



DATA GOVERNANCE ROADMAP FOR IRELAND



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Foreword

Tánaiste Micheál Martin



Generative AI has the potential to revolutionise the public sector, industries and the economy by creating new services, content, products and

solutions. It is in this context that robust data governance becomes even more critical.

Ireland has made significant strides in the information and data management world, often outperforming expectations for a country of its size. This small yet dynamic nation has effectively leveraged its strategic location, robust educational system, and forward-thinking policies to become a pivotal player in the global digital economy.

Ireland's commitment to excellence in data management is further demonstrated by its academic and research prowess. Our academic community fosters innovation and collaboration between academia, industry and public sector, driving advancements that benefit both the local and international communities. Research centres such as the Innovation Value Institute in Maynooth

University, world leading Science Foundation Ireland (SFI) research centres such as Lero, ADAPT, Insight and FutureNeuro along with collaborative SFI research programmes such as EMPOWER all contribute to critical research into how we can best put data to work in all areas of society, but do so in responsible, ethical, and sustainable ways, facilitating trustworthy data sharing in a national data ecosystem.

With the launch of the Data Governance Roadmap for Ireland initiative, developed by the Innovation Value Institute in close collaboration with the SFI EMPOWER Programme on Data Governance, we as a country are taking another bold step forward in our journey, which is of increased importance with the rapid advancement of generative AI technologies and associated regulations in this area such as the recently passed EU AI Act (March 2024) and the EU Data Governance Act (June 2022).

This roadmap is designed to ensure that Ireland is pioneering innovative best practice in data governance through the adoption of a unique three-tiered approach and framework that encapsulates the individual, organisational and national perspectives in a parallel way through a structured methodology.

It addresses the critical need for robust data governance structures that protect individuals' rights while fostering an environment where data can be used to drive innovation and economic growth.

Furthermore, the roadmap aligns to the targets and objectives of the EU Digital Decade policy programme emphasising the need to bridge skills gaps and develop new competencies to effectively tackle the growing challenges across multiple areas such as sustainability and mobility, security, safety, public health and well-being and education.

The roadmap initiative will serve as a mechanism to coordinate and consolidate ongoing and forthcoming endeavours across government departments and agencies. It will not only evaluate the effectiveness and assess the impact of existing policies but also play a pivotal role in shaping Ireland's digital future by informing the development of new policies.

This initiative reflects our commitment to maintaining Ireland's leadership in the information and data management world which is also demonstrated through key national strategies and policies such as the Open Data Strategy (2023) and the National AI Strategy (2020). By setting high standards for data governance, we aim to establish

a data infrastructure that drives innovation and builds trust, promotes transparency, and ensures that the benefits of the digital age are shared widely and equitably.

In conclusion, Ireland's journey in the information and data management world is a testament to the power of strategic vision, collaborative effort, and unwavering dedication to excellence. As we embark on this new chapter with the Data Governance Roadmap for Ireland, we look forward to excelling at an international level, setting new benchmarks for success, and inspiring other nations to follow in our footsteps.

This is why I am proud to launch and strongly support this Data Governance Roadmap for Ireland initiative, a first of its kind initiative which will deliver on a clear vision of:

Responsible governance of data and artificial intelligence, supporting AI and data mastery as the basis of a sustainable information-enabled and data-informed society through the development of data capabilities, the alignment of data initiatives, and the development and promotion of data literacy across society.

This Roadmap is the first step in the further development of this framework towards this vision.

Executive Summary

Professor Markus Helfert



In an era characterised by an unprecedented influx of data, Ireland stands at the threshold of transformative opportunities that can significantly enhance public services, drive

economic growth, and foster innovation and research. However, data governance practices present significant challenges. Effective and responsible data sharing across organisational boundaries requires a fundamental rethinking of how data is managed and utilised. While a robust data ecosystem can facilitate knowledge exchange, it also introduces risks and concerns that must be managed from socio-ethical and technical perspectives. Current discussions on the responsible use of data and artificial intelligence highlight the challenge of balancing innovation with ethical use. In order to fully leverage these

opportunities, a robust and forward-thinking data governance roadmap is essential.

To fully harness the potential of data, organisations must ensure transparency and accountability to individuals in relation to their data. This approach guarantees that data flows across organisational boundaries empower individuals while respecting their rights and freedom. The overarching goal is to transform data into a valuable national asset for societal benefit.

Our vision for the Data Governance Roadmap for Ireland is to foster responsible data and artificial intelligence governance, forming the foundation of a sustainable, information-enabled, and data-informed society. Achieving this requires open collaboration among stakeholders at national, organisational, and individual levels to develop roadmaps and enhance data capabilities, align data initiatives, and promote data literacy across society. The Framework and associated roadmap for implementation identify four macro-level themes for data governance that will enable to plan, assess and guide policy making, organisations and wider stakeholder groups

within the data ecosystem. This will offer a mechanism to support the alignment of disparate initiatives related to data and to ensure the development of these macro-level data governance capabilities. Rather than being prescriptive of specific goals or initiatives, the Framework is instead descriptive of how people and processes are expected to behave in respect to data at different levels of maturity across these themes.

The vast amount of data available today offers Ireland unparalleled opportunities to transform its public services, boost economic growth, and lead in innovation. By establishing a comprehensive data governance roadmap initiative, Ireland can navigate the complexities of data management, ensure security and compliance, and foster an environment where data-informed decision-making thrives. This initiative is not just a strategic necessity but a critical step towards a future where data serves as a cornerstone for national development and prosperity.

We are proud to have collaborated on this initial Data Governance Roadmap for Ireland with our co-authors, experts in data governance and members of the EMPOWER team across participating SFI Research Centres (Lero (EMPOWER SPOKES Lead), FutureNeuro, Insight, and ADAPT), as well as the Data Governance Community of Practice and colleagues at the Innovation Value Institute. This roadmap is designed to complement existing efforts, frameworks, and policies, establishing a trustworthy data infrastructure and ecosystem that benefits society as a whole and supports innovations in data governance practices.

