

Building community, capacity and knowledge of FAIR data processes for POs and grantees. Championing improvements in data-rich foundation investments — to help deliver greater returns in-country.

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fair@cabi.org

Welcome to the FAIR Journal

A message from CABI's new Data Governance Lead, Ameen Jauhar



I am delighted to welcome you to this quarter's FAIR Journal.

In January, Margarita Aswani introduced the FAIR data learning lunch. Our thanks to Jessica Cagley for a generous welcome to the EDA team and her facilitation of such a wonderful experience. Conversation was diverse and below (p18-20) you will find answers to the questions raised by Program Officers (POs).

As well as insights and knowledge sharing about the benefits of FAIR and responsible data practices, this issue will let you take a closer look at the FAIR Process Framework (FPF) and how it is being implemented in AgDev investments at the Bill & Melinda Gates Foundation.

The team have collated key dates, FAIR news and resources, Open Access (OA) research, and the Data Practice Theory of Change created by the CABI team.

This issue also includes a case study and story of impact – where FAIR and responsible data practices are already making a real difference to in-country partners and beyond.

If you have missed the previous issues and want to catch up, [you can find them here](#).

Read more about our work on Enabling Data Access [here](#), or use the QR code below.

Best regards,

Ameen



Knowledge Sharing — The Urgent Case

By Christian Witt, Senior Program Officer, DFS AgDev

Why the need for processes in data management is urgent:

The process around data standards and data management is as important as data-sharing policies and principles. It is a continuum that we have ignored in the past. I think everybody understands the value of data sharing and the value of data for agricultural investments.

There are concerns around data sharing that need to be addressed. For example, what do other people do with the data once they are shared? Will that be a misuse? These problems need to be worked out in advance and can be avoided with the right structures and agreements in place.

As program officers, we know the issue. The moment you visit a farmer in her field and explain why you're here and what you would like to do - for example, take a soil sample for analysis - she will need to give her written consent. If you miss out the step, you might not be able to use the data for wider good later. So, you need to have a very clear



process in place to make sure that data standards, policies and guidance help you from the very moment you step into a field.

You need to know what data you can share and any restrictions (for example, data only for researchers).

Unpacking and solving these problems is a matter of great urgency. We need to address data generation, data hosting and data sharing

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Knowledge Sharing — The Urgent Case

...Continued

in grants, because in grants, if we don't then potentially, we are wasting our time, money and resource.

For example, if we find out mid-project that data cannot be shared with the intended users, then we can be left in a position where somebody needs to go out and repeat the data gathering or put new agreements in place.

We all want to see data generating impact for good, and data use that eventually assists smallholder farmers in making better decisions.

*"We need to start ...
and ensure we have the
right processes in place."*

We need to start from there and ensure we have the right processes in place.

I've been working with CABI Enabling Data Access team for several years. Their deep technical understanding of the landscape of data and digital, combined with the personal skill sets within the team, really made the difference for us.

The challenge and current work now is to bring everything that we've done so far together and collaborate to understand the issues around data management and making data FAIR.

Watch the full interview with Christian Witt on YouTube:

[Part One](#)

[Part Two](#)

Contact the CABI Enabling Data Access team at fair@cabi.org to put the right systems in place for your research, grants and investment.

"I would encourage all our POs here and those who have joined us online to use the expert reviews through CABI to develop efficient application of FAIR and responsible data practices, and backed-up investments, taking our work even a step further in the journey to global access..."

Margarita Aswani

Deputy Director, Strategy, Planning, and Management
Executive Sponsor, Enabling Data Access

Learning Lunch, January 11, 2024

Knowledge Sharing — Learning Lunch: Six steps to FAIR practices

Seattle, January 11, 2024

In January, CABI's FAIR Process team hosted a Learning Lunch, to present the FAIR Process Framework, six steps towards making AgDev investments FAIR, by enabling FAIR and responsible data practices. The event allowed the team to contextualize the FPF, by unveiling its simplified Theory of Change (TOC). The TOC outlines the EDA3 project's 'true north'. It shows how advocacy, influence and best practice will affect meaningful change across the AgDev ecosystem and for in-country stakeholders via improved data practices in foundation investments.

