



COMPASS INFORMATICS

Information and Location Insights

The Digital Transition: Challenges & Opportunities

CAPIGI Workshop

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Gearóid Ó Riain, Director

goriain@compassinformatics.com & gearoid@talavinvest.com

Technology Makes it Possible, People Make it Happen

Digital transition: Active & ongoing



One digital revolution, three different paths

When analysing the **greatest agricultural revolution** of the past 300 years, we see that technological applications in agriculture: from **cultivations to irrigation, soil treatment and traceability**. The evolution of agriculture can be seen to have developed through three main pathways:

- 1 - **Information and Communication Technology (ICT) and Big Data** to collect and understand data from farms through virtual reality,
- 2 - **Blockchain and Metaverse** to guarantee supply-chain transparency and bring to the fore smart tools for better monitoring and to support labour supply
- 3 - **Smart tools:** drones, IoT and sensors for better monitoring and to support labour supply

Home

The ten key objectives

For the period 2023-27, the common agricultural policy (CAP) is built around ten key objectives. Focused on social, environmental and economic goals, these objectives are the basis upon which EU countries designed their [CAP Strategic Plans](#).



OECD TRADE AND AGRICULTURE DIRECTORATE

The Digitalisation of Agriculture: A Literature Review and Emerging Policy Issues

Jonathan McFadden (University of Oklahoma), Francesca Casalini (OECD), Terry Griffin (Kansas State University) and Jesús Antón (OECD)

Digitalisation offers the potential to help address the productivity, sustainability and resilience challenges facing agriculture. Evidence on the adoption and impacts of digital technologies in OECD countries from national surveys and the literature indicates broad use of digital technologies in row crop farms, but less evidence is available on uptake for livestock and specialty crops. Common barriers to adoption include costs (up-front investment and recurring maintenance expenses), relevance and limited use cases, user-friendliness, high operator skill requirements, mistrust of algorithms, and technological risk. National governments have an important role in addressing bottlenecks to adoption, such as by ensuring better information about costs and benefits of various technologies (including intangible benefits such as quality of life improvements); investing in human capital; ensuring appropriate incentives for innovation; serving as knowledge brokers and facilitators of data-sharing to spur inclusive, secure and representative data ecosystems; and promoting competitive markets.

Key words: Agricultural digitalisation, precision agriculture, barriers to adoption, productivity, sustainability, risk management

Dati e Indicatori

I dati e le informazioni geografiche, territoriali e ambientali raccolti da ISPRA e SNPA sono catalogati e resi disponibili in tempo reale, nell'ambito del Sistema Informativo Nazionale Ambientale (SINA) che, con la Legge 132/2003, garantisce per la distribuzione delle informazioni territoriali-ambientali, garantendo l'efficace raccordo tra le iniziative di raccolta e nell'organizzazione dei dati, il mantenimento coerente dei flussi di dati e la loro divulgazione alle amministrazioni, ai ricercatori, ai professionisti e a tutti i cittadini.



Sustainable agriculture through digitization

Sustainable agriculture

Sustainable agriculture is the future. Our current agricultural system offers a wide range of food: from mass production to organic and fair trade food. The associated emissions have a major impact on the climate and the earth. We can limit that damage through precision agriculture and digitization.

Making the subsurface sustainable

With our information provision, research, and technology, we contribute to a sustainable subsurface. Take a look at the projects we're working on. Or read more about the Geological Survey of the Netherlands at TNO.

[Discover more](#)

The BGS is a data-rich organisation fundamental to our future and strategic challenges.

Embracing new technology will change our operating systems and create an integrated information system for data provision, forecasting and analysis.

We will also develop new tools to improve their user experience and impact and solutions.

New data and acquisition

Storage, network and data management

Computational tools and skills, and data management

Creating a digital-first geological survey



Digital transition: Pervasive across sectors


IRISH FARMERS JOURNAL

BEEF DAIRY SHEEP AGRIBUSINESS MACHINERY TILLAGE PEDIGREE BUILDINGS PROPERTY

Satellite inspections: every farmer to be monitored for BISS and ANC in 2023

The remote inspections will be carried out as part of a new mandatory Area Monitoring System (AMS) and will replace the current programme of 5% on-the-spot inspections.


Darren Carty
NEWS > SCHEMES
4 January 2023



Every parcel of land claimed under the BISS and ANC in 2023 will be subject to a 100% check to confirm that it is eligible for payment. \ 2018 DigitalGlobe


Every parcel of land submitted as part of a farmer's Basic Income Support for Sustainability (BISS), which replaces the Basic Payment Scheme, and Areas of Natural Constraint (ANC) application will be subject to a full inspection from 2023 onwards.

The new protocol known as the area monitoring system (AMS) is mandatory for each member state to implement and will replace the current protocol where at least 5% of applications to these schemes are subject to on-the-spot checks.

BEEF DAIRY SHEEP AGRIBUSINESS MACHINERY TILLAGE PEDIGREE BUILDINGS PROPERTY

Department responds to satellite queries

There has been a strong reaction to news that satellites will monitor farmland continually from 2023 onwards, with many farmers viewing it as an invasion of privacy.



Copernicus Sentinel 1 satellite, which will collect information every five days.

There has been a massive reaction to last week's story that satellites will be used by the Department of Agriculture to monitor land eligibility and farming activity from 2023 onwards.

Responding to reader feedback, the Department says that under the new EU CAP regulations Ireland is legally obliged to monitor 100% of applications and to use an Area Monitoring System (AMS).

It adds that as part of the terms and conditions of area-based schemes, farmers will be agreeing that checks can be performed on their applications. This includes the AMS.

CAP & change -

- Driven by policy & regulation.
- Enabled by digital technologies & data.
- 5% checks to 100% monitoring by earth observation.
- Rapid field visits now supplemented by farmer geotagged photos.

