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NORTHERN IRELAND'S

Artificial Intelligence Strategy

Positive Use
Positive Inclusion
Positive Outcomes



The Office of
Science and Technology

Consultation Report
August 2026



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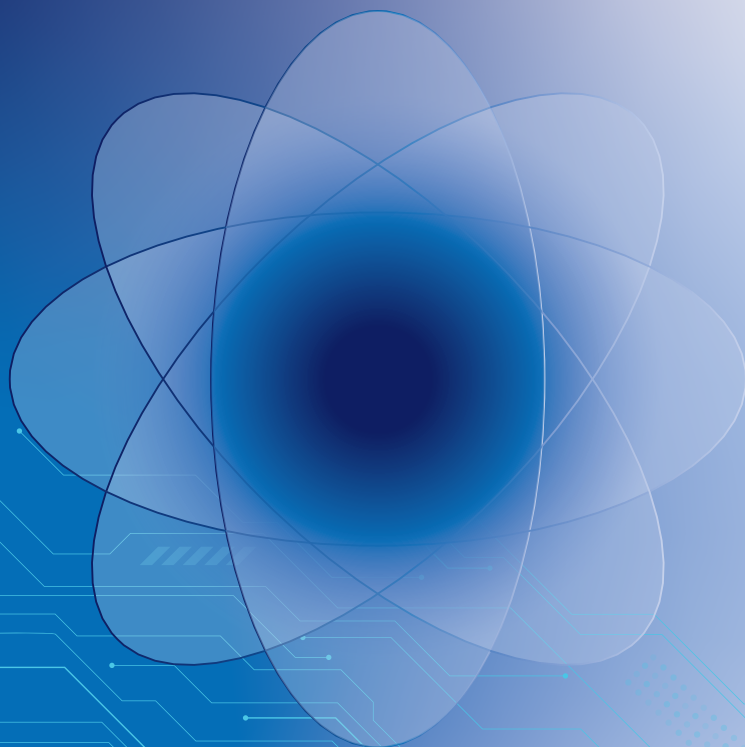
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Executive Summary

Northern Ireland's Public Sector AI Strategy is grounded in the premise that, with responsible governance and safeguards, Artificial Intelligence can unlock significant opportunities to improve public services and support innovation. From positive use and positive inclusion come positive outcomes.

AI can transform our public services to the benefit of citizens; it can revolutionise how we work and study; it can drive economic growth and prosperity; and it can amplify human capability to create higher-quality jobs.

The potential is extraordinary, and we have a duty to educate our citizens so that they understand that potential and can use these intelligent systems for their own benefit.

Yet Artificial Intelligence carries risk, so our priority must also be to ensure that we have accountable human oversight operating with guardrails for ethical use and guidelines for best use. This is particularly important in the use of AI in public sector transformation where so many of the services that impact the lives of people every day are delivered. The potential of AI will never be realised without public trust.

This strategy is therefore grounded in eight key principles that are designed to build confidence:



1. Human Oversight



2. Accountability and Redress



3. Data Governance



4. Technical Safety and Security



5. Fairness and Transparency



6. Sustainability



7. Societal Benefit



8. Training and Literacy



The strategy is proudly place-based. It provides an honest assessment of where we are on the journey towards AI transformation across a range of areas; it also offers recommended actions that respond to our specific circumstances. If we adhere to our eight principles and work collaboratively to develop a plan that delivers on the recommended actions, Northern Ireland (NI) will be uniquely positioned to become a major AI player on the global stage. We have deep expertise across all sectors; we have a unique ecosystem based on connectivity and collaboration; and we have significant potential to be a leader in infrastructure: our natural resources could establish us as a pioneer in green data centre provision and, with that, a magnet for Foreign Direct Investment.

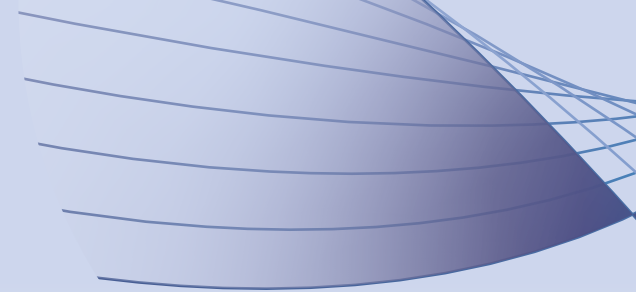
Achieving the ambition set out in the strategy will require us to mobilise our quadruple-helix of government, industry, academia and citizens to co-create the plan for delivery and put in place ongoing mechanisms to review and renew our approach.

Purpose & Scope

Our vision is to bring together a coalition of committed partners across Executive Departments and Arm's Length Bodies, who are united in shaping a future where Artificial Intelligence is applied consistently and responsibly. By establishing shared principles and priorities, this strategy supports public bodies to make informed, ethical decisions and to work together to deliver meaningful outcomes for society.

The strategy does not prescribe technologies, platforms, or digital solutions for individual organisations; rather, it sets a clear and ambitious direction, providing the flexibility for each organisation to adopt the tools, approaches and recommendations that best suit their unique needs and those of their users. Recommended actions are included with each section, and an overarching set of six Summary Actions is included in Appendix 1.

We invite industry leaders, educational and research institutions, local government, and voluntary and community sector partners to join us on this journey. This is not a technical manual or an economic blueprint; instead, it is a call to collective action and a guiding framework for safe, ethical, and purpose-driven AI adoption which will ensure that NI leads with integrity and ambition in an evolving digital world.



1. AI Explained

To support public sector leaders in making informed, confident decisions about the use of Artificial Intelligence, this section provides an accessible explanation of the origins and functions of AI.

Artificial Intelligence is a ‘collision space’ of disciplines, including Mathematics, Statistics, Cognitive Science and Computer Science; it also increasingly requires input from fields such as Philosophy to develop frameworks for ethical use, and the Creative Arts to support end-user engagement. In simple terms, AI encompasses a range of algorithm-based technologies that carry out complex tasks and solve complex problems using large datasets and high-performance computers. Essentially, AI systems learn patterns from data and use those patterns to generate outputs. In more technical terms, the [OECD AI Policy Observatory](#) defines an AI system as ‘a machine-based system that, for explicit or implicit objectives, infers, from the input it receives, how to generate outputs such as predictions, content, recommendations, or decisions that can influence physical or

virtual environments. Different AI systems vary in their levels of autonomy and adaptiveness after deployment’.¹ Among its benefits, AI enables computers and machines to ‘find insights in datasets too large for humans to comprehend, or to crunch more numbers than a human could in a lifetime of calculation’.²

As these suggest, definitions are often complex and risk raising alarm bells with their narrative of ‘doing what humans cannot’. AI is a rapidly evolving technology, with many benefits for business and individuals, but it can be misused and manipulated by malicious actors. The central tenets of this strategy, outlined below, identify the opportunities of AI while being conscious of the concerns that exist:

Foundational tenets underpinning this strategy



Artificial Intelligence is not a replacement for human intelligence; it is a product of it.



AI does not replace humans; it adds value to what they do.



AI supports human decision-making; it does not render it obsolete.



Programmers and designers define the levels of autonomy of AI systems; in other words, people prescribe what AI does and does not do in any given scenario.

In the current wave of interest in relation to AI, it should also be recognised that:

- i. AI is already in everyday use e.g. in face and fingerprint recognition on phones, in online banking and social media, with smart devices in the home, in cybersecurity software, and for geo-spatial tracking. It is also commonly used in health surveys and electronic health records; and across this spectrum, both higher and lower levels of governance are in play: high with online banking, for instance, and much lower with social media.
- ii. AI is not new; it can be dated back to a [1956 conference on the potential for computers to emulate human reasoning held in Dartmouth University, USA](#), and led by academics from Dartmouth and Harvard Universities and by representatives of IBM and Bell Telephone Laboratories.³ The two key concepts that emerged from that conference (artificial neural networks and symbolic AI) remain relevant for our understanding of how present-day technologies operate.

Debate will inevitably persist on the pros and cons of AI, but the purpose of this strategy is not to pronounce on those debates. AI is here; its potential for transformation of our economy, research, education, and public services is enormous, and NI has the opportunity to be a global leader in this field; so our priority must be to ensure that we have guardrails for ethical use to mitigate risks and engender trust, and guidelines for best use. Responsible AI and data-driven technologies have the potential to drive scientific and technological innovation, improve efficiency, and enhance decision-making. A coordinated and strategic intersectoral approach will enable us to avoid fragmentation, missed opportunities, competing purposes, inefficiencies, and governance challenges. From there, we can realise exponential returns that build on the existing expertise and good practice across NI.

Many of NI's government Departments are already deploying AI to improve outcomes for our citizens in areas ranging from healthcare and finance to infrastructure and sustainability. Recent evaluations of its uses have also highlighted AI's specific scope for RD&I in fields including [drug delivery](#),⁴ [radiology](#),⁵ [green energy](#) production and management,⁶ and [smart manufacturing](#).⁷

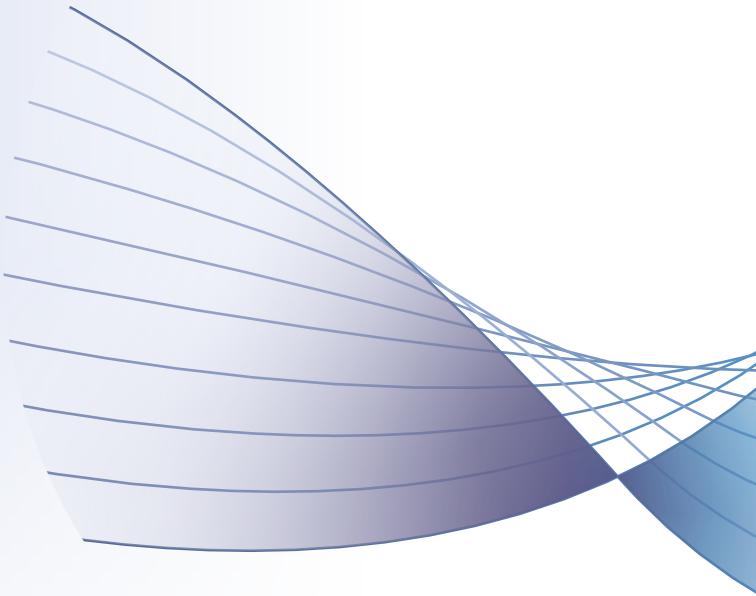
Work is also underway on the regulatory front, with the Department of Justice bringing forward legislation to criminalise the creation and sharing of sexually explicit deepfake images of adults. Once introduced, it will form part of the wider framework governing the safe and responsible use of AI in NI.