On behalf of the Initiators

Two handwritten signatures in black ink, one on the left and one on the right, positioned below the text 'On behalf of the Initiators'.

Introduction

Data Governance is a discipline that is of increasing importance in organisations and across society as we seek to develop both innovative and sustainable information-enabled societies and data-informed economies. This is increasingly true as we see the increased adoption of machine learning and artificial intelligence (AI) capabilities across industries and government.

Data is not, however, synonymous with technology, in the same way that water is not synonymous with pipes. The phrase ‘data is an asset’ has become an overused buzzword in recent years. However, organisations are increasingly recognising that, at a fundamental level, data has become a critical asset and should be managed accordingly. But, as with other assets such as capital, land, or people, absent or ineffective governance prevents value extraction and can turn a valuable asset into a potentially expensive liability.

Evolving Governance in the Face of Change

Businesses of all sizes have struggled with data governance for many years. The core concepts are often misunderstood or misapplied. Fundamental governance for data related processes is often set aside in the race to implement new technologies or ways of working. Furthermore, siloed approaches to addressing the requirements of regulation relating to data and its use, such as data protection law or financial services regulatory processes, have often resulted in fragmented approaches to governance of data within organisations and missed opportunities to improve efficiencies.

The global response to the Covid-19 pandemic highlighted the importance of reliable, trustworthy data in organisations and across society. The shift to remote work and hybrid working highlighted the weaknesses in many organisations’ understanding of and governance of their own data and data-related processes. This ‘data debt’ now poses a further challenge to organisations seeking to implement new technologies and ways of working such as AI in responsible, sustainable, and ethical ways. This challenge is compounded by the need to develop data acumen and literacy for staff at all levels in organisations, so they are better equipped to carry out their roles in a ‘data-driven’ business environment.

The increased digitalisation of public services, and the increased use of data to provide insights and guide day-to-day decisions and policy formulation in government as part of various national and international policies and strategies such as the National Data Strategy and Harnessing Digital report in Ireland and the Data Governance Act raises similar challenges. Whether it is the development of data related skills within both the Public and Private sector, enabling reliable and trustworthy sharing of data between Public Bodies, supporting the reuse of Public Sector data through Open Data, effective data governance is an essential building block for a sustainable information-enabled society.

Defining Good in the Context of a National Data Governance Framework

Developing data governance capability at a national level is a distinctly different challenge than developing a data governance capability within an organisation. At a national level the strategy must be focussed on implementing supporting and enabling capabilities and competencies that will empower effective data governance within public and private sector organisations. The strategy should also provide a basis for developing societal awareness of the value and importance of effective governance of data for social good.

This capability must be grounded on a clear vision for Data Governance as a social and societal good. It must also be grounded on a simple, consistent, and communicable vision of what Data Governance is and what good governance of data looks like as a national capability. Finally, the capability must reflect the co-ordinating and aligning role of Data Governance as a discipline, providing a framework to align and integrate disparate initiatives across Government, private sector, and NGOs to support the development of a sustainable information-enabled society and data-informed economy.

Vision

Leading responsible governance of data and artificial intelligence, supporting AI, data mastery and leveraging data value as the basis of a sustainable information-enabled and data-informed society through the development of data capabilities, the alignment of data initiatives, and the development and promotion of data literacy, contributing to benefits that span organisations, individuals and wider society

Development of the Roadmap

The Roadmap has been developed by a group of stakeholders and experts coordinated by the Innovation Value Institute (Maynooth University), in close collaboration with EMPOWER.

EMPOWER is a multi-million-euro research programme dedicated to the multidisciplinary field of data governance. It is funded by industry partners and Science Foundation Ireland (SFI) and brings together expertise from four world-leading SFI research centres, Lero (Spoke Lead), ADAPT, FutureNeuro and Insight . EMPOWER is recognised as being one of the first research programmes combining a comprehensive range of multidisciplinary research in Data Governance that brings together a unique breadth and depth of knowledge about Data Governance with a one-stop shop interface for stakeholders across the quadruple helix.

The Innovation Value Institute (IVI) is a multidisciplinary research institute focused on digital transformation, data governance and service innovation based at Maynooth University.

Founded in 2006 IVI has a strong track record of industry collaboration and open innovation, both locally and internationally. IVI's mission is to research, develop and disseminate best practice for Digital

Transformation through a unique open innovation collaboration between leading academic and industry practitioners. Researchers at IVI in collaboration with our enterprise partners have formed research clusters as open innovation communities to innovate and develop digital transformation paths. The institute has demonstrated excellent dissemination capability including education and training, and has developed a close working relationship with Enterprise Ireland, IDA Ireland, Science Foundation Ireland, NSAI and leading research centres. IVI has extensive experience in developing maturity frameworks, in particular the internationally deployed IT-CMF (IT-Capability Maturity Framework) – a comprehensive suite of proven management practices, assessment approaches and improvement strategies. This expertise feeds directly into the development of the Data Governance Roadmap for Ireland.

Recognising the importance of multi-stakeholder engagement in crafting a Data Governance Roadmap for Ireland, the EMPOWER Community of Practice (CoP) which brings together leaders from across the quadruple helix, facilitated the initial consultation with three primary themes emerging as pivotal pillars for inclusion in the roadmap: policy, skills and technology.

