



Rialtas na hÉireann
Government of Ireland

Harnessing Digital

The Digital Ireland Framework



Prepared by the Department of
the Taoiseach
gov.ie

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Introduction and Ambition

Ireland and the world are at an important industrial, economic and societal turning point due to a number of transformational challenges, led by the twin digital and decarbonisation transitions. Digital technologies are becoming more embedded in daily life, accelerated in particular by the COVID-19 pandemic, which has demonstrated the power of digital technologies in helping us to respond to seismic challenges. Ireland will harness the power of digital to tackle the big challenges we face in the coming years – achieving our climate change goals, driving balance and inclusivity, and enhancing productivity.

Ireland is coming from a strong overall position, currently ranked the 5th most advanced digital economy in the EU. We are well connected globally, enjoy the presence of many of the leading technology companies and play an important role in digital regulation across Europe. However, like others, we face challenges as well as opportunities in the next phase of digital transformation.

Our goal is to be a digital leader at the heart of European and global digital developments, building on the progress and adaptability demonstrated across society during the pandemic. **This will require us to promote the digital agenda effectively and coherently across all areas of Government policy and service delivery, working closely with stakeholders.**

A strong, coherent and stable digital regulatory framework is a key element of our offering. **Ireland will continue to show leadership to safeguard the country-of-origin principle and to proactively and effectively shape negotiations and advocate for an appropriate regulatory framework at EU level. Domestically, we will continue to build a strong well-resourced network of regulators to effectively oversee and enforce digital regulations.** Regulation must simultaneously ensure the safety of our citizens and promote innovation and progress.

Ireland will play a key role in Europe in advancing the new digital decade – the goal of which is the **successful digital transformation of Europe by 2030 and**

for the Union to be digitally sovereign in an open and interconnected world. The inclusion of a set of **digital principles and rights** is a key element of the EU's approach, with a focus on the extent to which Europeans feel that the digitalisation of society is serving them. Ireland seeks to be a thought leader, shaping the debate at Europe and beyond, and supports rooting the digital transition in a values and ethical approach, placing a strong emphasis on balance, inclusiveness, security and regulation.

Ireland, with its strong capabilities and the presence of leading global digital enterprises, will be at the heart of EU digital progress, playing a unique role as a bridge between the US and EU. Ireland has signed up to the OECD Inclusive Framework on BEPS on a new tax framework to address the tax challenges of digitalisation, showing our commitment to be part of the solution.

This Strategy is a high-level framework to support Ireland's ambition to be a digital leader. It sets out a pathway to drive and enable the digital transition across the economy and society, to

maximise the well-being of our citizens, the efficiency of public services, as well as the productivity, competitiveness, innovation and sustainability of our economy.

Digital technologies can make the lives of all our citizens better through the creation of new job opportunities and new ways of working; greater and more equitable access to personal, social and civic opportunities; and improved accessible government services for everyone. All groups will be supported and empowered to benefit from digital opportunities including businesses small and large, communities urban and rural, and people young and old; leveraging Ireland's strengths to bridge the digital divide across enterprise and wider society.

Driving the digital transition and related technologies, will also support the achievement of our climate targets, with **green and digital ambitions reinforcing each other**. This was a key

focus in the Government's Economic Recovery Plan, and Ireland's National Recovery and Resilience Plan, and is further underscored through this new digital strategy. Ireland is well placed to be at the forefront of leveraging digital advancements.

Our ambition is rooted in enhancing Ireland's economic model and distinct ecosystem, empowerment and ensuring an inclusive approach. This means driving a step change in SMEs; showing leadership by advancing digital Government services provision and through strong regulation; providing enabling infrastructure and robust cyber security; and supporting talent and skills at all levels across the general population, workers and enterprise. The Strategy sets out **high-level workstreams with related deliverables, and targets** which Government will work towards over the years ahead. Ireland will proactively work with our EU and international partners, the business sector and wider stakeholders to help achieve these goals.





Approach

This next phase of Ireland's digital journey reflects and builds on considerable national work. The Strategy is in line with the EU's Digital Decade and associated four cardinal points of the EU Digital Compass—Skills; Digital Infrastructure; Digital Transformation of Business; and Digitalisation of Public Services (*see Annex 2 for more detail*).

Implementation will be overseen by the Cabinet Committee on Economic Recovery and Investment, which is chaired by the Tánaiste, with supporting official-led sub-structures. Strong political leadership and oversight on digital issues right across government and active stakeholder engagement will ensure effective delivery of our ambitions.

Harnessing Digital - The Digital Ireland Framework

Positioning Ireland as a digital leader, driving and enabling digital transformation across the economy and society.

| <p>Dimension 1:</p> <p>Digital Transformation of Business</p>  | <p>Dimension 2:</p> <p>Digital Infrastructure</p>  | <p>Dimension 3:</p> <p>Skills</p>  | <p>Dimension 4:</p> <p>Digitalisation of Public Services</p>  |
|--|---|--|---|
| <p>Targets</p> | | | |
| <p>75% enterprise take-up in Cloud, Big Data, AI by 2030</p> <p>90% of SMEs at basic digital intensity by 2030</p> <p>At least 800 businesses supported by 2026 under the €85 million Digital Transition Fund</p> <p>At least 35% of State funding for start-up & early stage businesses invested in innovative digital businesses from 2022</p> | <p>All households and businesses covered by Gigabit network by 2028</p> <p>All populated areas covered by 5G by 2030</p> <p>Digital connectivity to all Connected Hubs and Schools by 2023</p> <p>All operators of essential services, Government Departments and key agencies verified to have implemented robust cyber security mitigation measures by 2024</p> | <p>Increase the share of adults with at least basic digital skills to 80% by 2030</p> <p>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</p> | <p>90% of applicable services consumed online by 2030</p> <p>80% of eligible citizens using MyGovID by 2030</p> <p>20% of employees in the public sector remote working (post-pandemic)</p> |
| <p>Workstreams</p> | | | |
| <p>Comprehensively support enterprise across all aspects of their digital transformation.</p> <p>Pursue a coherent, integrated, proactive approach to the digital transition, through a robust ecosystem and strong enablers.</p> | <p>Drive increased gigabit and 5G connectivity, including international connectivity.</p> <p>Address energy & circular economy challenges from digital technologies.</p> <p>Prioritise Ireland's cyber security capacity, expertise, and infrastructure.</p> | <p>Provide inter-connected cluster of skills policy responses to meet the digital transformation.</p> <p>Deliver Digital Skills for Society, to enable all cohorts to engage with digitalisation.</p> | <p>Drive further digitalisation of public services, with a focus on the health system.</p> <p>Fully implement steps to ensure public service data is used safely and effectively.</p> |
| <p>Underpinned by a coherent governance structure, and a modern, cohesive, well-resourced regulatory framework.</p> | | | |

Dimension 1

Digital Transformation of Business



Dimension 1: Digital Transformation of Business

This Strategy aims to position Ireland as an international economic digital leader. The Government seeks to increase adoption of digital technologies by all businesses, in particular SMEs; sustain Ireland's attractiveness as a location for leading digital enterprises; and maximise the benefits of the digital transition for the wider ecosystem, across productivity, innovation and competitiveness.



The digital economy in Ireland is running at two different speeds. 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.

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. A focus on digital and innovation is also crucial for the achievement of our climate targets.

Dimension 1 Overall Targets

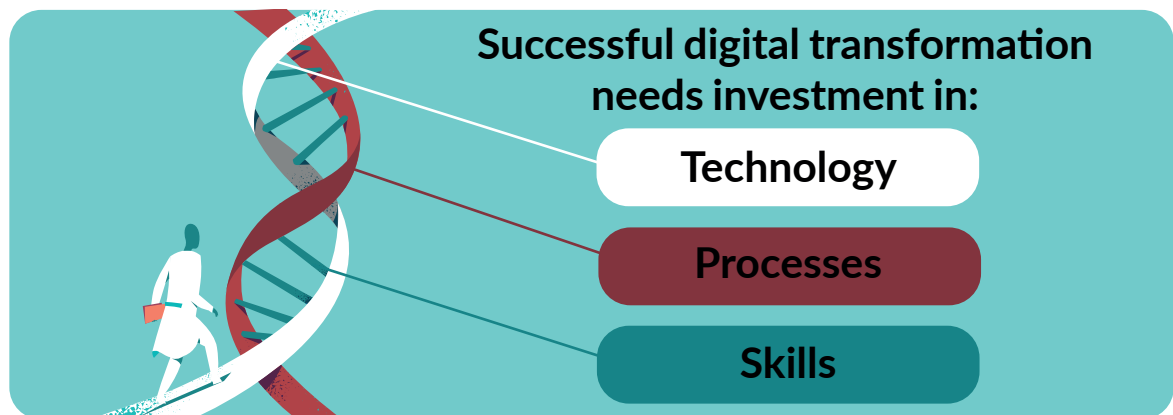
Government will drive the acceleration of digitalisation across Enterprise, in particular SMEs, to achieve the following key targets:

- **Enterprise take-up of 75% in Cloud Computing, Big Data, AI by 2030**
- **90% of SMEs at Basic Digital Intensity level by 2030**
- **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.**

1.1 Digitalisation of Enterprise

Digital technologies have the power to transform small businesses, opening up new opportunities that were previously only available to businesses of scale. The COVID-19 crisis has amplified the power of digital in building business resilience. Indeed, there is a substantial risk in companies not engaging with digital - the competitiveness and productivity gap between digitally-enabled firms and businesses with low levels of digital maturity must be addressed.

It is a priority for Government to drive a step change in digital adoption in all enterprises. To be successful, digital transformation requires not just the use of technology, but changes in culture, leadership, skills and processes.



What can digitalisation deliver for Businesses?

- Reduced costs and increased productivity:** Digital tools can be used to transform business processes, e.g. through automation, making them more efficient, and can enhance the integration of supply chain systems. Digitalisation also makes possible a move to remote and blended working models for businesses, with associated increases in productivity.
 - Better products and services:** SMEs can use data analytics and other digital tools to develop new products and services, improve quality, and deepen engagement with customers.
 - Market expansion and diversification:** Digital technologies offer greater access to international markets by reducing costs and increasing reach.
 - Greater access to strategic resources:** Digital technologies facilitate access to innovative financing, training and recruitment models (e.g. peer to peer lending, online recruitment). Access to powerful technologies is possible without investment in hardware, reducing costs and levelling the playing field (e.g. Cloud).
 - Greater access to innovation:** Digitalisation empowers open sourcing and open innovation. It also supports enhanced collaboration and networking between firms.
 - Online Platform Economy:** Online platforms can be a powerful resource for SMEs. They are enablers of entrepreneurship, digital trade and innovation, providing a gateway to new markets, sourcing channels and networks. They enable efficiencies that can drive economies of scale and boost competitiveness and productivity.
 - Climate Action:** Digital technologies can support companies in tracking and measuring their energy consumption and carbon footprint across the supply chain.
- The OECD¹ identify the main digital tools of use to SMEs** as enterprise resource planning systems; radio frequency identification technologies; customer relationship management and supply-chain management software; e-commerce; B2G applications; and electronic invoicing; as well as cloud computing; big data analytics; and social media.

