IDEAMAP SUDAN FINAL SYMPOSIUM

Geospatial Data Portals and Open Geospatial Data

Presenter: Dr. Eng. Serkan Girgin
University of Twente, Faculty ITC
Center of Expertise in Big Geodata Science

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Data is valuable when used to make better decisions

- The true value of data can only be unlocked if it is **re-used and shared**, not siloed.
- Data sharing is the process of making the **same data** resources available **to multiple** applications, users, or organizations.
- It improves **efficiency** within an organization* and fosters **collaboration** with partners and stakeholders, creates **new opportunities**, contribute to **better decisions** with positive social impacts.
- Data sharing includes technologies, **practices**, **legal frameworks**, and **cultural** elements.

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Application of best practices ensures effective* data sharing

- Necessary and proportionate
  The impact of disclosing information should be proportionate to the need and level of risk.
- Relevant
  Information should be shared with those who need it, allowing them to do their job effectively.
- Adequate
  Information should be of the right quality to ensure that it can be understood and relied upon.
- Accurate
  Information should be accurate, up to date, and clearly distinguish between fact and opinion.
- Timely
  Information should be shared in a timely manner to reduce the risk of missed opportunities.
- Secure
  Information should be shared in an appropriate, secure way following security policies.
- Record
  It is good practice to record decisions, e.g. indicate reasons if the decision is not to share.

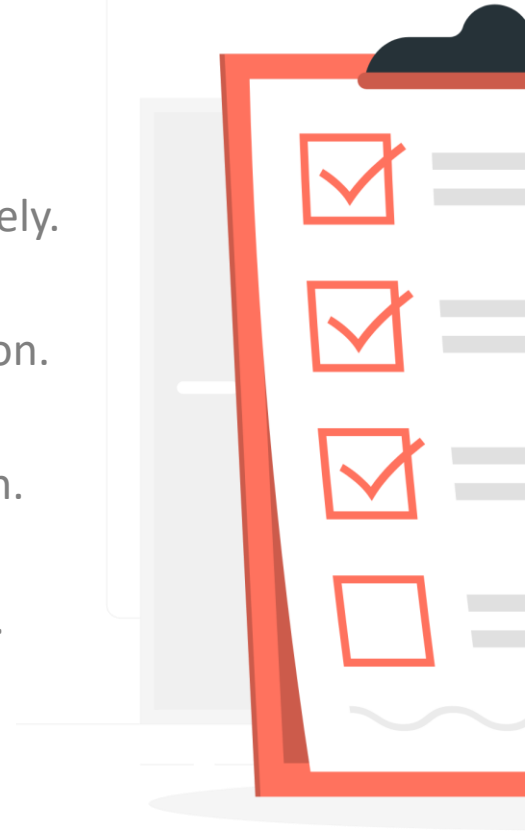


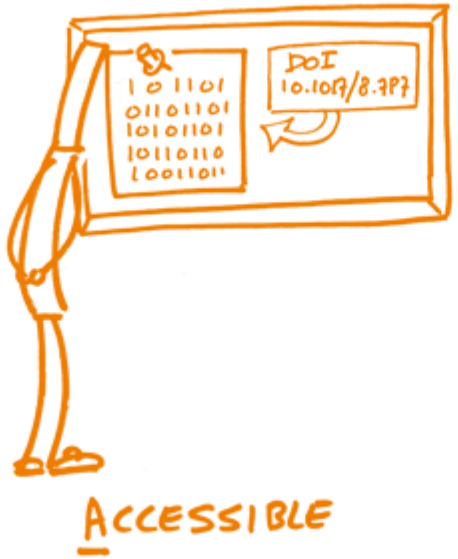
Illustration by Storyset

Governments, NGOs, businesses, and others embrace Open Data

- **Open data** is free, accessible data that anyone can use for any purpose*.
  - Drives increased transparency and accountability
  - Enables innovative applications and services
- Governments and intergovernmental organisations are **main providers** of open data.
  - Many governments are now mandated to provide open data to their citizens.
- NGOs have always paid attention to the **democratization** of data.
  - Many NGOs are producing open data, but they can also be supported by e.g. crowdsourcing.
- Open research data is a core component of **Open Science** embraced by academic institutions.
- **Corporations** realized that producing open datasets can improve their businesses and public relations.