Roadmap Development Process

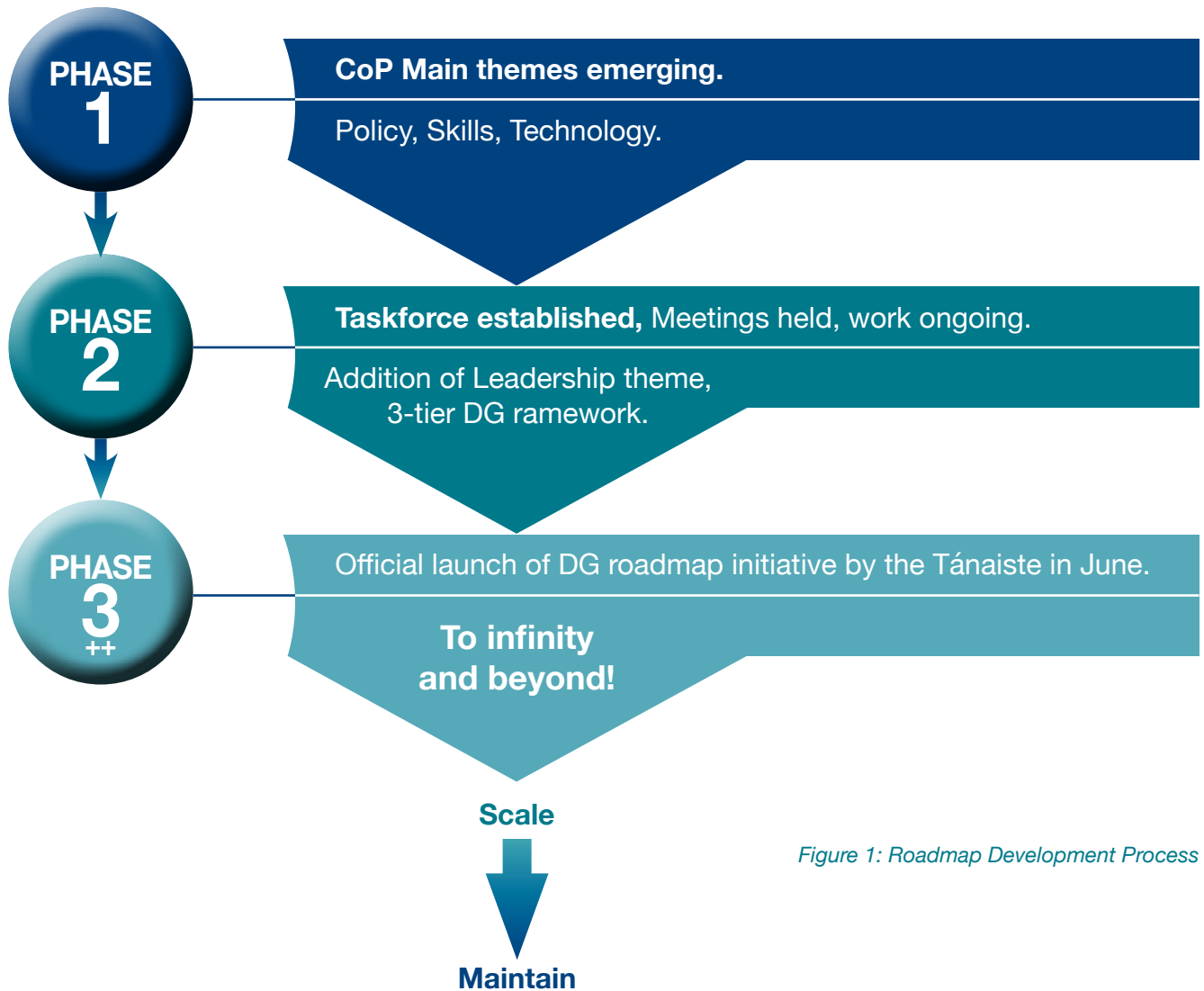


Figure 1: Roadmap Development Process

The launch of this **Data Governance Roadmap Initiative** signals the beginning of Phase 3, while subsequent phases will continue to scale and maintain the Roadmap initiative and associated activities.

Strategic Objectives

The strategic objectives of a data governance roadmap at a national level are multifaceted and aim to establish a data infrastructure and leading governance practices, thus forming a robust foundation for managing data assets across various agencies and policy areas, ensuring alignment of existing or future data-related initiatives, standards, or regulation on the overall goal of ensuring Ireland's ability to effectively put data to work for businesses, for individuals, and for society as a whole. The roadmap as a living document, will also provide a guiding framework in form of a maturity model for assessing progress towards improved maturity of data governance across government and at a social and societal level.

Defining Data Governance

It is important to define what we mean by 'Data Governance' in the context of this framework and roadmap. However, there are many different definitions and viewpoints, and we do not aim to replace those. Nevertheless, a description of data governance is essential as a foundation and to avoid conflation with either the broader National Data Strategy or with the

implementation of technologies to use and manage data. There are various definitions of data governance and the literature both practice and academic has contributed a substantial body of knowledge on Data Governance.

In this document we describe Data Governance as:

Data Governance is the structured facilitation of people, processes, and technology, aimed at cultivating appropriate data acumen, skills, and behaviours within organisations and across society. It establishes clear accountability and responsibilities to ensure the responsible use and sharing in a trusted and trustworthy data environment. This involves defining roles, processes and data governance practices such as data stewards, who oversee data quality and integrity, setting policies for data usage and security, and ensuring compliance with regulatory standards. By fostering a culture embedded in data governance practices of accountability, data governance ensures that data is managed and shared effectively, responsibly, and ethically, enabling organisations to harness its full potential while safeguarding public trust

Principles underpinning the roadmap

The fundamental principles underpinning the proposed framework and roadmap are:

1. Data is a social and societal asset.
2. Data is the key driver for innovation, value creation and the digital and green transition.
3. Data is the enabler that will facilitate and create opportunities for society, organisations and individuals enabling a data economy.
4. Data Governance should operate as a co-ordinating, interdisciplinary and aligning discipline
5. The framework and roadmap is aimed as complementary initiative and is not intended to replace existing policies or frameworks.
6. The principles set out in other frameworks and policies on a national and international level are foundations and guiding principles for establishing best data governance practices. This includes for example the EU Data Act that enables a fair distribution of the value of data by establishing clear and fair rules for accessing and using data within the European data economy transparency, responsibility, accountability and fair access to data and value sharing should be central, ensuring clear visibility of data collection, storage, management, and usage processes.
7. How data is processed and used affects people, even if they are not directly or indirectly identified by the data being processed.
8. Governance of data as a sustainable national asset requires a focus on leadership, skills, processes, and technology.
9. Effective data governance should ensure an interoperable and accessible data infrastructure for seamless exchange and public and fair access to data.
10. Data literacy and a human-centric approach enables individuals to understand and being empowered to adapt best data practices on an individual, organisational and national level.
11. Regulatory compliance is the baseline for data use and enables the ambition to achieve excellence and innovation through responsible and sustainable data practices.

