Eurogeographics and EuroSDR

Geodata Discoverability Workshop 2024

Why Do (Geo)Data Products Fail?

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Esri Principal Product Manager

From discoverability to reuse

Meeting today and tomorrow's need …*still falls short*

"…the current use of geospatial information under the SDI structure **often falls short** of the project's original intention."

Tim Trainor, 2023 ArcNews

consultant to the United Nations (UN) and former chief geospatial scientist for the US Census Bureau

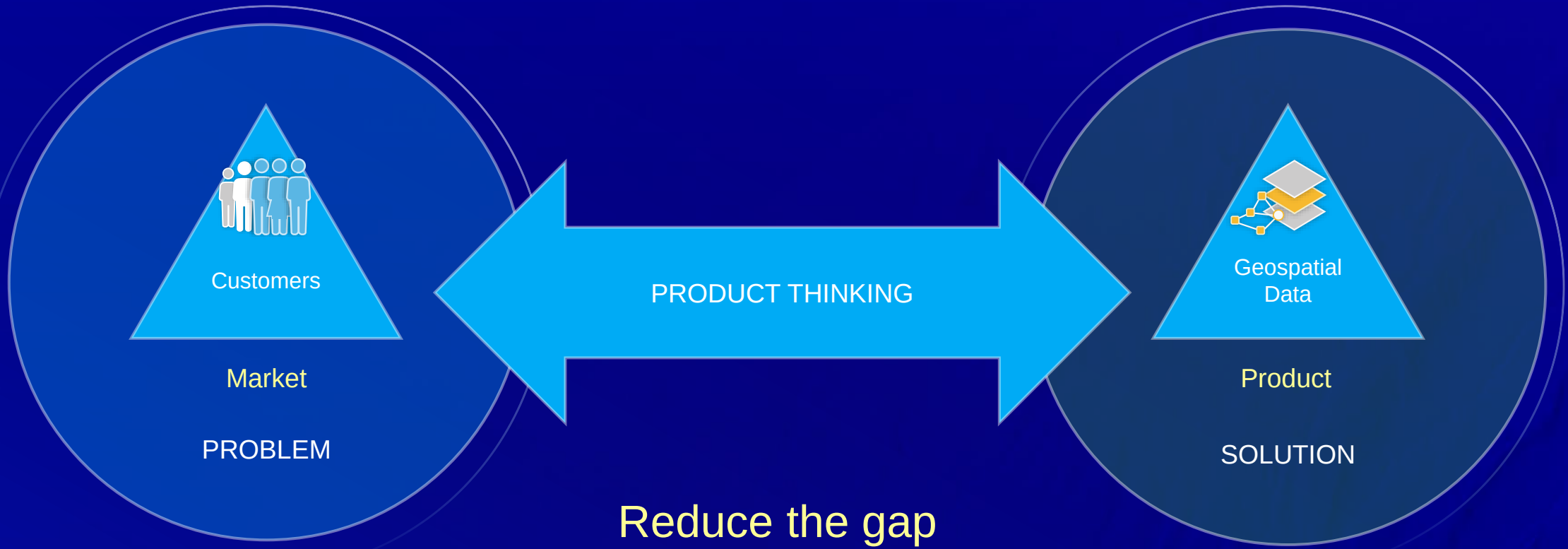
https://www.esri.com/about/newsroom/arcnews/getting-geospatial-data-to-meet-the-needs-of-today-and-tomorrow

Geospatial product thinking

Relentlessly focused on user-centric design

What is Product Thinking?

The **journey** from the problem space of the users to the solution space of your business.



Reduce the gap

Inspired by https://medium.com/@gisoogarmeki/product-thinking-101-6d8ec82d0501

Why is product thinking important?

"*the only thing that matters for a new startup is getting to a product-market fit*" – Marc Andreessen

Achieve a good
Product-Market fit

The goal of geospatial product thinking is to deliver geospatial products that address market needs

Who is the data customer?
And what are their requirements?

Understanding the market

Trend | Expanding customer base

Machines

Humans

- AI Assistants / ML
- Digital Twins / Smart Cities
- Sensors
- Systems / Data Spaces / Ecosystems
- Data Intermediaries / Open Data / SDIs
- Developers
- GIS Analysts
- Professionals (e.g., AEC)
- Cartographers
- Decision-Makers
- Engaged Public

Trend | Expanding requirements

Machines

Humans

AUDIENCE SOPHISTOCATION

Action

Understand

Tightly-coupled metadata

All types of data

Use

Integrated systems

Access features

Visualize

Imagery

Access through apps

APPS | MAPS | MAP SERVICES | APIs | DYNAMIC DATA

How do you treat data as a product?

