Martin Parr

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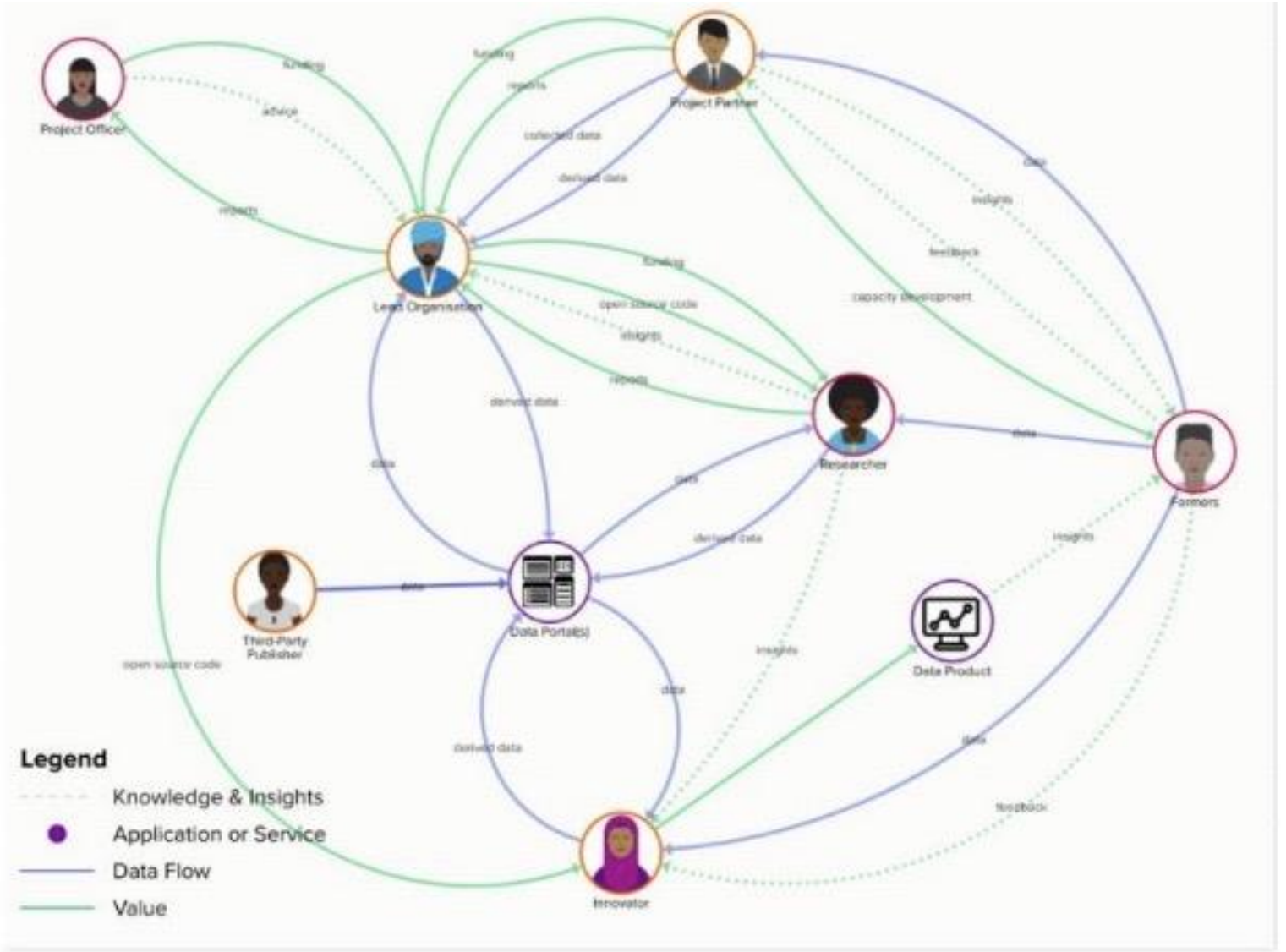
Open Science is…