Yet in an environment where many citizens may be curious about the opportunities but unsure how to mobilise them with confidence and trust, information is key. We begin therefore with a brief overview of the different types of AI. These are commonly categorised by capability, functionality or output, but for the purposes of the present explanation, categorisation by output is prioritised as the most direct and observable way to understand the operations of AI. An output-focused approach is not only more accessible to non-experts; it also highlights impact and value. In addition, categorisations by output remain consistent, while functionality and

capability evolve rapidly through technological innovation. Discussions of functionality and capability can also be technically complex and therefore alienating to non-experts. In short, a focus on what AI can accomplish rather than on how AI works should be the remit of a user-focused strategy.

If we categorise by output, the following types emerge:⁸

- i. **Predictive/Analytical AI** analyses data to make predictions about future outcomes e.g. personalised content recommendations on Netflix; detection of fraudulent transactions by banks, inventory management in retail, or prediction of disease outbreaks and patient outcomes.
- ii. **Generative AI** creates new content such as text, images, music or video based on training data from Large Language Models e.g. ChatGPT; it is also used for customer service chatbots, for optimisation of product design in manufacturing, or for designing new molecules in drug delivery.
- iii. **Autonomous/Agentic AI** acts independently to complete complex, multi-step tasks e.g. self-driving cars, autonomous drones, factory systems, smart home devices, or precision surgical use.



These examples alone point to the sheer breadth of AI forms and uses, their fundamental integration into everyday life, and their future potential. The recent Matrix report on [AI and the Future of Work in Northern Ireland](#) provides a clear-sighted and compelling assessment of current and future impacts, with important recommendations centred on willingness, capability, and capacity. Evaluations and evidence of this kind are critical.⁹ In fact, the Matrix report projects AI contributing between £0.2B and £3.7B in incremental GVA in NI by 2030 relative to 2023, with a midpoint estimate of £1.2B.

Understanding the strengths and weaknesses of its forms and uses across sectors and population segments, as well as the controls that can be embedded to counter identified risks, is therefore the foundation of a rigorous governance framework and a strategy for transformation for good.



2. The AI Landscape in Northern Ireland

From a cursory glance at the landscape, one might be forgiven for thinking that NI is lagging behind other regions, but NI's unique ecosystem has the potential to position it as a global leader.

England launched its [AI Opportunities Action Plan](#) in January 2025,¹⁰ followed by the [AI Playbook](#) in February 2025,¹¹ the latter designed to offer guidance to those in government on the safe and effective use of AI. Ireland published its [AI-Here For Good Refresh](#) in November 2024 to take account of the updated EU regulations on AI use, and to provide a roadmap to unlock productivity, respond to societal challenges, and enhance public services delivery.¹² Scotland first launched its [Artificial Intelligence Strategy: Trustworthy, Ethical and Inclusive](#) in March 2021,¹³ with the [Scottish Alliance](#) also established in 2021 to lead on delivery of the strategy.¹⁴ The [Scottish AI Playbook](#) was subsequently published in January 2025 with the specific remit to provide businesses and other organisations with guidance on AI integration, and in March 2026, Scotland published a new [Artificial Intelligence Strategy 2026-2031](#).^{15,16} Wales published a [digital strategy](#) in 2022 which encompassed a vision for AI and Data Science.¹⁷ This was followed by an overview of [guidance and services on AI](#), an [AI Strategic Advisory Group](#) in June 2025, and the [AI Plan for Wales](#) was launched in November 2025.^{18,19,20} In each of

these strategies, the messaging around AI is inflected to align with the governmental, academic, commercial and population needs of the region. Similarly to other jurisdictions, there is value in developing an AI Strategy which can take into account our unique circumstances in respect of our governance structures, academic institutions, labour market and industrial sectors. A place-based approach is required, as was recognised in the [AI Strategic Direction](#) document published by the Department for the Economy in December 2025.²¹ It might also be tempting to suggest that we are too small to be a significant player in the AI space, but that is to elide the fact that we have one tremendous advantage that can make us globally competitive, and that is our connectivity. The building blocks are in place for a distinctive and transformational AI Strategy, meaning we have a strong platform from which to elevate all sectors with additional support and new frameworks for positive change (**Figure 1**).



2.1 Government

In February 2025, the Executive agreed the [Programme for Government 2024-2027](#) entitled 'Our Plan: Doing What Matters Most'.²² Within the Programme for Government (PfG), the Executive called for the creation of the Northern Ireland Science & Technology Advisory Network (NISTAN) which is now established to share best practice and innovation across Departments. Science Champions are also now embedded in each Department (DSCs) with a remit to act as the conduit and enabler for knowledge exchange and collaboration. The DSCs are members of NISTAN and provide a readily accessible network across government to leverage R&D funding.

The PfG also identified the need for the Office of Science & Technology (OST) which has now been established for >1 year, and is designed to work across all Departments to showcase and support innovations across government, to provide advice to ministers as and when required, and to be the 'docking entity' for external stakeholders. To date, the DSCs have been responsible for the generation of 80 Departmental Areas of Research Interest (ARIs) – namely challenges identified by Departments on which they are seeking research input from other stakeholders – and it is of note that >75% of the projects produced have an AI component. These projects are now externally advertised to foster collaboration between government, industry and academia.²³ The OST has also produced the first integrated cross-Executive Research and Innovation Strategy for NI entitled 'Integrate to Innovate', complete with clear actions and deliverables so that progress can be tracked.

In June 2025, the Office of AI & Digital (OAID) was launched by the First Minister and Deputy First Minister with a key remit to guide the

responsible, ethical and transparent adoption of AI across the public sector. To support the OAID, the Government AI Network (GAIN) has been established with an AI Champion appointed in each government Department, to build a community of support and best practice. The OAID is also working alongside the Data and Digital leaders recognising that AI, data and digital transformation are interdependent and must be progressed in an integrated fashion. For example, the Northern Ireland Statistics and Research Agency (NISRA), which is an executive agency of the Department of Finance, is leading on a Data Strategy designed to enable greater sharing of information across Departments and research entities.

However, there is work to do. A recent digital maturity assessment has revealed that there are a range of challenges: significant disparities across government Departments and ALBs; cultures of risk aversion which negatively impact digital transformation; digital talent gaps and shortages of skills; and a lack of interoperable systems, which prevents data-sharing and cross-cutting delivery.

The key takeaway on a government level is that none of these transformations occurs in isolation, but the leaders in Science & Technology, Data, Digital and AI are all committed to working together through a newly appointed Transformation Delivery Unit that is also supported by experts in behavioural science to ensure buy-in from end-users. This has enabled the development of an initial 5-point plan for government that commits to: 1) having all staff trained to use AI in office skills; 2) providing training to staff on basic efficiency tools; 3) all entities having cloud-based facilities that can talk to one another if required; 4) all entities having documents stored in a way that enables AI access; and 5) all entities having data classified, labelled and stored in readiness for more complex AI projects.

Progress is therefore underway across government, with a number of enabling AI projects already demonstrating impact across Departments and Arm's-Length Bodies, and more opportunities will follow (Table 1).

The ambition is for this strategy to give confidence to public sector bodies so that they can advance to the next level of data, digital and AI technologies.

Table 1. Selected Examples of AI Projects across Government Departments.

Department	Project	Benefits
DAERA	Remote Sensing Inspections	Use of satellite imagery, orthophotography and other spatial layers to determine land parcel features.
DAERA	Common Health Entry Document Inspection Portal (CHIP)	Saves 3–5 mins per 13,000 entries per year and enables staff to focus on outliers.
DAERA	Saltmarsh Classification	Reduces time and supports plan to map our blue carbon habitats.
DAERA	AI-Supported Imagery for Cattle Encroachment on River Lagan	Enables selection of priority areas for in-stream works.
TEO	Copilot Upskilling Programme	The programme builds digital capability by enabling staff to use Microsoft Copilot more effectively, improving collaboration and productivity.
DoF	Virtual Agent	Assists in answering questions from policy.
DoJ / TEO	Data Management	Ending Violence Against Women and Girls Dashboard to track progress.
DfI	Roads Virtual Agent	Reduces time staff spend on high volumes of customer queries and improves customer experience.
DfI	Winter Service	Uses AI to assist decision-making for winter gritting using multiple data sources including sensor data.

2.2 Higher and Further Education

NI has 6 Regional FE Colleges across 29 locations with courses at Levels 2–5 including Foundation Degrees, Higher National Diplomas and Higher Level Apprenticeships (HLAs), with top-ups to Level 6 via University partners. This equates to 61,000 individual students each year working across >9000 employers.²⁴ Given their significant reach and remit, our Further Education Colleges have a vital role to play in AI up-skilling. A game-changer would be provision of foundational learning in AI skills for all students, irrespective of the subject of study. The NI FE sector is proactive in this respect. However, while AI may in practice be embedded across courses, its presence is not prominent in a survey of marketing materials. A search for ‘Artificial Intelligence’ indicates a somewhat narrow association between AI and subjects such as Computing, Business or Finance. From this survey, therefore, it would appear that the potential for AI to provide a critical underpinning for courses not only in the Sciences, but also across subjects such as Engineering, Creative Technologies, Languages and vocational subjects, may as yet be unrealised.

A similar picture emerges across the Higher Education landscape in NI. A search for ‘Artificial Intelligence’ in each of the three Universities’ Course Finders provides a temperature check on the prominence of AI in existing provision. Here too, there is a general clustering of AI with a narrow field of disciplines, notably Business and Computer Science-related programmes, albeit there is some limited evidence of AI being integrated into a wider range of disciplinary fields of study such as English. In other words, while there is wide evidence of curriculum innovation in all institutions, there may be more to do to ensure that every graduate,

regardless of discipline, is confident with the appropriate use of AI. As outlined further under AI and Skills, all three universities are to be recognised and commended for providing learning support at varying levels on how to use AI as a study resource, but there is scope for a more throughgoing review of degree programmes, such as Major/Minor combinations, that extend higher-level skills in AI across a wider range of disciplines and associated sectors.

