Digital Scotland

Blueprint for a 21st Century Scottish Digital Nation

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Digital Nation Scotland: A Vision for a World-Leading Digital Future

The purpose of Digital Scotland is to support and help accelerate the Scottish Government's ambition for the country to become a world leading digital nation, and our ebook will provide a complete blueprint for achieving this.

The Scottish Government aims to refresh its Joint Digital Strategy, originally launched in 2021, to advance Scotland as a vibrant, inclusive, and outward-looking digital nation.

The strategy, a collaboration with local authorities, focuses on leveraging digital transformation to enhance public services, boost economic growth, promote social inclusion, and support environmental sustainability.

Key ambitions include:

Vision and Purpose: The refreshed strategy seeks to create a common purpose for digital transformation across Scotland's public sector, aligning with national priorities such as economic recovery, climate change targets, and inclusive public services. It emphasizes digital as a fundamental enabler for achieving Scotland's goals, ensuring no one is left behind in the digital age.

Transparent and Collaborative Process: The refresh process, led by Becca Fairless, emphasizes transparency with regular updates via blog posts and stakeholder newsletters. It involves the Scottish Government's Digital Directorate, COSLA, and the Digital Office for Scottish Local Government.

Alignment with National Priorities: The strategy seeks to align digital initiatives with Scotland's broader goals, fostering a unified purpose across the public sector.

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Inclusive Development: By involving stakeholders in developing delivery plans for Digital Inclusion, Digital Education and Skills, Digital Economy, and Digital Public Services, the strategy aims to enhance engagement, ownership, and clarity of roles.

Driving Collective Action: The success of the strategy is measured by its ability to inspire and motivate collective action at both national and local levels. By aligning digital initiatives with Scotland's priorities, the strategy seeks to deliver tangible improvements for citizens, businesses, and public services, ensuring ethical, secure, and user-centered digital transformation.

The refresh builds on the 2021 strategy's progress, as outlined in the May 2024 report, and aims to adapt to the evolving digital landscape through ongoing stakeholder collaboration.

As Colin Birchenall, CTO of the Digital Office describes here the key theme is collaboration across all sectors of the Scottish public sector including Local Government. The purpose of Digital Scotland and this site is to further expand this scope to also include businesses and entrepreneurs, so that it can be as large a collective effort as possible.

Digital Nation Scotland is a testament to Scotland's ambition and resilience. By uniting communities, businesses, and policymakers, it builds on the Scottish Government's vision of a collaborative, inclusive digital nation. This book is both a record of progress and a call to action. Together, we can create a future where Scotland leads the world in digital innovation, empowering every citizen and showcasing our brilliance globally.

Action Plan to Develop Scotland into a World Leading Digital Nation

As the title suggests the key emphasis of our Digital Nation Action Plan is roll your sleeves up, get stuff done action.

Digital Scotland will identify a number of initiatives and objectives central to Scotland becoming a world leading digital nation, and directly execute projects to achieve them.

The headline theme is '**digitizing Scotland**', referring to a holistic design goal of building an entirely digital nation, emulating world leaders like E-Estonia, where all aspects of their society from Government through Education are accessible online, and tech innovation is central to their economic success.

There can be achieved, literally. For example the small island of Tuvalu plans to build a digital version of itself in the 'Metaverse' in order to preserve its history as it faces erasure due to climate change.

There are innovations to showcase today that are advancing this goal, such as utilizing Augmented Reality technologies to digitize Scotland's towns and cities, like building 'virtual Hilltowns' and developing Stirling to become the world's first AR city.

Scotland has a great opportunity to position itself as a world leading digital nation.

By embracing technology and innovation, Scotland can create a thriving digital economy that attracts investment, fosters entrepreneurship, and improves the lives of its citizens.

In this article, we will explore the necessary steps for Scotland to become a global leader in the digital landscape.

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1. Invest in Infrastructure

Scotland needs to prioritize investments in digital infrastructure to provide reliable and fast internet connectivity across the country. This includes expanding broadband coverage, improving mobile networks, and investing in emerging technologies such as 5G. By ensuring that all areas have access to high-speed internet, Scotland can create a level playing field for businesses and individuals to thrive in the digital era.

2. Promote Digital Skills

To become a digital leader, Scotland must prioritize the development of digital skills among its population. This includes investing in education and training programs that equip people with the necessary skills to succeed in the digital economy. By promoting digital literacy and offering opportunities for upskilling and reskilling, Scotland can create a workforce that is ready to embrace the challenges and opportunities of the digital age.

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3. Support Startups

Scotland should create a supportive ecosystem for startups and entrepreneurs. This includes providing access to funding, mentorship programs, and co-working spaces. By nurturing a culture of innovation and entrepreneurship, Scotland can attract talented individuals and encourage the creation of innovative digital businesses. Supporting startups will also drive job creation and economic growth in the digital sector.

4. Encourage Innovation

To become a world leading digital nation, Scotland must foster a culture of innovation. This can be achieved by encouraging collaboration between academia, industry, and government. Creating innovation hubs, funding research and development projects, and providing incentives for companies to invest in new technologies will help Scotland stay at the forefront of digital innovation.