Our Experience

Historically, donors have made large investments without requiring good practice in data management and sharing

Technical investments that have been made tend to focus on platform or data collection not mindful of a broader ‘data ecosystem’ perspectives

If processes continue as normal, we expect constraints to data use to be perpetuated…

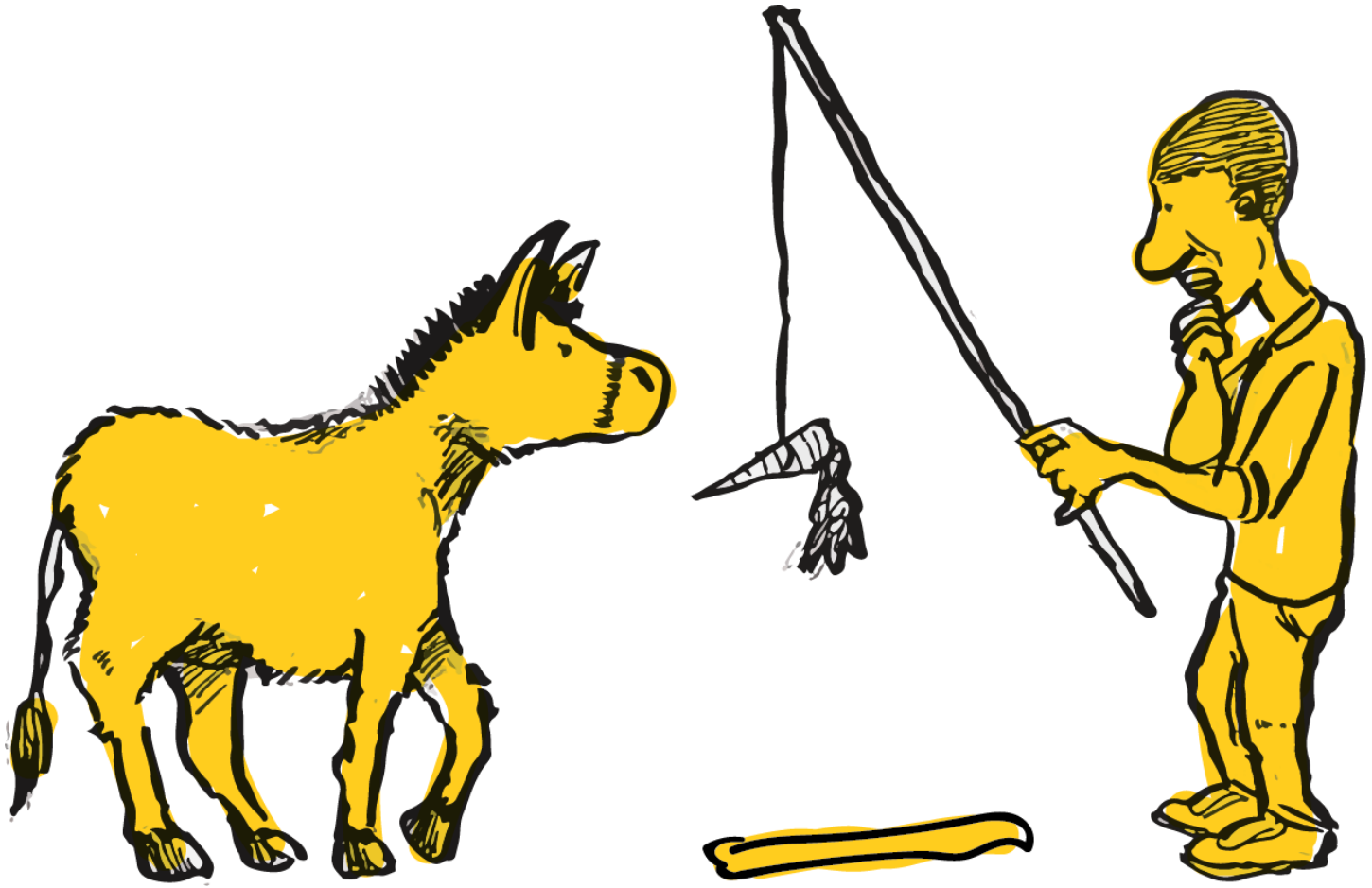

Project Officer
Project Partner
Lead Organisation
Researcher
Farmers
Third-Party Publisher
Data Portal(s)
Data Product
Innovator
Legend
Knowledge & Insights
Application or Service
Data Flow
Value