Two simple techniques of user-centric design

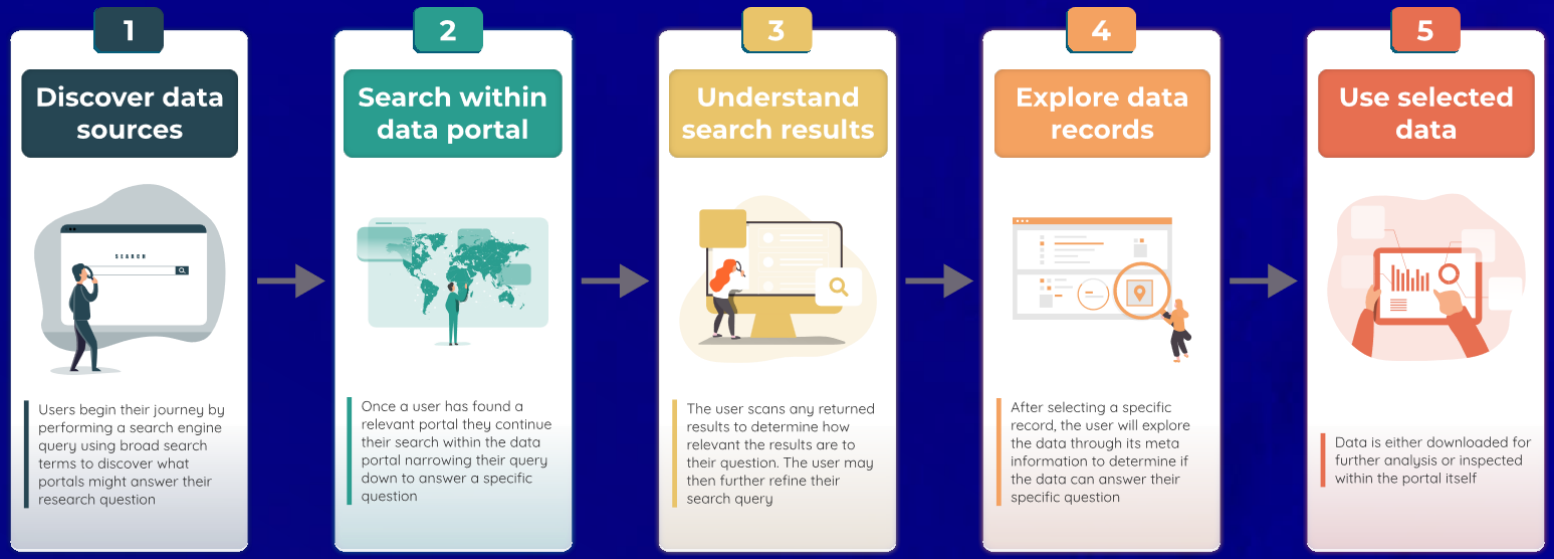
Capture requirements

AS AN: AEC Professional

I NEED TO: Find current mobility data for my study area and it to my CAD drawing.

SO I CAN: Provide context for our work.

User journey



UK Geospatial Commission, 2020. Data Discoverability Project
https://www.gov.uk/government/publications/finding-geospatial-data/finding-geospatial-data

Data as a product.

