THE FAIR JOURNAL

Number 5 | November 2023



Building community, capacity and knowledge of FAIR data processes for POs and grantees. Championing improvements in data-rich foundation investments.

Contents

Knowledge sharing

Key dates: January 11, Learning Lunch

Insights

- the FAIR ecosystem for Agriculture
- the wider FAIR ecosystem

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Welcome — The FAIR Journal in numbers

1/3

40%

4.1 M

SSA Researchers/scientists who say current data-sharing tools are not good enough

SSA Researchers/Scientists who say their organizations lack processes for storing data beyond a project's life-cycle

Estimated projection for number of data points gene estimate for the value of open data by 2030

Welcome to The FAIR Journal Number 05

Data sharing is vital to research and innovation. Hear about CABI's FAIR Process Framework (p3,4) and the perils of lost data (p6,7) and then dive into the views of researchers and scientists from sub-Saharan Africa (p8). Also explore how investment can unlock agriculture-generated data for sustainable improvements (p13). Thank you for reading

*SAJS (2023)

*SAJS (2023)

*The World Bank (2021)

Full research: SAJS (2023)

Knowledge sharing — THE FAIR PROCESS FRAMEWORK

Watch the Call For Registration [10-min]

From January 2024, the FAIR Process Framework is being introduced at the foundation to ensure the value of data-rich investments is effectively harnessed and can be used for data-driven innovation in the future.

See key dates (p9).

CALL FOR REGISTRATION IN THE FAIR PROCESS *Implementing FAIR data* in AgDev investments to increase ROI and deliver on the foundation's Open Access policy and *Global Impact statement.*

Email <u>fair@cabi.org</u> to register your interest today.

Knowledge sharing – THE FAIR PROCESS FRAMEWORK

Watch Chipo Msengezi's 'deep dive'
presentation [10 min] to find out
more about how The FAIR Process
Framework works:

- Discover how a FAIR process technical assistance lead will be working with POs – and their grantees - on data-rich investments and the tools we use.
- All of which are in the context of case studies of introducing FAIR principles into existing data-rich foundation grants and investments.

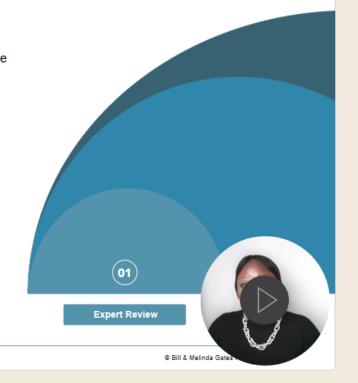
WORKING WITH POS—WHAT IS THE FAIR PROCESS?

The FAIR Process is the framework emerging from the foundation investment called "Enabling Data Access" (EDA). You may already have been involved with EDA1, 2 or 3.

The FAIR Process is a best-practice-led way of working, made to enhance POs' confidence, trust and capability when incorporating FAIR data practices in foundation investments. It can be implemented at any stage.

CABI is now looking for POs to participate in the BETA testing of elements of The FAIR Process, as it continues to refine it and expand through 2023 - 2024.

Starting with the "Expert Review" of the investment, CABI will work closely with selected individual POs on live investments where bringing FAIR practices will increase the potential for getting the best insight and value from data within the investment and beyond.



Email <u>fair@cabi.org</u> to register your interest today.

Knowledge sharing — comment



CABI's Martin Parr makes 'The case for sharing data' and ensuring scientific data is not lost.



Over a number of years working in digital agriculture and agronomy, I've seen how a lot of evidence, and that's good evidence, that's been collected by researchers, gets lost.

And this is a problem, because you can't reuse material if you don't know that it exists in the first place.

Ensuring that doesn't happen means good quality metadata that can be picked up by search engines, whether that's internal search engines or more general search engines. But it is more than that. It's about how well it is described.

It is about making sure that if data is findable, people know that piece of information might be useful for them.

That might mean making sure data is findable for machines, but probably more importantly, it means making sure data is findable for human beings and they can see it might have value.

There are lots of mistakes that stop people from sharing data, and the first obvious thing is not publishing it anywhere. There's a long history of scientists keeping material on their laptops so going forwards, nobody knows about it or where it is. (1 / 2)

Continues/...

The case for sharing data (continued)

There are incentives for scientists to share material when it's published, and when it's polished and curated, but there aren't very strong incentives to share it sooner than that.

The benefits for sharing raw data, and sharing it earlier, are huge, but in reality? The system only pushes people to share material when all the rough edges have been smoothed off it and it's been curated into a peer-reviewed publication. And researchers don't necessarily have the skills or resources to make data sharable.