Digital transition: Pervasive across sectors

1. The finance factory: **Transactions will be touchless** as automation and blockchain reach deeper into finance operations.
2. The role of finance: With operations automated, finance will double down on **business insights and service**. Success is not assured.
3. Finance cycles: Finance goes **real time**. Periodic reporting will no longer drive operations and decisions—if it ever did.
4. Self-service: **Self-service** will become the norm. Finance will be uneasy about this.
5. Operating models: **New service delivery models will emerge as robots and algorithms join a more diverse finance workforce**—think about the integration of freelancers, gig workers, and crowds.
6. Enterprise resource planning: Finance **applications and microservices** will challenge traditional ERP. Big vendors will be prepared.
7. Data: The **proliferation of APIs will drive data standardization**, but it won't be enough. Many companies will still be struggling to clean up their **data messes**.
8. Workforce & workplace: Employees will be doing new things in new ways, **some of which will make CFOs uncomfortable**.

Deloitte.

We've revisited our Finance 2025 predictions.

See what we know now, and the implications.

[Find the updated predictions](#)



Finance & digital transition -

- Some shared themes.
- Some may advance quicker or be more relevant than in geoscience.
- Most will impact sooner or later.

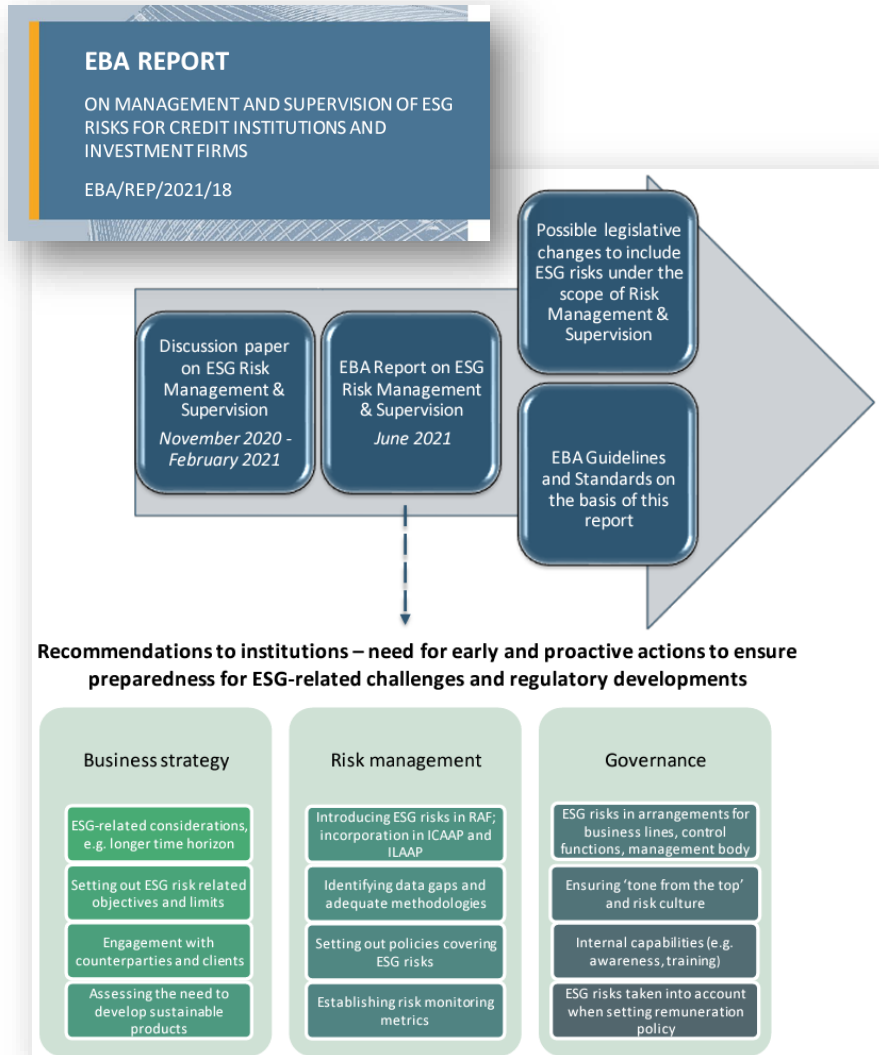
<https://www2.deloitte.com/us/en/pages/finance-transformation/articles/finance-digital-transformation-for-cfos.html>



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Digital transition: Private sector demands



European Commission

EN English Search

Finance

Home Regulation, Supervision Financial markets Banking Insurance, pensions Sustainable finance Digital finance Consumer finance Financial crime

Home > Financial markets > Company reporting and auditing > Company reporting > Corporate sustainability reporting

Corporate sustainability reporting

EU rules require large companies and listed companies to publish regular reports on the social and environmental risks they face, and on how their activities impact people and the environment.

PAGE CONTENTS

- What the EU is doing and why
- Policy making timeline
- Relevant legislation
- Related links

What the EU is doing and why

EU law requires all large companies and all listed companies (except listed micro-enterprises) to disclose information on their risks and opportunities arising from social and environmental issues, and on the impacts of their activities on people and the environment.

This helps investors, civil society organisations, consumers and other stakeholders to evaluate the sustainability performance of companies, as part of the [European green deal](#).

New rules on corporate sustainability reporting: The Corporate Sustainability Reporting Directive

On 5 January 2023 the [Corporate Sustainability Reporting Directive \(CSRD\)](#) entered into force. This new directive modernises and strengthens the rules about the social and environmental information that companies have to report. A broader set of large companies, as well as listed SMEs, will now be required to report on sustainability – approximately 50 000 companies in total.

The new rules will ensure that investors and other stakeholders have access to the information they need to assess investment risks arising from climate change and other sustainability issues. They

Banking & Corporate -

- Demand increasing from the private sector e.g. Banking & ESG; Corporate & CSRD
- Timely data
- Comparable data
- Quantification ready
- Risk assessment ready

Digital transition: Agri & environment opportunity...