¹ OECD (2021). The Digital Transformation of SMEs, OECD Studies on SMEs and Entrepreneurship, OECD Publishing, Paris, <https://doi.org/10.1787/dbb9256a-en>.



For businesses with low levels of digital maturity, Government interventions focused on awareness-raising and basic guidance can 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.

Embracing digital as a central export growth enabler for Irish enterprise is a key objective of Enterprise Ireland's new three-year strategy, *Leading in a Changing World*. Digital transformation will play an important role in the agency's plans to grow exports to €30 billion and create 45,000 jobs over the lifetime of the strategy.

The Government will also roll out the **new €85 million Digital Transition Fund**, which will run until 2026 as part of Ireland's National Recovery and Resilience Plan. The funding will be used to help companies at all stages of the 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. As part of this work, the objective is to **significantly**

ramp up the level of micro and start-up businesses becoming Digital Exporters by 2025.

Barriers to Digitalisation

Barriers to adoption of digital technologies by SMEs include a lack of awareness of digital solutions available and their benefits; access to investment finance; skills; trust, including security and privacy issues; addressing small firms' specific vulnerabilities to cyber-attacks; and access to infrastructure, for example, high-speed broadband.

Many companies view investment in digital technology as a cost rather than a long-term opportunity. However, it represents an investment that can not only improve their resilience, but help them in addressing the big challenges they face, such as staying competitive in a changing world and tackling climate change, when paired with an appropriate set of multidisciplinary skills such as digital, management and process improvement skills.

Sectoral Opportunities

The take-up of digital technologies is not uniform across sectors. In Ireland, industries that are both highly labour-intensive and localised, such as construction, leisure, retail and hospitality, have tended to rank lower in usage of digital technologies² although the pandemic has accelerated digital uptake in these sectors.

² European Investment Bank for Department of Enterprise, Trade and Employment (2019)
[The digitalisation of small and medium enterprises in Ireland - Models for financing digital projects - Executive Summary](#)



For sectors such as **construction**, digital technologies and their integration can address challenges related to labour shortages, competitiveness, resource and energy efficiency, quality and productivity while boosting construction output, especially in the residential sector. Actions are being implemented as part of the renewed National Development Plan (NDP) and the Housing for All Strategy. To support digital engagement in the **manufacturing** sector, Future Manufacturing Ireland has been established, to provide clarity on accessing appropriate technology and research expertise, advisory services and funding supports.

For the **financial services** sector, tools such as blockchain, AI, and big data will transform the way in which many within the sector currently operate. Indeed, the

pandemic has been the catalyst for many consumers and companies to embrace digital finance (fintech). The whole-of-government *Strategy Ireland for Finance* will help Irish companies to take advantage of these opportunities, and to develop educational resources for consumers to promote financial inclusion.

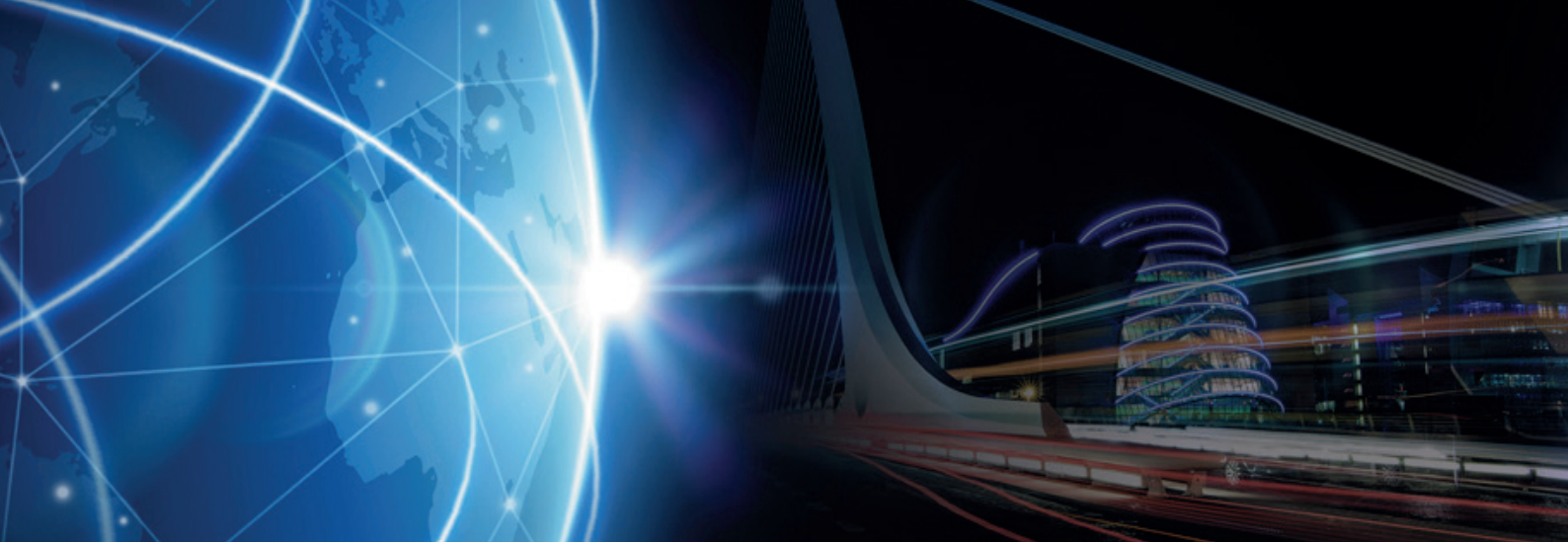
In **agriculture**, digital technologies, including Artificial Intelligence, are already being deployed to improve efficiencies, products, and climate mitigation. Precision farming, for example, generates a higher-yield per animal and hectare through data driven herd and crop management. Innovative projects are currently being undertaken across Ireland supported by Teagasc, Science Foundation Ireland, Further and Higher Education Institutions and local communities.

Workstream & related Deliverables:

Comprehensively support enterprise across all aspects of their digital transformation, to maximise related gains.

As part of this workstream, Government will:

- **Develop a comprehensive programme to drive digitalisation across enterprise, in particular in SMEs.** The programme will run from 2022 to 2026 and will include an emphasis on cloud technologies, big data, and AI. It will include funding through the **€85 million Digital Transition Fund**; under Ireland's NRRP; and **other appropriate EU funding supports** to back investment in digital technologies.
- **Ensure a stakeholder led approach, by engaging with businesses through the newly established Enterprise Digital Advisory Forum.**
- **Raise awareness and provide advice and assistance to SMEs** in their digital transition **working with enterprise agencies** (EI, IDA, LEOs, Údarás na Gaeltachta).
- **Support the development of workforce skills in SMEs to support digital adoption**, including promoting the benefits of workplace training.
- **Develop and enhance digital platforms for the delivery of the Local Enterprise Offices' supports**, to enable the network to provide their assistance more effectively to micro-enterprises, start-ups and SMEs.



1.2 Ireland as a location for leading digital enterprises

Ireland is well positioned to lead in the development and supply of world class digital solutions and services, and to build on the country's international reputation as a premier global, technology hub and location, where **eight of the top ten global software companies and many of the top internet companies have strategic operations.**

While Ireland is in a strong position overall, being among the most digitalised countries in the world for many years and currently ranking 5th of the 27 EU countries in the 2021 Digital Economy and Society Index, it is important to sustain Ireland's attractiveness as a location for leading digital enterprises. Digital has significant potential to transform Ireland's export facing industry base, which employs over 478,000 people, and exports €280 billion annually.

Ireland's digital policy is likely to play an increasingly important role in shaping location decisions of Multi-National Corporations (MNCs). That includes **a strong, stable and coherent regulatory framework** for digital, with highly capable and well-resourced regulators, as an essential part of Ireland's strategic offering. It also includes a commitment to maintaining and investing in digital infrastructure and connectivity; certainty around data security and a well-resourced National Cyber Security Centre; and

prioritising digital skills development and ensuring a strong pipeline of talent.

IDA Ireland's new Strategy, *Driving Recovery and Sustainable Growth 2021-2024*, includes a focus on realising opportunities from digital transformation, as well as supporting clients in their digital transformation, including through supporting the upskilling of clients' employees. Full implementation of this strategy will maximise benefits right across our enterprise base.

Ireland will continue to target emerging and new growth areas of opportunity and research such as *quantum computing, AI, blockchain, the Internet of Things, connected health, 5G, cloud computing, connected autonomous vehicles, and big data*. The importance of more publicly funded research in these areas will be key, and we will work closely with industry and academia to maximise the economic opportunities available.

Increasing the availability of **test beds for digital innovation** is another important lever. Ireland wants to be a leading international test bed for digital solutions and to achieve this will work to remove regulatory obstacles and develop a supportive ecosystem for testbeds in strategic areas, for example, future mobility. The allocation of funding under Budget 2022 for a new Advanced



Manufacturing Centre, alongside the facilities at the Irish Manufacturing Research Centre, will provide state-of-the-art facilities for indigenous and multinational companies to develop new technologies and is a significant step towards achieving this ambition. We will also promote Irish participation in Important Projects of Common European Interest in the digital sphere.

In parallel, Ireland will balance opportunities with competing challenges. For example, data centres are now a very significant feature of Ireland's electricity demand, and they are also, more than ever, a core infrastructure enabler of a technology-rich, innovative economy, which makes Ireland a location of choice for a broad range of sectors and value-added activities, such as business

collaboration, online commerce, banking, and supply chain management. This however, represents a challenge to achieving Ireland's renewable energy and carbon emissions targets in the electricity sector, with the recently published Climate Action Plan setting out measures to address this challenge. Appropriate grid connection policy and electricity market design, alongside research, development and innovation in the sector, can facilitate increasingly efficient, flexible and low carbon infrastructure for Ireland's digital, knowledge-based economy. In this context the *Government Statement on the Role of Data Centres in Enterprise Strategy* will be revised to reflect new policy and regulatory developments, ongoing challenges and potential opportunities facing the sector.

1.3 Broader Economic Digital Dividends

Ireland is in a strong position to benefit from wider digital dividends across the economy as a whole, by reinforcing and building on existing strengths including our collaborative innovation ecosystem, presence of global digital leaders and strong start-up environment.

This involves strengthening the centrality of education, research and innovation in the Irish economy. It also involves placing a greater emphasis on the research and innovation in SMEs and increasing their absorptive capacity in general, and in the digital sphere in particular, as well as leveraging a dynamic national clustering system, anchored by a network of high-performing research-active and innovation-driven Higher Education Institutions engaging closely with the indigenous enterprise in their regions.

A new National Strategy for Research and Innovation is being developed, with

publication due in early 2022. The strategy will aim to position research, development and innovation at the heart of addressing Ireland's economic and societal challenges, in particular the twin transitions of climate and digital. The strategy will also strengthen capacity and capability across the research and innovation system to move R&I up the value chain and provide the right environment within which excellent research takes place and innovation is embraced. The Strategy will re-enforce the leadership ambitions within this digital strategy.

Embedding a sustainable growth model includes fostering and supporting clustering approaches, to enable gains across all levels of the ecosystem – start-ups, SMEs and MNCs. **A National Clustering Policy and Framework** is currently being developed to maximise the potential of clustering as a policy tool to deliver national enterprise policy

objectives including supporting the green and digital transition. Indeed, the digital imperative is made more urgent due to its interlinkages with our green ambitions, as highlighted in our Climate Action Plan 2021 – with digital technologies playing a key role in enabling the achievement of our climate targets, for example, digital technologies such as sensors, networked devices, and data analytics can help us optimise energy use and decrease emissions.