Strategic goals

The strategic vision of the Data Governance Roadmap for Ireland is to enable the responsible governance of data and artificial intelligence as the basis of a sustainable information-enabled and data-informed society through the development of data capabilities, the alignment and mapping of data initiatives, and the development and promotion of data practices and literacy across society.

The goal of the roadmap is to provide a mechanism to support the alignment of disparate initiatives related to data and to ensure the development of these macro-level data governance capabilities.

The roadmap and associated maturity Framework for implementation identify four macro-level themes for data governance which need to be addressed nationally and within organisations.

Rather than being prescriptive of specific goals or initiatives, the maturity Framework is instead descriptive of how people and processes are expected to behave in respect to data at different levels of maturity across these themes. These themes will be transversal in their application to the implementation of data management capabilities and competencies such as data

integration or data quality management and regulatory drivers such as data protection law, national information security, regulation of AI, and sectoral regulation relating to data.

In this way, the Framework will support consistent oversight and monitoring of the development of our national data competencies and data literacy and acumen. By providing a mechanism to align disparate initiatives in standards development, data strategy development and execution, the digitalisation of society and government, and the implementation of regulatory drivers for the oversight and management of data and AI, the Data Governance Roadmap for Ireland will provide a basis for use of data as a sustainably governed asset for organisations and society in a context where individuals will have appropriate knowledge and skills to understand and apply data, and data-enabled technologies such as AI, in their daily lives.

Data Governance Maturity Framework

A Data Governance Framework should provide a contextual framework for the development of the various capabilities and competencies needed from a public sector, private sector, and NGO sector context. It should define the key areas of focus of data governance initiatives consistently and must provide a scalable model against which the maturity of data governance practices at a national, sectoral, and indeed individual level can be assessed in an objective manner.

The framework should also provide a mechanism that integrates the national perspective for governance of data as a national asset with the business perspectives of organisations aligning to the Framework.

It should also provide a basis for aligning the individual skills and competencies for data at different levels of maturity with the strategies and plans of government, education sector providers, and organisations to address the gap in data acumen and literacy.

It is not intended that the Data Governance Framework would replace existing strategies or initiatives. Rather it will provide a basis for co-ordination of policy at the national level, benchmarking implementation at the organisation level, and ensuring that people working in data-related and data intensive roles have the appropriate knowledge and skills to execute those functions correctly into the future.

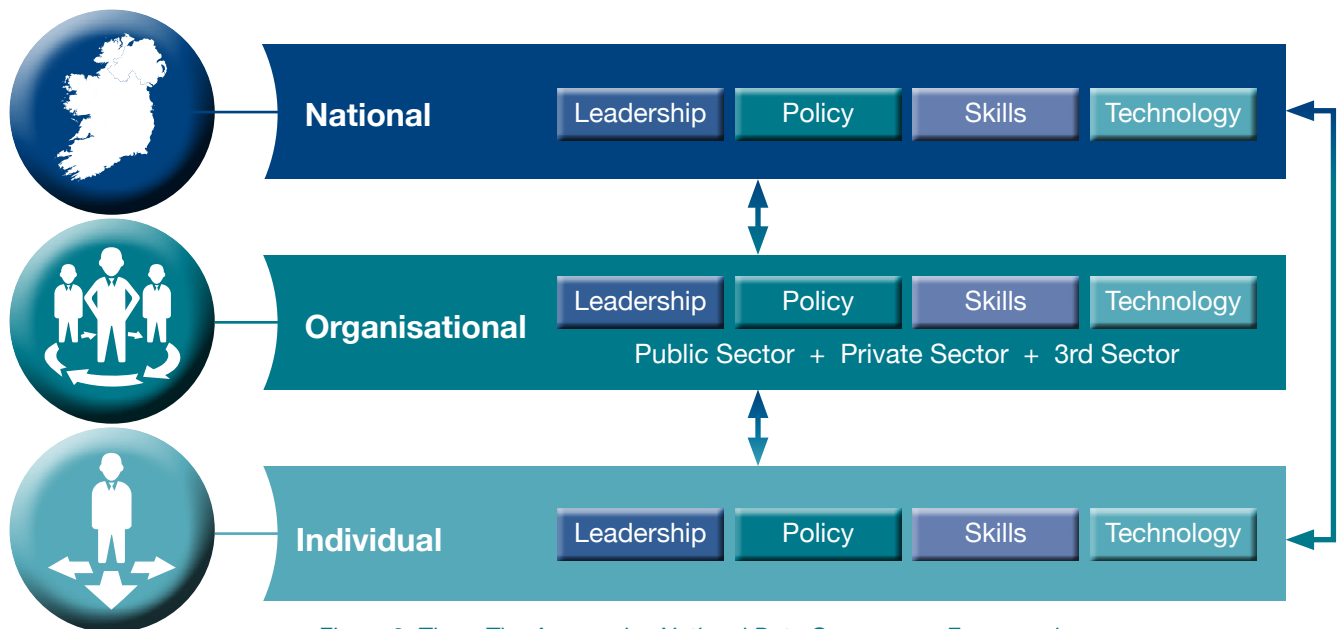


Figure 2: Three Tier Approach - National Data Governance Framework

The proposed Data Governance Maturity Framework identifies four macro-level themes that are common across the national perspective, the organisational perspective and the individual perspective. From a national perspective, one of the key functions of the Data Governance

Framework will be to ensure alignment between the development of national and organisational capabilities and the nurturing of data-related skills and competencies at the individual level. The following definitions are informed from the IVI developed IT Capability Maturity Framework (IT-CMF).

