The big picture: Digital Transformation

Eurogeographics General Assembly

Karl Hamilton - Head of Digital Department at EEA

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eurogeographics

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The big picture

- **Digital Transformation –** adapt or decline?

- **How public organisations can leverage digital**

- **Earth Observation – a leap forward**

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Which direction?

Where do we want to be?

Digital Transformation

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The Big Picture - Digital Transformation

Cutting through the buzzwords...

Integration of digital technologies into **all areas** of an organisation, fundamentally changing how we operate, adapt and deliver **value**

Key elements

- Customer-centric innovation
- Leverage potential - AI, IoT, cloud computing, big data and automation
- Rethinking processes and culture
- Constant iterations and learning

Transformation vital for the European Environment Agency

Provide value to EU countries, citizens and organisations by ensuring:

- Robust data and knowledge
- Support to EU Environment policies and decision-making

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Why Digital Transformation now?

Why now?

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Digital transformation is no longer optional

Cybersecurity and resilience
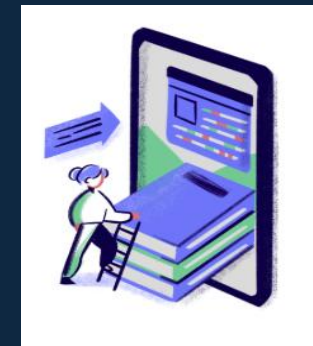
Countries, EC, citizens, EEA staff rely on digitalisation to achieve goals

Competitiveness

Simplification

Digital Transformation framework

It is more than technology and tools...

Customers and stakeholders

People, skills, change management and innovation

Technology, digital infrastructure and tools

Vision, strategy and leadership

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Not only Digital, also Sustainability - Twin transition

Twin Transition

Digital Transition

Greening **OF** and **BY**
IT & Data

Sustainability Transition

the
Sweet Spot
where Digital amplifies Sustainability
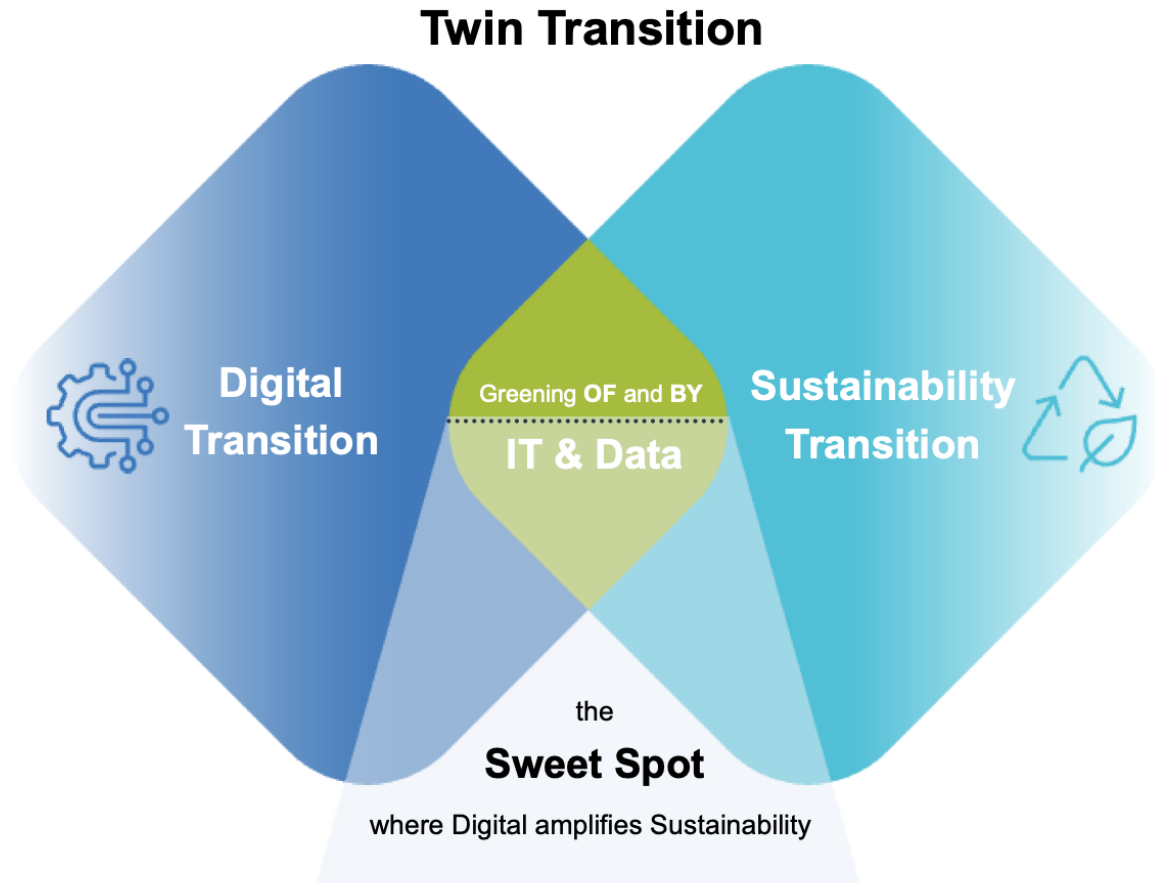
Green transition enhances the benefits of digital transformation