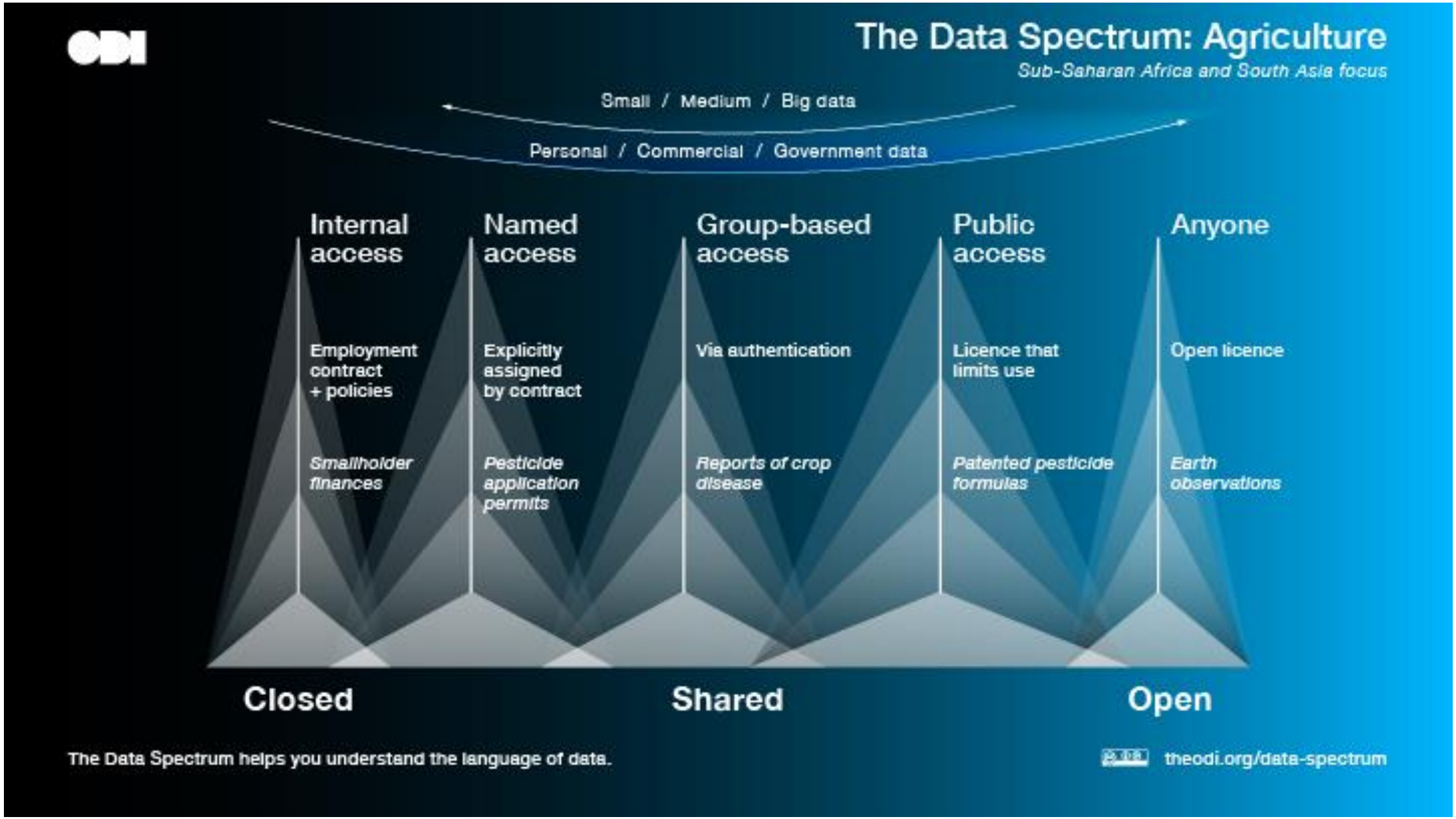
Constraints to Data Utility

Data Management Processes	**Data Quality** - Data is fit for purpose for its intended use. Quality can include accuracy, timeliness, completeness and consistency
	Data Standards - Reusable agreements that make it easier for people and organisations to publish, access, share and use better quality data
	Data Security & Privacy - The operational risks of handling and storing data are understood and managed routinely
	Data Management Plans - Plans to ensure that all relevant aspects of data management are considered and people, processes and resources are in place
	Sharing & Access - Sustainable processes in place to share and access data including common data request processes, findable data, suitable formats, clear terms and conditions for use (licensing, IP, data sharing agreements), and clear records of who is accessing and sharing data
	Governance - Clear roles, responsibilities and accountability regarding the management, strategic direction and integrity of high value datasets
Knowledge & Skills	**Data Literacy** - knowledge and skills required by anyone interacting with data, from beginner through to expert level