Getting a good product-market fit

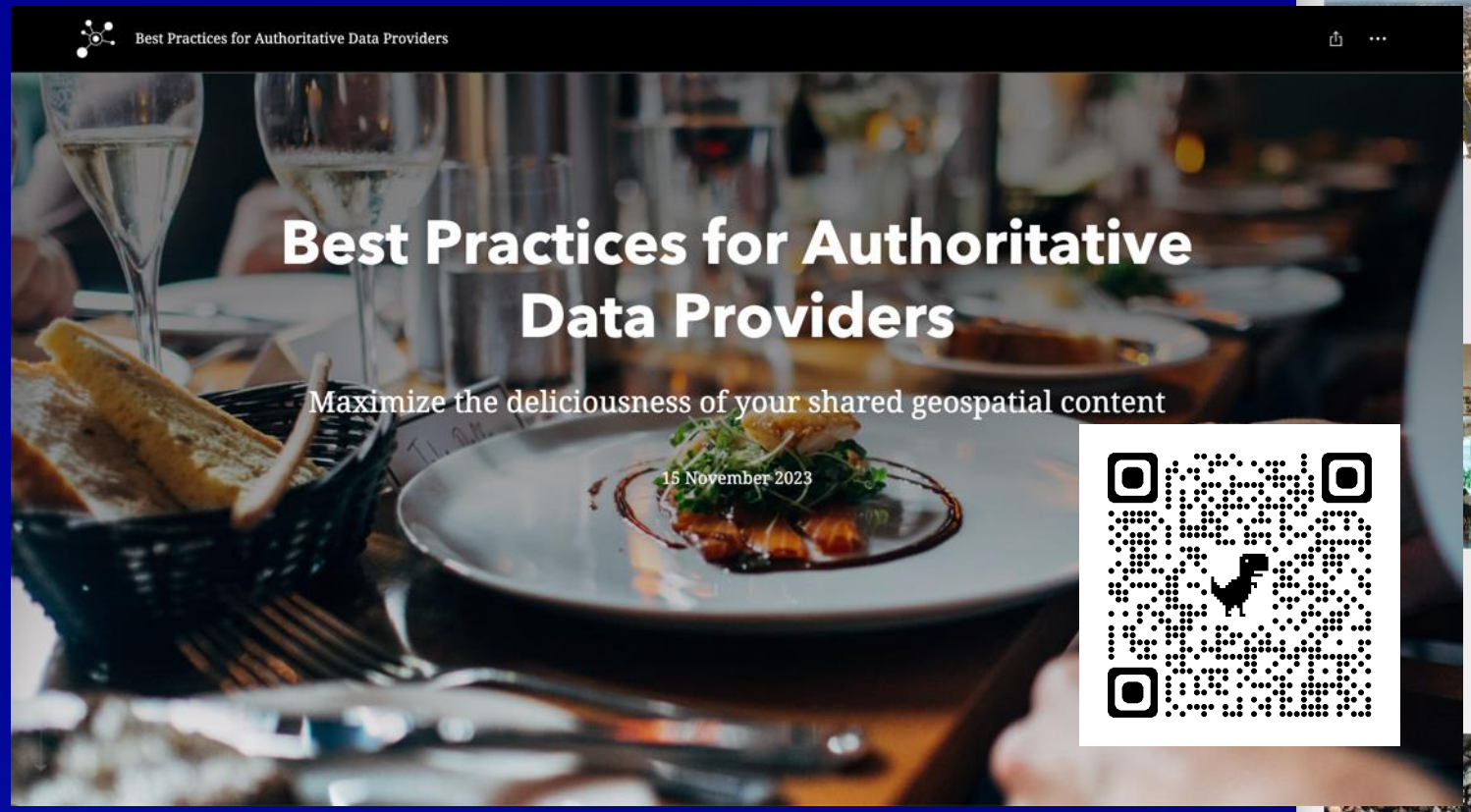
Ready-to-use data

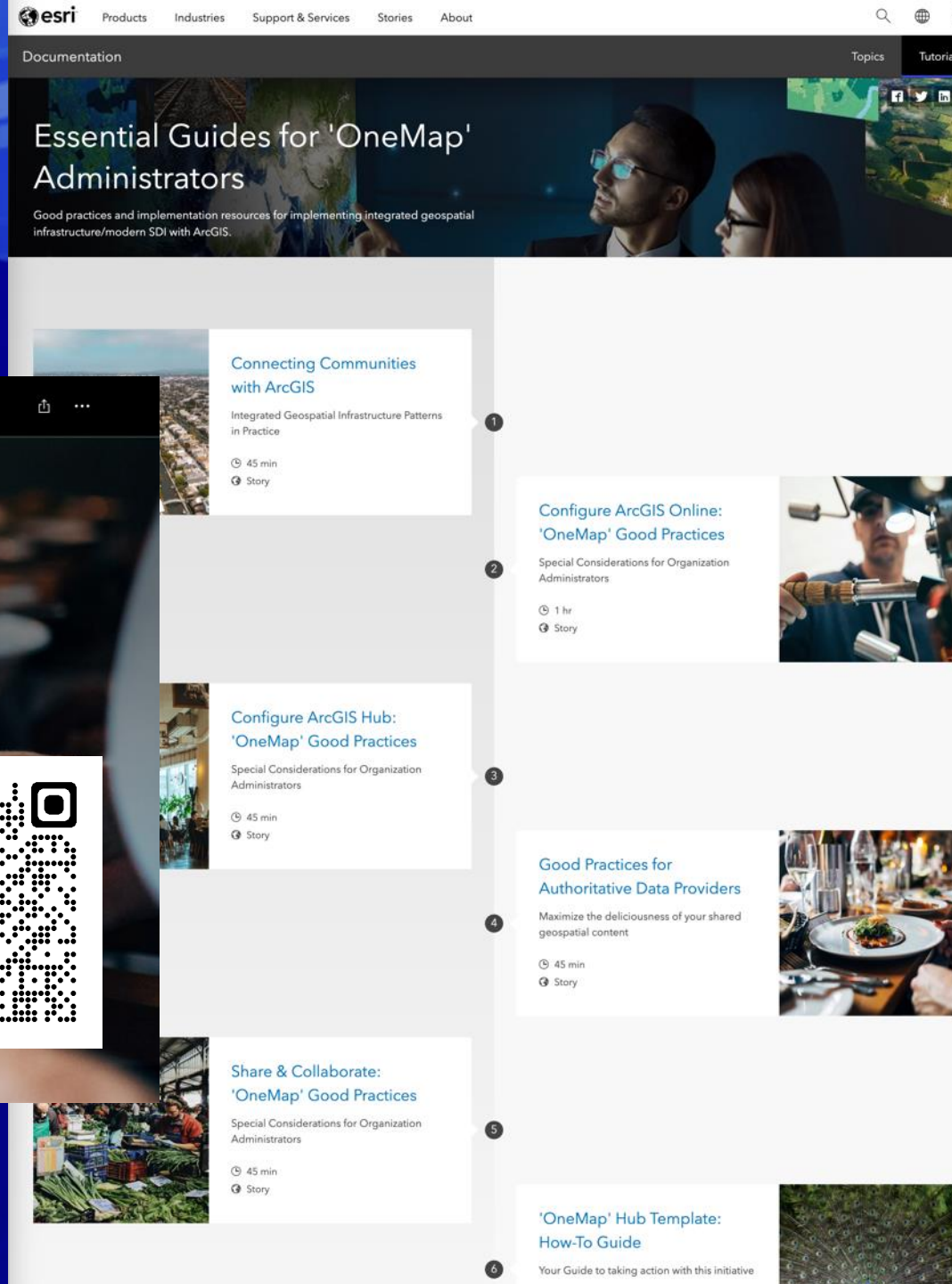
For discovery and reuse

- **Easy to use**, self-describing, interoperable, and licensed for reuse.
- **Easy to find**, search engine optimized, and discoverable in a self-service global ecosystem.
- **Easy to understand**, symbolized, and configured for quick visualization.
- **Relevant**, analysis-ready data, enabling access to quality features with well-documented attributes and key fields for joining with other data.