AI is one of the digital technologies which offers huge potential for businesses, and Government is driving business adoption of AI under the **National AI Strategy**, working with the new **Enterprise Digital Advisory Forum**. It will develop an AI programme for enterprise of targeted funding measures, together with diagnostic tools and other advisory supports around AI adoption. It will also raise awareness among businesses of all sizes – from small SMEs through to MNCs – of the resources available from European Digital Innovation Hubs/ Centres of Excellence, including AI expertise. In 2021, Ireland joined the **OECD Global Partnership on AI (GPAI)**, providing an opportunity for international collaboration and for **promoting shared values, trustworthy AI and transparency**. Membership of GPAI enables Ireland to be at the forefront of real-world application and development of AI and also gives new opportunities to Irish researchers and experts to engage internationally.

The Expert Group on Future Skills Needs is examining the skills needed for the deployment, management, and regulation of AI over the next five to ten years. The study, to be published in early 2022, will address the type of skills that will be required if Ireland is to become a leader in safe, ethical and trustworthy AI. These recommendations will help to take forward the high-level strategic actions around education, skills and talent set out

in the National AI Strategy, and will also help drive an Irish workforce that is skilled and prepared for the growing influence and adoption of digital across all aspects of the economy.

At a multilateral level including at the WTO, as well as EU level, Ireland will continue to work with our like-minded partners for Agreements in areas that facilitate **clear and principled rules on Digital Trade**. This includes issues such as facilitating business dataflows while fully upholding EU data protection standards and avoiding unnecessary and protectionist data localisation requirements. In this regard, Ireland supports the European Commission's engagements with the US and other jurisdictions to establish lasting and durable frameworks for data transfers with appropriate safeguards, particularly in relation to EU-US dataflows, and additionally as it builds upon the momentum of the Commission's international data transfer adequacy decisions agreed in 2021 with the United Kingdom and the Republic of Korea. Ireland will also work with our EU partners to ensure essential dataflow commitments are pursued in our Free Trade Agreement negotiations with Third Country partners, and in dialogue with the US under the umbrella of the EU-US Trade and Technology Council.

Nurturing Digital Start-ups

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.

Workstream & related Deliverables:

Pursue a coherent, integrated and proactive approach to the economy's digital transition, through a robust eco-system and strong enablers.

As part of this workstream, Government will:

- Use the **public procurement** process to support innovative digital start-ups and SMEs.
- Direct more **Government equity investment into digital start-ups**, e.g. through EI's High Potential Start-Up and Seed & Venture Capital Schemes, the Innovation Equity Fund and the Disruptive Technologies Innovation Fund.
- **Develop ecosystem for ambitious digital entrepreneurs through:**
 - Leveraging investment from international funding providers (including EU);
 - Continuing to increase the number of women-led start-ups and the number of women in leadership roles in digital companies.
- **Promote the creation of testbeds and regulatory sandboxes for AI and other digital technologies**, including by reducing regulatory obstacles and nurturing a supportive ecosystem.
- Establish Ireland's **European Digital Innovation Hubs in 2022**, as part of a Europe-wide network, to make digital technology more readily available to SMEs, and **provide advice, expertise, and opportunities to experiment with technologies**.
- **Establish a National AI Cluster in 2022 to drive collaboration and spill-over between MNCs and SMEs**, as part of Ireland's National AI Strategy.
- **Work to remove barriers across the EU's Single Market** to improve market access for digital services.



Dimension 2

Digital Infrastructure



Dimension 2: Digital Infrastructure

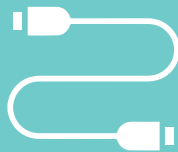
Digital infrastructure underpins the delivery of Ireland’s digital economic and social ambitions. It is a pre-requisite to ensuring the delivery of social dividends, including ensuring that at risk groups are not left behind in this accelerating transition, and can fully embrace digital opportunities.

Universal, high quality digital connectivity is vital to achieving the Government’s goals for balanced, sustainable regional development. This includes enabling greater remote working, contributing to the reinvigoration of towns and villages, helping to address the digital divide for rural areas, and reducing emissions. Digital technologies, when managed appropriately, can also have an important role to play in reducing energy and resource use and enabling decarbonisation.

With the acceleration in the use of digital across all aspects of our lives, the importance of cyber security is increasing. Cyber security across the public and private sector, and investment in people, products and processes is essential to secure vital digital infrastructure, data, and systems. Appropriate steps must be taken to prevent and mitigate cyber-attacks at home, in businesses and in essential services and the Government is enhancing Ireland’s cyber security capacity, expertise, and infrastructure.

Infrastructure enabling the Digital Transition

Connectivity



Cyber Security



Dimension 2 Overall Targets

Government will drive increased connectivity to enable the full realisation of the benefits of digitalisation across the economy and wider society:

- 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
- Complete the delivery of digital connectivity to all Connected Hubs and all Schools by 2023
- All operators of essential services, Government Departments and key agencies independently verified to have implemented robust cyber security mitigation measures based on internationally recognised standards by 2024



2.1 Digital Connectivity

Secure, high quality, universal digital connectivity is central to realising economic, social and environmental opportunities, such as enabling greater remote working, thereby facilitating greater time for individuals, less commuting and emissions, greater access to talent and skills, and productivity gains. This includes the realisation of the Government's ambitions under its *Remote Working Strategy*, which incorporates legislating to provide employees the right to request remote working. For each new remote worker, an estimated average net saving of up to 10 kWh per day is achieved, reducing commuter transport energy use and carbon emissions.

Achieving this involves the delivery of connectivity to even the most remote rural locations; facilitating the joining up of national networks, for example libraries, to Broadband Connection Points and [Connected Hubs](#); and supporting the development of networks of regional innovation hubs. Full delivery of the National Broadband Plan is a vital enabler.

Ireland is committed to digital connectivity characterised by excellent performance, security and sustainability, which is optimised to leverage the latest optical fibre technologies in fixed networks and to connect innovative wireless systems such as 5G, for its economic prosperity and social inclusion.

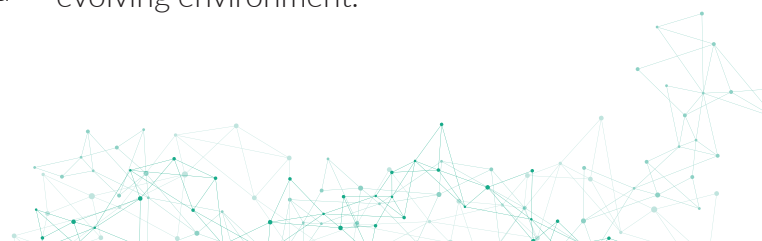
This will be guided by the principles of encouraging investment in energy efficient solutions, network integrity and security, supporting and facilitating the

modernisation of existing networks and transition to Gigabit and 5G networks both with direct and indirect Government supports. Ensuring coherency in our regulatory framework so that it promotes infrastructure competition, encourages investment, and supports innovation in emerging technologies and removes unnecessary burdens will also be important.

A Digital Connectivity Strategy primarily focused on enabling the physical telecommunication infrastructure and services delivering digital connectivity will be developed in consultation with wider industry to ensure the appropriate enablers are established.

Ireland's overall digital connectivity target, one of the most ambitious in the EU, is to ensure that all Irish households and businesses will be covered by a Gigabit network service no later than 2028, with all populated areas covered by 5G by no later than 2030.

Through the commercial investment of the telecommunications industry, digital connectivity will be delivered across the vast majority of the State; this will be complemented by the State through the National Broadband Plan. The Government remains committed to roll out the **National Broadband Plan**, and is ensuring an agile and responsive approach to the delivery of this key large-scale project with €2.7 billion committed to the Plan in what is a constantly evolving environment.



Workstream & related Deliverables:

Drive increased gigabit and 5G connectivity, including international connectivity. This will include complementing commercial investment in infrastructure with Government-led initiatives and through facilitating other enablers as appropriate.

This workstream includes:

- **Investment by commercial operators in quality, secure and resilient Gigabit network services to the vast majority of premises**, in primarily urban and suburban areas covering circa 77% of the premises across the State;
- **The deployment of Gigabit network services through the National Broadband Plan's State-led Intervention** to primarily rural areas covering circa 23% of the premises across the State;
- **Introduction of a Universal Service Obligation for broadband, where appropriate**, to ensure and safeguard that services are made available to all;
- The **immediate deployment of high-speed connectivity towards key locations**, for example, to digital hubs, schools, Garda stations and other Government facilities nationwide. This includes an initiative under Ireland's National Recovery and Resilience Plan (NRRP) to provide high-speed broadband connectivity to up to 1,100 primary schools through the Schools Broadband Programme and ICT grant funding to enable schools to support learners through the provision of connectivity, devices and software; as well as a programme providing laptops for 20,000 disadvantaged students in Further and Higher Education;
- **The Broadband Connection Point (BCPs) project** will see 300 publicly accessible sites across the State provided with a high-speed broadband connection for community use. These sites serve rural and isolated areas, including a number of offshore islands, that do not currently have access to reliable broadband services;
- Remote working hubs are being connected throughout Ireland via **connectedhubs.ie, a hub management platform**, that allows hubs managers to handle scheduling, payments and community engagement through a single website. Over 170 hubs have already signed up to use the platform, which is supported by the Connected Hubs Fund, providing grants to add capacity and improve the user experience;
- **Continuing to roll-out Eduroam Wi-Fi hotspots** across Ireland, located in third-level educational and research organisations, libraries, town centres, healthcare and other community settings;
- Ensuring **international connectivity infrastructure to and from the State are resilient, suitably diverse, and robust** so that, in optimising wider socio-economic benefits, they can serve national demands;

- The **National Marine Planning Framework** (2021) has identified three key objectives to support Ireland's international and national digital connectivity, which is critically important to maintaining and enhancing Ireland's competitiveness in global markets and in the knowledge and information economy. Those are to: Facilitate international high-speed connectivity between Ireland and other countries; Ensure that our island communities can avail of the opportunities that high-speed communications networks can bring; and Protect existing telecommunications cables. The **Maritime Area Planning Act**, was recently enacted to enable the efficient consideration of planning applications to develop submarine cables to aid our off-island connectivity, and particularly direct telecommunications connections to Europe and North America. The Act provides a new robust system of planning and a statement of intent by Government for this sector.
- Ensuring the **State's 5G Spectrum continues to be released** with appropriate coverage and deployment obligations, and continuous monitoring of the use of this spectrum for both indoor and outdoor locations, to ensure it is used efficiently and effectively;
- Ensuring that the **appropriate spectrum is reserved**, and mobile connectivity solutions are provided for the use of **public services**;
- Promoting **research and innovation in new and emerging technologies** that will be required in the longer term, as well as leveraging the many pilot and test networks available across the State;
- Fostering the necessary ecosystems to facilitate the deployment of **Smart City applications and services** in urban/suburban, town and rural communities, with positive benefits, including for net zero emissions;
- Facilitating the development of connectivity along our main **Transport Corridors to support intelligent transport services**; and
- **Ensuring that public administrations maximise the benefit from 5G technologies** through the creation of infrastructure that enables users to process data at the appropriate location (e.g. edge node; regional node; or Cloud). This will contribute significantly to Ireland's Public Protection and Disaster Relief capability, while also providing practical insights on the use of these solutions to all sectors.