	Trust & Benefits - benefits of sharing data and there is trust in processes and best practice to access, use, share and safeguard data
Strategic Oversight	**Policy** - well-written national/organisational data policy that clearly defines the commitment of the government/organisation to publish, share and consume data
Investment	**Resourcing** - the appropriate time is resources and committed to access, use, manage and share data
	Technical Infrastructure - the appropriate investment in technical infrastructure (e.g. platforms for sharing) is in place


PEOPLE
PROCESS
TECHNOLOGY

Incentives to openness & sharing

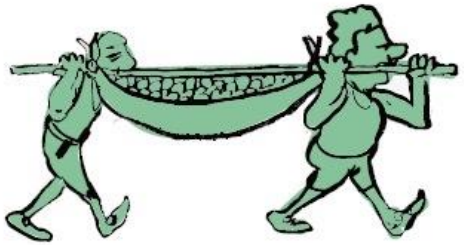



The Data Spectrum: Agriculture
Sub-Saharan Africa and South Asia focus
Small / Medium / Big data
Personal / Commercial / Government data
Internal access
Named access
Group-based access
Public access
Anyone
Employment contract + policies
Explicitly assigned by contract
Via authentication
Licence that limits use
Open licence
Smallholder finances
Pesticide application permits
Reports of crop disease
Patented pesticide formulas
Earth observations
Closed
Shared
Open
The Data Spectrum helps you understand the language of data.
theodi.org/data-spectrum