In terms of the research landscape in our universities, the picture is vibrant. A search for Artificial Intelligence across institutional research platforms reveals >180 academics and >500 research outputs associated with this field. NI therefore has the intellectual resource to be at the leading edge of AI developments, and other sectors should be encouraged and enabled to connect in with this expertise.^{25,26}

At Queen’s, the Centre for Intelligent Sustainable Computing (CISC) is focused on excellence in research applied to real-world problems, with expertise in AI, scalable algorithms, energy-efficient hardware and maintainable software for future technologies. Its goal is ambitious: to establish Queen’s as the UK’s leading university for the translation of research in Computer Science & Engineering. Likewise, Ulster University’s Artificial Intelligence Research Centre aims to create state-of-the-art AI solutions for practical problems, with the objectives of advancing the AI field, and developing new and existing networks with national and international AI centres for competitiveness. Both institutions are committed to providing high-quality training for the next generation of researchers, and to contributing to the community locally, nationally and internationally.

Their collegiality and commitment to partnership for positive impact are evidenced in the combined support to establish the Artificial Intelligence Collaboration Centre (AICC) in 2024. This initiative represents an initial £16.3M investment by both universities and supported by Invest NI and the Department for the Economy. As one of the 'priority for prosperity' projects in the PfG, the AICC's goal is to accelerate AI adoption within SMEs, and to build AI skills and collaboration across multiple sectors. More specifically, AICC aims to deliver 390 postgraduate scholarships for AI courses, 2000 professional short courses in AI Foundations for Business, 1100 people trained in AI skills, 248 SMEs with access to hands-on data science or machine learning support, and 100 new academic-industry connections, to name a few. The AICC has proven to be a tremendous resource for the region, and demand is currently outstripping supply.

Further resource in the AI and digital space is present in the Regional City Deals. Specific projects include:

- i. **Advanced Manufacturing Innovation Centre** (AMIC, >£95M), led by Queen's in partnership with UU and Antrim and Newtownabbey Borough Council, is a 10,500m² state-of-the-art facility which will become NI's centre for advanced manufacturing using digital and AI as enabling technologies.
- ii. **The Centre for Digital Healthcare Technology** (CDHT, >£40M), led by UU in partnership with Queen's, is designed to accelerate the development and commercialisation of next-generation medical technologies and digital healthcare solutions. Specialist capabilities span

data analytics, artificial intelligence, surgical robotics, image-guided therapy, diagnostics, design and simulation, and vital signs monitoring.

- iii. **Momentum 1.0** (M1.0, >£70M), led by Queen's in partnership with UU, is designed to support the digital economy, by increasing the volume and range of digital innovation and developing skills to meet industry needs. Its focus is data-driven innovation for digital health, agri-food, cybersecurity, semi-conductor security, space and wireless, fintech and net zero.
- iv. **Cognitive Analytics and Digital Robotics Innovation Centre** (Cadric, >£39M), led by UU, has a focus on AI/ML for analytics and robotics and is designed to be industry-facing, and to support businesses with industrial multidisciplinary collaboration and translation of their technologies.
- v. **Studio Ulster** (>£65M), led by UU, is a Tier 1 centre of excellence in Virtual Production Facilities (motion capture, 3D scanning studios and a SMART stage), which includes a 600-seater broadcast studio and film studio. Such is the demand for its services that Belfast Harbour is already planning a £45M expansion to quadruple the size of the existing studio.
- vi. **UK Digital Twin Centre** is a £35M investment between Digital Catapult, Belfast Region City Deal and Innovate UK, where AI is the core foundational component.

2.3 Industry

In terms of the industry landscape in NI, the [Artificial Intelligence Capability Census](#) (2025) provides a critical baseline to understand expertise, adoption, opportunity and impact.

Its mapping of NI’s specialist AI sector identifies 198 companies that are creating AI solutions, employing 1,340 specialists, and generating £82M in direct GVA.²⁷

Key statistics from the Census characterising NI’s AI ecosystem include the following:



46 (23%)

are pure-play AI firms focused exclusively on AI products and services.



63 (32%)

are diversified AI firms offering AI alongside broader technology services.



89 (45%)

are AI-enabled firms, using AI to enhance existing operations.



122 (62%)

are indigenous to NI, and 76 (38%) are international (FDI) operations, indicating both local growth and global attractiveness.



101 (51%)

are primarily using AI to develop or enhance products.



33%

provide AI implementation and advisory services.



73%

are Belfast-based, with only 4% in Derry-Londonderry.

► There is therefore more to be done to support FDI, to build capacity in AI in sectors of strength outside Belfast such as manufacturing, and to foster a start-up culture across the region.

Within this landscape, areas of significant strength include: Services & Consulting (35%); Software Development (33%); Health & Life Sciences (9%); and Financial Services including RegTech (6%). The sector may be small in comparison with the 92,743 companies registered in NI in 2025. However, it is growing, with the census modelling a range of scenarios for AI growth in the region to 2028, and proposing a midpoint scenario where AI-related GVA could reach £200M by 2028, with over 2,000 AI professionals employed.

In terms of indigenous companies, Kainos is the largest player, with around 2,865 employees, an annual revenue of £367.2M in 2025, and a record of securing £61M in public AI contracts. Established in 1986, Kainos is a leader in terms of digital solutions to support business innovation and growth. Working with sectors including financial services, insurance, payments, education, government, health

and life sciences, its key areas of expertise focus on AI for Growth, AI for Efficiency, and AI Governance, Compliance and Adoption. For instance, it supports organisations locally, nationally and internationally to:

- become data-driven, thus enabling them to manage and realise the value of their data for improved decision-making, and to increase efficiency, productivity and innovation through the use of analytics, AI and machine learning; and
- use generative AI to model improvements in customer, user and employee satisfaction.

With this range of key players in government, FE, HE, industry and beyond (as set out in Figure 1), NI has an outstanding pre-existing network of AI expertise that is poised for delivery and transformation.

Examples of the AI Building Blocks in Northern Ireland

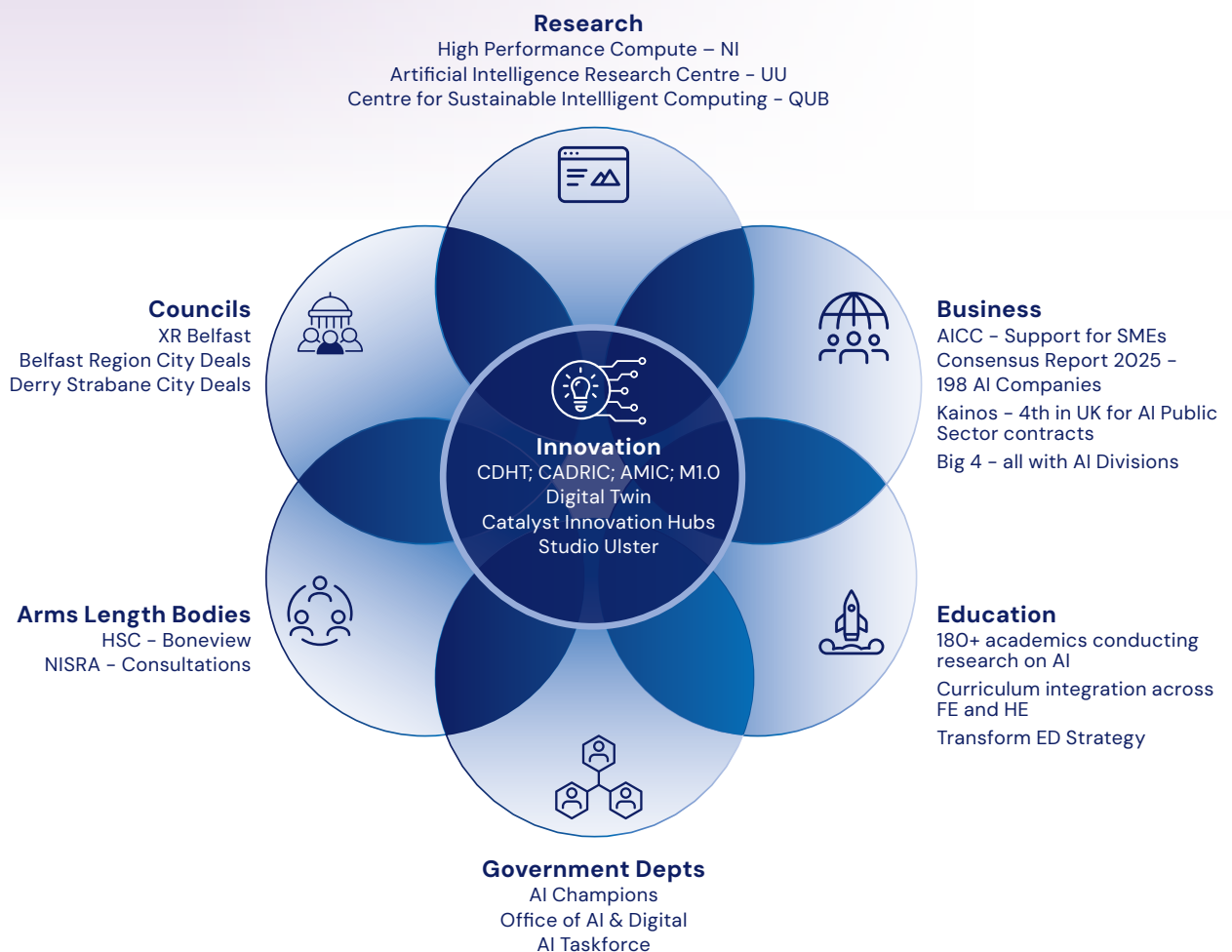


Figure 1: The Foundations for AI Growth in Northern Ireland.