Digital Technologies and Sustainability

Digital technologies have a vital role to play in reducing energy and resource use, in enabling decarbonisation while maintaining social and economic welfare and in gathering and analysing data of importance to the tasks of mitigating and adapting to climate change, and protecting and restoring biodiversity and ecosystems. However, it is not inevitable that the spread of digital technologies will have these effects. The environmental impacts of digital technologies themselves can be negative and substantial. This includes energy demands, resource use and generation of pollution and waste.

Policy needs to ensure the positive benefits for sustainability are maximised and that digital technologies are used in a sustainable manner. This includes addressing the energy and circular economy challenges from digital technologies.

Workstream & related Deliverables:

Address the energy and circular economy challenges from digital technologies through suitable approaches and principles.

As part of this workstream, Government will:

- Conduct analysis into positive and negative impacts of digital technological changes on sustainability, in particular energy efficiency and the circular economy, in consultation with experts.





2.2 Cyber Security

The criticality of ICT for the delivery of essential services has been long recognised. Cyber security needs to be recognised and managed as a strategic risk for businesses and State bodies.

The 2016 EU Network and Information Services Directive, which requires Member States to designate Operators of Essential Services in digital infrastructure and other sectors, may be revised on foot of a European Commission proposal which would broaden its remit. It is anticipated that the revised Directive will establish a **broader and more rigorous regulatory regime** for the cyber security of services across the economy, encompassing both the public and private sectors.

Recognising the increasing centrality of effective cyber security for a positive digital transformation, the Government is prioritising Ireland's cyber security capacity, expertise, and infrastructure, including through a review of the National Cyber Security Strategy and strengthening the capacity of the National Cyber Security Centre (NCSC) with additional resources and talent and skills.

Ireland's most recent **National Cyber Security Strategy** (2019-2024) includes the cyber security of critical national infrastructure as a priority. The vision behind the Strategy is to allow Ireland to continue to safely enjoy the benefits of the digital revolution and to play a full part in shaping the future of the Internet. This involves:

- The **protection** of the State, its people, and its critical national infrastructure from threats in the cyber security realm;
- The **development** of the capacity of the State, of research institutions, of businesses and of the people, to both better understand and manage the nature of the challenges faced in this space; and
- **National and international strategic engagement** by the State in support of a free, open, peaceful, and secure cyber space.

Significant progress has been made in implementing the Strategy, for instance the baseline cyber security standard for public bodies was published in November 2021. This standard, which is based on the internationally recognised NIST framework, will be applied by all Government Departments and key agencies and in cyber security audits of these bodies. NCSC is conducting independent cyber security audits of operators of essential services to independently verify that appropriate measures are implemented to prepare for, respond to and recover from cyber-attacks. Given the importance of cyber security across the economy and society, the Strategy also includes a number of measures relating to skills development and education. Further



measures, to enhance and strengthen Ireland's approach, will be considered as part of a review of the Strategy, which will be conducted during 2022.

The **National Cyber Security Centre** (NCSC) was established by Government in 2011, with a broad remit across the cyber security of Government ICT and critical national infrastructure. The NCSC is the central cyber security authority in the State, with its key roles including:

- To **monitor and respond to cyber security incidents** in the State;
- To **manage and share intelligence** relating to threats to network and information security in the State including during incidents; and
- **To lead efforts to improve the resilience and preparedness of the State** in cyber security terms, including Government, critical national infrastructure, and business.

Workstream & related Deliverables:

Prioritise Ireland's cyber security capacity, expertise, and infrastructure, reflecting the growing importance of cyber security.

As part of this workstream, Government will:

- Deliver a significant **package of measures to strengthen the capacity and footing of the NCSC**, to ensure it continues to fulfil its mandate of supporting Government, critical infrastructure and businesses, this includes:
 - An **expansion of the NCSC** from 25 to 45 staff over the next 18 months, and to 70 within 5 years;
 - The development of **legislation to establish the NCSC on a statutory basis** with a set of formal powers and a legal mandate;
 - A **5-year Technology Strategy will be developed for the NCSC** that scopes its internal requirements, and its relationship with academia and industry; and
 - A **cyber security graduate training programme** will be initiated by the NCSC, with computer science graduates recruited each year on 3-year contracts.
- Review the **National Cyber Security Strategy** in 2022 to recognise progress made and to respond effectively to the evolving global cyber threat landscape.

HSE Cyber-Attack 2021

The cyber-attack on the Health System in May 2021, and subsequent attempts both nationally and internationally demonstrate the significant impact on frontline services caused by such criminal activity.

With the support of the National Cyber Security Centre, the HSE were able to rapidly access world class international expertise to assist them during the immediate aftermath of the attack, and to put in place additional technical and operational measures to protect their systems from further attack. Significant investment was required to deal with the immediate effects of the attack and enhance the levels of cyber resilience required.

In June 2021 an independent post incident review (PIR) was commissioned by the Board of the HSE, in conjunction with the CEO and EMT to urgently establish the facts in relation to the HSE's technical and operational preparedness for an incident of this nature; and to identify learnings both for the HSE and for State and non-State organisations to inform their future preparedness.

The findings were published and set out both strategic and tactical recommendations for implementation. In summary, transformational change involving people, process and technology is required across the technology foundation for provision of health services and its associated cyber security, that will need to be executed over the coming years, and enhanced levels of cyber resilience will need to be maintained. The HSE has embarked on implementing recommendations in the report and is working on a multi-year ICT and cybersecurity transformation programme.

The National Cyber Security Centre has conducted its own post incident review and drawn lessons from the HSE review. The learnings from these reviews have been shared with operators of essential services and will also inform the NCSC's future engagement with stakeholders in the public and private sectors.



Dimension 3

Skills



Dimension 3: Skills

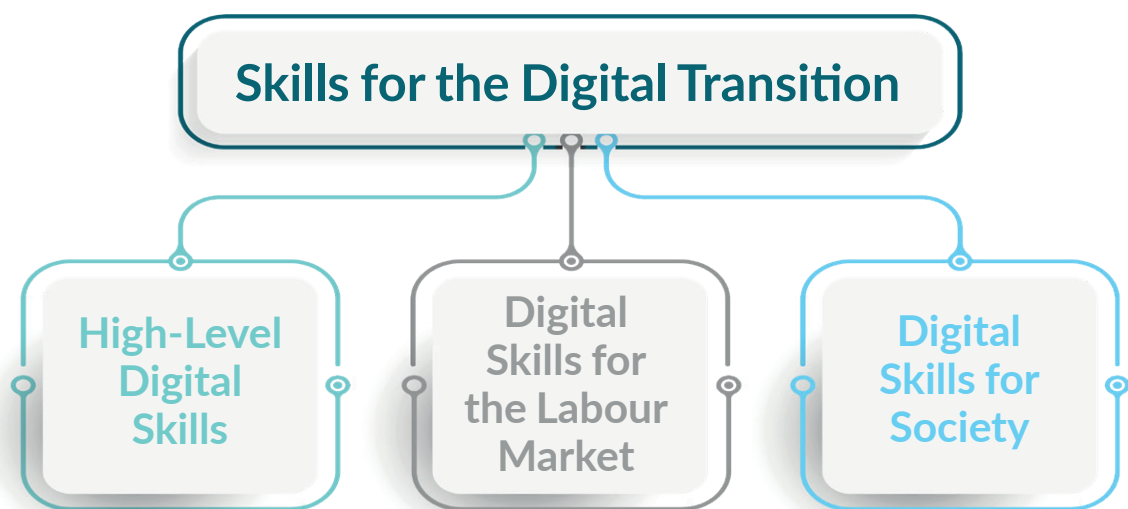
As highlighted by the OECD³, new digital technologies are reshaping the way people live, work and learn. This trajectory is intensifying and has been accelerated by the COVID-19 pandemic. Digitalisation will increasingly have profound and long-lasting impacts on the world of work. It is of fundamental importance to the skills and competencies people need to secure, retain and flourish in employment and the ongoing development of a workforce which can adapt successfully to the digital revolution.

For Ireland to be an international leader in the digital economy, our skills policy must be focused on meeting digital skills needs at all levels. This includes:

- **High-Level Digital Skills:** Ensuring a strong pipeline of talent and expertise for the economy through the development of high-level digital skills;
- **Digital Skills for the Labour Market:** Supporting appropriate levels of digital skills for the labour force as a whole; and
- **Digital Skills for Society:** Ensuring digital skills for the general population, to enable all cohorts to fully engage in society, and benefit from digital transformation.

Skills policy and supply must be closely integrated with the over-arching imperative of deepening and accelerating digital adoption across industry and enterprise, and society.

The digital transformation of the economy and society reaffirms the importance of the collective skills, knowledge and qualifications of our workforce to Ireland's economic and social sustainability. Our response will be informed and guided by the **opportunities inherent in the mutually reinforcing impacts of workforce development, innovation and productivity** and must be enabled by appropriate levels of investment in higher and further education.



³ OECD Skills Outlook 2019 Thriving in a Digital World

Dimension 3 Overall Targets

Government will drive the development of digital skills provision across the skills spectrum to enable all cohorts across the labour market and wider society to participate positively in and benefit from the digital transition:

- **Increase the numbers of learners graduating with higher-level digital skills to over 12,400 graduates, apprentices and trainees by end-2022, with ambition to further increase digital skills provision in following years**
- **Increase the share of adults in Ireland with at least basic digital skills to 80% by 2030 (as measured by DESI)**

3.1 Impact of Digital Technologies on Employment

Over the next decade digitalisation, along with the impact of the essential 'greening' of jobs, is expected to lead to a reconfiguration of Ireland's workforce. Digital technologies are driving a new wave of automation, and workers must be supported in developing and adapting their skillsets to accommodate these changes. Some occupations are expected to largely disappear; other occupations will be done very differently as digital technology complements workers in the task they carry out. In addition, new technologies are creating new occupations via the emergence of new or substantially reengineered tasks.

These forces are projected to create substantial disruption to existing patterns of employment. The measures and actions undertaken to prepare the present and future workforce for digital transformation will shape the outcome for employment.

The Expert Group on Future Skills Needs' 2018 report on Digital Transformation estimated that one in three jobs in Ireland are at a high risk of being disrupted but concluded that much of the disruption will result in changes in roles and tasks

rather than job losses. In April 2020, SOLAS estimated that over 370,000 people are employed in Ireland in occupations at high risk of automation with a further 600,000 jobs considered at medium-risk of automation. Typically, lower educated workers subject to skills gaps in digital and transversal skills are at greater risk of employment losses.

Skills development is crucial for redesigning jobs that increasingly involve working alongside new technologies. This will also be critical in boosting innovation and productivity across the workforce including in what traditionally have been characterised as low skilled jobs.

3.2 Current Skills Policy Response

Ireland's system of skills provision comprises the Early Childhood and the School System, Further Education and Training (FET), Higher Education (HE) and also encompasses Life Long Learning, adult and community education. The overarching principle guiding the development of the whole tertiary education system is agility and responsiveness to changes in the world of work, driven by technology, as well as meeting climate objectives.



