned to present a draft of the Progress Report to industry stakeholders at a meeting of the Enterprise Digital Advisory Forum in early December, before the Report is finalised and published. It will also be presented to, and discussed at an industry roundtable on the wider digital agenda coordinated by the Department of the Taoiseach in early January 2024.

This approach was mirrored in the development of sectoral strategies. For example, a detailed public consultation was conducted to inform the development of our new Digital Connectivity Strategy⁴³. 45 submissions were received, including from industry players, stakeholder representative bodies, and individuals and were reflected in the final document.

Similarly, ongoing work to progress the digitalisation of public services has included a stakeholder and user-informed approach, via on-going feedback and engagement with the users of services. A public consultation on digital public services, undertaken in late-2022, set out to understand the needs, expectations and experiences of public service users. The feedback from the consultation is being used to set priorities for the Life Events programme and to identify the public's priorities for new and enhanced digital public services, as well as building public trust. The ongoing development of a new Digital Health and Social Care Framework (2024 – 2030) has also involved extensive engagement with key stakeholders.

Ireland's National AI Strategy, AI – Here for Good, was developed on foot of consultation and engagement, and includes a strand on AI and Society, which involves deepening engagement with the public on AI as an area of focus. As part of this work, an AI Ambassador was appointed to champion AI as a positive force for the economy and society. The Ambassador's mandate has been extended for a further year and a report of her first year of activity, which included extensive public engagements, media engagements and a specific focus on engaging with young people has been published. The establishment of a new AI Advisory Council regular engagement with industry.

In the area of Skills, consultation and engagement is similarly integral to policy development, with the recent OECD Review of the National Skills Strategy involving a range of stakeholder engagements, including national and regional workshops, bilateral and small group meetings, stakeholder surveys and engagement with the National Skills Council, which informed its findings. In addition, strategies

⁴³ <https://www.gov.ie/en/consultation/d6f0e-consultation-on-the-digital-connectivity-strategy>.

including the Adult Literacy for Life, and Digital Strategy for Schools were developed following significant stakeholder engagement.

The development of Ireland's national quantum technologies strategy, *Quantum 2030*⁴⁴, dates to late 2019 with a white paper on quantum technologies from the Tyndall National Institute and a meeting of quantum technologies stakeholders hosted by the IDA Ireland, and later the establishment of the National Advisory Forum for Quantum Technologies (NAF-QT). An NAF-QT subgroup was established to support the development of the strategy.

Stakeholder engagement and consultation will continue to constitute an important element of our work, informing our approach and policy framework to addressing the challenges of digitalisation, to ensure that all sectors of the economy and society can access and engage with the opportunities it presents.

⁴⁴ [Quantum 2030: A National Quantum Technologies Strategy for Ireland](#)

7 Overall impact and conclusion

Ireland's positive performance in the 2023 DESI, builds on progress achieved over recent years and is reflective of Government's commitment to progressing our digital agenda and to remaining a digital leader. Our approach under our National Digital Strategy, *Harnessing Digital – The Digital Ireland Framework*, and related sectoral strategies, ensures that progress is being achieved across all areas.

Significant progress has been achieved across the four dimensions of *Harnessing Digital*, aligned with the Digital Decade and Digital Compass targets⁴⁵. Achievements outlined in this first National Roadmap include progress in supporting the enterprise base to digitalise and the continuing provision of digital skills to support all levels and cohorts of learners across society, the labour market and wider economy. In addition, we have seen continuing progress on connectivity and improving our cyber security capabilities, as well as the ongoing digitalisation of public services, and the development of a new Digital Health and Social Care Roadmap to 2030 to set out a path for continued steps towards digitalisation of records and systems.

Our focus on balance, security, safety, trust and inclusion for all, in line with the European Declaration on Digital Rights and Principles and the general objectives of the Digital Decade Policy Programme 2030 remains to the forefront, though a new Digital Inclusion Roadmap, *Digital for Good*. The Roadmap brings together existing and new supports which contribute to improving digital inclusion through better skills, access and infrastructure, with the aim of reducing digital divides at national, local, and community level.

Our commitment to ensuring a modern, cohesive, well-resourced digital regulatory framework recognises the important role Ireland plays in enforcing existing and new digital regulation. Considerable progress has been made over recent months, including the establishment of the new Coimisiún na Méan, and work to ensure our Digital Services Commission, under the Digital Services Act is fully operational as and when needed, as well as preparation of legislation to provide competent bodies with the necessary powers to enforce other newly-agreed digital files such as the Data Act, the Data Governance Act and the Digital Markets Act.

Stakeholder engagement has been an important element at all stages, with stakeholder engagement fora established in the sectoral areas, such as the Enterprise Digital Advisory Forum, the National Advisory Forum for Quantum Technologies, the Expert Group on Future Skills Needs, and a new AI Advisory Council for example. Effective inter-Departmental coordination structures such as Senior Officials Group on Digital Issues and the Digital Regulators Group, which report to Government, underpin Ireland's approach.

We are also conscious of a number of areas where challenges are apparent, and where reaching the EU Digital Decade objectives will be challenging. We are focused on supporting progress in these areas in particular, as well as remaining alert and responsive to emerging challenges. Areas of further focus include reducing the digital divide across the enterprise base and developing, attracting and retaining high-level digital skills professionals in order to provide the digital skills needed to support the economy, and to ensure further progress in digitalisation of the health sector. The Digital Decade structures will be a valuable channel for further collaboration with partners across the EU, to ensure this vision is achieved for our continued competitiveness and resilience.

⁴⁵ See [2022 Harnessing Digital Progress Report](#). The 2023 Report will be published is forthcoming.

List of Acronyms

AI - Artificial Intelligence

CSO – Central Statistics Office

DE - Department of Education

DECC – Department of the Environment, Climate and Communications

DETE – Department of Enterprise, Trade and Employment

DFHERIS - Department of Further and Higher Education, Research, Innovation and Skills

DPENDER – Department of Public Expenditure, National Development Plan Delivery and Reform

EDIH – European Digital Innovation Hub

EHR – Electronic Health Record

EI – Enterprise Ireland - the Government of Ireland's enterprise development agency

FTTP - Fibre to the Premises

HEA- Higher Education Authority

HER - Electronic Health Record

IDA- Irish Development Authority - the Government of Ireland's inward investment agency

OECD – Organisation for Economic Cooperation and Development

OGCIO – Office of the Government Chief Information Officer

REPs - Regional Enterprise Plans

RRF – Recovery and Resilience Facility

SFI - Science Foundation Ireland

Skillnet Ireland - a business support agency of the Government of Ireland

SME - Small and Medium Enterprise

SOLAS – State Agency for Further Education and Training

VHCN - Very High-Capacity Networks