Government
of Canada

Gouvernement
du Canada

[Français](#)



MENU ▾

[Canada.ca](#) > [Agriculture and Agri-Food Canada](#) > [Science](#) > [Scientific research and collaboration in agriculture](#)

Agriculture and Agri-Food Canada's Strategic Plan for Science

4. Accelerating the digital transformation of the agriculture and agri-food sector

A productive and efficient data-driven sector

Digital technologies are playing a vital role in a sustainable and robust agriculture and agri-food sector. Data are being generated at rates that exceed the capacity of scientists to use them. Advances in predictive analytics, big data storage, communications, and processing will lead to innovative research methods and tools as well as the ability to describe, diagnose, predict, and prescribe. The application of meteorological, environmental, and biodiversity data to the large-scale analysis of agricultural landscapes will contribute to improved productivity, improved environmental performance, and the ability to assess progress in meeting climate change goals. Integrating bioinformatics with other data types can improve modelling and predictive capacity, reduce the impacts of threats, and increase productivity in the agriculture sector.

Under this mission, science and innovation will enable outcomes that include:

- enhanced data-driven agriculture systems;
- evidence-based decision-making through efficient data acquisition and analysis;
- customizable solutions for different end users based on big data analytics;
- a better understanding of greenhouse gas emissions through a standardized inventory system.

The future is here: Artificial intelligence in greenhouse production

AAFC scientists joined experts from Microsoft to prove that indoor farming—using greenhouses and vertical farming coupled with artificial intelligence (AI)—has the potential to produce safe food quickly with fewer resources

Digital transition: Data governance

- FAIR principles: Findable, Accessible, Interoperable, Reusable
- Locus Charter: Understanding of risks and solutions relating to uses of location data can improve standards of practice, and help protect individuals and the public interest.

- | | |
|--------------------------|---|
| 1 UNDERSTAND IMPACTS | 6 MINIMIZE INTRUSION |
| 2 DO NO HARM | 7 MINIMIZE DATA |
| 3 PROTECT RIGHTS | 8 PROTECT PRIVACY |
| 4 PROTECT THE VULNERABLE | 9 PREVENT IDENTIFICATION OF INDIVIDUALS |
| 5 ADDRESS BIAS | 10 BE ACCOUNTABLE |

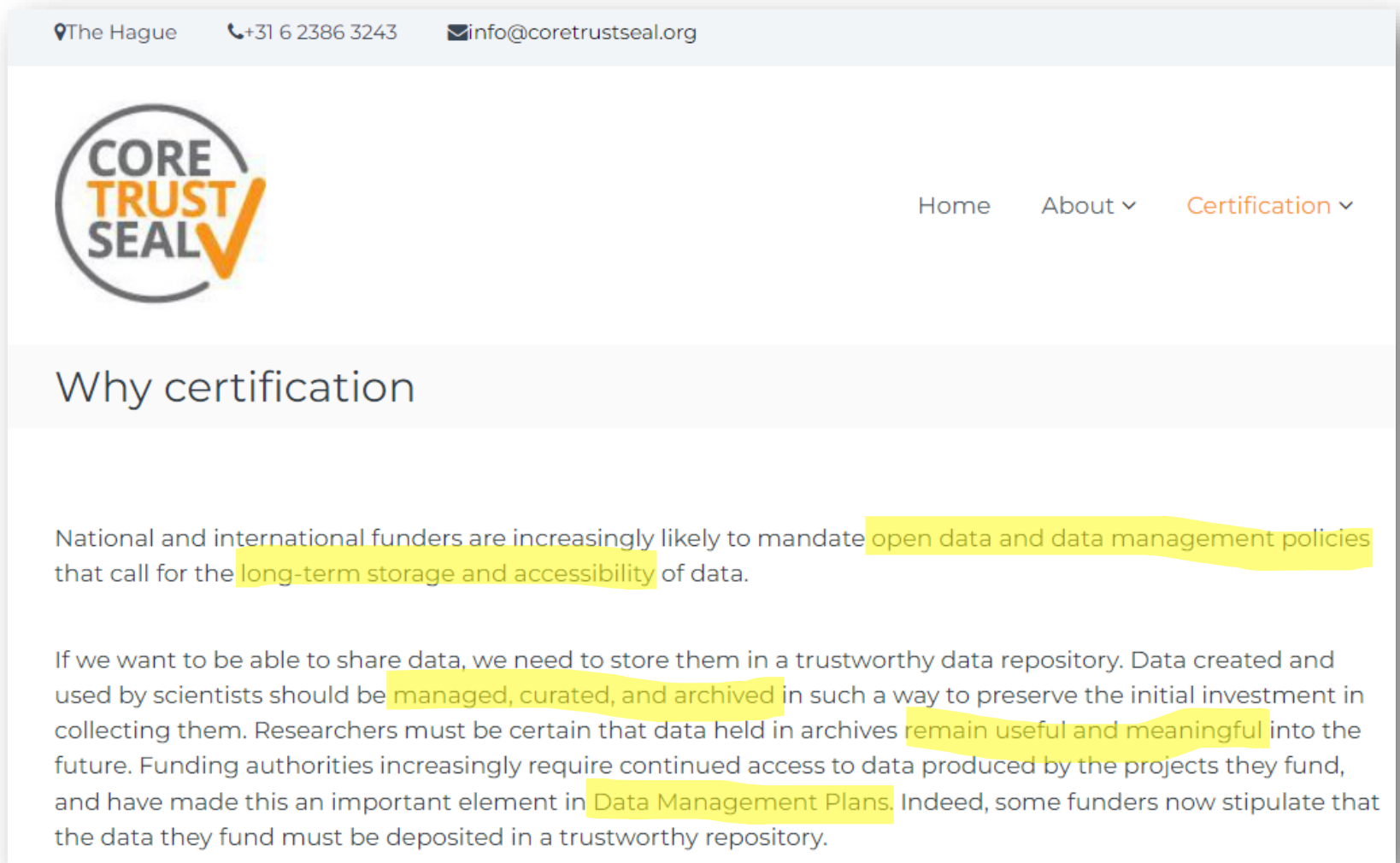
The Locus Charter Principles: <https://benchmarkinitiative.com/charter/>;
 FAIR summary image: <https://ardc.edu.au/>



Digital transition: Trust in data

The Core Trust Seal – as an example:

- A joint ‘seal of approval’ from the World Data System of the International Science Council (WDS) and the Data Seal of Approval (DSA).
- Launched as a new certification organisation in 2017. Circa 100 orgs now certified.
- Aligned to ISO 16363 - Space data and information transfer systems - Audit and certification of trustworthy digital repositories.
- Drives continual improvement.