The lively working lunch was also a forum for debate and discussion. POs and the team had thoughtful discussions across topics including foundation and AgDev data strategy, FAIR in the private sector, and advocating for agency for in-country use of the FAIR Process Framework.

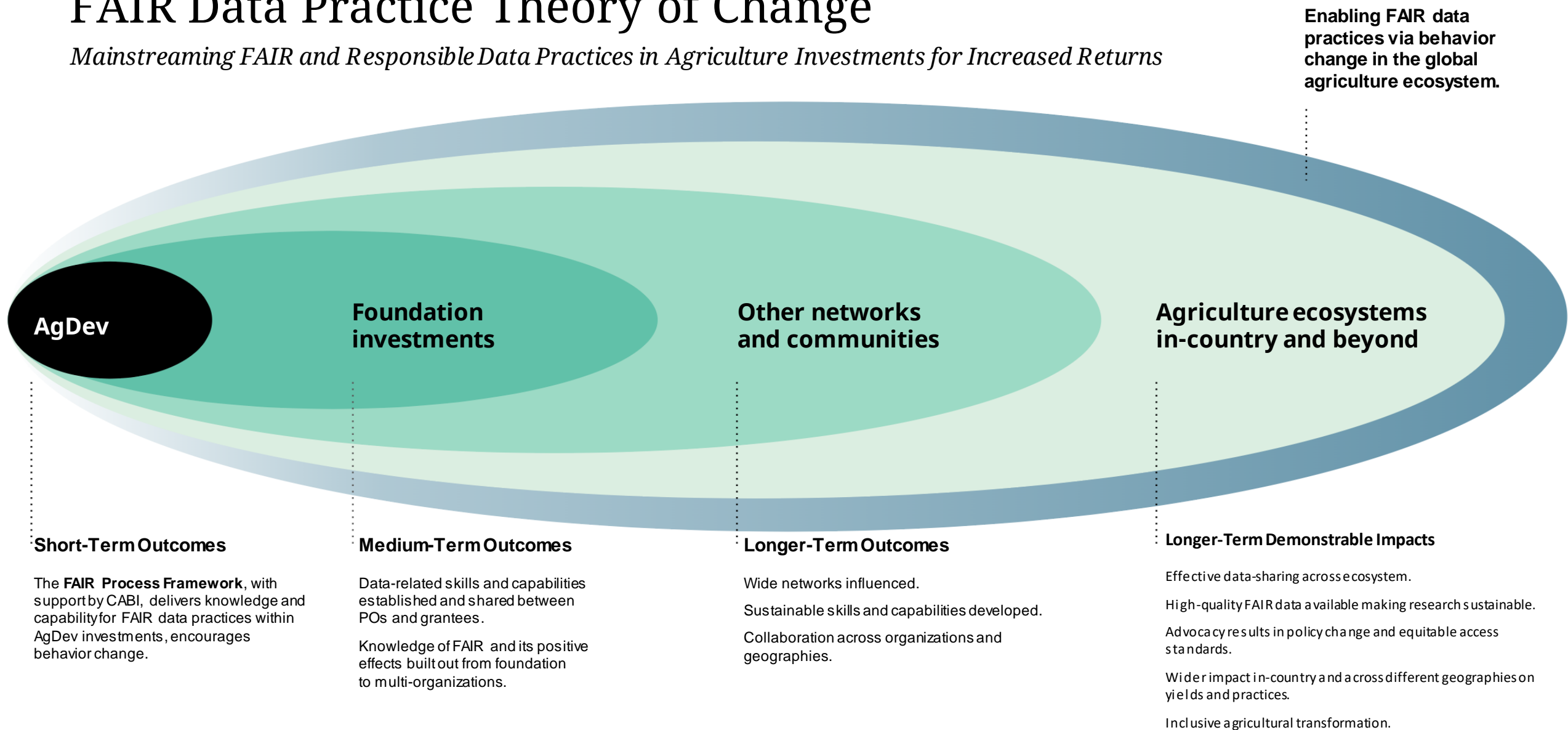
Questions were raised, find the answers on Slides 18-20.
Contact fair@cabi.org | Read more in [CABI's blog](#)



The FAIR Process Framework six steps with (left to right) Martin Parr, Ashitha Ganapathy, Melissa Allan, Margarita Aswani, Chipo Msengezi, Jessica Cagley, Arun Jadhav, Zoe Philpott.