3. The AI Principles for Northern Ireland

Robust AI principles are critical to promoting the use of innovative and trustworthy technologies. For NI, the principles establish a responsible and ethical foundation for how AI is to be deployed across the public sector.

The UK has [five regulatory principles](#) with ten common principles for the public sector, while the EU has [seven principles for responsible AI](#).^{28,29} NI's eight principles have been designed to be easily understood, future-facing and for deployment as a supporting framework

for all AI use in the public sector (Figure 2). They reflect NI's commitment to inclusivity, sustainability, lifelong learning, and the public good. Without this, the public sector risks inconsistency, duplication and the loss of trust.

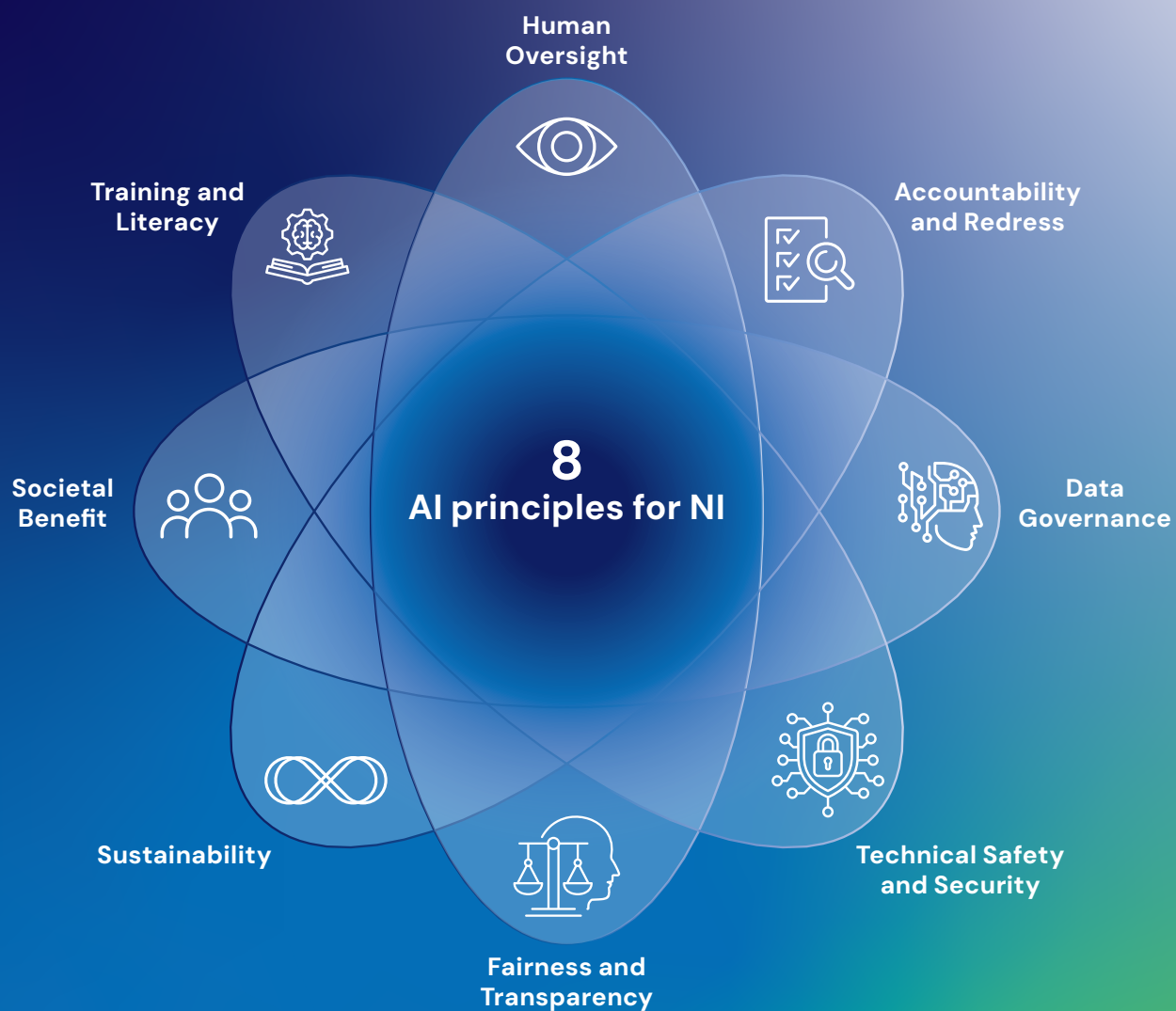


Figure 2.
The Eight Principles for Responsible AI in Northern Ireland.

Each principle sets an operational expectation for how AI should be developed, procured, and managed.



Principle 1: Human Oversight

Human oversight has been well documented as a key requirement for the use of AI in the public sector.^{30,31} It is critical that the human who is either 'in the loop' or 'on the loop' has both sufficient expertise to identify issues, and the acuity to understand when the algorithmic decisions need to be questioned.

'In the loop' refers to humans making every decision, while 'on the loop' indicates monitoring and appropriate intervention.^{32,33} This must be considered as a fundamental role in every AI public sector project, and it should not fall to one person as that carries the risk of a single point of failure. Every AI project should have a human oversight

team that is responsible for ensuring accuracy, preventing bias, integrating citizen perspectives and values, and questioning the outputs. The human oversight team should be embedded across the entire AI lifecycle, with human intervention points being documented for the purposes of good governance and accountability.

Recommended Actions



Assemble human oversight teams within each Department and ALB that are not only sufficiently trained, but also critical thinkers and challengers.



Define a framework to detail the exact role and responsibility of the human oversight teams.



Create a human oversight disclosure plan for each project to show intervention points and the mechanisms by which negative outputs are detected and corrected.



Principle 2: Accountability & Redress

Clear lines of responsibility are critical for the successful delivery of AI projects.³⁴ These should cover data, algorithms, project design and project outcomes, and responsible officers should be clearly documented.

This clarity is essential for auditing purposes, but it is also valuable in making explicit the decision-making process in the AI lifecycle. If the accountable person changes during the lifecycle of the AI project, this must also be documented. Accountability plays a key role in building trust and confidence in the use of AI, particularly in government where levels

of trust are low. Accountability must also be combined with clearly-defined [avenues for redress](#), which may range from shared review processes that build public trust, to reporting negative impacts and explaining solutions.^{35,36} The redress function must be accessible and available internally and externally to align with the principle of transparency.

Recommended Actions



Define redress mechanisms for use across public sector bodies.



Ensure accountable officers are listed on every project.



Develop a process for identification and disclosure of errors.



Principle 3: Data Governance

This principle is based on ensuring that policies and processes protect personal data and that any data used is subject to the highest standards of data governance.³⁷

Given that all AI projects require data, the fairness of all AI-driven outputs is directly impacted by the integrity of the data. Public sector bodies should therefore have a Data Protection Officer who is equipped to advise specifically on the AI-related data protections and ensure compliance. The DPO should form an integral part of the Human Oversight Team and assist with the Data Protection Impact Assessments (DPIAs).

Public sector organisations in NI operate under the [UK GDPR and Data Protection Act of 2018](#).³⁸ Under [Article 35](#) of the regulations,³⁹ these assessments are mandatory before commencement of any AI project. DPIAs are live documents and play a key part in ensuring accountability and transparency. The DPO is also the main point of contact for citizens concerned about use of their data in AI systems and, as such, has a key function in terms of managing avenues for redress.

Recommended Actions



Amend DPIAs as required to integrate the AI principles.



Enable visibility of organisational DPOs.



Embed document validation and verification steps across the data lifecycle.



Principle 4: Technical Safety & Security

Public sector AI must be safe, secure, and resilient to threat. It must be safe in the sense of a ‘no harm’ approach to humans and the environment,⁴⁰ and public sector AI should follow best practice in risk management and testing with compliance to recognised standards.

It must be secure to avoid any unauthorised access to, or alteration of, data. It is critical, for example, that AI services are resilient to cyber-attacks. Public sector bodies are guided by the UK Government [Cyber Security Strategy](#) (2022 to 2030),⁴¹ with further resources from the [UK National Cyber Security Centre](#) (NCSC) providing a cyber assessment framework to assist with AI security practices.

Any use of third-party systems by the public sector must conform to the internal safety and security policies of each Department. It is also critical to ensure not only that the same AI system is maintained consistently throughout the project lifecycle, but that Departments can clearly evidence and demonstrate this compliance and continuity.

Recommended Actions



Ensure deep technical and cyber expertise is embedded in human oversight teams.



Develop public sector standards for AI risk assessment and management.



Design and declare consistency testing for systems through the AI lifecycle.



Principle 5: Fairness & Transparency

All uses of AI in the public sector should uphold values of fairness and inclusivity without discrimination or bias against any demographic or individual, or to propagate misinformation.

It is critical that bias detection is built into all AI projects and that this is particularly considered when a model is using training data. AI must be developed and implemented in a way that mitigates bias, respects the rule of law, protects human rights, and embraces diversity.⁴² Specifically in the political context, AI must not be used to manipulate voters, fabricate content, distort public debate, or unduly alter the public's perception of the

party and/or its representatives. The use of AI in the public sector should be clear, understandable and interpretable for all groups, particularly vulnerable or marginalised communities. Citizens should be advised when interacting with AI or AI-generated content and be able to understand the outputs. Whenever AI is used, it should be documented, auditable and open to challenge to maintain fairness and trust.

Recommended Actions



Ensure bias detection methods are built into AI models.



Create a Repository for all Public Sector AI projects.



Design communication materials for AI projects.



Principle 6: Environmental Sustainability

The NI Executive's Climate Action Plan has an overall target to achieve net-zero greenhouse gas emissions by 2050 with annual carbon budget targets also agreed. Within this context, the present principle is designed with a dual purpose.

Firstly, AI should be deployed to support sustainable solutions in energy or agriculture, or to monitor and model our natural environment. Such uses also contribute to longer-term societal and economic sustainability. Secondly, our approach to AI use must consider energy sources and efficiencies across all stages of the AI lifecycle.

