Research Hardware in scholarly commons

RDA Plenary 2022

"Where possible and reasonable, this includes making the research data, materials and information on which the results are based, as well as the methods and software used, available and fully explaining the work processes. Software programmed by researchers them- selves is made publicly available along with the source code. "

– *Deutsche Forschungsgemeinschaft. (2022). Guidelines for Safeguarding Good Research Practice. Code of Conduct. https://doi.org/10.5281/zenodo.6472827*

Why his hardware missing ?

"Where possible and reasonable, this includes making the research data, materials and information on which the results are based, as well as the methods and software used, available and fully explaining the work processes. Software programmed by researchers them- selves is made publicly available along with the source code. "
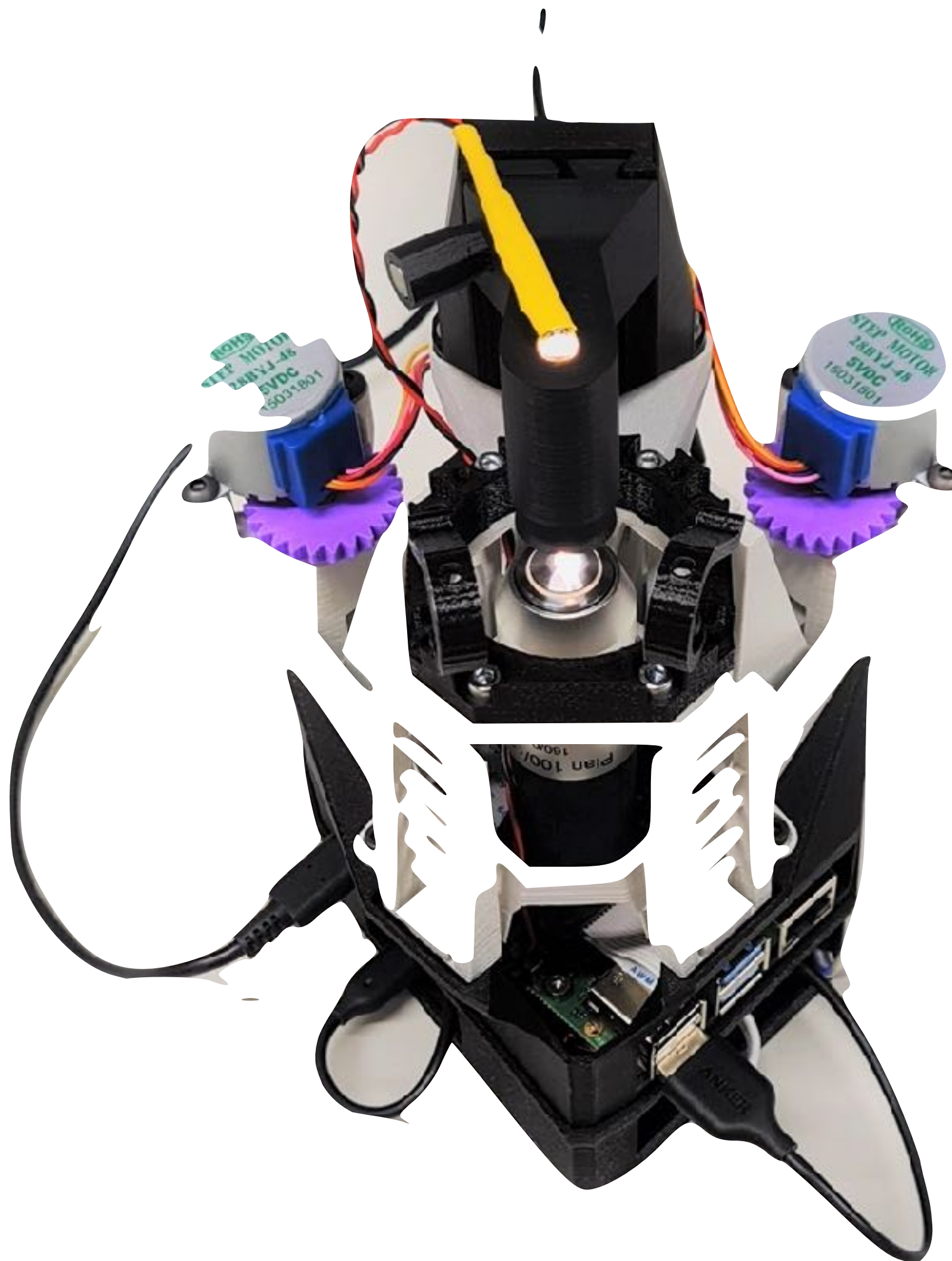
– Deutsche Forschungsgemeinschaft. (2022). Guidelines for Safeguarding Good Research Practice. Code of Conduct. https://doi.org/10.5281/zenodo.6472827