Under the framework provided under Ireland’s Economic Recovery Plan, and the National Recovery and Resilience Plan, there is a diverse skills policy response in place or underway across the School System, HE and FET responding to digitalisation needs. This includes:

- A new Digital Strategy for Schools (due early-2022);
- The STEM Education Policy Statement 2017-2026;
- Technology 2022 Ireland’s Third ICT Action Plan;
- Springboard+ and the Human Capital Initiative (HCI Pillar 1);
- Action Plan for Apprenticeship;
- SOLAS’s Skills to Compete and Skills to Advance Initiatives;
- Skillnet Ireland’s Programmes.

In particular, in response to the COVID-19 pandemic, an additional 50,000 education and training places were rolled out to support upskilling and reskilling for the labour market, with digital skills an integral part, as well as a focus on short, flexible programmes.

Within this overarching framework it will be essential to ensure these interventions achieve their objectives in meeting skills requirements from digitalisation, with a sharper alignment of the higher and further education and training systems to ensure that the Irish workforce is equipped to meet the challenges of digital transformation.

An **OECD Review of Skills Strategy** will seek to ensure that the National Skills Strategy and the policies and infrastructure for delivering on its objectives are aligned with ongoing Government priorities, including digitalisation and labour market needs.

3.3 Skills Policy Priorities for Ireland’s Digital Transformation

In response to the impacts of digital transformation, workplace skills, competencies and expertise will need to be updated on an ongoing basis during adult life. This process will promote essential innovation and productivity growth in Ireland’s SME base, enhance the quality and sustainability of employment and raise living standards. More broadly, a high level of digital literacy is required across society to enable all cohorts to engage with, and benefit from the digital transition.



Workstream & related Deliverables:

Provide digital skills through an agile, responsive skills system – ensuring a comprehensive and inter-connected cluster of skills policy responses to meet the challenges, and realise the opportunity of Ireland’s digital transformation.

As part of this workstream, Government will:

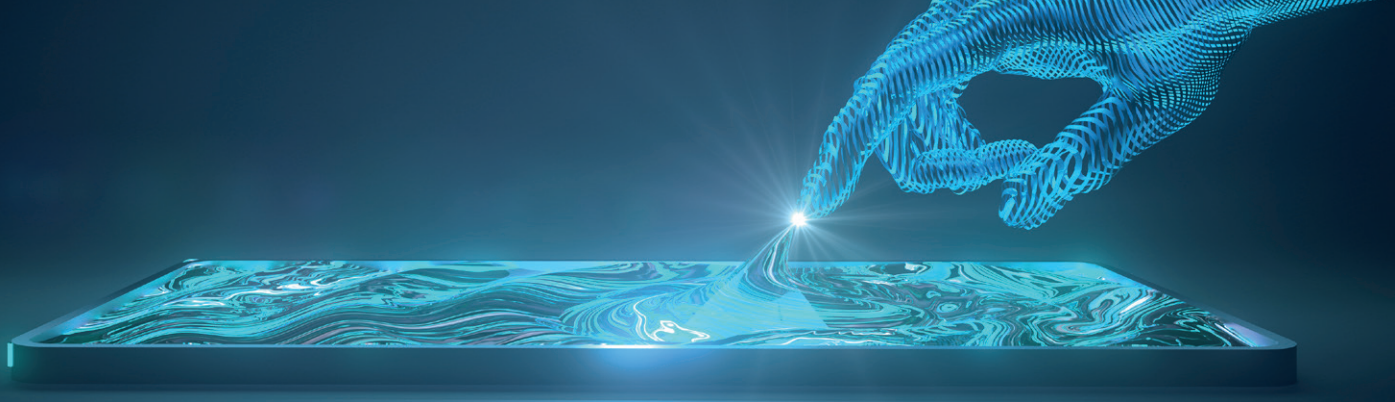
- **Deliver High-Level Digital Skills** through more and diverse pathways in HE and FET including the development of targeted short-cycle tertiary programmes, flexible modular programmes, and the further development of micro-credentials;
- **Move to a Unified Tertiary Education System** comprising FET, HE, Research and Innovation, enabling a broadening of opportunities, seamless pathways and strengthening employability and enterprise engagement; and
- **Deliver Digital Skills for the entire Labour Market** across all sectors including through embedding lifelong learning; transversal skills development; building managerial leadership and capacity; supporting the transition of workers; public service leadership and early stage foundations.
- The **OECD Review of Skills Strategy** is intended to identify specific actions to help meet the upskilling and reskilling challenge of our digital transition.

Delivering High-Level Digital Skills

The shift in labour demand towards higher digital skills is likely to continue and become even more pronounced. Identifying the specific skills requirements that need to be met through focused and specific programmes will be a priority. This will be achieved by developing more and diverse pathways in HE and FET, as well as an understanding that digital skills must be developed alongside essential transversal skills. Short flexible modular programmes leading to micro credentials can encourage workers mid-career to adjust to the digitalisation of their occupations or sectors.

The Technological University sector has a central role to play in particular given

its interconnectedness to industry. Centres of excellence or ‘hubs can help underpin knowledge transfer and fortify collaboration with industry. High quality teaching and learning is at the heart of meeting high-level digital skills needs. Mainstreaming best practice evidenced through initiatives such as the Human Capital Initiative will yield major benefits. Ensuring access for the entire working age population will help create the diverse workforce needed. This requires cultural change, development frameworks and mechanisms to attract women and returning professionals, building on proven initiatives already in place.



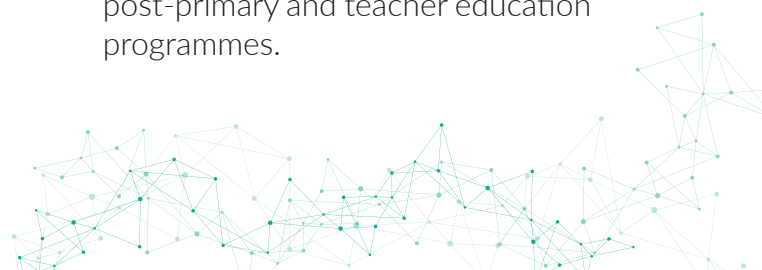
Moving to a more Unified Tertiary Education System

Achieving a quality and high-performing unified tertiary education system composed of FET, Higher Education, Research and Innovation is a pre-requisite and enabler for the step change involved in aligning education and training provision with upgrading the skills of the labour force to drive the digital transformation. There is an imperative for the entire tertiary system to respond proactively, which calls for significant investment, reform and transformation.

Delivering Digital Skills for the Labour Market

Responding proactively and effectively to the impact of digitalisation on the workforce and jobs will include and require investment using the National Training Fund in:

- **Embedding lifelong learning in the workforce** to enable upskilling or reskilling throughout the whole of peoples' working lives, with a particular focus on low-skilled workers who are more likely to be exposed to the risk of automation;
- **Providing accessible, high-quality guidance** to workers to raise awareness of the impact of digitalisation on occupations; and of education and training opportunities;
- **Prioritising Transversal Skills Development** through our education systems and lifelong learning in recognition that digitalisation will result in an increased demand for skills that are complementary to tasks that can be automated and for key transversal skills;
- **Building Strong Managerial Leadership and Capacity**, and deepening and broadening employer engagement and reinforcing stakeholder partnership to enable the successful digital transformation of enterprises, public service organisations and the economy. Such an approach should include the design and the development of cost-sharing models through the greater utilisation of the National Training Fund;
- **Supporting the Transition of Vulnerable and Impacted Workers** to become more occupationally mobile and adaptable, enabling them to move occupation, to pre-empt the risk of job loss and to benefit from new job opportunities; and
- **Public Service Leadership:** To realise Ireland's ambition to be a digital leader, the Public Service must be an exemplar. In particular, a structured and systematic approach to workforce development, including through apprenticeship provision, oriented to the goal of digital transformation needs to become a core tenet of the Public Service's future models of learning and development.
- Digital skills from an early stage ensuring a **solid foundational knowledge** through application in curriculum from early years to post-primary and teacher education programmes.



3.4 Supporting Inclusivity and Broader Society

An appropriate digital skills level for the general population, to enable all cohorts regardless of age or background to engage with and benefit from digitalisation, is crucial in ensuring the digital transition is inclusive and positive for wider society. This is a focus of Ireland's National Recovery and Resilience Plan, with digital infrastructure and funding for schools, focusing on disadvantaged students, and mainstreaming essential digital skills across lifelong education provision.

Workstream & related Deliverables:

Deliver Digital Skills for wider Society, to enable all cohorts of people to engage with and benefit from digitalisation.

As part of this workstream, Government will:

- **Optimise the contribution of the Early Years and Schools System** to prepare young people including through the curriculum and bespoke Strategies.
- **Support widespread Digital Literacy Skills** including through the implementation of the 10-year Adult Literacy for Life Strategy; and
- **Promote Media Literacy**, including through the new Media Commission.

Optimising the Contribution of the Schools System

The OECD have emphasised the need for the school system to prepare young people, enabling them to adapt to changes in the labour market, and become informed and responsible citizens. It stresses the **benefit of greater integration of digital skills into the classroom, and associated teaching practices.** Curriculum from early childhood to senior cycle offers multiple opportunities for the development of digital skills and digital literacy. Reform of the curriculum is already underway which will ensure that our young people are equipped with the digital skills and literacy required to participate fully in society.

A new Digital Strategy for Schools, will enhance progress, and include a stronger

focus on the use of digital technologies in all teaching, learning and assessment activities including building awareness and knowledge around the safe and ethical use of the internet. This will be achieved by continuing to improve the provision of digital connectivity and equipment in schools, by supporting schools to further embed effective digital capacity planning and development, and by enhancing skills development of teachers to ensure a digitally competent and confident teaching workforce.

An important link is evident between basic literacy and numeracy challenges and a lack of basic digital skills. The focus of the *National Strategy: Literacy & Numeracy for Learning and Life 2011-2020* and the *Interim Review 2017* was to raise the standards of teaching and learning in literacy, including digital literacy and

numeracy from early years to post primary. The development of a **new Literacy, Numeracy and Digital Literacy Strategy for all learners** is underway to fulfil the Government's determination that **all young people will leave school with the digital skills required for everyday life and further studies.**

Ensuring Widespread Digital Literacy

With the spread of digital technology in daily life accelerating at a faster pace than peoples' skills and ability to use it, some individuals may be at risk of being left behind. Older cohorts and disadvantaged socio-economic groups are especially vulnerable. Without basic digital skills, citizens risk being excluded from our increasingly digitalised society. To prevent digital divides emerging or expanding it is vital to understand the minimum skills required, including privacy and security skills. Individuals must be supported to actively embrace the digital transformation.

The new **10-year Adult Literacy for Life Strategy** is aimed at bridging the digital divide across Irish society including through enhancing broad digital skills. It takes a whole-of-Government approach and is underpinned by a vision of an Ireland where every adult has the necessary literacy, numeracy and digital literacy to fully engage in society and realise their full potential. **The Strategy sets a target of decreasing the share of adults in Ireland without basic digital skills from 47% to 20% by 2030.**

The **Broadband Connection Points** project, with publicly accessible sites across the State, is operating a number of **pilot digital skills and digital literacy courses.** Working with a number of public and private sector partners, these pilot programmes seek to upskill from no knowledge to working proficiency and to

support the exploration of STEM subjects and coding by school children and families.

