Blockchain workshop, ESA Φ-week
Nov 15, 2018, ESA ESRIN (Frascati, Italy)

Beyond the hype: What are useful links between DLT and GSI for smallholder agriculture

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Overview of this session

- Intro into CGIAR Platform for Big Data in Agriculture
- Distributed ledger technology (DLT) for development
- Examples: VCs on the Blockchain

CGIAR Big Data in Agriculture

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Platform for Big Data in Agriculture

to solve agricultural development problems faster, better and at greater scale

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Platform for Big Data in Agriculture

The Platform aims at harnessing the capabilities of Big Data to accelerate and enhance the impact of international agricultural research for development

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Platform by name, Innovation Hub by nature

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How is the platform organized

Organize

Support data generation and management, practices, enable FAIR data

Convene

Bring together big data practitioners, private sector, academia, (I)NGOs++ to produce innovative solutions

Inspire

Employ analytics and ICTs to deliver info to farmers, monitor ag and food security, and inform policy

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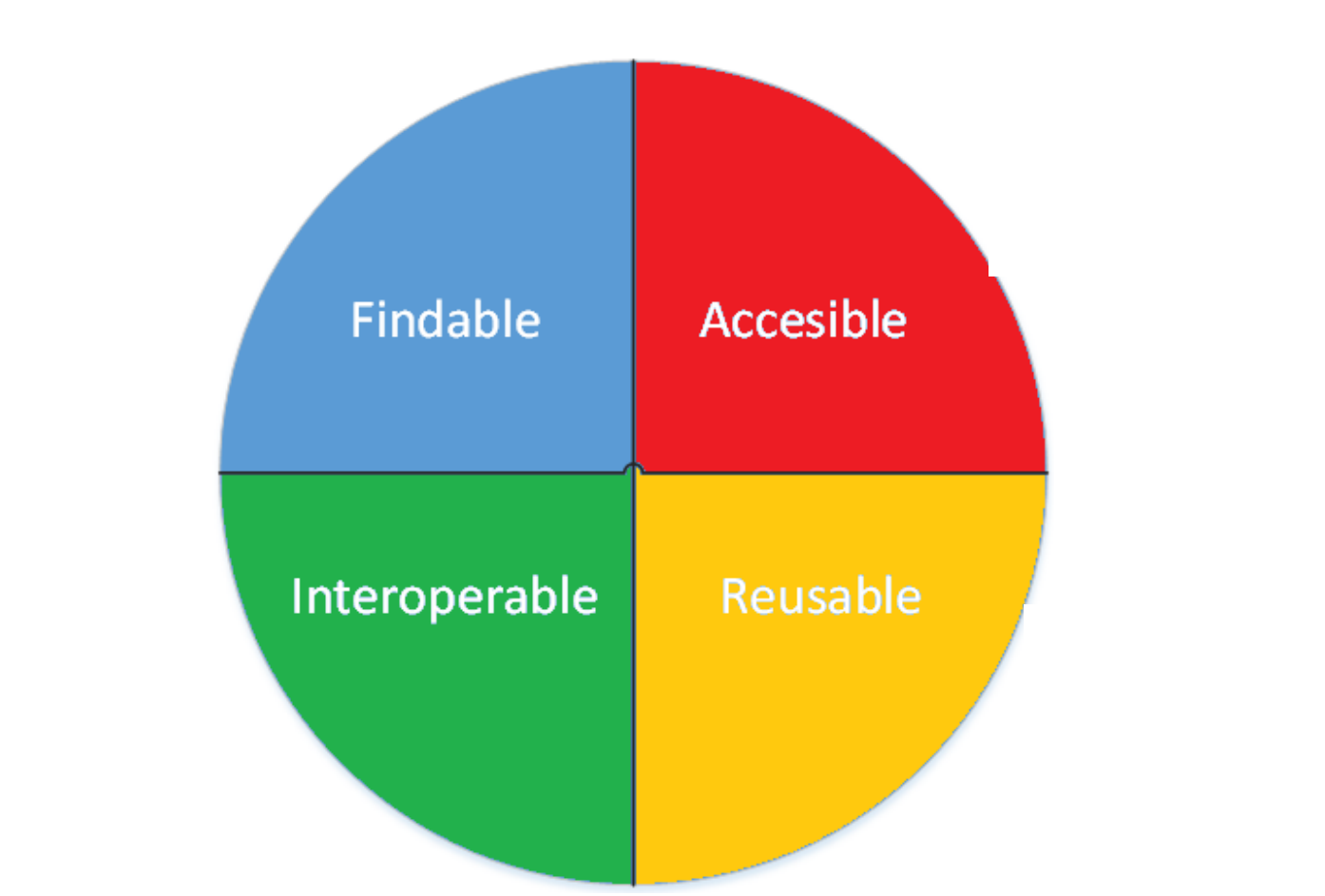
Organize is about making data FAIR



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Convene is about partnerships and CoPs

- Yearly Big Data Convention
- Consortium for geo-spatial information
- Community of practice on ontologies
- Community of practice on crop-modeling
- Community of practice on data driven agronomy
- Community of practice on socio-economic data
- Livestock data for development CoP