Little Awareness

Hardware is complex

Hardware complexity

Open Flexure microscope

Modulatory

Actuators

Optics

Illumination

Motors

Different type of data

PCB (electronics)

3D printed parts

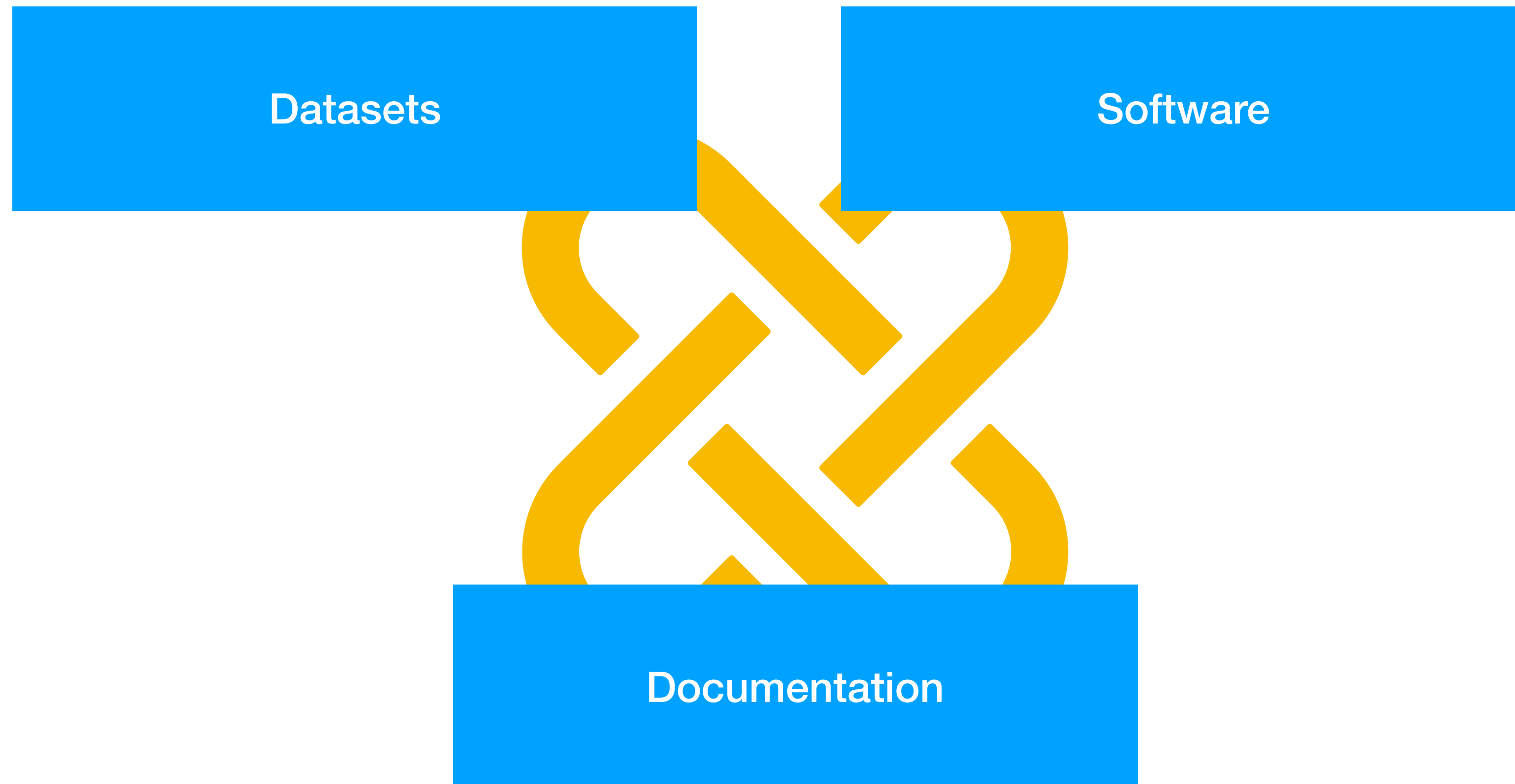Bought components

Assembly description

Documentations

Firmware

Software

Hardware complexity

- Different type of data:

  - Different licenses

  - Data organisation

  - Metadata ?

FAIR principles for Research Hardware

- Embrace this complexity

- Guide different stakeholder on how to recognise Hardware publication

- Raise awareness

Little Awareness

Hardware is complex

FAIR Principles for Research Hardware

🏷️ **Taxonomy:**

- Definition of research hardware

- Analysis of current practices and gaps in research hardware lifecycle:

- Documentation

- Dissemination channels

- Maintainability

- Interoperability of hardware metadata schemas and academic metadata

- Definition of FAIR principles for research hardware

- Identification of practical means of achieving FAIR research hardware

- Contributor recognition systems

- Definition of research hardware

- Analysis of current practices and gaps in research hardware lifecycle:

- Documentation

- Dissemination channels

- Maintainability

- Interoperability of hardware metadata schemas and academic metadata

- Application of FAIR principles for research hardware

- Identification of practical means of achieving FAIR research hardware

- Contributor recognition systems

FAIR Principles for Research Hardware

IG

Taxonomy:

- Definition of research hardware

- Analysis of current practices and gaps in research hardware lifecycle:

- Documentation

Persistent Identification of Instruments WG

WG

Taxonomy: Natural Sciences

- Dissemination channels

- Maintainability

- Interoperability of hardware metadata schemas and academic metadata

Datacite

- Definition of FAIR principles for research hardware

- Identification of practical means of achieving FAIR research hardware

- Contributor recognition systems

FAIR Principles for Research Hardware

Taxonomy:

- Definition of research hardware

- Analysis of current practices and gaps in research hardware lifecycle:

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Research Data Management in Engineering IG
Taxonomy: Engineering and Technology