Macro-Level Theme	Definition
Leadership	Leadership is the ability to guide and empower individuals or groups towards a common strategic direction and value proposition that is exercised through clear vision, collaboration, results-orientation, and inclusivity. It is demonstrated by clear communication, ethical decision-making, and building trust through actions that achieve measurable outcomes.
Policy	Policy can be defined as a set of principles, guidelines, or procedures established by a governing body to achieve specific goals. It provides direction for decision-making and ensures consistent action towards a desired outcome.
Skills	Skills are the competencies and expertise acquired through continuous training and education that enable individuals to perform tasks efficiently. They are vital for economic growth, innovation, and aligning education with industry needs.
Technology	Technology is the application of scientific knowledge to solve problems and achieve practical goals. It includes tangible tools and machines, as well as intangible systems and processes.

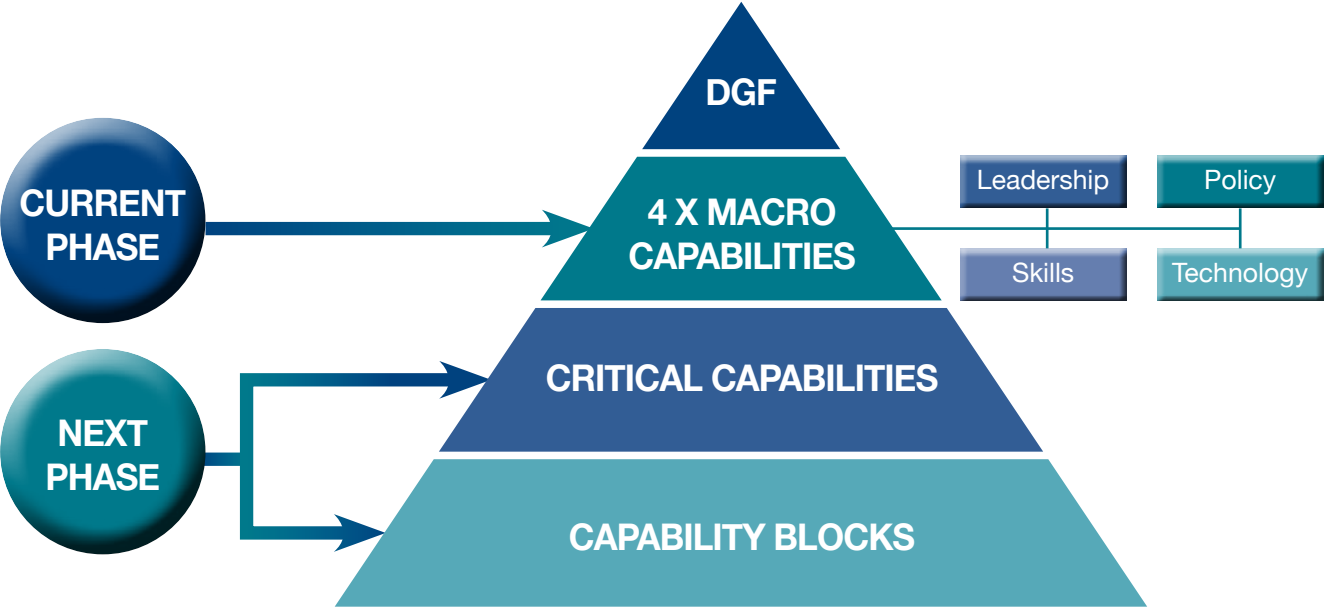


Figure 3: Data Governance Framework (DGF) Architecture

The Data Governance Roadmap for Ireland will establish an objective set of descriptions of practices, outcomes, and measures which are descriptive of the level of maturity of data governance and data management practices.

While the current phase has a focus on the four macro capabilities, subsequent phases will delve into critical capabilities and capability building blocks forming a comprehensive suite of proven management

practices, assessment approaches and improvement strategies differentiated on a national, organisational and individual level.

For each capability, recommendations for practices, measurements and outcomes together with maturity profiles and transformation paths as well as assessment methods and improvement roadmaps are envisaged to guide discussions on setting goals and evaluating impact.

Defining What “Good” Looks Like (Draft Maturity Framework)

Maturity Level	Leadership	Policy	Skills	Technology
Absent	There is no recognition of data governance as a leadership competence	Policies for governance of data are absent or are conflated with other data policy requirements	There is no formal development of data governance or related skills;	There is no recognition of the role of data governance in technology projects. Focus is on delivery of technical capabilities to specification.
Initial	Leadership in data governance is dependent on individuals and their best efforts; Initiatives may be implemented in an ad hoc manner or may fail to meet objectives.	Policies for the governance of data are defined in response to specific regulatory or policy requirements	Data Governance skills are developed in an ad hoc manner across the workforce with no formal recognition; Data governance skills are often conflated with technical data skills;	Data governance is implemented in an ad hoc manner, often at project or initiative level, using technical metadata and application-level/system level processes