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Inspire is about leading by example

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Community of practice on socio-economic data #CoP_SED

The objective is to make the high variety socio-economic big data accessible and interoperable to create more impact and measure it

The Community of Practice is lead by **Gideon Kruseman**

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What does CoP do

- Making socio-economic data findable, accessible, interoperable and reusable

- Next generation use of Big Data
  - Blockchain coalition is developing use cases and pilots for the use of distributed ledger technology to enhance the impact of research for development
  - Do rigorous research on these use cases

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DLT4D cases

- Traceability: Farm to fork
- Traceability: Input passport to enhance trust
- Institutions: the virtual cooperative and financial mediation
- Technology as a service: smart contracts

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Traceability farm to fork: certification

- Organic grapes
- Palm oil and deforestation

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Traceability farm to fork: consumer consiousness

- Smallholder niche market food commodities
- Coffee, rice, maize

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Traceability farm to fork: responsible sourcing

- How can small holders be part of the sourcing of major food multinational corporations?

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Traceability Input passport

- How to combat rampant counterfeit inputs in sub-Saharan Africa?
  - Seed Trust
  - Fall Armyworm initiative

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Virtual institutions for trust

- Virtual cooperative: AGUNITY in Uganda

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Technology as a service

- Scaling up mechanization for small holders

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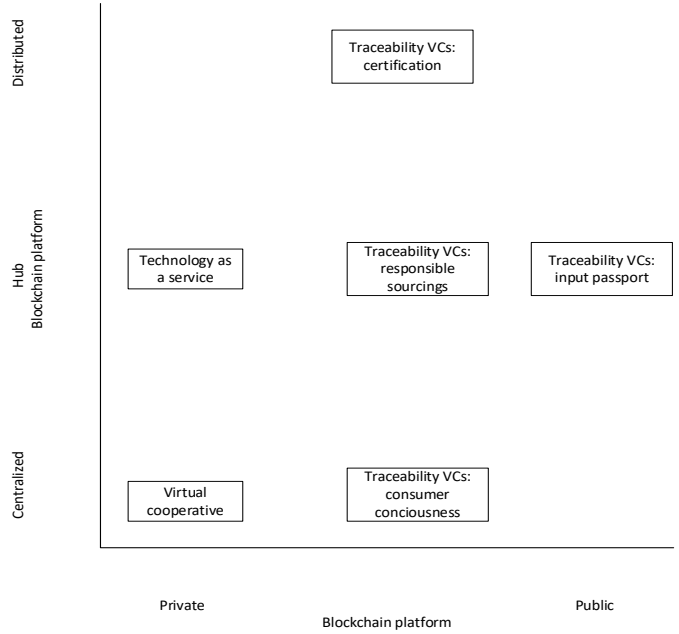
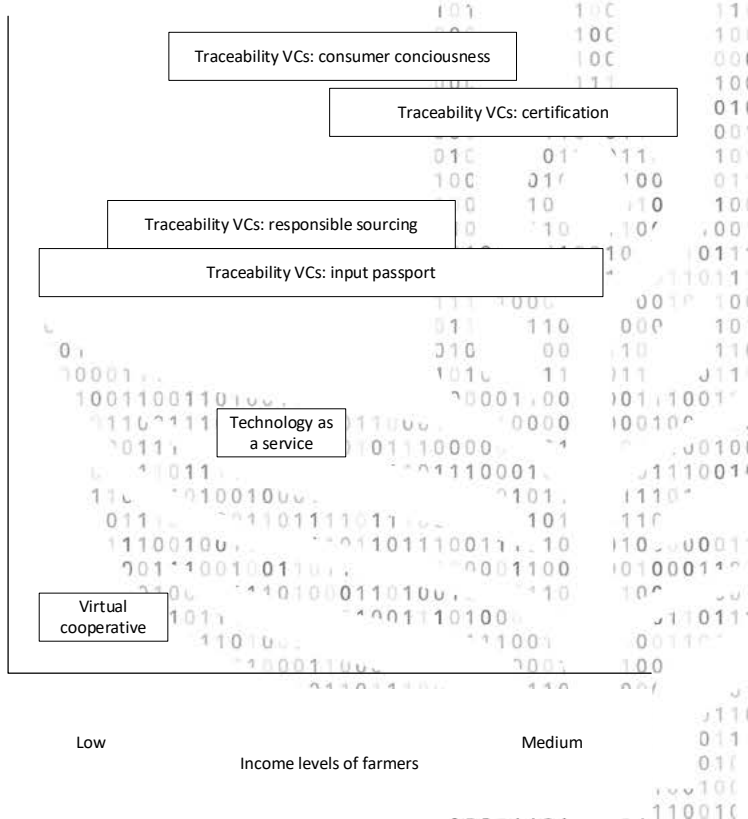
Rigorous science

- What works? What does not? and why?
- Business models
- Tech solutions
- Key components
- Governance structures





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Welcome to the fourth industrial and agricultural revolution:
the data driven society and economy

Thank you!

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Platform for
Big Data
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