



8th International
Conference on
BIG DATA
& Data Science for Official Statistics

BILBAO 2024

Informing Climate Change and
Sustainable Development Policies
with Integrated Data

BILBAO. SPAIN | **10-14 JUNE 2024** | **#UNBigData2024**

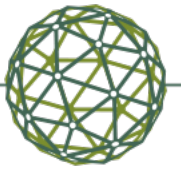
Session on Knowledge commons for Global Sustainability Challenges





Overview of this session

- Good practices for creating, managing and maintaining knowledge commons for sustainable development.
- Leveraging knowledge commons in the global statistical community
- The future of knowledge commons

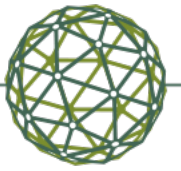


What do we mean by Knowledge Commons?

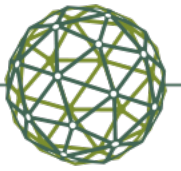
Institutionalized community governance of
the creation, management and sharing
of data, information, knowledge, and digital infrastructure

See, for example:

- Ostrom (1990, 2005)
- Madison, Frischmann and Strandburg (2010)
- Dedeurwaerdere et al. (2014)



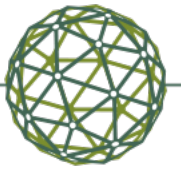
- **Commons:** Openness and inclusivity.
- **Market:** Ownership rights and exclusivity.



Infrastructural resources

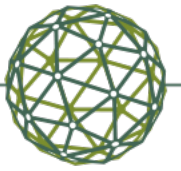
- Non-rivalrous consumption (at least for some range of demand)
- Demand driven by wide range of downstream productive activities that require the resource as an input

Brett M. Frischmann (2012)



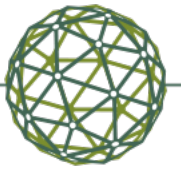
Managing knowledge infrastructures as commons: Benefits

- Data, information and knowledge are more valuable for addressing global sustainable development challenges when pooled together than when held in isolation by different actors.
- Participation in socially valuable activities is enabled by facilitating nondiscriminatory access to knowledge infrastructure



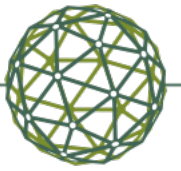
Managing knowledge infrastructures as commons: Challenges

- Sustaining sharing and cooperation
- Preventing quality drift
- Preventing capture by individual interest groups
- Free access may lead to some measure of overuse and waste



Examples of knowledge commons

- The Internet
- Open-source computer software projects
- Wikipedia
- Data interoperability frameworks and infrastructure
- Public data infrastructures...



Open questions about knowledge commons

- What is the role of individual activators (sponsors, investors, contributors, early adopters, technologists, ...)?
- What contributes to their durability and effectiveness?
- What undermines them?



#UNBigData2024