Maturity Level	Leadership	Policy	Skills	Technology
Emergent	Leadership in data governance is dependent on informal or ad hoc networks of individuals exercising their best efforts; Individual leaders/ managers have defined objectives associated with the governance of data.	Policies for governance of data are defined in anticipation of specific regulatory or policy requirements	Data governance skills are implicit competencies in formal workforce education; Data Governance is recognised as a competence, but remains conflated with technical data skills. Certain organisation roles receive training in data protection, data ethics, data management disciplines, and cybersecurity relevant to their roles. Education policy is reactive to the data acumen and data literacy requirements of society and employers;	Data governance is implemented at project or initiative level in an ad hoc manner capturing both technical and business metadata in semi-formal systems and processes such as office productivity tools and manual workflows.
Foundational	Governance of data as a social good is explicitly considered a core competence for leadership in public bodies. There is a clear vision and commitment to data governance at the highest level of governance. There is formal alignment across government and government agencies to ensure consistent governance of data as a social good. Leadership ensures that data governance initiatives follow a standard process which includes definition of the fundamental elements that must be included. Sequence and interaction of processes is defined. Required competencies and rules for performing data-related initiatives are identified as part of the standard process, required infrastructure is present, suitable methods for monitoring the effectiveness and suitability of initiatives are determined.	Policies and strategies relating to data are developed in a co-ordinated and consistent manner across government. Policy is developed in a manner that integrates and builds on established frameworks and standards for the management of data. Governance of data is recognised as a critical contributor to the management and maintenance of the social history of the nation and its archives. Data and its governance are recognised as a distinct policy consideration separate from technology implementation. Policy is defined with consideration for all applicable and relevant legal obligations and constraints to support the functioning of a democratic society	Data is clearly and explicitly defined as a domain of knowledge and skills separate to and distinct technology. Data governance is formally developed as a management competence and is recognised as a critical skill for the workforce, in addition to operational/technical competencies in security, data management, and data analysis. Focus of education relating to data recognises the role of 'Data Acumen' (understanding social and business context of data and its governance and use) in addition to traditional 'digital literacy') Personnel performing data related roles are competent on the basis of appropriate education, training and experience. Required resources and information are made available, allocated and used. There is formal recognition of data governance in workforce skills planning and syllabus development at undergraduate, postgraduate, and Further Education levels	Data governance is recognised as a business and technology competence that is supported by appropriate technologies across public and private sectors. Technologies selected to support data governance are scalable, secure, and interoperable. Machine Learning and AI solutions are implemented to provide appropriate technology supports for automation of Data Governance tasks and management of metadata and data quality control through data profiling. Robotic Process Automation is increasingly used to automate the rectification of data quality errors.

Maturity Level	Leadership	Policy	Skills	Technology
Advancing	Quantitative and qualitative measures are applied to develop and promote responsible leadership in data.	National policy explicitly considers ethical questions associated with data and ensures a mechanism for resolution of ethical issues including, but not limited to, environmental impacts of data	Data governance competencies are developed as part of senior-cycle education to complement broader digital skills development and develop data acumen in parallel to digital literacy	AI and Machine Learning are used to predict data governance issues. AI and machine learning tools are increasingly used to assist in the modelling of data or the development of metadata and business glossary definitions.
Enhancing	Quantitative and qualitative measures are applied to develop and promote responsible leadership in data.	Policy for data and its governance is defined with an explicit focus on ensuring the social and environmental sustainability of data use.	Foundational Skills required for the governance of data and development of data acumen are developed as part of national education curricula from primary level. (Note: many of these skills, such as the defining of concepts, understanding of roles/team structures, ethics etc. feature already in areas of curriculum)	Appropriate technologies such as AI, Machine Learning are used to support real-time prompting and coaching of human knowledge workers carrying out data governance tasks or determining appropriate sources of data for data analytics or other uses.

To navigate the complexities of data governance and AI, it is imperative to have a clear set of recommendations. These guidelines provide a strategic framework for ethical, transparent, and efficient data use, ensuring that Ireland remains competitive and innovative in the digital era. Our recommendations cover critical areas such as leadership, skills, policy, and technology, addressing needs at individual, organisational, and national levels. To view the latest list of recommendations, please scan the following QR code:

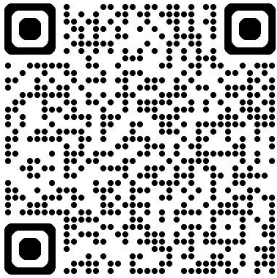
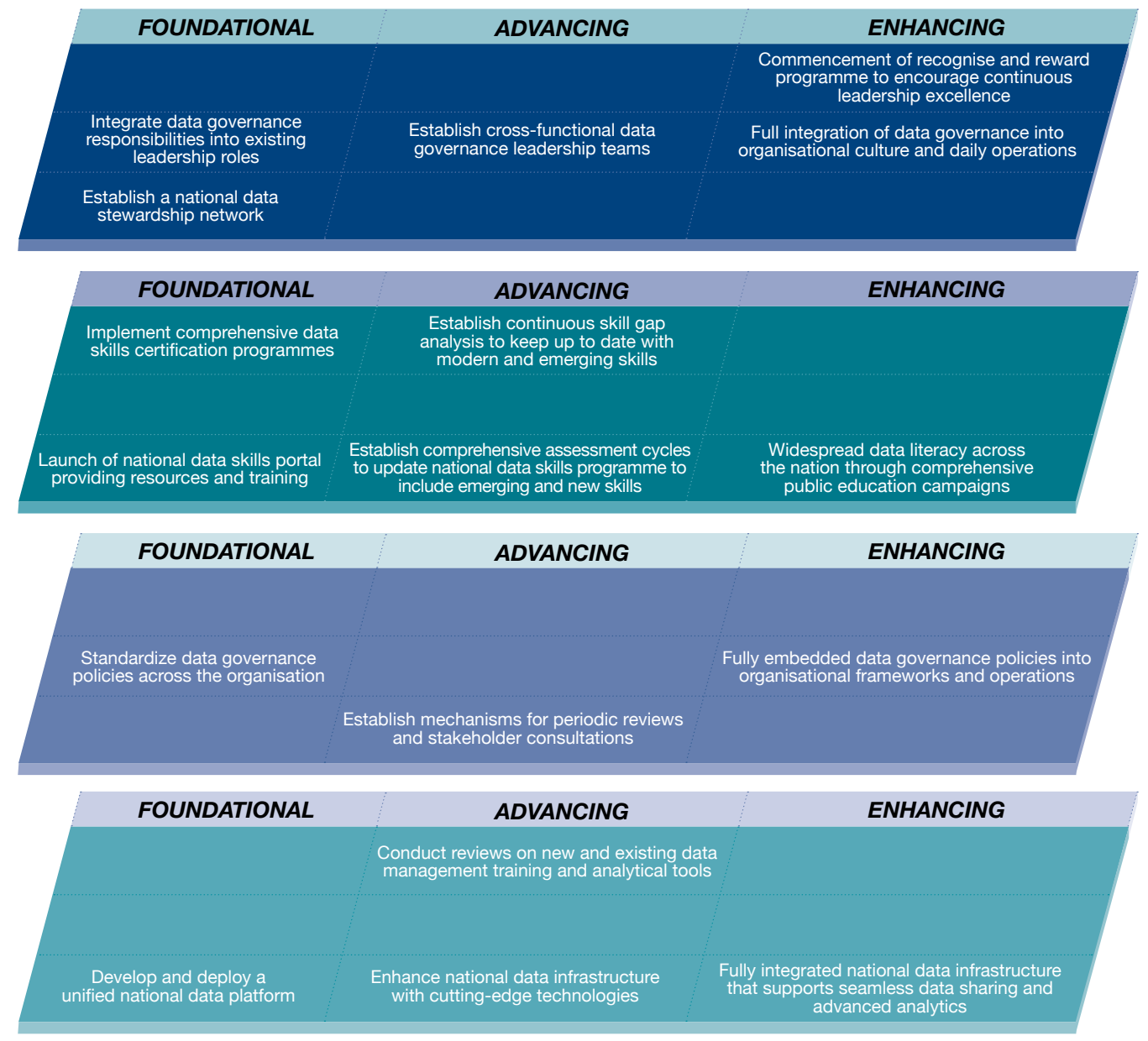
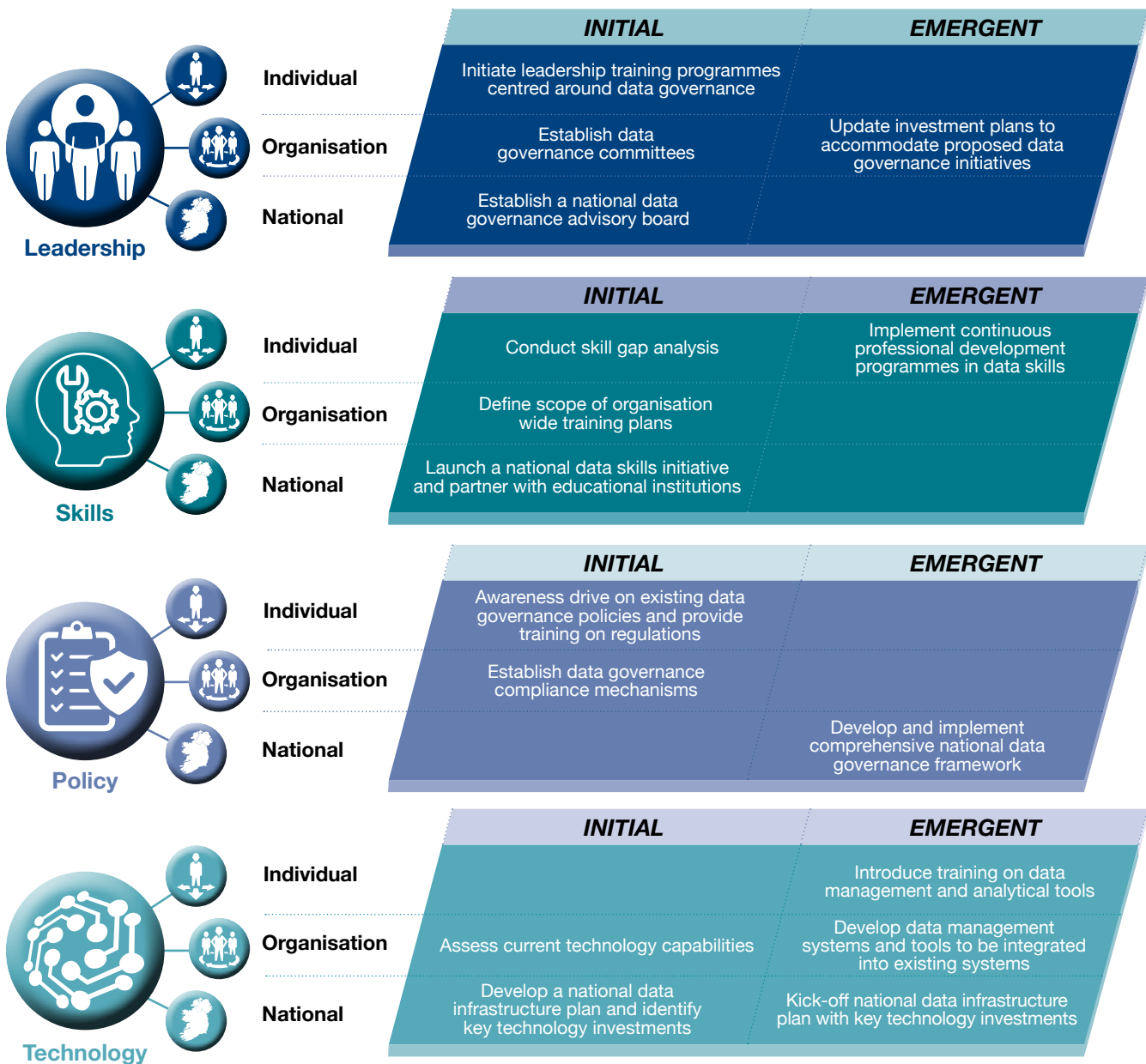


Figure 4: QR code for Recommendations

Visual Representation of Roadmap

Below we set out a high-level roadmap of initiatives and milestone deliveries to support the roll out of the Data Governance Framework and achieve the vision of sustainable data governance for the benefit of society.