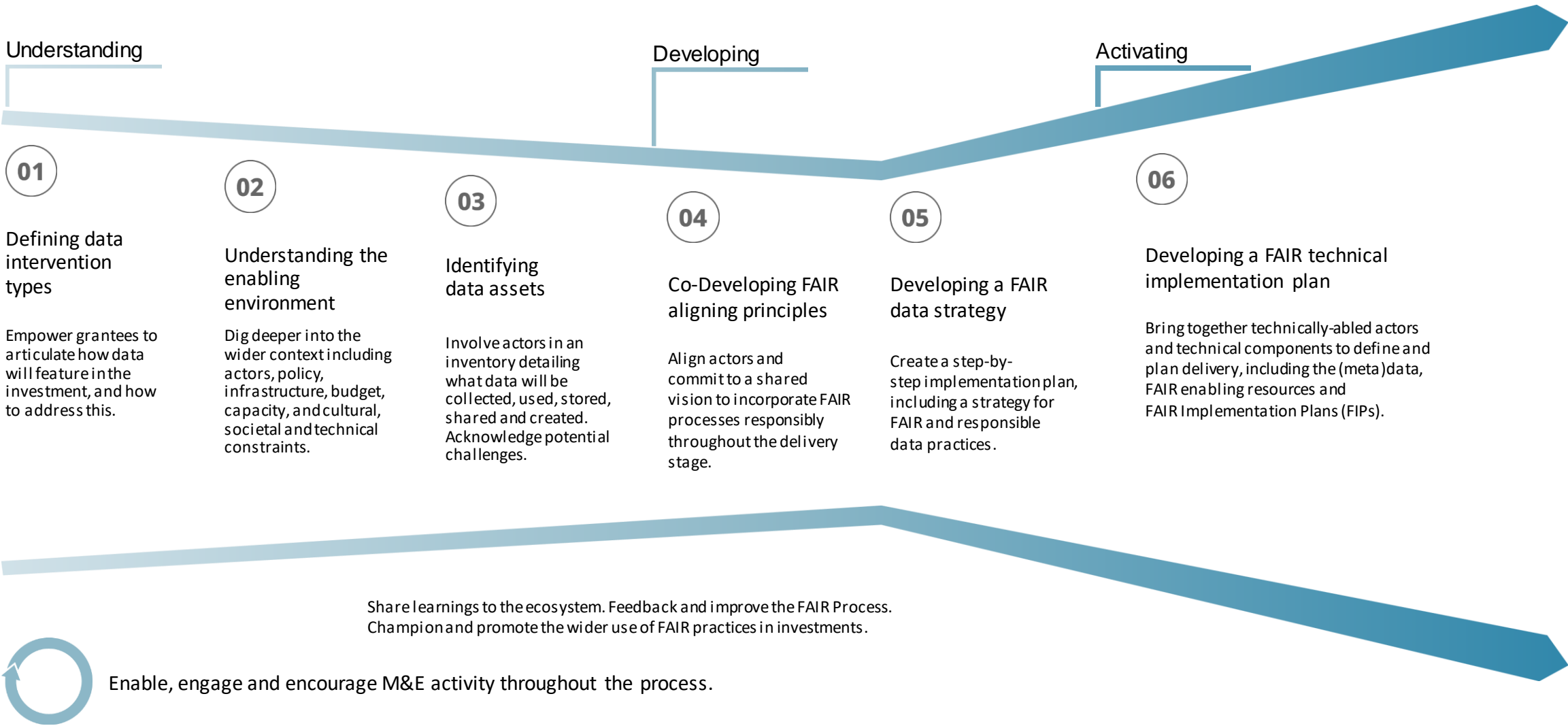
FAIR Data Practice Theory of Change

Mainstreaming FAIR and Responsible Data Practices in Agriculture Investments for Increased Returns



The FAIR Process Framework

Six steps to delivering FAIR and responsible data practices in foundation investments



Innovation Roadmap: Co-creation of the FAIR Process Framework

User-testing (remote) sessions are happening, please contact us via fair@cabi.org to register your interest



DISCOVERY

2021: the [Data Sharing Toolkit](#) is created after extensive in-country collaboration. It contains seven eLearning modules with supporting case studies, checklists, cheat sheets and guides. The modules help partners use, collect and share FAIR and safeguarded data for the benefit of people in agriculture.