Accessible

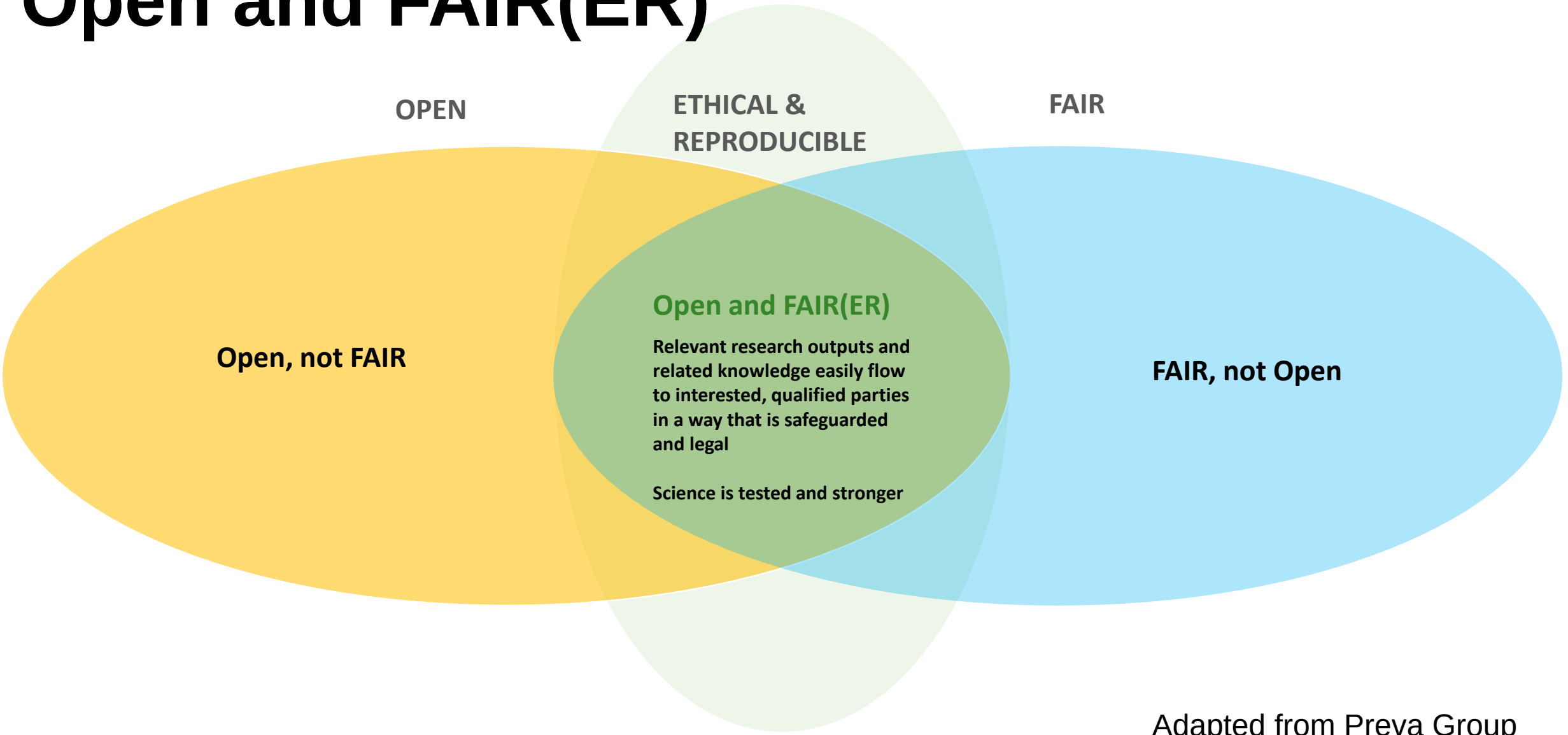
Interoperable

Findable



Reusable

Open and FAIR(ER)



Adapted from Preva Group

Supporting FAIR(ER) data and content

Data should be increasingly **FAIR** (Findable, Accessible, Interoperable, Reusable), as well as **Ethical** so that insights can be **Reproducible**

In order to deliver FAIR data and the associated positive impacts **all** these elements need to be in place:

- We need to have the right **people** identified
- We need to give the right people the right knowledge to build data **literacy**
- We need to have the right **process** in place (rules, policy and guidelines)
- We need the right enabling **technology**

If any of these elements are missing, or are not effective, then the likelihood of not achieving the desired positive impact increases.

Promoting accessibility also should consider **Ethics** and **Legal** aspects to promote Responsible use and **Reproducible** results

Open agriculture

OA Decision Support Tools

- Broad focus journal targeting interdisciplinary research
- Launched in June 2020
- Global Editorial Board

- The dedicated preprint platform for sharing draft research articles in agriculture
- Relaunched on sustainable platform in June 2020

Open Access Books

- **> 20 titles**

- Sharing research updates / data
- Identifying collaborators
- Staying abreast of latest research
- Community problem-solving
- >370 registrants from 72 countries

Expertise
Policy
Toolkits
Training