The **Public Library network** has become a **community hub** where users can access online resources, take digital training courses, learn how to use new technologies and creative learning tools, or access information about government services. More than 1,600 library staff are trained in the use of new technologies, and to help the public use them.

Promoting Media Literacy

Media literacy is a crucial component of society's response to digitalisation. It is central to empowering people with the skills and knowledge to understand how media works in a rapidly changing environment, to interrogate the accuracy of information, to counter unfair and inaccurate representation, to challenge extremist views and, ultimately, to make better-informed media choices.

The Broadcasting Authority of Ireland (BAI) developed the Media Literacy Ireland Network (MLI) as part of its overall Media Literacy Policy. The MLI is an independent association of voluntary members across a range of relevant stakeholders, who are committed to the promotion of media literacy in Ireland. MLI's activities have included the **[BeMediaSmart campaign](#)** to raise awareness and encourage people of all ages to 'Stop, Think, and Check' that information they see, read or hear across any media platform is reliable.

The **new Media Commission**, to be established under the Online Safety and Media Regulation Bill, will take over the functions of the BAI and build on this work around media literacy, once established. The Media Commission will also have roles in relation to the protection of children, research, education, media literacy, and journalistic and creative supports.

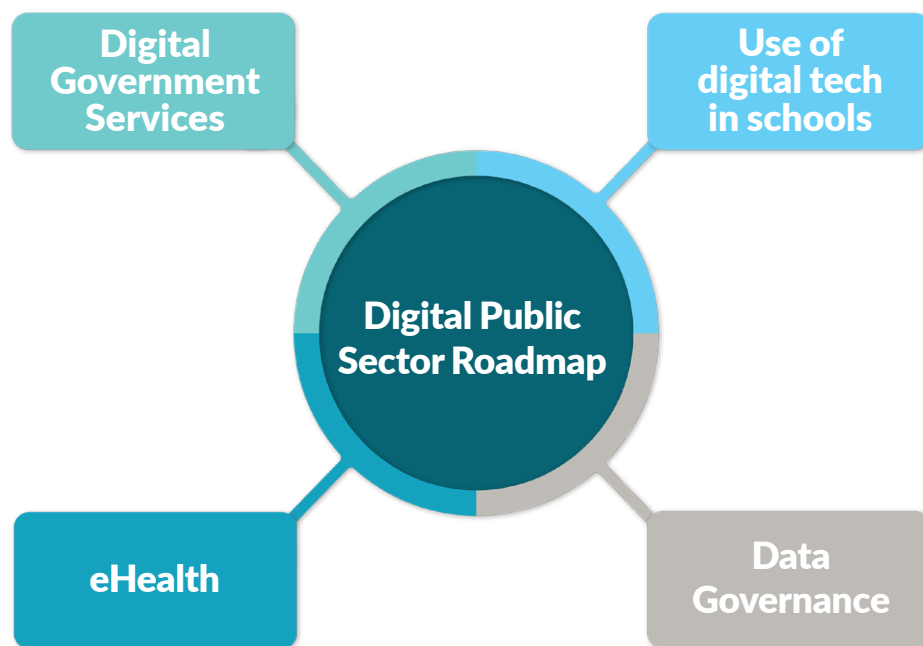
Dimension 4

Digitalisation of Public Services



Dimension 4 - Digitalisation of Public Services

The Government is committed to accelerating Digital Government, moving towards a more advanced and user-centric service model. Leveraging and building on the significant increase in digital service provision and uptake during the COVID-19 pandemic is important in creating an efficient, trusted and inclusive world-leading digital government service. Better use of data is critical to strengthening the relationship between governments and the people they serve. Strong data governance and harnessing public service held data effectively to provide better and safer access to data and transparency in its use is essential for improved public services.



Dimension 4 Overall Targets

Government will progress the acceleration of Digital Government Services, building on the progress made in the months before and during the pandemic, pursuing ambitious targets to build a globally recognised digital service through co-creation with our stakeholders. These services will provide consistent and integrated digital solutions, and through transparency and safety will instil public trust. Government will also drive greater permanent levels of remote working across the public sector:

- Through a trusted, user-driven, intuitive, inclusive and efficient world-leading digital government service, 90% of applicable services will be consumed online by 2030
- 80% of eligible citizens using MyGovID by 2030
- 20% of employees in the public sector, colleges, and other public bodies home and remote working (post-pandemic)

Search for services or information



4.1 Digital Government Services

Citizens want and expect their public services to be as personalised and responsive as the services they get from the private sector.

In 2017, the World Economic Forum labelled governments “the dinosaurs of the digital age: slow, lumbering and outdated⁴”; this after their 2016 Network Readiness Index⁵ found the gap to be widening between the growth in individuals’ ICT use and governments’ engagement in the digital economy.

The last five years have seen a significant step forward in the provision of eGovernment services in Ireland, with a steady uptake in service consumption, which increased enormously during the COVID-19 pandemic. Online tools and services have enabled the Government to meet the needs of its people digitally, regardless of age or capability.

Moreover, digital proofs of COVID-19 vaccination, recovery and/or negative tests for the purposes of travel and hospitality, provided the Government with the opportunity to show people how they could use their “government” record for personal use, in this case through the production of Digital COVID-19 Certificates (DCCs). Indeed, the Government not only delivered one of the most efficient DCC systems in Europe for those vaccinated in Ireland, but offered a related and highly popular service to Irish citizens who had been vaccinated abroad⁶.

These successes provide a firm foundation for a more advanced and user-centric service model, with the evolution from eGovernment, where existing manual services and processes were computerised, to digital government, where services are re-imagined and developed based on a greater understanding of user journeys and choices.

These ambitions are in line with the EU’s plans for the Digital Decade, which intend by 2030 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. The EU sees technology ultimately underpinning multi-modal intelligent transport systems, rapid emergency responses to accidents, more targeted waste management solutions, traffic management, urban planning, smart energy and lighting solutions, modern and efficient justice systems, and ultimately “smart” cities and villages.

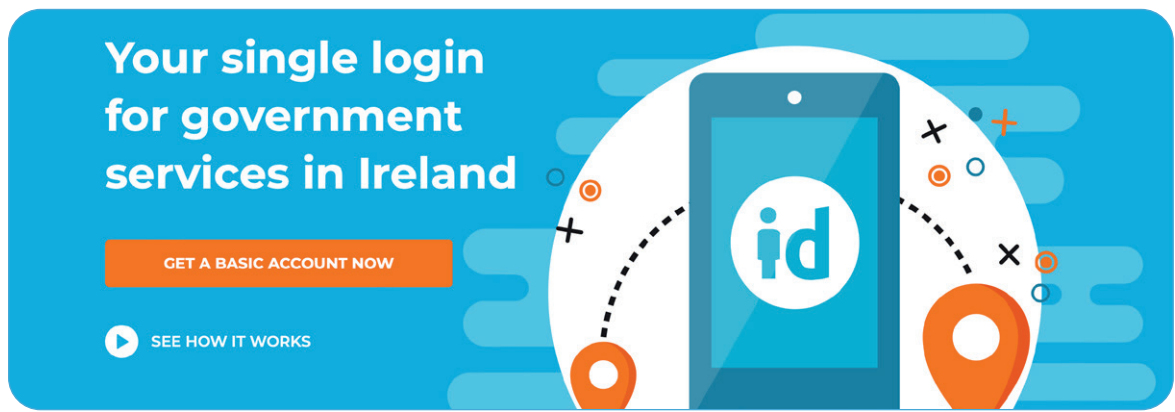
Ensuring individual cohorts of society are not left behind as we accelerate digital services is vital. This requires a focus on basic digital skills and widespread infrastructure, as well as prioritising a user-focused approach to digital public services, including assisted digital services where appropriate.

⁴ WEF White Paper Future of Government Council.pdf (weforum.org)

⁵ Global Information Technology Report 2016 - Reports - World Economic Forum (weforum.org)

⁶ Which, in 2021 assisted more than 40,000 people.





Progress in Ireland

Significant strides have been made to exemplify best practice in Digital Government:

- Improved and simplified communications through social media and the [Gov.ie](https://www.gov.ie) site, which is one of the most visited websites in Ireland;
- More services have been made available using a standardised log in and participant identification model, **MyGovID**, which has seen our eID become one of the fastest growing, in terms of uptake and usage, in the world;
- More services have been enabled via mobile phone technology;
- Government is sharing data more, increasing transparency & avoiding duplication; and
- Designing all new systems on strong security and privacy principles.

These gains, along with an accelerated response via digital solutions to the continued provision of services and information during the pandemic, bodes well for our ambitions.

COVID-19 and eHealth progress

The ICT environment supporting health services in Ireland is the largest of its kind in the State, providing 24/7 services to over 70,000 end users across 2,000 interwoven systems and applications. In addition, the National Service Desk resolves approximately 500,000 support calls per annum.

Notwithstanding the complexity of the healthcare operating environment, the COVID-19 pandemic has paved the way for use of innovative digital health, remote care/working, and robotics solutions for protecting staff and helping people being remotely cared for in their home. Digital technologies can empower citizens to monitor their health status, adapt their lifestyles, support independent living, prevent non-communicable diseases, and bring efficiency to health and care providers and health systems.

The pandemic provided an opportunity to demonstrate what can be done at pace, with the delivery of two major systems that catered for all citizens in Ireland, namely the **national contact tracing system** and the **national vaccination system**. Through these two systems the health service in Ireland, for the first time, developed a direct relationship with every citizen in the country. Prior to the pandemic, this relationship existed only between the patient and the healthcare facility they engaged with. The digital response to the pandemic provides a launchpad for future eHealth, and a potential model for how new systems can be

developed and implemented at pace, as part of an agile and flexible system.

Ireland's **National Recovery and Resilience Plan** includes considerable funding for investment in community-based eHealth solutions, ePharmacy and a national financial management system. All investments support strategic ambitions of the health system to reduce its reliance on the acute hospital sector and enable people to be cared for closer to home; to bring about reform of the health service by enabling data to 'follow the patient'; and to improve the capability of the health service to manage the resources allocated to it through successive budgets.

The renewed **National Development Plan (NDP)** will support the provision of digital health services; enhancement to critical infrastructure and cybersecurity; and facilitate new and emerging eHealth and ICT developments within the 10-year implementation timescale; and is supported in the Sláintecare report and eHealth Strategy. Notable progress has been made in eHealth and ICT in 2020 and 2021, in line with healthcare reforms under Sláintecare and supported by ongoing investment under the NDP. Key deliverables included greater adoption of the PPS numbers across the health systems and associated deployment of the individual health identifier in response to the pandemic; electronic patient record systems and corporate systems; and modernisation and enhancement of technical infrastructure.

Looking forward to 2022-2025 and beyond, the **further development of key systems** within acute and community services such as electronic prescribing, eHR, shared care record, National Medical Imaging System, Patient Administration System iPMS and the Maternal and New-born Clinical Management System will further support integrated care for patients. The implementation of corporate systems such as the Integrated Financial Management System will also provide financial and procurement efficiencies.