The screenshot shows the website for the Core Trust Seal. At the top, there is a header with the location 'The Hague', a phone number '+31 6 2386 3243', and an email address 'info@coretrustseal.org'. The Core Trust Seal logo is prominently displayed on the left, featuring the words 'CORE TRUST SEAL' in a circular arrangement with a large orange checkmark. To the right of the logo is a navigation menu with links for 'Home', 'About', and 'Certification'. Below the navigation is a section titled 'Why certification'. The text in this section discusses the increasing likelihood of funders mandating open data and data management policies, the need for long-term storage and accessibility, and the importance of data being managed, curated, and archived in trustworthy repositories to ensure it remains useful and meaningful into the future. Key phrases are highlighted in yellow.

The Hague +31 6 2386 3243 info@coretrustseal.org

CORE TRUST SEAL

Home About Certification

Why certification

National and international funders are increasingly likely to mandate open data and data management policies that call for the long-term storage and accessibility of data.

If we want to be able to share data, we need to store them in a trustworthy data repository. Data created and used by scientists should be managed, curated, and archived in such a way to preserve the initial investment in collecting them. Researchers must be certain that data held in archives remain useful and meaningful into the future. Funding authorities increasingly require continued access to data produced by the projects they fund, and have made this an important element in Data Management Plans. Indeed, some funders now stipulate that the data they fund must be deposited in a trustworthy repository.

Digital transition: Trusted data needed

All 232 SDG Indicators: What data is available?



This visualization shows for which of the 230 *Sustainable Development Goals (SDGs) Indicators* data is available at **SDG-Tracker.org**.

- = Indicators for which recent global official metrics are available, or for which alternative good-quality cross-country source are available (e.g. estimates from independent research institutes).
- = Indicators that do have official metrics, but for which available data is very incomplete or outdated. Yellow boxes also mark Indicators for which there are no official metrics, but for which closely related estimates are available that allow informative but imperfect monitoring.
- = Indicators for which – to the best of our knowledge – global monitoring is not currently possible.

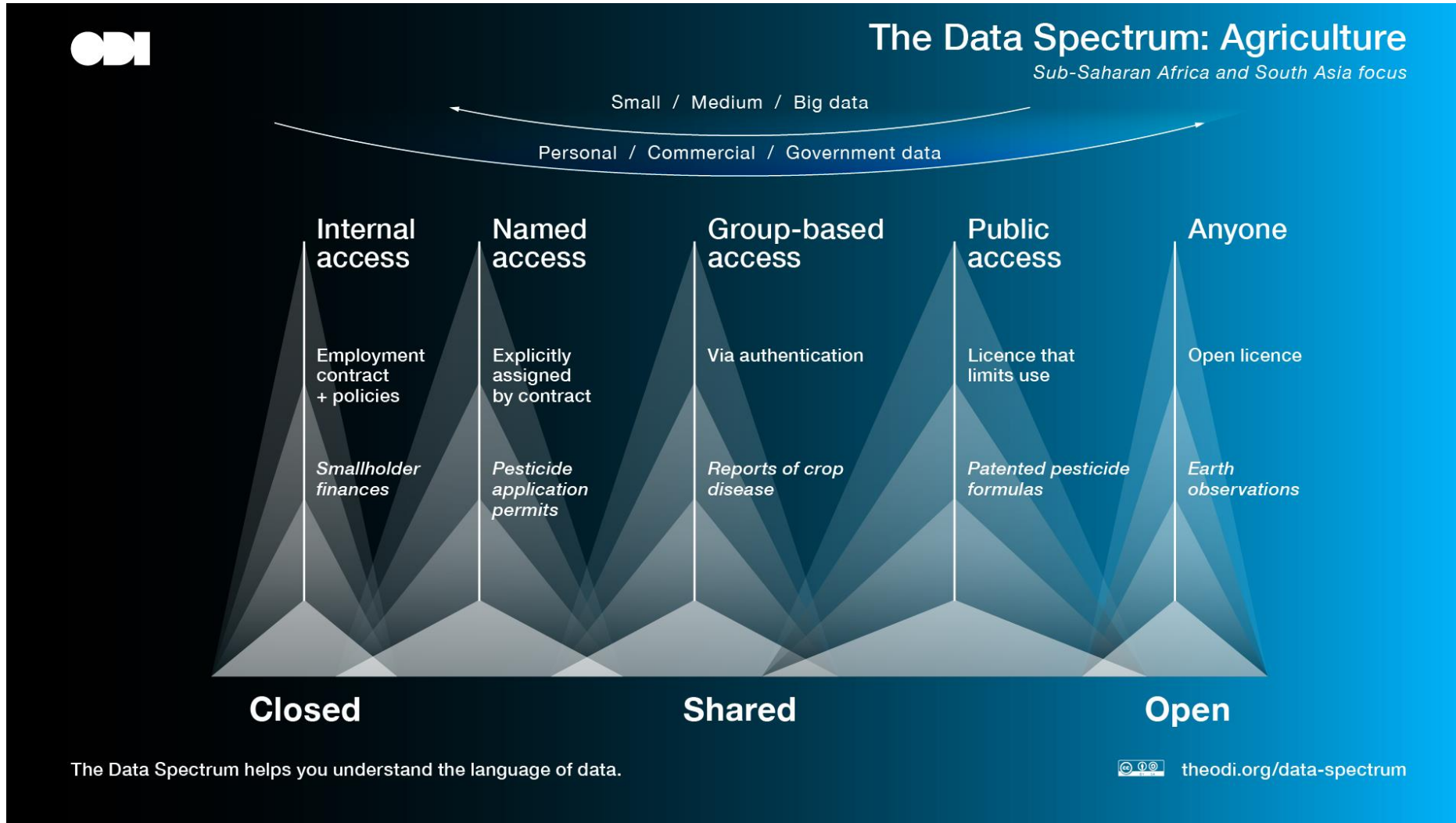


You find all data on [SDG-Tracker.org](https://sdg-tracker.org), a sister project of [OurWorldinData.org](https://ourworldindata.org). In case you are aware of relevant data we have not included yet please let us know via [SDG-Tracker.org](https://sdg-tracker.org).