DEVELOPMENT

From 2022: the EDA team continue to collaborate with in-country partners and foundation-lead Program Officers (POs). The objective is to transform verifiably effective FAIR data practices into a framework of replicable tools designed to help the foundation deliver higher returns on investments.



PROTOTYPING

From January 2024: POs and other partners are invited to use the prototype resources, as part of the Expert Reviews, as well as deeper dives for other active investments.

June 2024: The culmination will be a FAIR Process Framework Alpha online and accessible for use by POs, grantees and other in-country partners.



ACTIVATION

July-September 2024: The FAIR Process Framework Alpha user feedback is consolidated into the beta version of the Framework.

October 2024: The FAIR Process Framework Beta is launched with remote and in-person training made available.

December 2024: Culmination of learning gathered and consolidated in a recommendations report.

Knowledge Sharing — Research

Creating an enabling environment for FAIR at the foundation

To support CABI in creating the FAIR Process Framework, it commissioned researchers to explore what factors are likely to influence foundation POs in embedding FAIR practices.

Independent researchers pulled together CABI's documentation around previous collaboration with POs. These included POs' attitudes to data practices within foundation investments.

Based on these insights, the researchers identified a series of potential levers to implementing new data practices within AgDev. They also explored potential blockers and how CABI could work to alleviate them.

*"Data is our
bread and
butter."*

— a foundation Program Officer
*CABI PO Capability Report Research
Synthesis, 2023*

How 'human factors' influence data sharing

In a poster presented at SciDataCon, researchers from Dalhousie University and CIOOS Atlantic showed research gaps in how individuals' attitudes, concerns, worries and fears related to data sharing can affect research and policymaking.

Using a psychological approach, the research identified human factors that influence 'decisions to share government and research open data' and considered the impact on the digital economy.

Knowledge Sharing — FAIR Advocacy

"CABI plans to conduct workshops... with a diverse range of stakeholders. This inclusive approach will involve engagement with funders, project implementors, researchers, and other key players... to enrich the framework further, ensuring its adaptability across various sectors and contexts..."

— [Dr Vinod Pandit](#)

Acting Regional Director, South Asia, CABI

FAIR Process workshop India, December 16, 2023

CABI's Arun Jadhav and Akanksha Nagpal, supported by Ranjeet Kumar Singh, Martin Parr and Vinod Pandit, showcased the FAIR Process Framework to a prestigious group in Delhi last December.

The team presented each of the Framework's six steps and led discussions to interrogate how successfully they resonated with attendees. Exploring stakeholders' specific contexts gave insights that inform further iterations of the Framework.

The people-first, human-centered process design resonated strongly with FAIR data practitioners from the [ISI](#), the [IITD](#) and [Delhi University](#), and domain experts from the [ICAR](#) (including the [IARI](#), [IASRI](#) and [The Directorate of Knowledge Management in Agriculture](#)).

The meeting agreed to ongoing collaboration, an outcome which will make sure the Framework support foundation grant-makers and their grantees effectively.

Arun said, "This is a positive step in the FAIR Process productization process which will benefit everyone who uses the Framework going forward".

Read more in [CABI's blog](#)

Knowledge Sharing — Case Study

Coalition of the Willing (CoW) and Ethiopia's Soil and Agronomy Data Sharing (SADS) directive

In each issue, we will share case studies which show the impact of our work with the foundation so far, which reaches beyond AgDev and shows steps towards changed practices across the ecosystem.

The first case study this month looks at the lasting impact of advocating for and facilitating FAIR-informed practice in soil and agronomy. It takes the case of CABI's work with the Coalition of the Willing (CoW) and Ethiopia's Soil Agronomy Data Sharing (SADS) directive and tracks in-country collaboration, engagement and support for wider policy change.

Read the [full case study here](#)

"On a national level, the policy has brought changed awareness on FAIR... and increased [and] changed the attitude of individuals in data sharing..."