- **Reliable**, persistent, and optimized for scalability and performance.
- **Accessible** in various forms that serve broad audience requirements, including humans and machines, via APIs, downloads, and user-friendly applications for non-technical users to explore.

Implementation Resources

Best Practice Guides





Continuous improvement

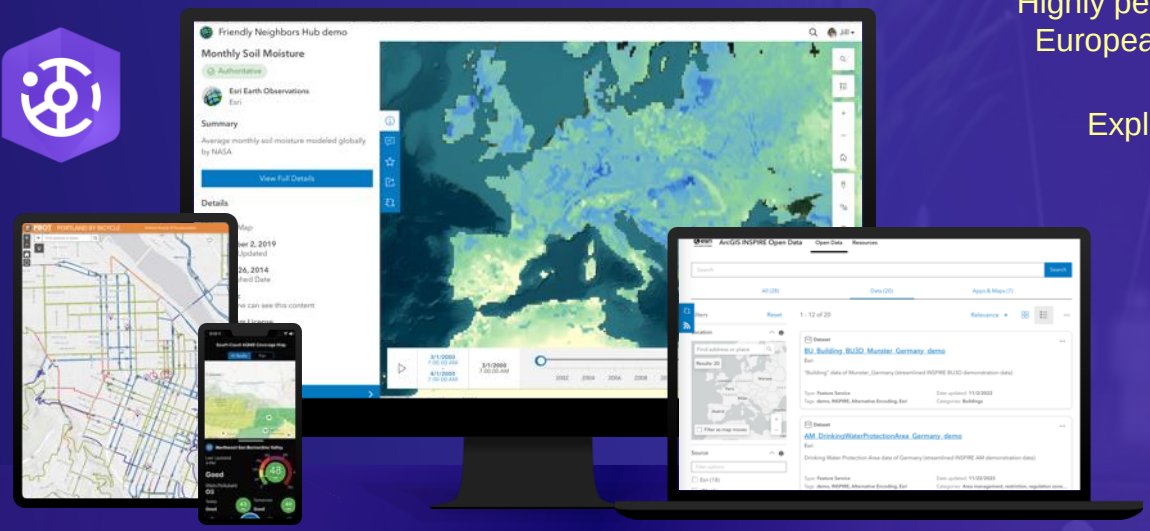
User-centric design to address the whole user experience