This includes ensuring the development of AI is proportionate and does not place excessive demands on our energy and water infrastructure at the expense of communities. In short, the deployment of AI across the public sector must contribute in the broadest sense to a sustainable future.^{43,44}

Recommended Actions



Detail how individual AI projects can contribute to a sustainable future.



Assess feasibility of disclosing the energy source and usage associated with all AI projects.



Report mitigations.



Principle 7: Societal Benefit

AI systems must be used to enhance productivity and efficiency in the public sector, improve the citizen experience, and support better decision-making.

For example, public servants should be freed up for human interactions by automating routine public-facing tasks; public consultations should be more quickly and efficiently completed to enable a swifter passage to policy; public services should be tailored to local populations; and enhanced data analysis should be used to forecast

and simulate policy impact and resource allocation for integrated, cross-departmental transformation. However, every AI initiative must demonstrate a measurable benefit for citizens or public services, and there must be clear documentation to support the value of pursuing an AI-based solution over other approaches.

Recommended Actions



Integrate a cost-benefit assessment matrix to demonstrate the value of AI use over other methods at project development/ business case stage.



Include metrics to monitor operational efficiency, cost effectiveness, quality of citizen experience, and improved outcomes throughout project delivery.



Produce impact summaries at project completion and share best practice and lessons learned.



Principle 8: Training & Literacy

It is critical that we create accessible and inclusive training opportunities for all staff if we are to have an AI-enabled public sector.

Basic training, covering AI technologies, applications and ethical implications, should be built into new staff inductions, and basic technologies should be rolled out as a priority to increase efficiency in routine office tasks. Intermediate skills – both technical and those required to lead on the strategic integration of AI – will be necessary to deliver AI-based public service transformation projects, and this will require new career pathways within the public sector. Human Oversight Teams should also include a colleague being trained in the role to build future capacity. Advanced skills can significantly increase research capability across Departments and generate

a workforce of innovators and change agents. Investment in a Skills Academy, potentially in collaboration with the HE/Industry sector, would provide a mechanism not only for upskilling but also reskilling where there is a potential risk of AI-displacement. Working in tandem with an AI Workforce Observatory, the public sector must begin to futureproof for the longer term, while also providing safe spaces for experimentation, for example through sandboxes, to increase confidence and trust in the short and medium terms. Confidence and trust in AI among public sector workers will in turn build public confidence and trust.

Recommended Actions



Provide training to all public sector staff on AI basics.



Develop AI-specific career pathways within the public sector.



Integrate trainees into every Human Oversight Team to build capacity.



Establish an AI and Digital focused Public Sector Skills Academy aligned to the Digital Workplace Programme.

These principles are designed to guide public sector use of AI in NI. Our ambition is that these principles will be publicly communicated, and consistently applied and upheld over time, to provide clarity for citizens, public servants, and industry partners. These principles will be applied in the procurement process for suppliers who must evidence how their AI systems support the requirements for oversight, fairness, transparency, accountability, sustainability, training and societal benefits. For the

private sector, four main standards apply as detailed by [AICC](#) (Fairness, Accountability, Sustainability, and Transparency).⁴⁵ However, a recent (2025) [report](#) by EY concluded that businesses which align with responsible AI principles have a strategic advantage and a strong foundation for scaling, which in turn adds value to the business.⁴⁶ Other sectors may therefore wish to draw on this wider set of principles as a blueprint for their own approach to AI transformation.



4. AI Governance

Governance across the public sector is designed to provide the overarching framework for AI regulation. Strong governance enables responsible innovation and adoption, and creates the assurance for citizens, businesses and international stakeholders that NI's adoption of AI is trustworthy.

The AI governance landscape varies across jurisdictions. Currently in the UK, there is a pro-innovation framework that is underpinned by five principles which are aligned to those proposed for NI (Safety, security & robustness; Appropriate transparency and explainability; Fairness; Accountability and governance; Contestability and redress). In the UK, these are not statutory, but there is an expectation that they are applied across all sectors. Similarly in NI, our eight core principles should be applied in the design, use and implementation of AI projects. In the Republic of Ireland context, the [National Standards Authority of Ireland \(NSAI\)](#) is working on ensuring that the EU standards for AI are being implemented.⁴⁷ However, it is important to note that the EU AI Act is not concerned with businesses who use AI for efficiencies. Rather, it is designed to safeguard high-risk applications that may impact citizens' rights or safety.

This means that governance must be split between the public and private sectors, as there are different drivers for the use and outcomes of AI in each. Firstly, in the public sector, governance needs to be designed to cover people, process, procurement, data, AI build, monitoring and reporting. Secondly, we should be actively encouraging our commercial sectors to 'break the ceiling' with new innovations and applications of AI. However, symbiosis will occur when both sectors are committed to the NI principles, and when the latest AI innovations flow through to the public sector.

It is therefore critical that AI governance across the public sector includes sufficient protections while also being dynamically enabling. Any external AI procured should meet this governance criterion. In addition, an AI Governance Board should be created i.e. a cross-sectoral oversight body with citizen, academic, and industry representation and a strong focus on ethics. Across the public sector, an internal inventory of AI use should be available via a centralised repository which catalogues all AI purpose, systems, tools, applications, functionality, risks, stakeholders, and compliance with the governance framework. All initiatives that are planned for the future, as well as those that are ongoing or completed in the past, should be compiled along with key learnings. This inventory will serve as a single source of truth and will encourage AI circularity among the public sector community with next user/adopter advantages.

For the private sector, as an SME-driven economy, NI will have many businesses that are trying to understand where to start. For those at the beginning of their journey, AICC offers support through the Transformer Programme and through collaborative R&D. An additional invaluable resource in terms of governance is AICC's [Responsible AI Hub](#) which includes responsible AI fundamentals for business, an insight section and, most importantly, practical tools.

For example, AICC has developed the [Core Assessment of Governance and Ethics \(CAGE\)](#) tool which can aid with AI procurement or AI build. By working through the tool, each AI project can have a governance bundle, create a data fact sheet, complete a harm assessment, and review organisational governance. For individual AI projects.

CAGE provides a score and recommendations across six areas (Figure 3). In short, this is an excellent practical resource for those at the start of their AI journey in the private sector, and the possibility of adapting it to support public sector AI projects should be considered.

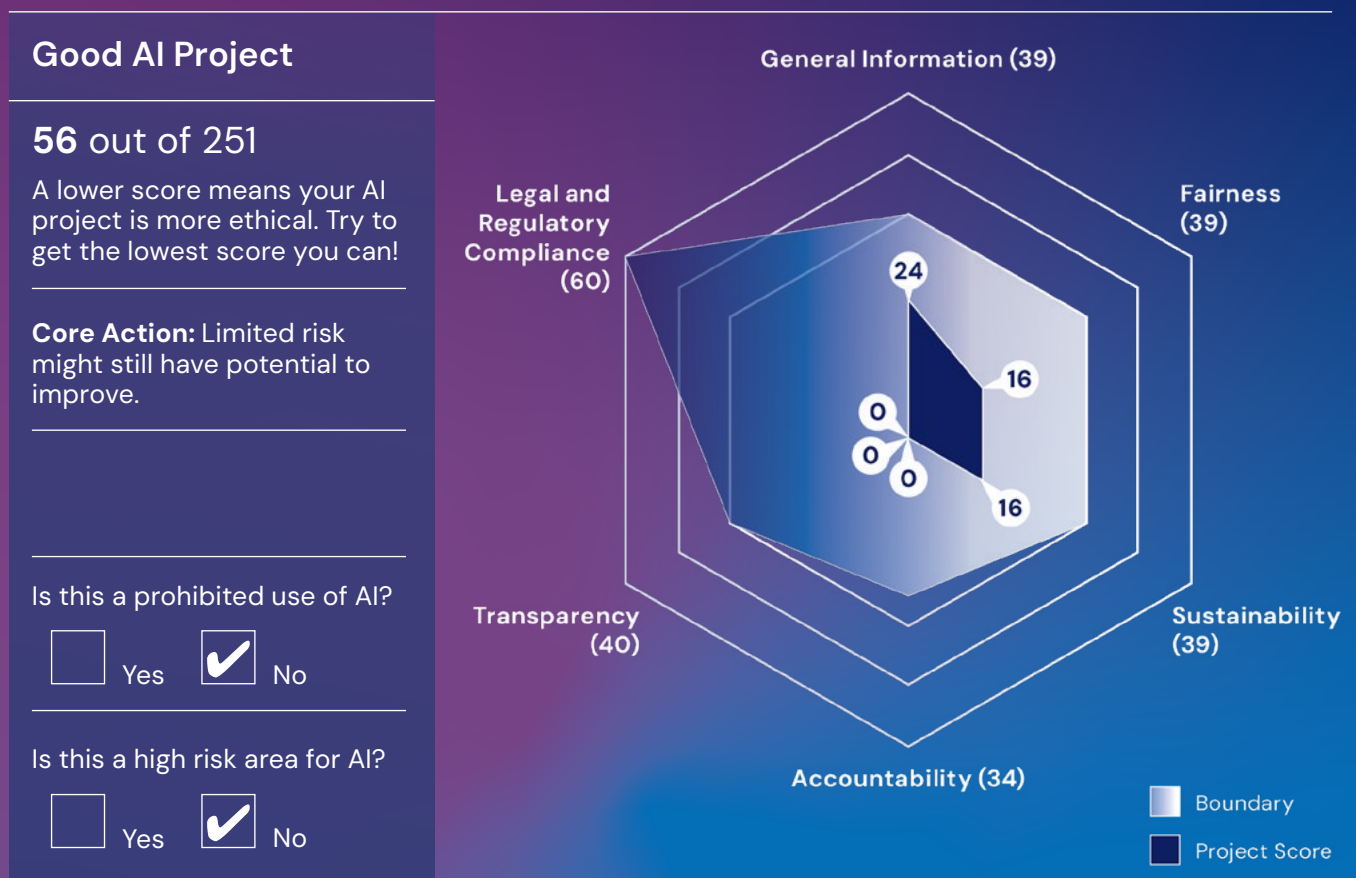


Figure 3. Using a Demo Company to show an example overview score from the CAGE tool. Each section is then broken down with recommendations for improvement.