5. Foster Collaboration

Collaboration is key to success in the digital world. Scotland should promote collaboration between businesses, universities, and research institutions to drive innovation and knowledge sharing. By creating networks and platforms for collaboration, Scotland can leverage the collective expertise of its stakeholders to solve complex challenges and drive digital transformation across industries.

6. Ensure Digital Inclusion

Scotland must ensure that no one is left behind in the digital revolution. Efforts should be made to bridge the digital divide and ensure that all citizens have access to digital services and opportunities. This includes providing affordable internet access, digital skills training for disadvantaged groups, and designing inclusive digital services that cater to the needs of all users. By prioritizing digital inclusion, Scotland can create a more equitable and inclusive digital society.

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In conclusion, Scotland has the potential to become a world leading digital nation by embracing technology, investing in infrastructure, promoting digital skills, supporting startups, encouraging innovation, fostering collaboration, and ensuring digital inclusion. By taking these necessary steps, Scotland can position itself as a global leader in the digital economy and improve the lives of its citizens.

Digitizing Scotland: Building a Scottish Digital Supercluster

The primary purpose and reference model for Digital Scotland is Canada's "Digital Supercluster".

Canada has made extensive use of Michael Porter's cluster model to underpin their economic development strategies, a focus on building industry sector collaborations that pool resources and encourage shared innovation that grows the success for all the participating members.

Canada has built on and advanced this approach through the launch of a series of "Superclusters", concentrating large scale funding into keynote growth industries such as AI, Ocean Technology and Next Generation Manufacturing.

Scottish Digital Nation

Headlined by DigitalNation.scot the goal of Digital Scotland is to repeat this approach for Scotland's ambition to become a world leading digital nation, to grow our technology sector accordingly and furthermore grow adoption of technology by all organizations and sectors, so that there is a general accelerated growth of the economy produced from their success.

Although Canada's Superclusters program are regional in focus, the Digital Supercluster actually offers an R&D agenda that is ideal for defining a Digital Economy strategy for the whole country, described in detail in their Capacity Building strategy.

The Digital Supercluster identifies an R&D framework ideal for chartering a network intended to develop Canada's digital economy, including:

- Leverage work-integrated learning platforms;
- Develop diverse talent through relevant certification, work experience, education and training;
- Develop industry-relevant secondary, post-secondary and/or post-graduate expertise in digital innovation;
- Leverage access to Canada's pool of scientific, technical, engineering expertise and capabilities;
- Encourage and enable senior-level digital and business development talent to work and develop skills in Canada;
- Support workforce transformation for industries facing digitization and automation, including re-skilling of Canadians;
- Use online or technology-based methods to reach potential talent, both to encourage them to pursue a career in tech and to train relevant skills; and,
- Develop best practices of diversity and inclusion that enable organizations to be more inclusive of participation by women and other under represented groups.

From Gaming to the Blockchain Scotland has a number of tech sub-sectors populated with very promising startups that offer global growth potential but aren't yet working at the scale required to achieve that. These types of innovation programs offer the structure the government can employ to create a national platform for reaching that scale that the whole industry can benefit from.

Innovation Roadmaps

The centrepiece of the initiative are Industry Innovation Roadmaps, implemented through Industry Accelerators.

Industry Innovation Roadmaps provide a vehicle for a sector to collaboratively develop a shared growth strategy, encompassing market research, product innovation and development of new routes to market. Roadmaps collate market research, identify niche opportunities and co-ordinate a shared innovation pipeline for members to co-develop products to meet those opportunities.

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The backbone of these efforts are the creation of **'Technology Roadmaps'** (TRMs), a common product innovation roadmap and business plan for the whole industry that each business contributes to and can benefit from.

Technology Roadmaps are introduced and how to use them explained in detail in this guide, and the Canadian Government further explains them here, providing a list of completed roadmap programs for industries such as electric vehicles, intelligent buildings and smart grids among others, where they describe:

"Technology roadmapping brings players together to work together in a far-reaching planning process and opens the door to collaborative research and development (R&D).

Technology Roadmaps (TRM) can play a key role in enhancing innovation. It is a document outlining future market demand and the recommended means to meet this demand. A roadmap does not predict future breakthroughs in science or technology; rather, it forecasts and articulates the elements required to address future technological needs. A roadmap describes a given future, based on the shared vision of the people developing the roadmap and provides a framework for making that future happen technologically."

A whole book is available that explores their usage in academic detail. The process begins with a lead organization, such as a government body, industry consortium, or university, identifying a high-potential sector and rallying key players.

Stakeholders engage to align on a shared vision, contributing their expertise, funding, or infrastructure to drive collaborative projects. These projects, guided by the roadmap, may include joint research, pilot programs, or workforce training initiatives.

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As innovations succeed, they are scaled through commercialization, attracting investment and expanding market reach, which generates significant economic benefits like job creation, increased GDP, and enhanced global competitiveness.