— Ashenafi Abduljelil
Guest Researcher ISCRIC, Addis Ababa University
Coalition of the Willing (CoW)

FAIR Resources

Curated resources which enable FAIR and responsible data sharing

“We share the tools that the CABI team believes can genuinely help change data practices. Enabling people across the ecosystem to develop their skills and improve the quality of data is crucial to EDA3's success.”

— [Arun Jadhav](#)
Technical Assistance Lead, EDA3



Data Ecosystem Mapping tool

Mapping data ecosystems helps articulate where and how data generates value. It's a tool to encourage shared understanding of different roles and relationships, promoting cohesion. It will form a key part of CABI's FAIR Process Framework Step 2 and is discussed by the [Open Data Institute \(ODI\) in this kumu](#).



Learning resources on FAIR for long-term Agriculture Experiments

Open-access education resources, tailored to agricultural experiments exploring what the practical applications of FAIR principles means for dataset metadata. This git.hub library also includes FAIR Principles for long-term agricultural experiments ([Hosted: carpentries-incubator.github.io](#)).

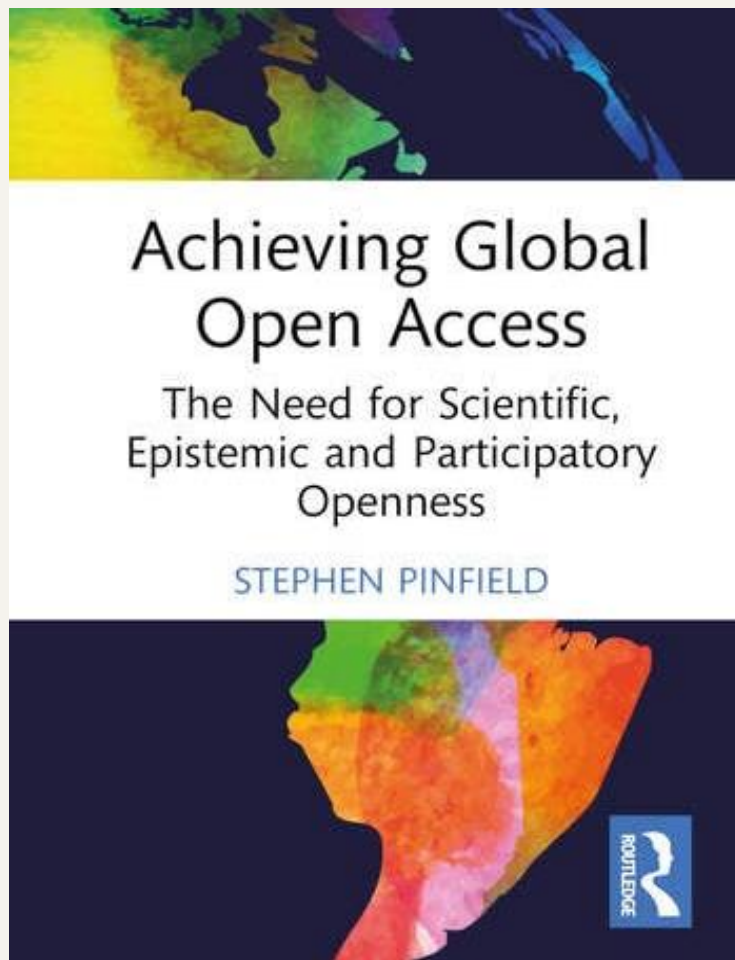


Data Thinking Canvas Template

This framework, built by one of the ODI's Research Fellows, demonstrates how data can be used to solve problems within organizations. Sited on [Miroverse](#), it combines design thinking and data science to help participants use data to solve issues and explore opportunities as author Prof. [Larizza Thurler](#) explains [in this blog](#).

Key Dates

Conferences, events, calendar dates



May 28-30, 2024: Conference Localizing impact through inclusion, inspiration, and innovation [ICT4Ag conference](#)

ICTforAg is an annual conference for agrifood system stakeholders, technology experts and enthusiasts to gather together, share knowledge, develop solutions and form partnerships to address the biggest challenges in agrifood systems across low and middle-income countries.

This May's conference is taking place across five geographical locations (+ online). Registration opens soon and you can still [submit a session](#) via the website.

