



G20 GERMANY 2017

# Linked Open Data in Agriculture

## Workshop 27th/28th of September in Berlin

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Federal Ministry  
of Food  
and Agriculture



**GODAN**  
Global Open Data  
for Agriculture & Nutrition



Bundesanstalt für  
Landwirtschaft und Ernährung

# History

- G8 Summit 2012: New Alliance for Food Security and Nutrition
  - Open data
  - Global Platforms
- MACS 2012, Mexico:
  - Access to scholarly publications, germplasm collections, genomic data...
- National workshop on linked open data in agriculture 2013 (FAO, KTBL, DFKI)
- GODAN Summit 2016
- MACS 2016, China:
  - Foster open data
  - Agricultural Technology Sharing

# Linked Open Data



2-day, 2-track conference:

- Policy implementation and strategy (discussing „open“-philosophy and „data“-content)
- Technologies and applications (discussing „linked“-technology and „data“-content)

# Goals

- Capture current State-of-the-Art in Linked Open Data
- Determine data demand and supply
- Exchange failure and success stories
- Discuss on applications and usage (potential and realized)
- Develop options for further actions (political and technical)



# Topics addressed

- Research data sharing
- Availability and security
- Data models
- Open geodata
- Visualisation, navigation and search
- Vocabularies, classifications and thesauri
- Earth observation and remote sensing
- Applications in livestock farming
- Supply chain and traceability
- Monitoring and documentation
- ATS platform

# Further Information

## → Announcement and Call:

[https://www.ktbl.de/fileadmin/user\\_upload/Allgemeines/Download/LOD/LODA\\_2017.pdf](https://www.ktbl.de/fileadmin/user_upload/Allgemeines/Download/LOD/LODA_2017.pdf)

## → Workshop presentations:

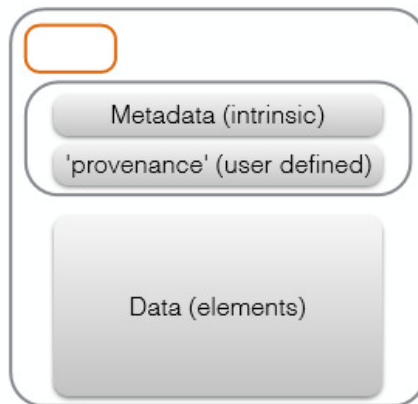
<https://www.ktbl.de/inhalte/themen/ueber-uns/projekte/macs-g20-loda/lectures/>



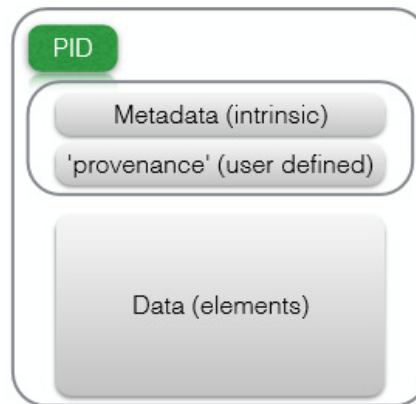
# FAIR principles

- **F**indable
  - **A**ccessible
  - **I**nteroperable
  - **R**eusable
- = FAIR