Complementary investment in critical infrastructure is also required for the modernisation of existing infrastructure to improve performance and responsiveness, and to avoid and mitigate risks associated with cyber-attack. Cyber threats are becoming more sophisticated and of increasing concern, particularly to organisations involved in providing financial and health services. This is an area of particular concern given the extensive ransomware attack to the health service in May 2021.

In accordance with the HSE National Service Plan, the **priority for eHealth investment in 2022** will focus on the following areas:

- Delivery of **foundational infrastructure and cyber technology**;
- **Continued provision of national systems**; and
- **Development of eHealth and ICT solutions** required to enable transformation and reform of the health service in Ireland.



A Digital Public Service Roadmap

To build on the progress already achieved, Government challenged the Civil and wider Public Service in 2021 *“to be more agile in terms of digital technology and deliver more customer-driven innovative services... in order to best support Ireland’s society and economy today and into the future”*⁷.

Consequently, the next several years will be about building on strong foundations and **creating a trusted, user-driven, intuitive, inclusive and efficient world-leading digital government service, in which 90% of applicable services are consumed online.**

Key principles include involving all stakeholders, including the public, in the co-creation of our digital services so that they meet the needs of an increasingly diverse society in a secure and privacy-centric way, and maximising the re-use of data and solutions wherever possible.

Structures are being developed through which the public service can work more closely with industry, academia and the public in the development of exemplary public services; combining our passion and talents can only assist the delivery of successful outcomes.

Building our digital offerings around the needs of our people will further facilitate the increasing uptake of digital government services, helping us drive towards our target of 90% of applicable services consumed online by 2030. Increased migration to digital services, in a user-centred way, will also facilitate the **freeing up of resources to better support those who may struggle with technology, and/or may not be in a position to independently engage online.** This includes supporting such cohorts to engage through **digital skills and infrastructure provision, but also through focused supports such as assisted digital approaches**, where individuals can get the necessary help to enable them over time to grow their confidence and capability in digital transactions. This will be further supplemented by non-digital complementary options, where more appropriate. Creating a better face-to-face experience for those who need it most and improving the times and locations of where these services will be available is an important part of an inclusive approach where everyone can benefit. Fostering public trust in the safety, transparency and the value of digital solutions remains an important enabler.

We are also aware that single events, notably births and bereavements, can often require interactions with several public bodies. Digital Government should enable a more cohesive and joined-up service to our people.

7 <https://www.gov.ie/en/publication/efd7f-civil-service-renewal-2030/>

Workstream & related Deliverables:

Further digitalisation of public services, leveraging the substantial progress made during the pandemic, and with a particular focus on the health system and schools.

As part of this workstream, Government will:

- Implement the **Civil Service Renewal 2030 Strategy**;
- Deliver the first iterations of a **new Life Events Portal**; and
- Building from the EU's digital health ambitions for 2030 and innovations achieved in response to the COVID-19 Pandemic, **revise and deliver renewed eHealth Strategy by 2030**;
- Fulfil digital Government commitments under Ireland's **National Recovery and Resilience Plan (NRRP) to a total value of €291 million**; and
- **Ensure Government better serves those cohorts who are not in a position to engage online through a clear plan** involving focused supports, including skills and infrastructure, and assisted digital facilities safeguarded through appropriate consents and protocols.

This work, and implementation of the Civil Service Renewal 2030 Strategy includes:

- **Driving the 'Government as a Platform' concept across Public Services** to standardise approaches, re-use rather than re-invent/re-collect, and deliver a more uniform customer experience across government; including ensuring all new services are developed with MyGovID (or UBI) and Eircodes, as applicable;
- Through the newly created **Data Governance Board**, further progress the implementation of the **"once-only" principle** for collecting and using information and develop a user portal to increase trust and transparency in how we use data;
- Giving the user more control of their data assets by **enabling digital credentials** (e.g. driving licences) to be downloadable and usable on personal devices;
- Taking a **'cloud-oriented' approach** to delivery of all services;
- Ensuring all public services over time are developed using **design thinking, digital-first, privacy-centric, and secure by design as core principles**;
- Continuing to **encourage a strong public service innovation culture** and scale up the investment, skills and support necessary;
- Progressing **implementation of the Cruinniú GovTech report**, making it easier for Start-Ups and SMEs to work with Government to improve digital public services;
- Using the **public procurement process to support innovative digital start-ups and SMEs**;
- Continuing the accelerated **roll-out of online voter registration**;
- Creating a more structured approach to the **development of SMART cities and villages**;

- Accelerating the move to **digital visa application processing** for all applicants and **enhance the employment permit processes** for global qualified talent seeking employment in Ireland; and

Building on the success of Gov.ie by **delivering the first iterations of a new Life Events Portal**, to include registration of births and deaths, returning to Ireland and starting up a business, thereby utilising information to proactively serve people's needs.

Delivering on Ireland's National Recovery and Resilience Plan and the renewed National Development Plan's digital commitments includes:

- Developing **meaningful solutions in eHealth and digital health services. This will involve continued phased deployment of electronic Health record systems, use of health identifiers to create records that are unique to each patient, ePharmacy and ePrescribing, summary/ shared care records, telemedicine and remote care monitoring solutions.** These initiatives coupled with investment in foundational infrastructure and national systems to enable transformation and reform of the health service in Ireland will help to reduce our reliance on acute hospitals. It will also empower citizens to monitor their health status, adapt their lifestyles and support independent living and enable people to be cared for closer to home;
- **Digitally enabling the healthcare workforce** so that they have access to modern, fit for purpose technology, which allows them to save time, record better data and provide better care to their patients. For support staff, the provision of tools such as

the **integrated financial management system** will increase efficiencies;

- Developing a **Shared Government Data Centre** to deliver high-quality Data Centre facilities which, by complementing public cloud offerings, are fit for purpose and capable of meeting the Government's requirements now and in the future;
- Provision of an **Online Response Option for the Census of Population by 2026**, enabling more timely and better-quality data to inform policy making.
- A **stronger focus on the use of digital technologies in schools**, including through a new Digital Strategy for Schools (due early-2022), which will enhance and build on achievements to date, promoting and supporting the development of digital skills in our student population; and
- A **€64 million programme for digital infrastructure for schools** including high-speed broadband connectivity for up to 1,100 primary schools, grant scheme to address the digital divide for learners at risk of educational disadvantage due to lack of access to technology, as well as a laptop programme for 20,000 disadvantaged FET and HE students.

As Ireland progresses towards the target of 90% of applicable services consumed online by 2030, **Government will ensure that those cohorts who are not in a position to engage online will be better served through a clear plan** involving focused supports, including skills, infrastructure, and assisted digital supports, with consideration of the most appropriate service delivery channels, and the development of appropriate and clear consents and protocols.

4.2 Data Use and Governance

The Government recognises and supports the EU Commission’s position that the free flow of data across sectors and borders is not only a driver for better Public Services but can also drive research and innovation, the commercial sector, and the training of AI systems to the benefit of sectors such as Health, Transport, Environment, and Agriculture.

An EU Data Governance Act currently under negotiation, when transposed in Ireland, will put in place the regulatory framework to build trust in sharing sensitive data, strengthen mechanisms to increase data availability and overcome technical obstacles to the reuse of data. The **Open Data Directive**, which was transposed into law in July 2021, confers on an individual the right to re-use information which public bodies hold, including high value government data in an open format.

This is in line with the Government’s **Open Data Strategy 2017-2022**, with core objectives of:

- Increasing the publication of high value government data in open format, making it publicly available and freely reusable; and

- Engaging with a broad community of stakeholders to promote its social and economic benefits and its reuse;

The cohesive approach to **Public Service data as outlined in the Public Service Data Strategy 2019-2023** aligns well with the **European Data Strategy regulation on Data Governance**.

The Government is now taking forward the implementation of Ireland’s **Data Sharing and Governance Act**, which is designed to protect citizen’s privacy by establishing a prescriptive framework in legislation for governance, oversight, and transparency of data processing within the Public Service. This will allow the Public Service to be better equipped to address requests for data. It will also ensure that the public understands the purpose, means and justification when their data is shared, thereby maintaining trust in the Government’s use of digital and data.

A Data Governance Board has been established to direct, oversee, and drive data governance across the Public Service. Through good data governance, Public Service Bodies will ensure their data is accurate, consistent, complete, available, discoverable, and secure.

Workstream & related Deliverables:

Recognising the importance and value of public service held data, develop and fully implement a Public Service Digital Strategy, to ensure such data is harnessed and used safely and effectively.

This will focus on:

- **Improving Public Services** by implementing structures to deliver more and better re-use of data;
- Providing individuals with **better access** to their **data and transparency in its use**;
- Driving better **data sharing to streamline service delivery**; and
- Expanding the **range of data sets published**, generating insights for public policy and research.

Implementation:

A Co-ordinated Approach
to Digital Policy
and Regulation



Implementation: A Co-ordinated Approach to Digital Policy and Regulation

Digital by its very nature permeates right across economic and social policy areas. A core aim of the Strategy is to draw together key digital strategies and plans across Government, providing a coherent and joined-up policy approach, with various digital elements re-enforcing each other to maximise benefits, and facilitate sectoral sub-strategies.

A coherent governance structure and a modern, cohesive, well-resourced regulatory framework is central. The vast digital dividends across society and the economy can only be achieved with appropriate reform, oversight and protections. Co-operation, political leadership and stakeholder engagement are crucial.



Ireland will increasingly lead, shape and influence at EU level and be a strong advocate for an **optimal regulatory framework for the digital economy and broader society**. This will involve proactively shaping negotiations and ensuring effective implementation across a wide range of new and forthcoming digital proposals. It will require carefully balancing citizens' safety, innovation, trust, and a level playing field, as well as allowing for an agile and workable regulatory framework. Regulation needs to be measured, understandable, enforceable and effective. These aims align with Ireland's ambition to be a **centre of regulatory excellence** in Europe where both industry investments and European consumers are the winners.

Ireland will pursue an ethical and rights-based approach to digitalisation, ensuring

that no part of society or the economy is left behind. This will include playing an active and positive role in the development of an EU declaration on a set of Digital Principles, and advocating strongly for the enshrinement of inclusive principles such as access to reliable and affordable connectivity; an open, fair, secure and trusted online environment; protecting and empowering children and young people in the online space; accessible and human-centric digital public services and administration and access to digital health services. Ireland will also shape forthcoming EU digital regulations, including the AI Regulation, to ensure an ethical and human-centric approach.

As the digital regulatory landscape becomes increasingly complex, particularly in the context of the horizontal nature of digital,

it will be more important than ever to ensure Ireland has a coherent regulatory framework. The current landscape is one of multiple national agencies and growing EU developments and regulations. With regulations becoming increasingly cross-cutting, greater cooperation is required across Departments, national regulators, other Member State regulators and the European Commission.

Legislative and regulatory developments as part of the EU's Digital Single Market

Strategy, and its successor *Shaping Europe's Digital Future*, are expected to result in a number of revised and additional digital regulations. Against this backdrop, greater coherence and cooperation is needed across the full spectrum of Ireland's digital areas of responsibility and regulation. Government is committing to more structured regular engagement between Regulators and Government Departments on existing and emerging digital regulatory challenges.