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<https://ourworldindata.org/sdg-tracker-update>

Digital transition: Managing access to data




Open Data
Institute data
access spectrum

Data transition: Case study on data quality

- Marine Institute and Compass Informatics, collaborating for 5+ years
- Good data quality = **foundation for sound business decisions**
- **Data Management - Quality Management Framework** – accredited by the (UNESCO) International Oceanographic Commission's IODE programme
- Published Papers
 - Implementation of a Data Management Quality Management (Leadbetter et al., 2019)
 - Lessons from a Marine Spatial Planning data management process for Ireland (Flynn et al., 2020)
- Driver: **European Maritime and Fisheries Fund** (EMFF) was the fund for the EU's maritime and fisheries policies for 2014-2020 – <https://emff.marine.ie/partners/compass-informatics>

Data transition: Consequences of Poor Data Quality

- Poor Data Quality can result in:
 - Bad planning
 - Siloed systems / design
 - Inconsistent development processes
 - Incomplete documentation
 - Lack of Standards
 - Lack of Governance
 - ... NOT ensuring data is “fit-for-purpose”!
- 
- ...difficult to work with and impossible to **trust**...
 - ...problem with your business or **product**, or is there actually something wrong with the data itself?
 - ...can lead to some wrong - and **expensive** - conclusions...
 - ...**loss of value** as a result of mistrust in the data [team] ...

Data transition: Core dimensions of Data Quality

1. **Completeness** - stored vs. 100%
2. **Uniqueness** – nothing recorded more than once
3. **Timeliness** – reality from the required point in time
4. **Validity** - conforms to syntax (format, type, range)
5. **Accuracy** – correctly describes 'real world'
6. **Consistency** – absence of difference

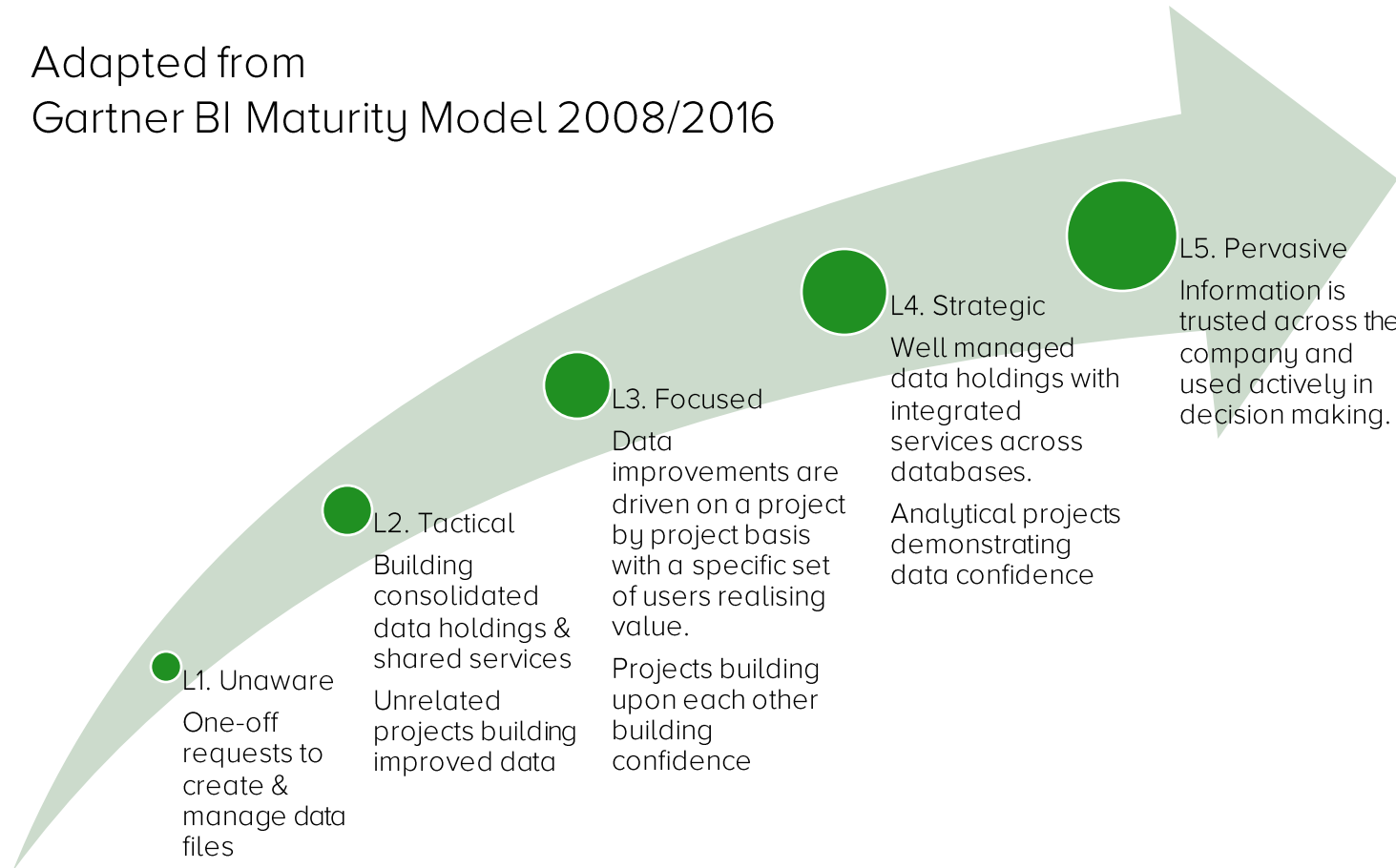


- ...raising **awareness** with data collectors on the importance of good data quality.
- ... roles & responsibilities of **data stewards** working across organisations.
- ... use of **mobile/web apps** for data collection.
- ... data **visualisations** as a tool for data verification and validation...
- ...**automated scripting** processes to identify and flag quality issues...