Digital technologies can support the green transition

What is the 'twin transition' - and how can it speed sustainable growth | World Economic Forum

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Digital Transformation at the EEA

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Transforming the services – Knowledge as a Service

Opportunity

Digitalisation an essential enabler
- Respond to challenges and priorities head-on
- Policy priorities
- 'Hand in hand' with simplification

Data as a strategic asset for all
- Integration, interoperability and reuse

Unprecedented possibilities
- Artificial Intelligence
- Earth Observation
- Digital Twins and advanced modelling
- Outreach

EU and country infrastructures = joint capacities

A common European data space for the GREEN DEAL
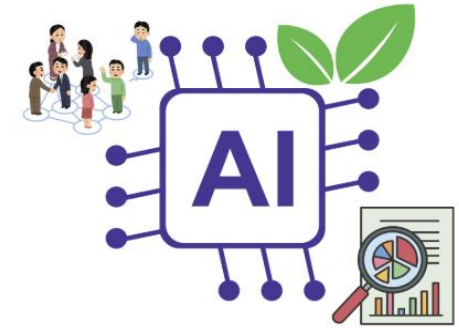
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EEA is taking a holistic approach to Digitalisation

EEA Digital Capability Strategy

Mission 6 — Removing barriers

Mission 1 — Secure and scalable technology

Mission 2 — Europe's leading provider of environmental data

Mission 5 — Empowerment through skills

Mission 4 — Innovation mindset

Mission 3 — Customer centred services

"We harness the power of digital services and innovation to drive our data and knowledge-centric mission to inform decision-makers and the public about the state of Europe's environment, climate change, and sustainability."

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AI is a core part of the Digital Capability Strategy

Worker productivity and production of knowledge and reports

Data analysis, exploration, visualisation, advanced analytics, image treatment and quality

Knowledge exploration services

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Pitfalls to avoid

Lack of leadership focus
- Establish a transformation department with clear accountability to track unified progress

Legacy culture and mindset
- Adopt new ways of working, leading with example

Unclear governance and multiple fragmented initiatives
- Senior leaders should stay close to the transformation, unified governance body

Legacy processes
- Define critical processes with agile ways of working

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the-five-imperatives-of-a-successful-digital-transformation-final.pdf

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Earth Observation – a leap forward

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Earth Observation – The power of data

Environmental Applications

- **Climate change**

- **Disasters**

- **Agriculture**

- **Forestry**

- **Marine**

AI & Big Data

- Earth observation data massive: petabytes per year

- Classify land cover, detect anomalies, make forecasts

- Example: Using AI to predict crop yields or detect methane plumes automatically

- **Combine satellite data with local sensors for deeper insights (in-situ)**

- Destination Earth

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EEA role in Copernicus

Producer

CLMS European component

Cross-service Coordination of Access to In Situ Data

Copernicus Europe's eyes on Earth

User

EIONET

The European Green Deal

EU environmental acquis

The 8th Environment Action Programme — guiding European environmental policy until 2030

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Copernicus Service Agreement with EuroGeographics
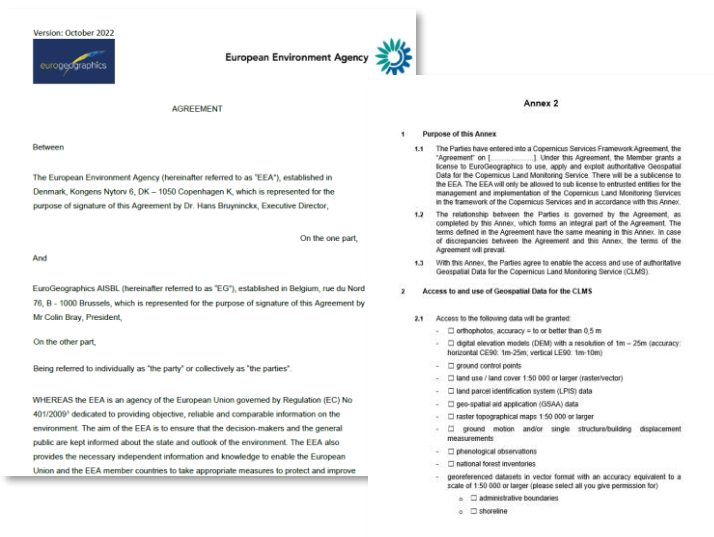
EEA-EG Partnership Agreement signed 15/12/2022