Workstream & related Deliverables:

Ireland is committed to continue to provide a modern, cohesive and well-resourced digital regulatory system including through:

- **Effective and well-resourced highly-skilled regulators** including the Data Protection Commission, new Media Commission, the Competition and Consumer Protection Commission, Commission for Communications Regulation, and the nominated Digital Services Co-ordinator; this involves a commitment to:
 - Establish the new Media Commission on an administrative basis, as early as possible in 2022;
 - Nominate a regulator, in Q1 2022, to act as Ireland's Digital Services Co-ordinator under the forthcoming Digital Services Act; and
 - Respond to, and implement effectively new EU regulations as they emerge.
- **Work to maximise the coherence of digital and regulatory structures, and to support a wider regulatory co-operation framework** to drive greater clarity, coherence and cooperation; this includes:
 - Formal structured engagement between the Digital Issues Senior Officials' Group and existing Economic Regulators Network on digital issues; and
 - Engagement between the National Cyber Security Centre and relevant sectoral regulators to consider future oversight of cyber security under the EU Network and Information Security Directive.
- **Being a strong voice in Europe for a balanced approach to digital regulation** in areas such as data, digital markets, digital services, cyber security and AI, bringing Ireland's expertise and experience.

This includes:

- Delivering effective **data protection** regulation and the protection of the data privacy rights of EU citizens. Ireland has a strong regulatory framework which focuses on, and safeguards the rights of each individual data subject. **The Government keeps the resourcing of the Data Protection Commission under on-going review, and will ensure it continues to have the resources and tools required to fulfil its important, statutory obligations;**

The Department of Justice, in conjunction with the Data Protection Commission, continues to monitor the impact of the implementation of General Data Protection Regulation (GDPR), the impact of any possible future regulatory changes across Europe, changes within industry as well as Ireland's transition to a more digitalised future to ensure that the Data Protection Commission continues to be appropriately resourced;

- Establishing a new **Media Commission** under the **Online Safety and Media Regulation Bill**, dissolving the Broadcasting Authority of Ireland, establishing regulatory frameworks for online safety and the regulation of audiovisual media services, and transposing the revised Audiovisual Media Services Directive. An important element of the Media Commission's work will be the creation of a **new Online Safety Commissioner**, who will oversee the regulatory framework for online safety. The new Commissioner will devise binding online safety codes that will set out how regulated online services, including certain social media services, are expected to deal with certain defined categories of harmful online content on their platforms. **The Government is cognisant of the importance of this work and is committed to providing for the establishment of the Media Commission on an administrative basis as early as possible in 2022;**
- The establishment of the Media Commission on an administrative basis will also be an important step in enhancing regulation and improving coherence in policy implementation in relation to the additional responsibilities expected to be given to the Commission arising from the **recommendations of the Future of Media Commission;**
- Nominating an Irish regulator in Q1 2022 - to act as a **Digital Services Co-ordinator** (DSC) - under the forthcoming **Digital Services Act**, which aims to create a safer digital space in which the fundamental rights of all users of digital services are protected. **The Government will ensure that a strong and well-resourced Digital Services Co-ordinator is in place to oversee and enforce the Act;**
- In addition, a competent authority with responsibility for regulatory oversight of online service providers will need to be designated under the EU Regulation on addressing the **dissemination of terrorist content online** in advance of the implementation date in June 2022; and the European Commission is also due to propose a major new legislative package to combat child sexual abuse, which will also require the State to designate a regulatory body for online service providers;
- Ensuring clarity on digital responsibility and policy coherence across the system as policy and regulation evolves at EU and national level; and
- Ireland **recognises the importance of effective enforcement powers** for digital regulators consistent with enforcement mechanism requirements of the Irish legal system.

Implementation of the Strategy & Measurement

Delivering on our ambition to be a digital leader at the heart of European and global digital developments will be supported by stronger political leadership and ongoing political oversight on digital issues, including implementation of the Strategy, and relevant EU and regulatory issues.

Implementation of this national digital strategy, and relevant EU and regulatory issues, will be overseen by the **Cabinet Committee on Economic Recovery and Investment**, chaired by the Tánaiste, supported by official-led sub-groups (namely, the Digital Issues Senior Officials' Group, chaired by the Department of the Taoiseach, and the Digital Single Market Group, chaired by the Department of Enterprise, Trade and Employment). This will allow disparate elements of the digital agenda to be progressed under a coherent **work programme**, led by the Department of Enterprise, Trade and Employment.

As workstreams are progressed, consultation and engagement with stakeholders on digital issues will be an important element of the approach. This will include engagement at EU, international and national level; and formal regular engagement with the network of Irish regulators on digital issues.

In parallel, Ireland will work closely with the EU Commission, including providing a national **Digital Decade Strategic Roadmap** covering the period up to 2030, which will set out how Ireland will contribute to achieving at EU level, the overall objectives and digital targets.

Progress across Ireland and the EU as a whole will be measured against the **Digital Economy and Society Index (DESI)**, which there are plans to strengthen. This will ensure Ireland is benchmarking itself against European leaders.

Annex 1 – Summary of Targets and Workstreams

Targets:

| Dimension: | 'Harnessing Digital: The Digital Ireland Framework' Targets |
|--|--|
| <p>Digital Transformation of Business</p> | <ul style="list-style-type: none"> ● 75% enterprise take-up in Cloud Computing, Big Data, AI by 2030 ● 90% of SMEs with at least a basic digital intensity by 2030 ● 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 |
| <p>Digital Infrastructure</p> | <ul style="list-style-type: none"> ● 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 ● Complete the delivery of digital connectivity to all Connected Hubs and all Schools by 2023 ● All operators of essential services, Government Departments and key agencies independently verified to have implemented robust cyber security mitigation measures based on internationally recognised standards by 2024 |
| <p>Skills</p> | <ul style="list-style-type: none"> ● Increase the numbers of learners graduating with higher-level digital skills to over 12,400 graduates, apprentices and trainees by end-2022, with ambition to further increase digital skills provision in following years ● Increase the share of adults in Ireland with at least basic digital skills to 80% by 2030 (as measured by DESI) |
| <p>Digitalisation of Public Services</p> | <ul style="list-style-type: none"> ● 90% of applicable services to be consumed online by 2030 ● 80% of eligible citizens using MyGovID by 2030 ● 20% of employees in the public sector, colleges, and other public bodies home and remote working (post-pandemic) |

Workstreams:

| <u>Dimension:</u> | <u>High-level Workstreams</u> (detailed deliverables set out within Dimensions) |
|---|--|
| Digital Transformation of Business | <ul style="list-style-type: none"> • Comprehensively support enterprise across all aspects of their digital transformation, to maximise related gains. • Pursue a coherent, integrated and proactive approach to the digital transition, through a robust eco-system and strong enablers. |
| Digital Infrastructure | <ul style="list-style-type: none"> • Drive increased gigabit and 5G connectivity, including international connectivity. This will include complementing commercial investment in infrastructure with Government-led initiatives and through facilitating other enablers as appropriate. • Address the energy and circular economy challenges from digital technologies through suitable approaches and principles • Prioritise Ireland's cyber security capacity, expertise, and infrastructure, reflecting the growing importance of cyber security. |
| Skills | <ul style="list-style-type: none"> • Provide digital skills through an agile, responsive skills system – ensuring a comprehensive and inter-connected cluster of skills policy responses to meet the challenges, and realise the opportunity of Ireland's digital transformation. • Deliver Digital Skills for Society, to enable all cohorts of people to engage with, and benefit from digitalisation. |
| Digitalisation of Public Services | <ul style="list-style-type: none"> • Further digitalisation of public services, leveraging the substantial progress made during the pandemic (with a particular focus on the health system). • Recognising the importance and value of public service held data, develop and fully implement a Public Service Digital Strategy, to ensure such data is harnessed and used safely and effectively. |
| Implementation: A Co-ordinated Approach to Digital Policy & Regulation | <ul style="list-style-type: none"> • Committed to continue providing a modern, cohesive and well-resourced digital regulatory system including through effective and well-resourced highly-skilled regulators; and work to maximise the coherence of digital and regulatory structures, and to support a wider regulatory co-operation framework to drive greater clarity, coherence and cooperation; and being a strong voice in Europe for a balanced approach to digital regulation. |

Annex 2 - Europe's Digital Decade to 2030

The European vision for 2030, the forthcoming Digital Decade, is a digital society where no-one is left behind. The goal of the Digital Decade is the successful digital transformation of Europe by 2030 and for the Union to be digitally sovereign in an open and interconnected world – this according to the strategy will be achieved by addressing vulnerabilities and dependencies as well as accelerating investment.

The Digital Compass will translate the EU's digital ambitions for 2030 into concrete terms. They revolve around four dimensions with corresponding targets across Skills; Digital Infrastructure; Digital Transformation of Business; and Digitalisation of Public Services.

To address the EU's critical capacities, the Commission will facilitate the rapid launch of multi-country projects, combining investment from the EU budget, Member States and industry, building on the Recovery and Resilience Facility. In their Recovery and Resilience Plans, Member States are committed to dedicate at least 20% to the digital priority.

The Compass proposes to include a set of digital principles and rights building on and complementing the experience of the European Pillar of Social Rights. The Commission intends to carry out an annual Eurobarometer exercise specifically dedicated to monitoring the perception of Europeans regarding the respect of their rights and values, and to what extent they feel that the digitalisation of our society is serving them. Examples of proposed principles include universal access to internet services; a secure and trusted online environment; universal digital skills; protecting children in the online space; and access to digital health services.

Governance

The Digital Decade sets out a novel governance structure with Member States based on a monitoring system with annual reporting. The targets will be enshrined in a Policy Programme, and the underlying indicators for monitoring the targets at EU level and the digitalisation trends at national level will be part of an enhanced Digital Economy and Society Index (DESI) reporting process; the Commission will be responsible for the analysis and overall reporting on progress at European level.

On the basis of this analysis, the Commission will publish annually the European "State of the Digital Decade" Report, to report on the progress towards the 2030 targets. The report will raise awareness on deviations towards the common 2030 EU goals and digital principles and identified investment gaps. It will trigger a collaborative analysis between the Commission and Member States to identify solutions addressing weaknesses and to propose targeted actions for effective remedies. The Commission will be empowered to undertake an operational follow-up and to provide recommendations.

EU Digital Decade Targets and Ireland Current Baseline 2021

| | Current IE level (DESI 2021) | Current IE level (DESI 2021) | Digital Decade 2030 EU Targets |
|---|---------------------------------|---------------------------------|-----------------------------------|
| Digital Transformation of Business | | | |
| Cloud Computing | 41% | 26% | 75% |
| Big Data | 23% | 14% | 75% |
| AI | 14% | 25% | 75% |
| SME Digital Intensity (Basic) | 66% | 60% | 90% |
| Digital Infrastructure | | | |
| Gigabit Network | 83% | 59% | 100% |
| 5G coverage | 30% | 14% | 100% |
| Skills | | | |
| Basic Digital Skills | 53% | 56% | 80% |
| Digitalisation of Public Services | | | |
| Government Services Online | 86% | 75% | 100% |

Source: Countries' digitisation performance | Shaping Europe's digital future (europa.eu)



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