[The 6 Dimensions of Data Quality | Collibra](#)

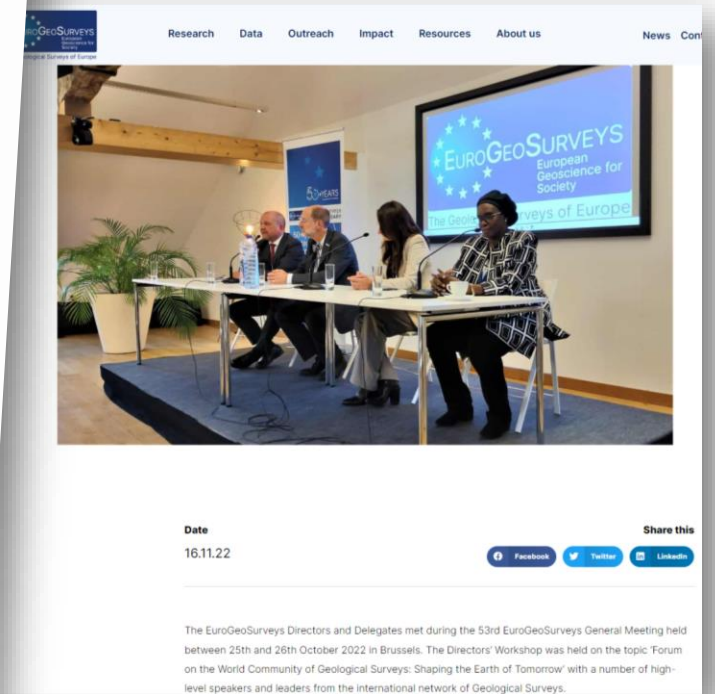
Data transition: Data maturity

Adapted from
Gartner BI Maturity Model 2008/2016



Digital transition: Continued value in national & pan governmental data

- Concern over the monopolisation of data.
- Those with least control most vulnerable.
- Risk of short-term focus to detriment of long-term investments for public good.
- Points to the importance of governmental data, and pan government cooperation, as a balance to dominant data companies.



Digital transition: The value of longer-term survey

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Mapping Our Seabed

Exploring our underwater resources: from fish spawning habitats to foundations for ocean energy

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Discover a vast array of data, products and infrastructure

gov.ie Departments Consultations Publica

Press release

Minister Ryan launches consultation on the next phase of offshore renewable energy in Ireland

From [Department of the Environment, Climate and Communications](#)
Published on 24 February 2023
Last updated on 9 March 2023

The Minister for the Environment, Climate and Communications, Eamon Ryan, has today launched a public consultation on the draft second Offshore Renewable Energy Development Plan (ORED II).

This plan sets out Ireland's strategy for the future of offshore renewable energy in Ireland. The plan focuses on ensuring we identify the best locations for the right renewable technologies, to generate benefits from the extensive potential we have for generating renewable energy from our seas.

The draft ORED II outlines the proposed criteria to identify these optimal areas - known as Broad Areas of Interest - which will ensure that we plan to use the right technologies in the right places. Broad Areas of Interest are large areas of the Irish maritime space that have been identified as technically suitable for future offshore renewable energy development through the ORED II assessment.

Welcoming the publication of the draft ORED II, Minister Ryan said:

"Ireland's wind, waves and tides offer huge, clean, sustainable sources of offshore renewable energy. To harness this energy for the benefit of all, we need to ensure we put the right offshore technologies in the right places."

Digital transition: Digital jobs change

As government and industry deploy more satellites, drones and sensors than ever before, the bounty of geospatial data available is outstripping people's ability to process it, say industry experts.

The answer is artificial intelligence, said Mark Munsell, the National Geospatial-Intelligence Agency's Deputy Director for Data and Digital Innovation.

"With this deluge of data and the enduring and everlasting problem of modeling the Earth, there's only one way to do this, and that's with machines," Munsell said.

More data means the need for more computers, storage and sensors, and better AI algorithms to analyze the data, said Munsell, speaking at a recent NGA-hosted Geospatial Advantage Conference in Huntsville, Alabama.

More powerful AI doesn't mean geospatial data analysts will lose their jobs to artificial intelligence. Quite the contrary, Munsell said.

"That's the great thing about automation, it takes so many people to do it," Munsell said. "I don't need to worry about a machine taking my job, because now it takes two analysts to do it."

Those jobs might be reimagined, "and hopefully you can do the job better and you will be more effective because you are now enabled by technology," Munsell said.

Some challenges & opportunities –

- Achieve base levels of digital data literacy and awareness.
- Combine technical AI knowledge with domain knowledge.
- Combine emotional intelligence with technical and domain understanding.

TNO Sustainable Healthy Safe Digital Sectors Careers More ▾

5. Artificial Intelligence (AI)

Our goal is to use AI to address societal and economic challenges. AI is the ability of machines to exhibit intelligent behaviour. We take legislation (e.g., privacy) and ethics into account. The major challenge is to bring together AI expertise and domain knowledge. And that's our strength. We combine various AI technologies with expertise from a variety of fields.