Conclusion and Call to Action

Ireland stands at a pivotal juncture with the potential to solidify its position as a global leader in data governance and artificial intelligence (AI). Maintaining Ireland's competitive advantage and promoting an information-driven, sustainable society require strategic commitment to responsible data and AI management, not just aspirational practices. In order to realise this goal, a thorough strategy, roadmap and a framework to guide initiatives is needed that includes the following fundamental pillars:

1. **Facilitating Leadership:**

Supporting leadership at a national and societal level is critical together with developing data advocates within organisations. Dedicated data governance organisations will provide strategic supervision and promote a culture of data-driven decision-making. Public-private partnerships will use expertise to guide Ireland to the forefront of data governance standards.

2. **Policy and Standards Mapping and Coordination:**

Clear and robust data governance frameworks, emphasising data security, privacy, and ethical data sharing and access, including responsible AI usage, are essential. These frameworks will empower individuals, guide organisations, and establish Ireland as a model for responsible data practices.

3. **Strategic Skills Development:**

Investing in comprehensive data literacy training at all societal levels is critical. Standardised curricula and certification programmes will provide individuals and organisations with the requisite data management and analytical skills.

4. **Technological Innovation and Responsible deployment:**

Modern data governance relies on cutting-edge infrastructure and technologies, such as secure data storage, high-speed processing capabilities, and interoperable data platforms and a range of innovative AI technologies. Investing in research to develop cutting-edge technology and together with guiding responsible deployment ensures scalability, automation and efficiencies sustainability, and ongoing innovation and value creation.

By prioritising these pillars, Ireland can construct and foster robust and forward-thinking data governance practices. Our ambition is that this initiative will not only assist to propel economic and social growth but also ensure that data and AI technologies are utilised ethically and responsibly.

To maximise the impact of data and AI, Ireland must champion open data policies and responsible public-private data sharing. Open data fuels innovation by empowering researchers and businesses with public datasets, establishing a data infrastructure that can drive economic growth and societal progress. Regulation such as the Data Act together with standards and practices will help to facilitate fair, secure and trusted access to and use of data with the aim to enable a fair distribution of the value data creates. This requires clear rules, processes, skills and leadership to realise the ambition of a fair, trustworthy and secure European data economy that benefits all, society, organisations and individuals.

Public trust is bolstered through transparency and accountability with open data access. Additionally, shared data and combined public-private datasets enable

deeper insights for evidence-based policy and resource allocation, and drive research and innovation. Responsible data sharing fosters further benefits and fair data value sharing reinforces and accelerates the effect. Public institutions leverage private sector expertise for improved service delivery, while the private sector gains valuable data for informed strategies. Collaborative efforts tackling complex societal challenges, like climate change, are empowered by combined data insights.

Embracing open data and responsible data sharing unlocks a future brimming with advancements and opportunities for Ireland. Through a culture of data mastery and innovation, combined with ethical and responsible use of data and technologies, Ireland can lead the way in crafting a sustainable, data-informed future, cementing its position at the forefront of global data governance and AI advancements. Responsible use and fair value sharing are key pillars of this unique opportunity.

Initiators

Prof. Markus Helfert

Professor Helfert is Professor in Digital Service Innovation at Maynooth University and the Director of the Innovation Value Institute. He is a Principal Investigator at Lero and ADAPT and the Director of the SFI co-funded Programme for Data Governance - EMPOWER. His research is centred on Digital Service Innovation, Data Governance and Digital Transformation, where he develops tools and processes to improve management, innovation and governance practices. Prof. Helfert is an expert in Data Governance Standards and is involved in Standardisation initiatives. He has authored more than 200+ academic articles, journal and book contributions and has presented his work at international conferences. He is leading European and nationally funded projects in Data Governance and Digital Transformation.

Denise Manton

Denise Manton is an Executive is an Executive Director & leader with 20+ years of multi-disciplinary experience with a focus on innovation driven technology, digital transformation and data ecosystem initiatives both in industry and in an academic research environment operating at various levels from engineer to executive management. Denise is currently leading the long-term strategic planning of EMPOWER, a multi-million euro,

multi-stakeholder collaborative research programme focussed on the broad field of Data Governance. Denise is also a member of the Steering Committee for the Irish Department of Health, EU4Health funded programmes supporting the establishment of the Health Data Access Body. Denise is based in IVI, Maynooth University and is also a member of Lero.

Daragh O Brien, Castlebridge

Daragh O Brien is CEO of Castlebridge, a leading data strategy consultancy. He is co-author of two books on Data Ethics, a contributor to both the DAMA DMBOK and the IT-CMF. He is a featured columnist with TDAN.com. Daragh has served on the board of several professional bodies in the data management sector and represents Castlebridge in several academic research collaborations. He is researching a Doctorate in Data Governance in University of Limerick. In addition, Daragh is a Fellow of the Irish Computer Society, a lecturer in UCD School of Law, a syllabus consultant to the Law Society of Ireland, and an advisor to the School of Business in Maynooth University.

Samarth Santosh

Samarth Santosh is a business analyst and researcher with an industry background in data analytics and architecture across various multi-national companies as well as SMEs. He is currently working at IVI on promoting and researching Green

Software Development and sustainable data governance in collaboration with the School of Business at Maynooth University, in addition to working as a consultant on the Rethink | Redesign programme at IVI.

Dr. Silvana McMahon

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¹IT Capability Maturity Framework:
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