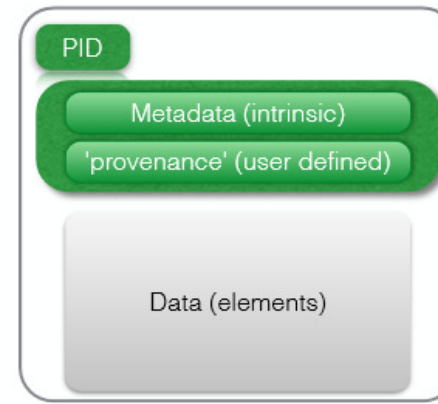
Totally UNFAIR



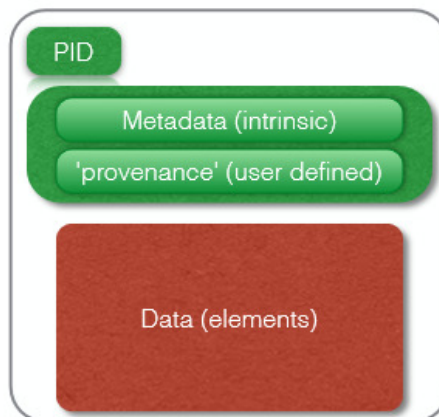
Findable  
Usable for Humans



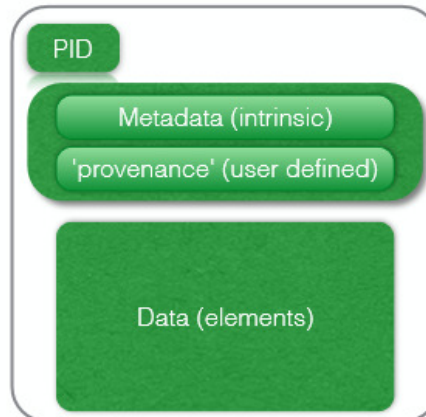
FAIR metadata



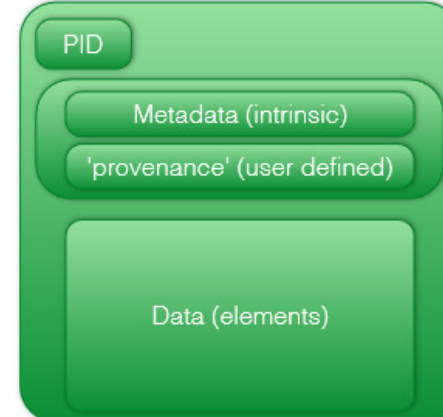
FAIR data-  
restricted access



FAIR data-  
Open Access



FAIR data-  
Open Access/Functionally Linked

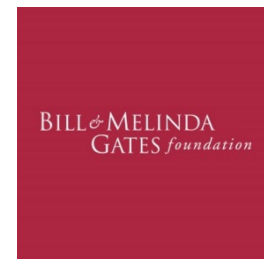
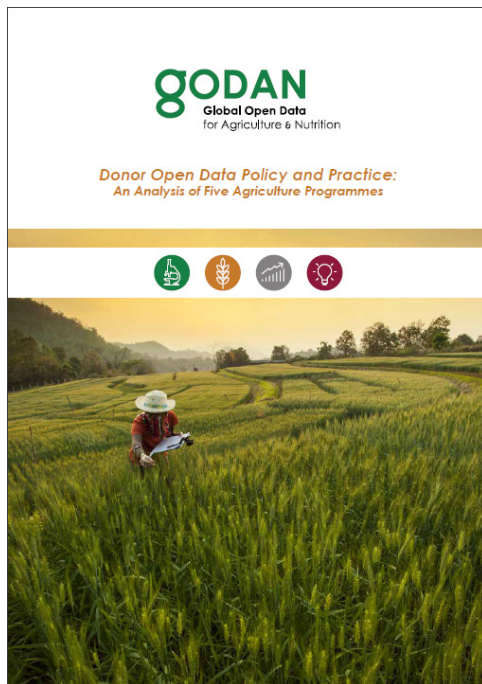




## Final plenary

- Reuse what's there, look for synergies
  - Requires healing the „not-invented-here“ syndrome
- Governments should support open data
  - GODAN as a vehicle for networking and empowerment
- Enduser perspective as a principle
- Strengthen the process of collaboration
  - No heavy, administrative frameworks, lightweight collaboration
  - Enforce ongoing processes

# Joint Donor Statement



- Participate in global funder dialogue
- Promote good open data practice among those receiving funding
- Efficiently and consistently engage with partners
- Promote appropriate guidelines and tools
- Document and track use of open data
- Responsibly use data

## Actions within the network

- Microclusters of stakeholders that work on single things that have an impact:
  - Data providers
  - Domain experts
  - ...
- Followup workshop:
  - Let people state shortly what they're good at
  - Start forming microcluster
- Think big, start small: a little bit of metadata often helps already!

# Conclusions

- Innovations and applications based on data provided according to FAIR principles start gaining ground
- Follow-up actions on Linked Open Data should focus on collaboration and reuse

How?

- Endorse a collaborative climate among organizations instead of competition
- Funding agencies and authorities: support participation in international initiatives

# MACS

- Confirm the opinion that access to data is of importance for agricultural innovation
- Endorse FAIR principles
- Support developing definitions of data rights and responsibilities
- Encourage catalyzing work done by organisations like GODAN, RDA etc.