- Dissemination channels

- Maintainability

- Interoperability of hardware metadata schemas and academic metadata

- Definition of FAIR principles for research hardware

- Identification of practical means of achieving FAIR research hardware
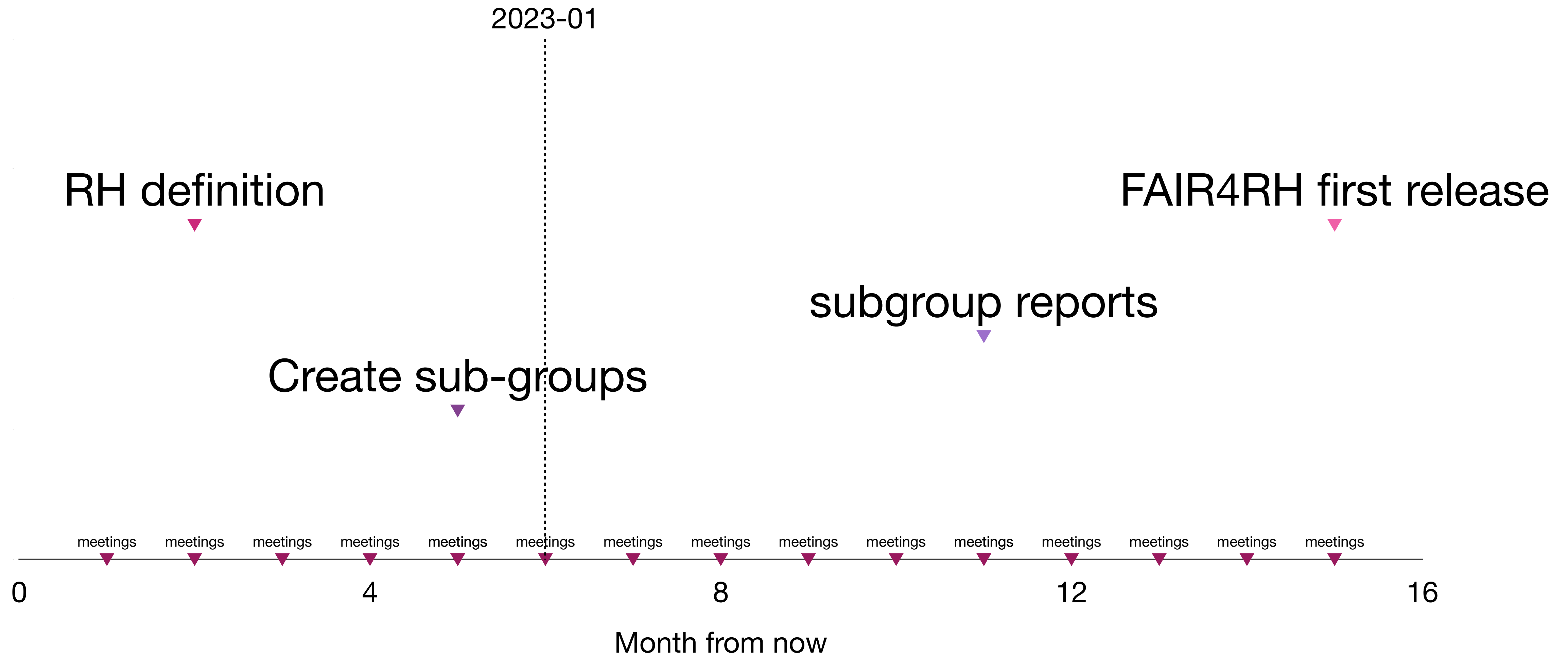
- Contributor recognition systems

Importantly, we will put lots of energy into making our work as inclusive as possible and available to everyone. Our outcomes will also take Global South needs, achievements, and practices into account.

Therefore, involving communities from the Global South is one of the primary objectives of this group.

Orga

- Monthly meeting, minutes on etherpad document

- Work asynchronously in google doc

- 24 members (8 active, 2022-05-10)

- Looking for additional chairing members

Loose timeline

2023-01

RH definition

FAIR4RH first release

subgroup reports

Create sub-groups

meetings meetings meetings meetings meetings meetings meetings meetings meetings meetings meetings meetings meetings meetings meetings

0   4   8   12   16

Month from now

FAIR Principles for Research Hardware

IG

🏷 Taxonomy:

💬 Posts	📖 Create Wiki index	📅 Events	📁 Repository	📋 Outputs	📋 Charter	👥 Plenaries	👥 Members

create new content ▼

Group Status: ⊕ Not yet endorsed

👤+ **Join Group**

Status: In Group Revisions
Chair (s): Nadica Miljković, Julien Colomb

How to get involved with this interest Group?

- Join the RDA group and be part of the mailing list to get updates
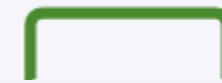
IG FAIR Principles for Research Hardware

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