Maximizing discoverability and reuse

Supporting success with the Open Data

- Sharing, collaboration, and engagement system
- Providing dynamic data and downloadable data
- Applying open standards and best practices for the web

ArcGIS Hub



Dynamic data and APIs

Highly performant and scalable data – European region hosting

Explore, filter, and download multiple formats

FAIR+ quality, ready-to-use data layers

Metadata – ISO, INSPIRE …

Federate open data catalog standards

Search Engine Optimization (SEO)

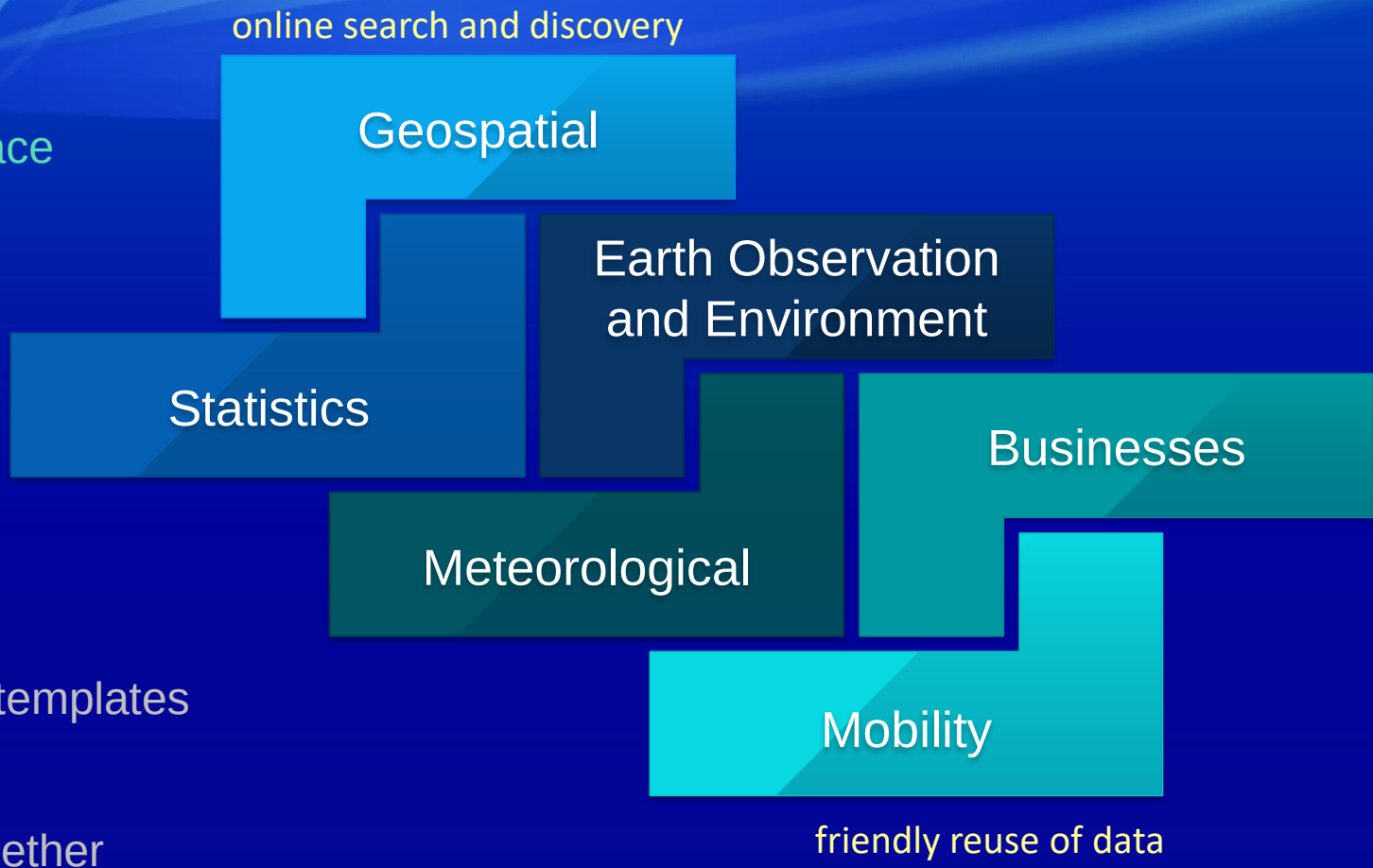
“How we access, process, and reuse data significantly influences technological development ***and improves our daily lives****. The Open Data Directive empowers European users to find solutions and enact data-driven policy to address challenges, from local to global.”*