We need to think do something about that because it means that any other data generated remains hidden, and hidden data cannot be used for innovation going forwards.

There is a broader challenge around making those cuts that never come anywhere near a journal, that were useful at one point and then were discarded, findable, accessible, reusable and interoperable. That is how we will be able to unlock the value of data going forwards.

It requires a change in culture in the research landscape that would see some of those secondary and ancillary datasets are made available.

Watch the full interview [3 min]

Join CABI in changing the data culture in agricultural development and investment, so more people benefit from having access to the right datasets.

Contact us about putting the right systems in place for your grants and investments fair@cabi.org

Knowledge sharing: FAIR advocacy

How the EDA3 team advocated for FAIR practice in International Data Week

Ada spoke at the <u>SciDataCon</u> conference in Salzburg, Austria in October.

In an interactive session she spoke on the importance of human-centered design, responsible data-sharing practices and the development of the FAIR Process Framework to be trialed with foundation POs.

Ada Isaac, F

Ada Isaac, Research and Development Manager, CABI

"CABI's expertise in the application of

FAIR principles also aligns with our

efforts to create, curate and share high-quality evidence relevant to

policy and practice, and for different

stakeholders, from farmers and their advisors to policymakers,

researchers, students, industry actors

and investors."



Ada also highlighted EDA3's wider engagement around FAIR, and the need to be clear and compelling when communicating "the benefits".

Read more in this CABI blog

Knowledge sharing — research

What blocks/enables data sharing in sub-Saharan Africa?



A cross-sector survey of 160 multidisciplinary scientists and researchers from 43 SSA countries showed most were willing to share at least some data, as long as "robust governance and regulation frameworks are in place". In the research, which explored African voices in "data use, sharing and governance", 40% said their institution/organization lacked "a formally established process for storing data beyond the life cycle of the project".

To read the abridged research see this article from University World News

1/3

40%

Scientists and researchers from SSA surveyed who felt current data-sharing tools were not good enough

Respondents whose institutions lacked processes for storing data beyond the life cycle of a project

Full research: SAJS (2023)

Key dates

January 2024

Check-in here for conferences, talks, collaborative sessions and external and internal events relating to FAIR

<u>The FAIR Process Framework [ALPHA]</u>
Seattle, USA—January 11—17, 2024

Join us at the foundation when the FAIR team from CABI will be launching the FAIR Process Framework —how it works, and what benefits the Framework provides to POs, grantees, and their data-rich investments and grants.

On **January 11, Learning Lunch** attendees will gain insights on the business case for FAIR and from successful FAIR processes implemented across agricultural investments to date.

For more information, or to book a conversation with a member of the team, contact fair@cabi.org

Let us know what you have coming up. Email us at fair@cabi.org

FAIR Insights

News, views, research from the FAIR ecosystem in agriculture and beyond



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

Governments data innovations in agriculture? WEF & The European Sting [7 min read]

This article, written with the World Economic Forum, details ways well-placed public sector interventions and quality datasets can improve data sharing and innovation across the sector, with examples from India, UAE, and Bangladesh.

How data-driven innovation and tech has transformed agriculture TheHinduBusinessline [\$]

Economic analysis of the ways that data gathering and transformative technology have "emerged as the catalyst" for innovation in Indian agriculture.

FAIR Insights

What can public data infrastructure principles do for agriculture?

Almost a decade ago estimates suggested that farms across the globe produce an average of 190,000 data points, per farm, per day. The World Bank cited experts estimates that by 2050 the figure will be 4.1 million.

But how can that data be harnessed to increase productivity and benefit farmers and populations?

This article [7.5 min read], which is a collaboration between The European Sting and The World Economic Forum, explores ways that using public data infrastructure, including responsible data-sharing mechanisms, and accessible data, 'can democratize data access and help players build innovative applications to deliver techenabled services'.

How much data does the average farm generate daily?

4.1 M

Projected number of data points produced by an average farm daily, by 2050

The World Bank (2021), 'A Roadmap for Building the Digital Future of Food and Agriculture'

FAIR Insights



Interoperability is key to success for industry Solutions Review [7 min read]

Thought piece arguing that industrial organizations that "open data to their ecosystem" benefit from revenue increases, "seamless connectivity and digital data continuity".

Implementing FAIR processes in environments with different constraints Nature [100 min read]

Paper describing FAIR EVA, an adaptive tool developed within the European Open Science Cloud oriented for multiple different contexts, whilst taking into account FAIR Principles.

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THE FAIR JOURNAL

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



Authored by The EDA3 team at CABI