Recommended Actions



Develop a governance framework and tool for public sector use with AI projects.



Establish a cross-sectoral AI governance board.



Produce internal inventories of AI projects across all public sector bodies.



Deliver bite-sized AI governance training for public & private sector leaders.

5. AI and Infrastructure

AI is only as strong as the data that underpins it. High-quality, well-governed data can unlock innovation and efficiency across all sectors, while poor, siloed, or insecure data can undermine projects and erode trust. It is therefore key that any Data Strategy integrates with the AI Strategy.

In the public sector, data must be managed responsibly, shared appropriately, and safeguarded against misuse. While both sectors must comply with GDPR standards, there is also a significant opportunity to leverage public sector data for research. In fact, the Office for Statistics Regulation has called for the UK government to ensure that datasets are shared and linked for research and statistical purposes. This call chimes with that of many academics and industry stakeholders who have requested a similar approach in NI. The value of accessing data for impact was evidenced in the [Administrative Data Research UK Annual Report 23/24](#), where de-identified data from the NI Registry of Self-Harm was linked to other sources of health and mortality data to provide evidenced-based recommendations for the reduction of self-harm and suicide in NI.⁴⁸

Many AI businesses in NI have also advocated for the need to access large datasets in order to train their models. As more AI projects are planned, and opportunities are uncovered, planning must therefore be in place to expand the publishing of anonymised datasets in order to stimulate innovation and growth, provided privacy is protected. Across the public sector, this is safeguarded in part through [data minimisation](#), whereby AI systems use only the data necessary for projects. Data minimisation aligns with our NI principles, reduces risks, and prevents unnecessary data accumulation.⁴⁹ Many datasets exist in isolation across the public

sector, but governance framework structures should enable collaboration and interoperable platforms so that maximal impact can be extracted from the wide range of available data.

For many public sector AI projects, cloud computing will be used. This requires data centres, and at present NI has nine. Yet with twice the population, Ireland has >135 data centres. This presents an opportunity for NI as [>20% of renewable energy generation is curtailed due to system constraints](#), i.e. we produce more than we use. As such, NI could develop a strategic, whole system plan for a green data centre industry which attracts FDI, as proposed in a 2024 [report](#) by KPMG,⁵⁰ provided that it aligns with other strategic energy demands. This is also recognised in the Matrix report as essential to fulfilling our AI ambitions. NI should also develop its own capability for AI and the necessary compute infrastructure to avoid vendor lock-in with cloud services. Cloud is too expensive for training new AI models, for allowing space for experimentation, or for deep R&D. Sovereign, green, high-performance computing is therefore essential.

Digital competency is also a key enabler for AI. AI adoption should not create parallel or fragmented systems but should build on and strengthen existing infrastructures. Our current infrastructure includes full-fibre connectivity which, at 93% with 94% gigabit-capable, is the highest availability across all the four nations according to [Ofcom](#).⁵¹

In research, the Centre for Secure Information Technologies (CSIT) at Queen's University and the [BT Ireland Innovation Centre](#) at Ulster University are conduits for advanced wireless technology research. Across the public sector, too, individual Departments are implementing digital strategies and programmes, such as Health and Social Care's [Encompass](#) programme, the Northern Ireland Courts and Tribunals Service's 'Digital First' approach, and DAERA's platforms such as the Single Application and Map Service. Central digital functions also exist, with the Department of Finance providing essential IT infrastructure, digital security, and finance shared services, while NI Direct serves as a shared hub for information and transactions. Yet there is more that can be done. A recent digital

maturity assessment across government Departments identified that, in all areas, NICS was at a legacy state. Recommendations of relevance for our AI ambition include: the need for an ambitious digital vision and plan, and a 'bespoke' centralised digital service to support Departments, including digital and data specialists, that focuses on rapid transformation of skills and culture. It is also critical that immediate digital solutions are sought for procurement. Procurement models across the public sector should allow modular, phased contracts that enable testing and evaluation before scaling. This avoids vendor lock-in and ensures the "right tool for the right use case", which is critical for AI. Finally, across the entire public sector, there must be 'safe spaces' built into the infrastructure for testing.

Recommended Actions



Identify high value datasets across all sectors that can be leveraged and published openly.



Enable legislation to share a wider range of datasets.



Ensure we have sufficient high performance compute facilities.



Develop an integrated data strategy that builds on the work of NISRA.



Create a central unit to rapidly enhance AI capability.

6. AI and Skills

It is the complementarity between sophisticated AI tools and skilled human beings that will create transformation, whether that is in relation to routine business processes or groundbreaking research.

The present strategy is therefore deliberate in identifying Training and Literacy as one of its eight core principles. Training is not simply an enabler; it is fundamental, and in terms of inclusion, digital access and literacy are increasingly recognised as basic human rights. Ensuring that our citizens have accessible opportunities to develop the skills to use AI responsibly, ethically, appropriately for the desired outcome, and with an appreciation of risks and mitigations, is critical to developing an AI-literate, future-ready population.

The overview of the AI landscape for NI demonstrates that we already have much to offer across the FE and HE sector in terms of AI skills development opportunities, albeit there is scope for wider integration of AI across disciplines. As noted previously, organisations such as AICC are also supporting SMEs to ensure they can avail of tools to support efficient working in an environment where resource may be scarce, and to enable data-driven insights for growth.

However, the skills agenda for AI needs to begin earlier, at school level. This requires support for teachers to understand not only how they can use AI in their own practice (e.g. AI assistance with administrative or grading tasks, or in accessing data-driven insights into student performance and outcomes), but also how they can train pupils to integrate AI into

their learning. That requires consistent, region-wide guidelines and policies for both teachers and pupils on responsible and ethical use, on approved tools, and on e-safety and data use. It also requires support, both investment and advocacy, to extend and upscale projects such as the [Trailblazing NI Report on Generative AI in Education](#) produced by Ulster University in collaboration with the Education Authority, or the PG Cert (Education) in Digital Skills recently launched by Stranmillis University College.⁵²

There are also gaps in other sectors. For example, the community and voluntary sectors, among those who are often most stretched for resource, would benefit from access to the type of training provided by AICC. As indicated, the Matrix Report recognises the contribution of AICC, while also calling for 'order-of-magnitude expansion in both [its] reach and resources'. Voluntary and community sector organisations are also those which commonly represent groups facing digital exclusion. The [Digital Skills in Northern Ireland report \(2024-25\)](#) published by NISRA in January 2026 shows that while Northern Ireland overall has significantly higher digital skill levels than the European average, there are significant disparities within that, with certain groups facing higher levels of exclusion than elsewhere in the UK.⁵³

For example:



37%

of people aged 16 and over have above basic digital skills, but almost 1 in 5 have none.



65+

Respondents in the 65+ age group are four times as likely to report that they have no digital skills (41%) than those aged 16–49 (10%).



32%

of those who are economically inactive have no digital skills in comparison with 6.2% of those who are economically active.



29%

of people from the most socio-economically deprived areas have above basic digital skills, compared to 49% in the least deprived areas.

Interventions are therefore needed to address these inequalities in digital skills in order to avoid further exclusion as the AI revolution transforms the educational, leisure, and employment landscape at pace. It is also critical to ensure that a strategy is in place for upskilling and reskilling workers at risk of AI-displacement, many of whom are likely to be from groups already facing inequalities.

Skills and Training solutions must therefore operate at a range of levels, with an AI Workforce Observatory of the kind proposed in the Matrix Report as a possible mechanism for the necessary and ongoing horizon-scanning that will be required given the pace of innovation and transformation.

6.1 Basic skills:

The Matrix report refers to an AI Skills Surge Programme that combines a public awareness campaign with access to basic training to ensure that all citizens are 'AI-capable'. There are many existing resources such as [Elements of AI](#), [Google AI Essentials](#) and [IBM SkillsBuild](#) which can be accessed by the general public. [Queen's University's AI Hub](#) is another freely available resource which, while targeted for the most part at learners and educators, also contains bite-sized introductions to AI tools that are relevant to a wider audience. The school, FE and HE sectors could also commit to integrating foundational AI literacy into all curricula.

6.2 Intermediate skills:

A higher level of skills will be required for transformation within organisations, whether that is in schools, businesses, charities, or government. To deliver the requisite step change means combining general training such as that offered by the AICC, with a conscious focus on capacity building through 'Train the Trainer' programmes that increase competence and confidence in the use of AI to enhance business processes. In all

organisations, transformation must also be championed by leaders, given that, as noted in the Matrix report, 'organisations recognise AI's potential but lack the confidence to move beyond cautious experimentation to meaningful deployment and integration'.

6.3 Advanced skills:

At the highest level, there is a need for both advanced technical skills e.g. for innovation and research in industry or universities, and advanced skills in AI transformation and strategy delivery. Fostering these skills will require an audit of our current HE provision that is grounded in horizon scanning for future skills needs. The outcome of such an audit may be additional provision in a particular specialist area such as Data Analytics, and/or an increase in cross-functional degrees such as Joint or Major/Minor degree pathways combining AI with any discipline e.g. Politics and AI, Languages with AI. Engineering and AI etc. If every profession is going to be transformed by AI, graduates who combine expertise in AI with other disciplines will be at a premium. However, linking in with the needs of industry will be key.

Recommended Actions



Audit educational provision across the region to identify gaps, including gender-based gaps, as noted in the survey conducted by the Strategic Policy Unit at Ulster University, and develop an integrated strategy to future-proof our skills landscape.



Scope out the AI needs and opportunities for the community and voluntary sector through engagement with NICVA, and develop a business case for mechanisms to support e.g. through AICC, FE or HE, although it should be noted that supporting the most marginalised often requires direct provision through community and voluntary groups.



Support further Integration of AI use into teacher training provision.



Develop region-wide guidance for use of AI in Schools.



Roll out public awareness campaign promoting access to freely accessible basic skills training.



Integrate a basic AI training module/session into new staff inductions across sectors.



Create mechanisms for mentorship, best-practice sharing, and peer advocacy for organisational leaders to develop confidence in AI transformation.

7. AI & Public Sector Transformation

Public sector transformation is the reimagination of how we design and deliver our services to be efficient, cost-effective, and with enhanced citizen benefit.