June 27, 2024: Book launch [Achieving Global Open Access – The Need for Scientific, Epistemic and Participatory Openness \(2024\)](#)

Routledge

By Stephen Pinfield

This exploration of how to achieve global open access (OA) and what conditions are needed to make sure that OA is effective and equitable will be released in its 1st Edition this summer.

It will be [#openaccess](#) (although you can buy a printed copy via the [publisher Routledge's website](#)).

'Achieving Global Open Access – The Need for Scientific, Epistemic and Participatory Openness' can be preordered from Routledge, from June 6, 2024

FAIR Insights from Agriculture and Beyond

News, views and research



Human-Centered Design and CGIAR [The Alliance of Bioversity International and CIAT](#) [6-min read]

This research explores the influence of Human-Centered Design (HCD) on an organization's portfolio, and its integration at CGIAR, especially in its digital innovation work.

EU bid to be data leaders [European Council](#) [9-min read]

Legislation from the EU in November 2023 - to define who can access and use data generated within the EU across all economic sectors.

'The case for FAIR in BioPharma' [Elucidata](#) [20-min watch]

[Play the recorded discussion](#) about culture change, making the case for FAIR to leadership teams, data as currency, and data practices in R&D (including avoiding "trash data"!).

Found an article you'd like us to share?
Send it to FAIR@cabi.org

FAIR Insights from Agriculture and Beyond

News, views and research

Official statistics bureau to make agricultural data more accurate in the Philippines [MSN](#) [2.5-min read]

Read [this report](#) on the policy decision to reinstate the Bureau of Agricultural Statistics (BAS), a briefing from recently-appointed Agriculture Secretary, Francisco Tiu Laurel Jr.

EOSC-Life Lessons [The Embo Journal](#) [60+min read]

Exploring the work of the [EOSC-Life \(European Open Science Cloud for Life Sciences\)](#) consortium, this long read includes a model for FAIR sustainable data management.

Found an article you'd like us to share?
Send it to FAIR@cabi.org

Call for FAIR in brain research [Nature](#) [5-min read]

Editorial calling for FAIR practices in brain-science: '[Why mega brain project teams need to be talking to each other](#)'.

UNESCO's global report Open Science (OS) trends [Leiden Madtrics](#) [4-min read]

Blog post exploring findings which show that though OS is increasing, its impact is uneven and misses potential.

FAIR data in AI [Data Science Central](#) [6-min read]

Journalist Alan Morrison explains why the thinktank Dataworthy Collective will be 'ramping up' its work to make it 'trustworthy, sharable and reusable on a standalone basis at web scale'.

Pistoria alliance cites FAIR data as a strategic goal for 2024 [Scientific Computing World](#) [6.5-min read]

The Pistoia Alliance, a nonprofit committed to life sciences R&D collaboration, has cited FAIR principles in its priorities for the next year, noting "the industry still struggles to manage, maintain, and share data effectively".

Questions and Answers, page 1

Below the question raised by POs since January are answered

What is an Expert Review?

An Expert Review is a technical consultation with one of CABI's experts. They will meet with you to discuss your investment(s), the potential data needs, and any risks to implementing FAIR and responsible data practices.

My investments are already live, can I still sign up for an expert review?

Yes, CABI is there to provide technical assistance in the form of an Expert Review until October 2024.

I work with partners that already emphasize FAIR. What are your thoughts on how the FPF can help?

FAIR is a constantly evolving space and implementing FAIR and responsible data practices is not an easy task.

In any evolving field, it is helpful to view various approaches as collaborative rather than

fragmented. You may find that parts of the FAIR Process Framework (FPF) can enhance your current processes, promote continuous learning and improve adaptability to emerging trends. The FPF will streamline, assess and identify project-specific gaps in existing FAIR implementations, and would serve as an opportunity to improve/refine existing tools and approaches to FAIR implementation.

Many of my grantees are from the private sector and their data is proprietary (business assets). How will FAIR apply in this case and how will the FPF be used, how would CABI present this framework to the private sector, what would change?

'FAIR data' is not synonymous with 'open data'. For example, data can be FAIR while still having restrictive access and reuse. For some uses the focus is on 'interoperable' data.