Some examples of use cases

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Access to geospatial data: CORDA
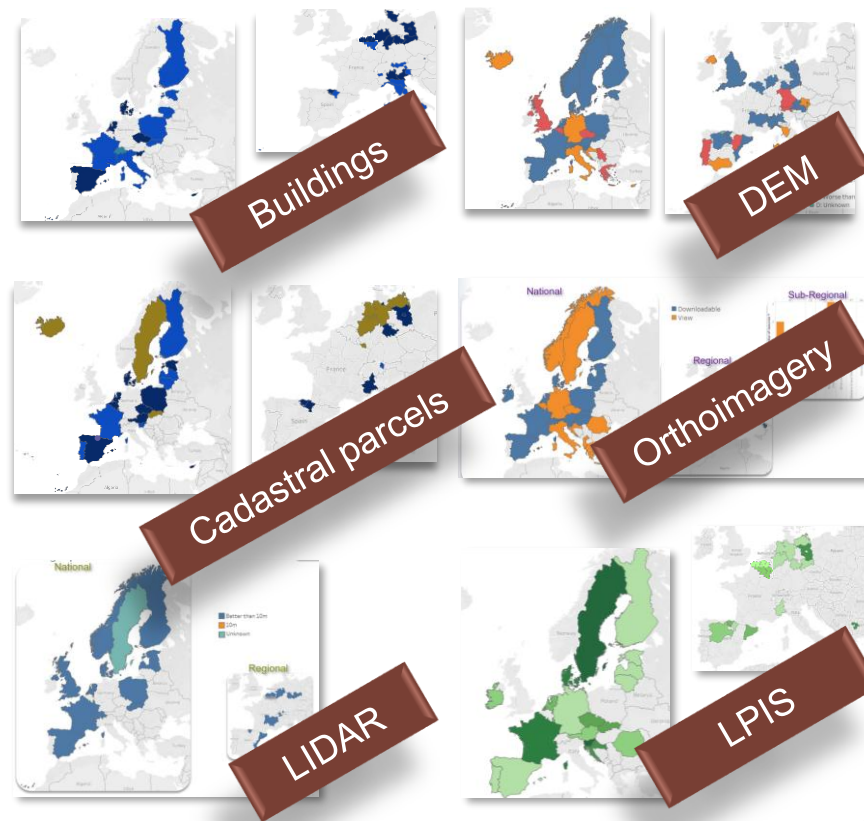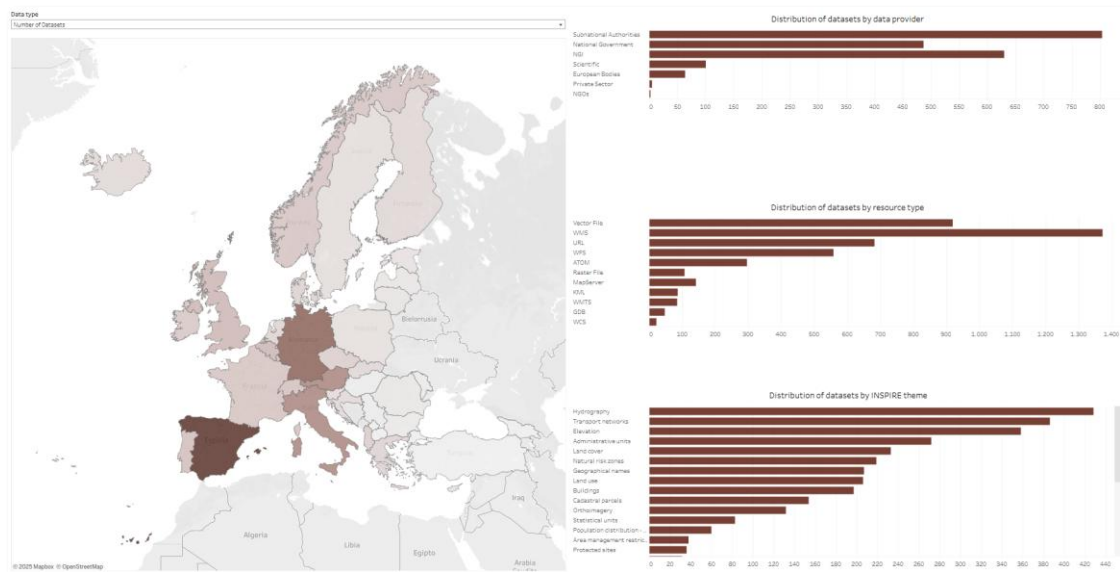
42 countries

303 data providers

2158 datasets

https://corda.eea.europa.eu

Buildings

DEM

Cadastral parcels

Orthoimagery

LIDAR

LPIS

>130 new or updated datasets from 19 Members are now available for Copernicus

Geospatial data is crucial for Digital and Green Transformation

Opportunity

Unprecedented capabilities and possibilities

Geospatial data enables Digital Transformation
- Open data and new methods using AI

Integrated earth intelligence
- Combining geographic data, analytics and visualisation
- Deeper insights – better informed decision making

User center focus
- Where we want to be?
- What do we need to get there?

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Time to act

The choice:

✓ **Adapt now** → Future proof

⧗ **Hesitate** → Take the risk

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Thank you

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