AI and digital are enabling technologies for public sector transformation that will automate key tasks, generate information, and provide the in-depth analysis of data which will ultimately drive evidence-based decision-making. Furthermore, appropriate analysis of current policies and projects will enable decision-makers to determine whether systems and initiatives are successful, need adaptation, or have failed. This is critical to ensure appropriate use of resources and delivery of services for citizens.

The academic, commercial and government sectors have worked collaboratively to highlight the opportunity for public sector transformation; yet many struggle to understand what it means. In essence, the public are posing the question of how to achieve more with the same resource, and the private sector are setting out how this

can be achieved, but governance challenges and risk aversion remain. Cultural learning and transformation must therefore be part of the plan. We must also recognise that large-scale transformation in one go is virtually impossible; but if we break down the transformation agenda into readily comprehensible projects with a clear emphasis on value and impact, and couple this with training for widespread roll-out, and a space for experimentation, an exponential amount can be achieved.

Currently the exception rather than standard practice, quantifiable outputs must be articulated for every project. There are also significant benefits in raising public awareness of ongoing projects and their outputs. The Office of AI and Digital and the Delivery Unit will have a key role to play in the recommended actions.

Table 2. Examples of Potential AI-driven Projects for Transformation of Public Services.

Area	Application	Why
All Public Sector	Efficiency tools for minutes, consultation analysis, machinery of government, information, evidence generation for policies, data generation to demonstrate whether strategies are working.	Saves staff time and financial resources that could be deployed to reskill and elevate employee satisfaction.
Health	AI-based diagnostics	Support for clinicians with fractures, cancer, strokes etc from images; support reduction in waiting lists.
	AI operational processes	Helping with discharge processes, demand for beds, optimal allocation; should improve patient satisfaction.

Area	Application	Why
Education	AI could aid with lessons, content and consistent feedback.	For educators this would enable more time with the students.
	AI could adapt material for individual needs, support tutoring and interactive learning.	For students with a range of learning styles, this could result in better outcomes.
Infrastructure	AI for wastewater management	Detects abnormal flow, enables preventative action, can identify types of contamination, can be used to reduce spillovers.
	AI for traffic management	Can predict congested roads, can optimise traffic signals, can detect safety breaches. Improves user and road safety.
	AI for road management	Detects defects of early damage via sensors, helps prioritise repairs, helps optimise resources.
Justice	Data analysis & research	Large volumes of data processed and analysed to speed up the process.
	AI support for education	Enable personalised rehabilitation for offenders.
	AI support for Ending Violence against Women and Girls	Accessing justice and health records to identify those most at risk.
Environment	AI to analyse satellite data	Monitor deforestation, land use and coastal erosion.
	AI for farming	Precision Agriculture, aids with yield predictions, livestock management, optimises water and fertiliser use; saves time and resource.
	AI for water management	Sensors for flooding, pollution control and resource allocation.
Communities	AI for change	Citizens are encouraged to participate to use their data to help drive social changes.
	AI in housing	Improved property management & tenant services.
	AI to link citizen services	For example, in the case of bereavement, all of the relevant government services are notified reducing stress on families.

Recommended Actions



Use the Citizens' Forum as a lever for feedback and positive change.



Develop a pro-active plan for Public Sector Transformation, identifying all potential use cases.



Provide clear guidance on quantifiable measurements of success or failure.

8. AI and Citizens

Technological innovation of any kind is meaningless without the buy-in of those it is designed to impact. On a fundamental level, therefore, we need to be able to bring to life the potential benefits of AI for all cross-sections of our population.

Why should a construction worker care about AI adoption as much as a business leader, for example? The creation of key personas to articulate how a wide range of individuals fit into, and benefit from, an AI society can form the basis of a marketing campaign to assist in answering the fundamental question of 'why AI?'

Beyond that, if we are to realise the potential benefits of AI adoption across sectors and across the region, our citizens must have trust and confidence in it. This is particularly true in the case of public sector transformation which will impact all of our lives, from health to education, and from justice to infrastructure. Yet, according to the [AI Pulse: Public Sentiment in Northern Ireland on Artificial Intelligence](#) report published by Ulster University's Strategic Policy Unit in December 2025, only 10% agree that governments/public organisations in Northern Ireland will manage AI appropriately. Levels of trust are therefore low and require a range of approaches to tackle concerns.⁵⁴

Trust and confidence will be driven in part by robust regulatory frameworks, but that on its own will not suffice. Not only must these frameworks be co-created with citizens, but ongoing grassroots engagement and genuine dialogue and transparency around AI use will also be critical.⁵⁵ Citizen engagement must also reflect the diversity of our population, so that concerns around bias against certain groups can be assuaged, and disadvantage and exclusion are not reinforced.

Meaningful and visible mechanisms, based on participatory methods, are therefore needed to ensure inclusivity, trust, and citizen advocacy, potentially within the framework of an AI Charter similar to the one that has been developed by the [Liverpool City Region](#) or the [UK Government's Digital Charter](#).^{56,57} The SPU survey indicates that 86.7% of respondents agree or strongly agree that there should be a voice for citizens in decision-making regarding AI.

Increased confidence will also come with increased understanding, which further supports the proposed actions around enhanced access to basic AI skills training for all. With enhanced AI literacy, this new technology can be demystified and benefits understood. This will in turn generate higher levels of confidence in public sector use of AI for citizens' services, where the highest levels of concern persist.

An awareness-raising campaign will also be of value, showcasing examples of use in service delivery, and directing the general population towards resources such as [My AI](#) which showcases use cases in business, education and government, from Estée Lauder using AI to revolutionise trend forecasting and consumer marketing, to sound analysis of car performance to provide early detection of servicing and maintenance needs, to educational projects shifting pedagogy from chalkboards to chatbots, to the use of Large Language Models to enhance diagnostics in healthcare.

The [AI Pulse report](#), based on a survey of almost 2000 respondents, provides an invaluable temperature check on attitudes towards AI across the population of NI, and this should inform awareness-raising campaigns. The results reveal a divided landscape with, for example, 38% of respondents describing their attitude to AI as positive or very positive and an almost equal percentage, 38%, positioning themselves as

negative or very negative. 21.9% identified as neither positive nor negative, so there is a significant opportunity to influence perceptions among a sizeable minority. However, only 10% currently believe that AI presents greater opportunities than risks; 46% believe that it presents greater risks than opportunities. Accuracy and responsible use are key areas of concern:

57% 

disagree/strongly disagree that they can trust AI to provide accurate results.

75% 

disagree/strongly disagree with the statement that they can trust AI to be used in an ethical and responsible way.

95% 

agree/strongly agree that there should be a strong ethical framework for the ethical use of AI.

Yet despite these concerns, respondents still see considerable opportunity for positive benefits. For example, there are generally high levels of belief in the value of AI use in sectors such as medical and scientific discovery, healthcare (e.g. diagnostics), education and learning (although a significant 13% strongly disagree here); traffic management; energy infrastructure. As is to be expected, there is a more mixed picture on its use in policing and law enforcement.

There is also broad positivity on the potential benefits for use in environmental protection, delivery of public services, interaction with government for administrative tasks, and business and industry. The fact that typically around one fifth of respondents

provide neutral responses on these potential uses would indicate a lack of certainty or knowledge, and therefore a significant opportunity for deployment of information campaigns and a shift towards greater buy-in.

In short, the survey is telling for it reveals strong concerns around risks and ethical use, but equally strong indications that respondents can see potential benefits. This would suggest that if we can create an appropriate framework, charter, guidance etc to build citizens' trust, then there is real potential for acceptance and indeed enthusiasm for the potential of AI transformation in NI. The activity of the Scottish AI Alliance and Irish AI Advisory Council may offer useful models.

Recommended Actions



Create a publicly available AI Register of Systems to explain, in accessible language, how these systems are used, the societal benefits, and the safeguards in place to ensure responsible and ethical adoption.



Develop an AI Charter in collaboration with the AI Citizens' Panel.



Establish a core AI Citizens' Panel, with diverse representation, to promote involvement in decision-making around AI use, guidance, redress and use online methods to engage a wider demographic.



Develop an awareness-raising campaign to showcase public sector AI-driven projects and their benefits.

Conclusion

NI is on the threshold of AI transformation. AI is here, so we must embrace its potential; otherwise, we will be left behind. AI can complement and enhance human capability; it can reshape how we work and learn; it is a lever for innovation, growth and productivity.

What is more, we have an ecosystem here that is built on deep expertise across all sectors and a genuine will to collaborate in order to realise the benefits for the region as a whole.

Yet the strategy also underlines that transformation must be grounded in responsibility. Our citizens are enthusiastic about AI's potential, but they have concerns

about ethical use. That is why the strategy is committed to, and recommends concrete actions for, requiring transparency, safeguarding privacy, championing inclusivity, ensuring accountability, and building capability. With this approach, AI can truly be a catalyst for 'positive use, positive inclusion and positive outcomes'.

Appendix 1: Summary Actions

1. **Develop a comprehensive governance framework for the use of AI in the public sector**, ensuring robust standards for visibility, transparency, accountability, redress, and the identification and mitigation of bias.
2. **Establish clear oversight structures, frameworks, and delivery plans** to ensure that human decision-making remains central to the design, deployment, and operation of AI systems across the public sector.
3. **Design and implement a strategic and operational framework for data protection, data management, and data sharing**, enabling secure and ethical use of data.
4. **Develop and deliver a coordinated plan to build AI capability across the public sector**, including skills development, organisational capacity, and access to technical expertise.
5. **Create an integrated AI strategy for education**, in collaboration with the higher education, further education, and school sectors, to future-proof the skills landscape and support long-term workforce readiness.
6. **Establish a comprehensive approach to citizen engagement to build trust and public confidence in AI**, including initiatives such as a Citizens' Panel, the development of cost-benefit analysis tools, and targeted awareness campaigns highlighting both safeguards and benefits.