FAIR principles are key for successful data sharing

Metadata* and data should be findable for both humans and computers



Users need to know how the data can be accessed

Data needs to work with applications or workflows for analysis, storage and processing

Metadata and data should be well described so that they can be reused

* **Metadata** is data that describes other data.

Illustration by Patrick Hochstenbach, Open Science Training Handbook

Data portals enable efficient data sharing and management

- A data portal is a **gateway** to data with a core purpose of enabling the **rapid discovery** and use of data.
- Along with the essential basic **catalog** features, modern portals now incorporate an extensive range of functionality for **organizing, structuring and presenting** data.
  - Publication workflow and metadata management
  - Interactive exploration
  - Data storage and API for applications and analytics workflows
  - Access control
  - Data ingestion and transformation
- A well implemented data portal goes beyond simple convenience but is a powerful tool in building better overall organisational **data governance**.

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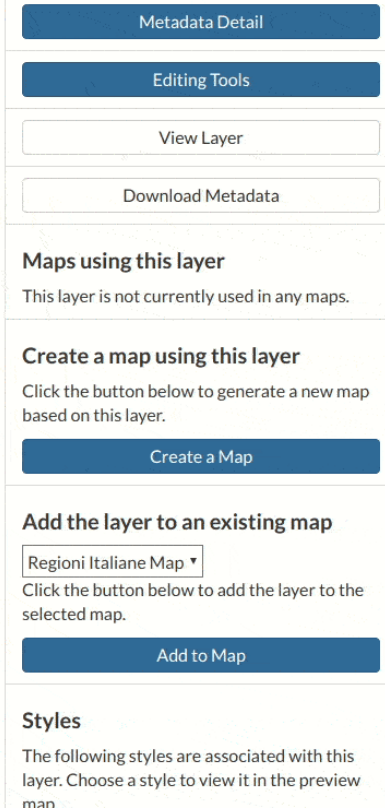
Open-source solutions exist to build geospatial data portals



PostgreSQL

PostGIS

Open Geospatial Consortium

GeoServer

GeoNode

COG

STAC

Cloud computing platforms facilitate access and use of data

- They are accessible through a web browser.
- Various access interfaces are available.
  (e.g. interactive notebook, remote desktop, terminal)
- Software is ready to use and up to date.
- Various computing resources are available on demand.
  (e.g. GPU, large memory, large storage, computing cluster)
- Shared workspaces allow assets to be shared by groups
- Public assets can be shared by all users
  (e.g. OpenStreetMap, ESA Copernicus, etc.)

ITC Geospatial Computing Platform is used by IDEAMAP SUDAN
https://crib.utwente.nl

Illustration by Storyset

Availability is the first step, sustainability is the essential next one

Open Discussion

"Sustainability of Data Portals and Open Access Data"

- How can we make portals **findable and known**?
- How can we keep portals **operational**?
- How can we keep data **up to date**?
- How can we make data **open**?
- How can we streamline **overlapping efforts**?