Jack Dangermond, Esri founder and president

Supporting HVDs

From INSPIRE to the Green Deal Data Space

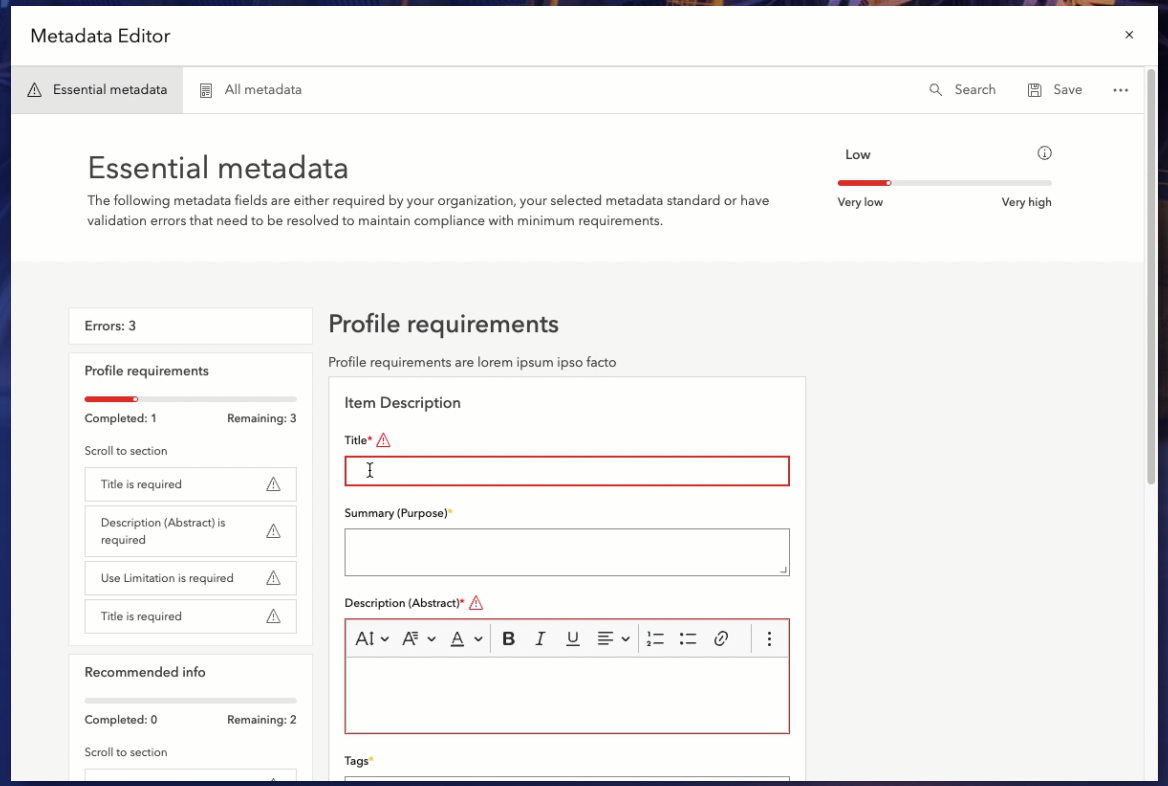
- **Sharing Open Data**
  - API Access
  - Downloadable data
- **High-Value Datasets (HVD)**
  - INSPIRE streamlined and default data templates
- **INSPIRE Metadata**
  - Closely coupled data and metadata together
- **Federate with open data registries**
  - DCAT-AP catalogue feeds
  - Automatic transformation of INSPIRE Metadata



Making it easier to create high-quality Metadata

Supporting next-generation search and discovery

- Unified experience across ArcGIS
- Editing ***Essential metadata*** for required and suggested elements
- Editing ***All metadata*** for robust documentation
- Low-touch experience
- Enhanced workflows
- Search elements and values



ArcGIS unified metadata editor

Thank you!

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