References

- 1 <https://oecd.ai/en/>
- 2 <https://theconversation.com/friday-essay-some-tech-leaders-think-ai-could-outsmart-us-and-wipe-out-humanity-im-a-professor-of-ai-and-im-not-worried-248901#:~:text=AI%20can%2C%20for%20example%2C%20surpass,ingenuity%2C%20but%20by%20machine%20learning.>
- 3 <https://theconversation.com/ai-was-born-at-a-us-summer-camp-68-years-ago-heres-why-that-event-still-matters-today-237205>
- 4 <https://www.sciencedirect.com/science/article/pii/S2772950824003960>
- 5 [How does artificial intelligence in radiology improve efficiency and health outcomes?](#)
- 6 [Deep learning and artificial intelligence in sustainability: a review of SDGs, renewable energy, and environmental health](#)
- 7 [Applications of artificial intelligence in engineering and manufacturing: a systematic review](#)
- 8 <https://www.ibm.com/think/topics/artificial-intelligence#:~:text=AI%20agents%20and%20agentic%20AI,-An%20AI%20agent&text=Agentic%20AI%20is%20a%20system,2025%20guide%20to%20AI%20agents>
- 9 <https://matrixni.org/documents/ai-and-the-future-of-work-in-northern-ireland/>
- 10 <https://www.gov.uk/government/publications/ai-opportunities-action-plan/ai-opportunities-action-plan>
- 11 https://assets.publishing.service.gov.uk/media/67aca2f7e400ae62338324bd/AI_Playbook_for_the_UK_Government__12_O2_.pdf
- 12 <https://enterprise.gov.ie/en/publications/national-ai-strategy-refresh-2024.html>
- 13 <https://www.gov.scot/publications/scotlands-ai-strategy-trustworthy-ethical-inclusive/>
- 14 <https://www.scottishai.com>
- 15 <https://www.gov.uk/data-ethics-guidance/the-scottish-ai-playbook>
- 16 <https://www.gov.scot/publications/scotlands-ai-strategy-2026-2031/>
- 17 <https://www.gov.wales/artificial-intelligence-ai-overview>
- 18 <https://www.gov.wales/artificial-intelligence-ai>
- 19 <https://www.gov.wales/written-statement-strategic-artificial-intelligence-advisory-group-and-welsh-government-office-ai>
- 20 <https://www.gov.wales/sites/default/files/pdf-versions/2025/11/2/1763459363/ai-plan-for-wales.pdf>
- 21 <https://www.economy-ni.gov.uk/articles/ai-strategic-direction>

- 22 https://www.northernireland.gov.uk/sites/default/files/2025-03/programme-for-government-2024-2027-our-plan-doing-what-matters-most_1.pdf
- 23 www.ari.org.uk
- 24 <https://www.economy-ni.gov.uk/news/further-education-sector-activity-northern-ireland-201920-202324>
- 25 <https://pure.qub.ac.uk/en/persons/?originalSearch=Artificial+intelligence&page-Size=50&ordering=rating&descending=false&showAdvanced=false&orConceptIds=64c68535-e33d-43f0-b6f3-7fd47f94b045&orConceptIds=5a41edec-4218-4036-a036-2f4b2283568b&orConceptIds=a8971a95-50da-4ef8-b332-e4e013a90443&orConceptIds=43a4664f-Off2-4853-a3a2-26c44ff-2cf10&orConceptIds=a0fb23e8-c02f-407a-94ff-8a542d2d7d40&allConcepts=false&inferConcepts=false&checkedConcepts=64c68535-e33d-43f0-b6f3-7fd47f94b045%2C5a41edec-4218-4036-a036-2f4b2283568b%2Ca8971a95-50da-4ef8-b332-e4e013a90443%2C43a4664f-Off2-4853-a3a2-26c44ff2cf10%2Ca0fb23e8-c02f-407a-94ff-8a542d2d7d40&searchBy=RelatedConcepts&community=false&direct2experts=false>
- 26 <https://pure.ulster.ac.uk/en/searchAll/index/?search=Artificial+intelligence&pageSize=25&showAdvanced=false&searchFacet=orConceptIds&orConceptIds=484d0dc0-6fc4-4035-b367-3be97f885a61&orConceptIds=ad8a2323-0bb1-4069-8e74-e0b0495938d9&orConceptIds=b17453dc-6cd3-4763-a3ef-04a8b16c4181&orConceptIds=cecff48a-d18d-466a-b29a-3e2e5ea0f383&orConceptIds=6bd20c32-1956-45c7-a38a-84a23b15fb00&allConcepts=false&conceptsContentFamilies=Person&conceptsContentFamilies=Organisation&conceptsContentFamilies=Project&conceptsContentFamilies=ResearchOutput&conceptsContentFamilies=Prize&inferConcepts=false&checkedConcepts=484d0dc0-6fc4-4035-b367-3be97f885a61%2Cad8a2323-0bb1-4069-8e74-e0b0495938d9%2Cb17453dc-6cd3-4763-a3ef-04a8b16c4181%2Ccecff48a-d18d-466a-b29a-3e2e5ea0f383%2C6bd20c32-1956-45c7-a38a-84a23b15fb00&searchBy=RelatedConcepts>
- 27 https://www.aicc.co/_data/assets/pdf_file/0008/1754090/AICC-Baseline-Study-of-AI-Adoption,-Opportunity-and-Impact-in-Northern-Ireland-2025.pdf
- 28 https://assets.publishing.service.gov.uk/media/65c0b6bd63a23d0013c821a0/implementing_the_uk_ai_regulatory_principles_guidance_for_regulators.pdf
- 29 <https://digital-strategy.ec.europa.eu/en/library/ethics-guidelines-trustworthy-ai>
- 30 <https://loti.london/blog/hil-how-can-and-should-officers-intervene-in-ai-powered-public-services/#:~:text=For%20one%2C%20humans%20at%20least,Our%20research%20plans>
- 31 https://www.mdpi.com/2079-8954/11/11/548?utm_campaign=releaseissue_systems&utm_medium=email&utm_source=releaseissue&utm_term=doilink26

- 32 <https://www.trackmind.com/humans-in-the-loop-vs-on-the-loop/#:~:text=Stakes%20of%20the%20Decision,machine%20outputs%20and%20intervene%20appropriately>
- 33 <https://ieeexplore.ieee.org/abstract/document/9563963>
- 34 https://www.mdpi.com/2079-8954/11/11/548?utm_campaign=releaseissue_systems&utm_medium=email&utm_source=releaseissue&utm_term=doilink26
- 35 <https://link.springer.com/article/10.1007/s00146-023-01635-y>
- 36 <https://resolve.cambridge.org/core/journals/cambridge-forum-on-ai-law-and-governance/article/toward-empowering-ai-governance-with-redress-mechanisms/A1EBCD6CAA146F-503C8F6842914F3FB3>
- 37 <https://ico.org.uk/for-organisations/uk-gdpr-guidance-and-resources/artificial-intelligence/guidance-on-ai-and-data-protection/what-are-the-accountability-and-governance-implications-of-ai/>
- 38 <https://www.legislation.gov.uk/ukpga/2018/12/contents>
- 39 <https://gdpr-info.eu/art-35-gdpr/>
- 40 <https://www.unesco.org/en/artificial-intelligence/recommendation-ethics#:~:text=1, stakeholder%20and%20Adaptive%20Governance%20&%20Collaboration>
- 41 <https://www.gov.uk/government/publications/government-cyber-security-strategy-2022-to-2030>
- 42 <https://www.mckinsey.com/featured-insights/artificial-intelligence/tackling-bias-in-artificial-intelligence-and-in-humans>
- 43 https://www.ey.com/en_nl/insights/climate-change-sustainability-services/ai-and-sustainability-opportunities-challenges-and-impact
- 44 <https://www.ienyc.edu/the-blueprint/role-ai-advancing-sustainability/#:~:text=The%20role%20of%20AI%20in%20sustainable%20development,predict%20environmental%20risks%20and%20improve%20resource%20efficiency>
- 45 <https://www.aicc.co/responsible-ai-policy#:~:text=Healthcare:%20Compliance%20with%20GDPR%2C%20medical,deploying%20AI%20in%20learning%20environments>
- 46 https://www.ey.com/en_uk/newsroom/2025/10/responsible-ai-governance-business-performance
- 47 [https://www.nsai.ie/images/uploads/general/NSAI_AI_report_digital.pdfhttps://www.gov.uk/government/statistics/companies-register-activities-statistical-release-april-2024-to-march-2025/companies-register-activities-april-2024-to-march-2025#:~:text=The%20effective%20register%20size%2C%20which,9.6%25%20compared%20with%20FYE%202024\)](https://www.nsai.ie/images/uploads/general/NSAI_AI_report_digital.pdfhttps://www.gov.uk/government/statistics/companies-register-activities-statistical-release-april-2024-to-march-2025/companies-register-activities-april-2024-to-march-2025#:~:text=The%20effective%20register%20size%2C%20which,9.6%25%20compared%20with%20FYE%202024)

- 48 <https://www.adruk.org/news-publications/publications-reports/policy-brief-self-harm-suicide-in-northern-ireland-new-evidence-from-linked-administrative-data/>
- 49 <https://ico.org.uk/for-organisations/uk-gdpr-guidance-and-resources/data-protection-principles/a-guide-to-the-data-protection-principles/data-minimisation/>
- 50 <https://kpmg.com/ie/en/insights/esg/green-data-centres-esg.html>
- 51 <https://www.ofcom.org.uk/phones-and-broadband/coverage-and-speeds/northern-ireland-leads-the-way-on-full-fibre-connectivity>
- 52 <https://www.eani.org.uk/trailblazing-ni-report-generative-ai-in-education>
- 53 <https://www.nisra.gov.uk/statistics/people-places-and-culture/digital-skills>
- 54 https://www.ulster.ac.uk/_data/assets/pdf_file/0008/1794077/UU-SPU-The-AI-Pulse-report.pdf
- 55 <https://www.oecd.org/en/about/news/press-releases/2025/06/governments-should-strengthen-public-trust-by-improving-efficiency-citizen-engagement-and-access-to-public-services.html>
- 56 <https://www.gov.uk/government/publications/digital-charter/digital-charter>
- 57 <https://civicdatacooperative.com/app/uploads/2025/07/LCRcharterondataandAI.pdf>





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