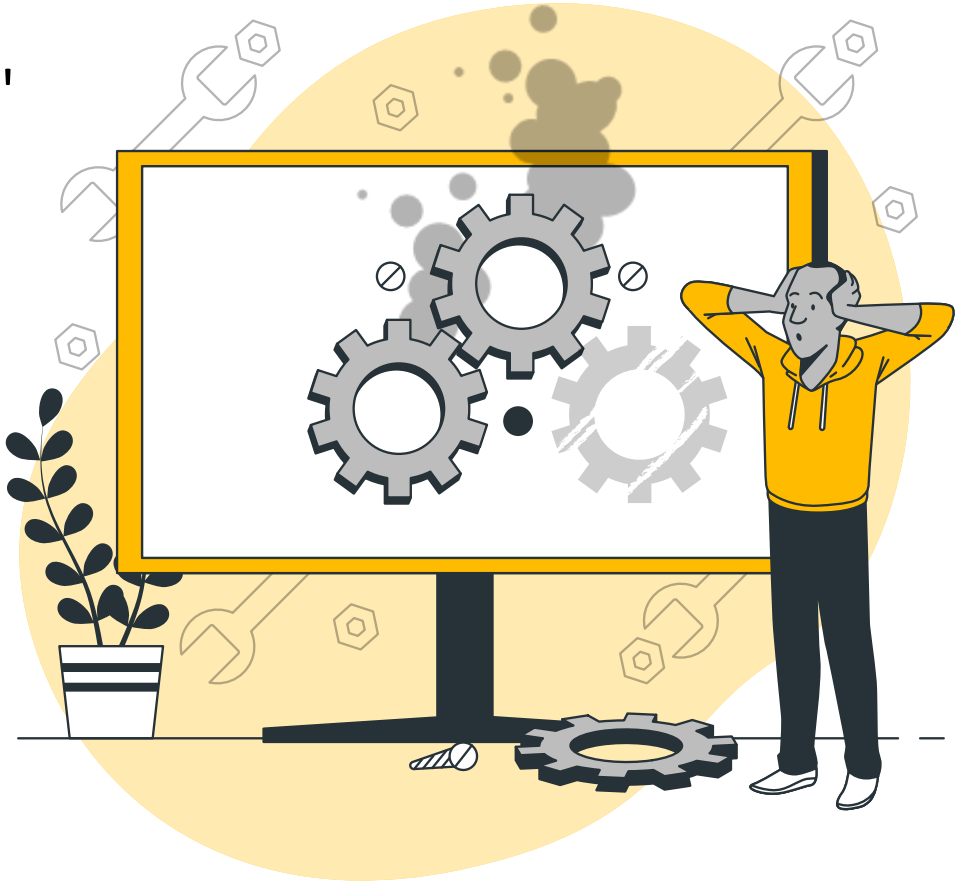


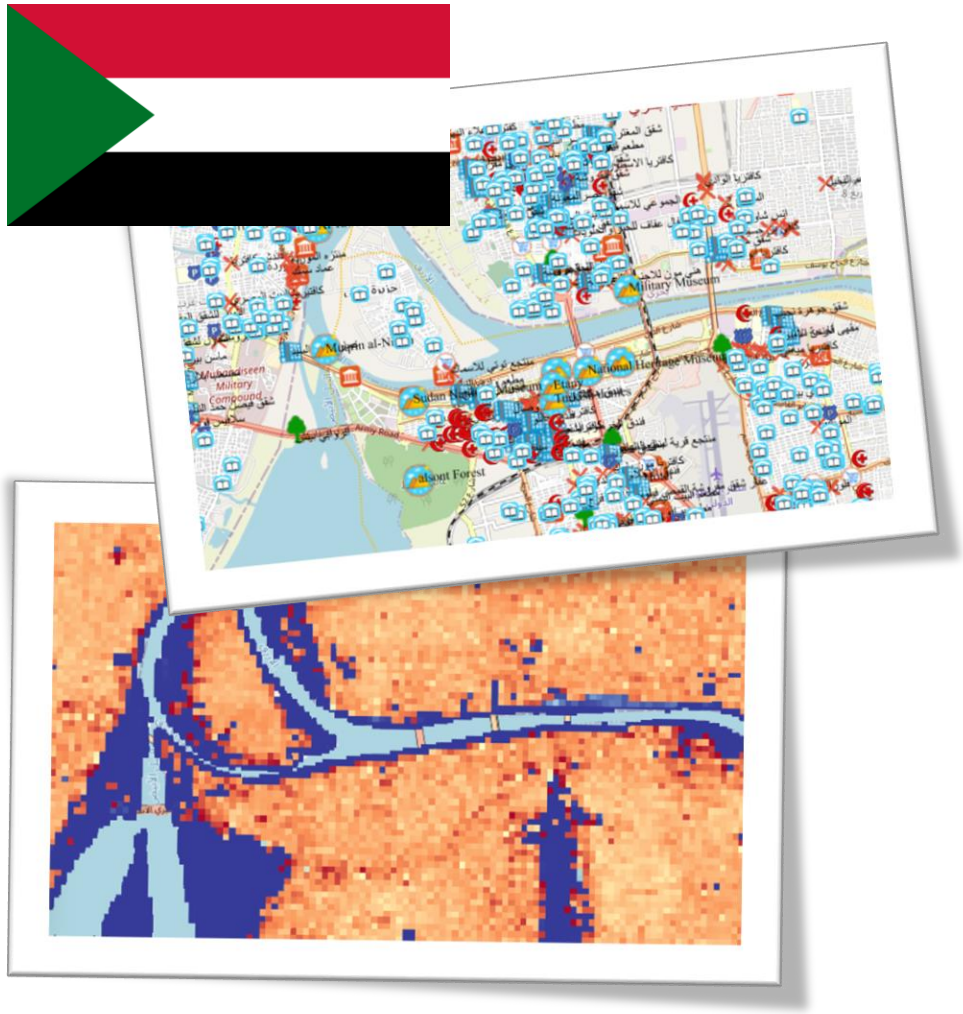
Illustration by Storyset

Let's learn about the Sudanese experience first

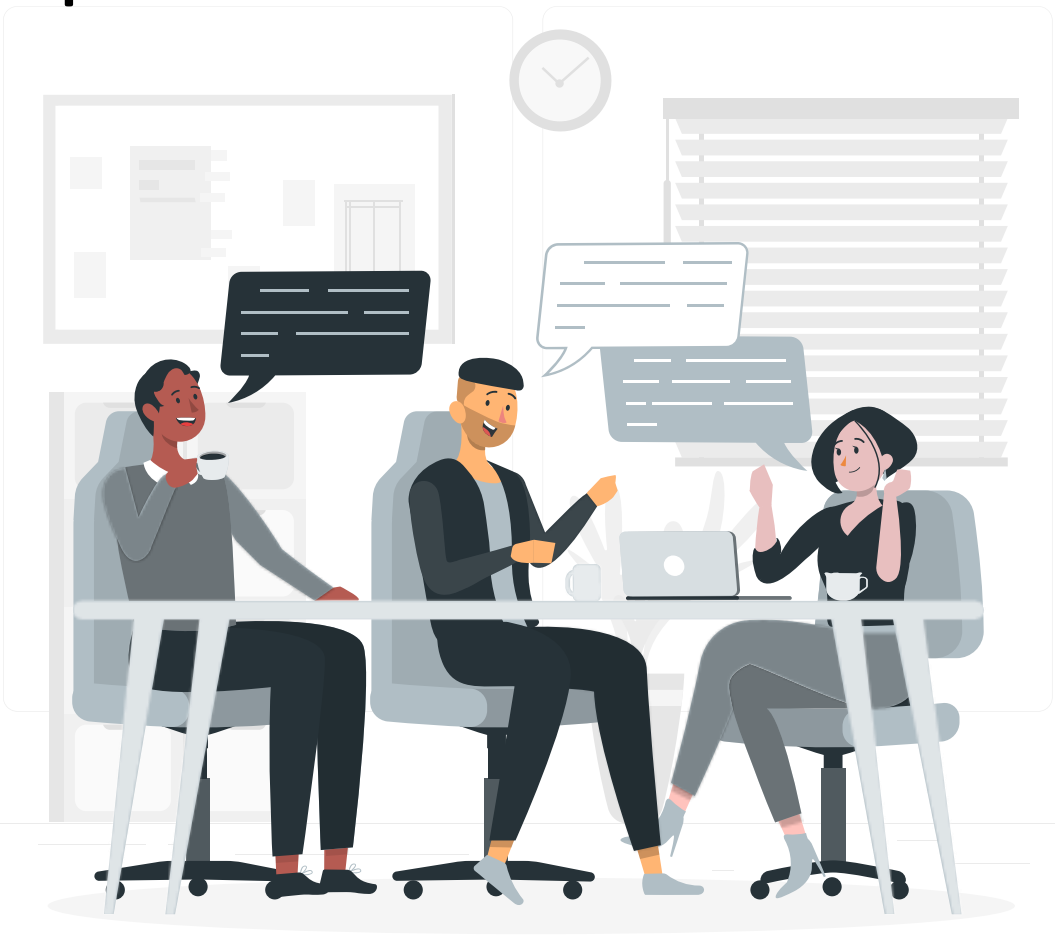
- National Geo Portal
  National Centre for Vital and Spatial Information

- Local Data Portals
  Dr. Hatim Elobied

- IDEAMAP SUDAN Data Portal
  Eng. Asgad Abid



Open Discussion



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