FAIR can be applied to business assets by ensuring they are easily discoverable,

accessible across an organization, compatible with various systems, and can be repurposed efficiently (with clear agreements/licenses applied).

This involves:

- ☐ implementing robust metadata structures for easy searchability,
- ☐ establishing clear access controls and permissions,
- ☐ adopting standardized formats and protocols for compatibility, and
- ☐ documenting assets comprehensively for reuse.

By adhering to FAIR principles, businesses can optimize asset management, foster collaboration, enhance decision-making, and maximize the value derived from their assets throughout their lifecycle.

Questions and Answers, page 2

Below the question raised by POs since January are answered

What is the value of FAIR in AI?

The value of FAIR principles in AI lies in fostering transparency, accountability, and trustworthiness in AI systems.

By making [AI artifacts](#) Findable, Accessible, Interoperable, and Reusable, stakeholders can locate and understand AI models, datasets, and results more easily. This transparency enhances collaboration, reproducibility, and knowledge sharing within the AI community.

Additionally, adhering to FAIR principles promotes responsible AI development by ensuring that datasets are ethically sourced, models are interpretable, and biases are mitigated. Ultimately, FAIR principles contribute to building AI systems that are more reliable, equitable, and aligned with societal values.

In an investment, there are often multiple partners, and this can be a very diverse group with very different data needs. How will this be handled in Expert Reviews?

In the context of investments where multiple partners are involved, the Expert Reviews process plays a crucial role. Initially, the PO shares essential information through investment documents or other communications with CABI. This step enables CABI to grasp the precise nature of support sought by the PO.

Subsequently, based on identified needs, CABI collaborates with relevant partners through the POs to address various data requirements. This involvement may take the form of guiding them to relevant resources developed under the FAIR Process Framework, and ensures a tailored and effective approach to meet diverse data needs

In the R&D team there's the incentive to capture IT and generate data that is proprietary business information – does the FAIR Process framework apply in this scenario?

It is important to remember that 'FAIR data' is not synonymous with 'open data'. For example, data can be FAIR while still having restrictive access and reuse.

FAIR can be applied to proprietary business assets by ensuring they are easily discoverable, accessible across the organization, compatible with various systems, and can be repurposed efficiently (with clear agreements/licenses applied).*

* This answer applies to all proprietary data management that is considering the benefits of FAIR and responsible data practices. See above for the private sector-related question.

Questions and Answers, page 3

Below the question raised by POs since January are answered

I have multiple investments, can I work on implementing FAIR simultaneously in all these investments?

Yes, FAIR principles can be implemented in various investment projects by ensuring data and research findings are Findable, Accessible, Interoperable, and Reusable. Adopting the FAIR Process Framework (FPF) assists in assessing project-specific gaps and facilitating FAIR implementation across different and various investment projects. The value of the FPF lies in an improved efficiency and better-informed investment decisions, ultimately leading to increased returns and mitigated risks.

Are there FAIR principles for private and public collaboration?

CABI will be doing further research on how FAIR principles affect private players and will be delivering more case studies around this topic in the near future.

How long will Expert Reviews go on for, how long will CABI be supporting, and does CABI have a limit on how many POs can be supported?

CABI is here to provide Expert Reviews and support until October 2024.

If more support is needed by the partner to move through the FAIR Process Framework steps – especially implementation – would CABI be a sub-awardee?

In the first instance please contact the project lead, in this case Jessica Cagley.

What is the plan post this work that CABI is doing?

Good question. While a lot of the FAIR Process Framework resources can be used without additional support, some resources will need expert guidance. It is yet to be arranged whether an expert will be from within the foundation team, from CABI, or elsewhere.

Is the sharing agreement a general document to be signed onto by everyone? Who drafts the sharing agreement?

We recommend you look at this [Kumu about data sharing agreements](#), as well as this [checklist from the Data Sharing Toolkit](#).

Please send your questions to FAIR@cabi.org

The FAIR Journal

*Authored by the EDA3 team at CABI
for the foundation*

Thank you for reading our journal –
is there anyone who you think
would benefit from receiving a copy?
Forward this deck directly or
email FAIR@cabi.org and we can
add them to the list.



Martin Parr, EDA3
Director, Data Policy & Practice,
Digital Development



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