<https://www.geospatialworld.net/prime/artificial-intelligence-future-geospatial-analysis/>

Digital transition: Exclusion risk

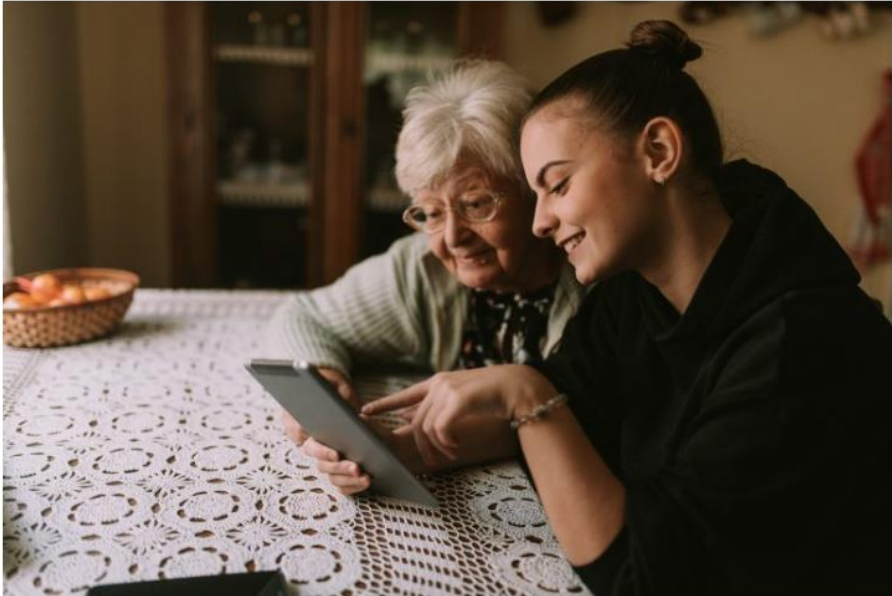
HOUSING INDUSTRY LEADERS

POLICY **TECHNOLOGY** RETROFIT PLANNING

HOME > TECHNOLOGY > Uncovering The Unintended Consequence of Digitalisation

Uncovering The Unintended Consequence of Digitalisation

© 2 min



With older adults living in social housing continuing to grow, coupled with the rise of digitalisation of housing stock could be compounding digital inclusion issues. Housing Industry Leaders highlight how the Welsh Government is tackling the unintended consequence of more tech in social housing.

- Some challenges & opportunities –
- Access and required skills to access are not evenly distributed.
 - Supporting the transition is required and not just as a ‘once-off’.

<https://housingindustryleaders.com/uncovering-the-unintended-consequence-of-digitalisation-in-social-housing>

European Commission

EN English

Shaping Europe's digital future

Home Policies Activities News Library Funding Calendar Consultations

Home > Policies > The Digitalisation of the European Agricultural Sector

The Digitalisation of the European Agricultural Sector

Benefits and challenges ahead

Benefits	Challenges
<p><i>The use of digital technologies in agriculture can bring several benefits</i></p> <p>Increased economic and environmental performance:Digitalisation can help farmers make better decisions, optimise their operations, and increase productivity, leading to higher profits and a more sustainable agricultural sector</p> <p>Environmental sustainability:The use of digital technologies can help farmers reduce their environmental footprint, by optimising resource use, reducing waste, and using precision farming techniques</p> <p>Competitiveness of the EU digital supply industry: Digitalisation can help the European agricultural sector stay competitive in the global market, by providing innovative solutions and creating new business opportunities</p> <p>Improved working conditions for farmers:By automating tasks and optimising operations, digital technologies can help reduce the physical and mental workload of farmers, leading to better working conditions</p>	<p><i>Despite the benefits, there are also several challenges that need to be addressed</i></p> <p>Connectivity issues:Many rural areas still lack reliable and affordable internet access, hindering the adoption of digital technologies</p> <p>Limited benefits awareness:Many farmers may not be aware of the potential benefits of digitalisation and may lack the necessary skills and resources to implement new technologies</p> <p>System interoperability:Different digital platforms may not be compatible with each other, making it difficult to share data and integrate different applications</p> <p>Farmers' skills:Many farmers may lack the necessary digital skills to fully benefit from digitalisation</p> <p>Benefit-cost ratio:The cost of implementing new digital technologies may outweigh the potential benefits, especially for small-scale farmers</p>

Data transition: Corporate risk management & strategy

ENTERPRISE RISK MANAGEMENT



Governance & Culture

1. Exercises Board Risk Oversight
2. Establishes Operating Structures
3. Defines Desired Culture
4. Demonstrates Commitment to Core Values
5. Attracts, Develops, and Retains Capable Individuals



Strategy & Objective-Setting

6. Analyzes Business Context
7. Defines Risk Appetite
8. Evaluates Alternative Strategies
9. Formulates Business Objectives



Performance

10. Identifies Risk
11. Assesses Severity of Risk
12. Prioritizes Risks
13. Implements Risk Responses
14. Develops Portfolio View



Review & Revision

15. Assesses Substantial Change
16. Reviews Risk and Performance
17. Pursues Improvement in Enterprise Risk Management



Information, Communication, & Reporting

18. Leverages Information and Technology
19. Communicates Risk Information
20. Reports on Risk, Culture, and Performance

Tasks of the board and indicators of good practice

Establish vision, mission and values

- Determine the company's vision and mission to guide and set the pace for its current operations and future development.
- Determine the values to be promoted throughout the company.
- Determine and review company goals.
- Determine company policies.

Set strategy and structure

- Review and evaluate present and future opportunities, threats and risks in the external environment; and current and future strengths, weaknesses and risks relating to the company.
- Determine strategic options, select those to be pursued, and decide the means to implement and support them.
- Determine the business strategies and plans that underpin the corporate strategy.
- Ensure that the company's organisational structure and capability are appropriate for implementing the chosen strategies.
- Determine the company's appetite for risk and to engage in the process of backing a robust risk management programme focused in the company's business and the area(s) of its activities.

<https://www.coso.org/sitepages/guidance-on-enterprise-risk-management.aspx?>

<https://www.iod.com/resources/factsheets/company-structure/what-is-the-role-of-the-board/>







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Information and Location Insights

Data transition: Corporate governance & data risk

Management of Risk in Government: A framework for boards and examples of what has worked in practice. UK Government.

<https://www.gov.uk/government/publications/management-of-risk-in-government-framework>

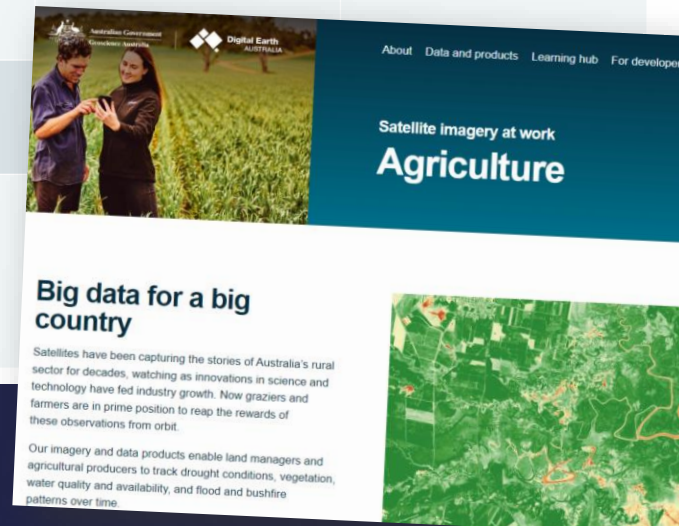
Management of Risk in Government		
Type of risk	Features and approaches	Examples
 <p>Internal</p>	<p>These are risks over which the organisation has some control, for example risks that can be managed through internal controls and, where necessary, additional mitigating actions. This often involves traditional risk management, such as risk registers, controls and assurance.</p>	<ul style="list-style-type: none"> • Fraud • Health & safety • Capacity & capability • Data security • Delivery partners
 <p>External</p>	<p>This focuses on big external events/perils and then considers how to make the organisation more resilient to such events, in part because of difficulties on assessing likelihood². A tried and tested approach to managing external risks is through considering the impact those external events could have on infrastructure, finance, people, operations and reputation. A common example of a resilience framework for infrastructure is a business continuity plan.</p>	<ul style="list-style-type: none"> • Economic downturn • Terrorist attack • Extreme weather • Cyber attacks
Management of Risk in Government		
 <p>Strategic</p>	<p>This third element concerns the organisation's raison d'être and key objectives (such as the organisation's enduring purpose and the objectives set out in the Single Departmental Plan), identifying the principal risks to the achievement of those within a set timeframe. For some this could be the lifetime of a parliament. Risks in this area would be accompanied by regularly monitoring and adjusting interventions, as necessary. Forward-looking charts are often helpful here.</p>	<p>Can be:</p> <ul style="list-style-type: none"> • immediate impact risks to the organisation's ability to continue operating, e.g. loss of customer data; or • slow-burning risks that grow and eventually prevent delivery of objectives, e.g. staff turnover or leadership capability.
 <p>Major projects</p>	<p>Major projects form such a critical part of the plans for many government bodies. Experience suggests that one or two critical projects for that organisation should be considered at board level in their own right. The key is to only report to board level on the two or three that really matter. This should be via whatever tools, techniques and reporting are appropriate for each.</p>	<p>These risks will be specific to the major project in question, and could involve:</p> <ul style="list-style-type: none"> • shifting requirements • slippage in delivery timeframes • failure to deliver

Digital transition: Strategic priorities & data opportunities

- Geoscience Australia Science Strategy 2028 – incorporates strategy & inferred risks.
 - Ensure broader non-science strategy, opportunities & risks also.
 - Ensure appropriate governance capability & expertise at Director / Board level.
- ...Use digital transition, governance, standards, to enable the ‘real work’.

Table 1. Our **strategic science** priorities (bold text and parenthesis reflect “key implementations” further described in the Implementation Plan)

		Our Core Commitments			
		Pursuing Science Excellence	Making the Most of Our Data	Ensuring Supportive Stakeholders	Enhancing Positive Organisational Culture
Science Principles	Relevant Science	<ul style="list-style-type: none"> • Science Evaluations (1.1) 	<ul style="list-style-type: none"> • Accelerate engagement with digital and computational science, such as HPC, ML and AI (2.1) 	<ul style="list-style-type: none"> • Science Stakeholder Framework (3.1) • Science for national benefit 	<ul style="list-style-type: none"> • Valued science and scientists
	Collaborative Science	<ul style="list-style-type: none"> • Identify capability and capacity gaps for targeted collaboration (1.2) 	<ul style="list-style-type: none"> • Build community consensus on standards for datasets to improve interoperability to enhance data sharing and facilitate collaboration 	<ul style="list-style-type: none"> • Stakeholder Framework (3.1) 	<ul style="list-style-type: none"> • Inclusive science and scientists (4.1) • Highlight and celebrate collaboration
	Quality Science	<ul style="list-style-type: none"> • Science Evaluations (1.1) • Maintain and grow: <ul style="list-style-type: none"> » deep domain knowledge » authoritative advice » national science leadership 	<ul style="list-style-type: none"> • Quantify ‘uncertainty’ of our data (2.2) • Peer review our science data through Science Evaluations (1.1) • Participate in major conferences • Lead national and international communities of practice/standards groups 	<ul style="list-style-type: none"> • Indigenous geoscience (4.2) • Science Evaluations (1.1) 	<ul style="list-style-type: none"> • Indigenous geoscience (4.2) • Scientific integrity • Foster creativity, innovation and measured risk
	Transparent Science	<ul style="list-style-type: none"> • Build science fraud & ethics awareness 	<ul style="list-style-type: none"> • Accelerate adoption of ‘FAIR’ data principles (2.2) • Core Trust Seal Certification • Improve internal data lifecycle management 	<ul style="list-style-type: none"> • Major conference attendance, workshops and key note presentations 	<ul style="list-style-type: none"> • Maintain and grow scientific integrity and trust
	Communicated Science	<ul style="list-style-type: none"> • Science Masterclasses • Publication clearance and peer review 	<ul style="list-style-type: none"> • Innovative Geoscience information and data delivery (2.3) • Citizen science 		
	Sustained Science Capability	<ul style="list-style-type: none"> • Capability—Capacity Mapping (1.2) • Graduate Program and growing staff capability (1.3) • Study scholarships • Scientist Legacy Program 	<ul style="list-style-type: none"> • Digital science capability mapping and workforce planning (1.2) • Volunteer program • Invest in staff data skills and capability (1.2) 		





COMPASS INFORMATICS

Information and Location Insights

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CAPIGI Workshop

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Gearóid Ó Riain, Director

goriain@compassinformatics.com & gearoid@talavinvest.com

Technology Makes it Possible, People Make it Happen