Plasma-MDS

2nd Workshop on FAIR Data in Plasma Science

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RUHR UNIVERSITÄT BOCHUM
RUB
INP FROM IDEA TO PROTOTYPE
C A U Christian-Albrechts-Universität zu Kiel

FAIR data principles

Seminal paper of M. Wilkinson *et al.* 2016

Open Access | Published: 15 March 2016

The FAIR Guiding Principles for scientific data management and stewardship

Mark D. Wilkinson, Michel Dumontier, IJsbrand Jan Aalbersberg, Gabrielle Appleton, Myles Axton, Arie Baak, Niklas Blomberg, Jan-Willem Boiten, Luiz Bonino da Silva Santos, Philip E. Bourne, Jildau Bouwman, Anthony J. Brookes, Tim Clark, Mercè Crosas, Ingrid Dillo, Olivier Dumon, Scott Edmunds, Chris T. Evelo, Richard Finkers, Alejandra Gonzalez-Beltran, Alasdair J.G. Gray, Paul Groth, Carole Goble, Jeffrey S. Grethe, ... Barend Mons + Show authors

Scientific Data **3**, Article number: 160018 (2016) | Cite this article

582k Accesses | **5637** Citations | **2075** Altmetric | Metrics

https://www.nature.com/articles/sdata201618, 2023-05-01

FAIR data principles

Findable

F1. (meta)data are assigned a globally unique and eternally persistent identifier.

F2. data are described with rich metadata.

F3. (meta)data are registered or indexed in a searchable resource.

F4. metadata specify the data identifier.

Accessible

A1. (meta)data are retrievable by their identifier using a standardized communications protocol.

A2. metadata are accessible, even when the data are no longer available.

Interoperable

I1. (meta)data use a formal, accessible, shared, and broadly applicable language for knowledge representation.

I2. (meta)data use vocabularies that follow FAIR principles.

I3. (meta)data include qualified references to other (meta)data.

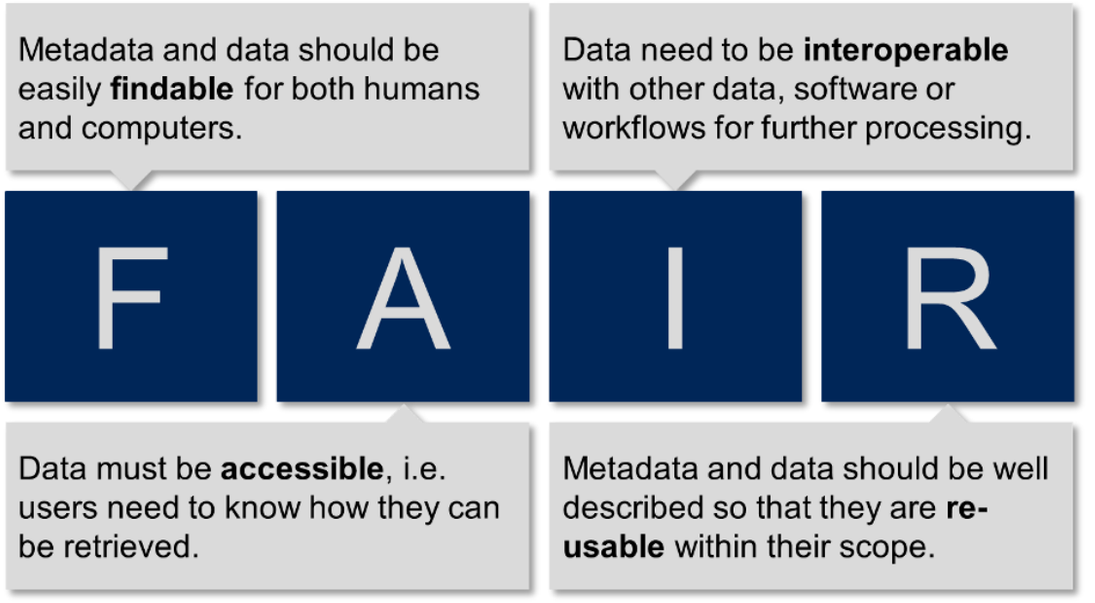
Reusable

R1. (meta)data have a plurality of accurate and relevant attributes.

https://force11.org/info/the-fair-data-principles/, 2023-05-01

Motivation

- FAIR principles intent to support knowledge discovery and innovation.
- Research data management (RDM) measures required to achieve this.
- Goal: great benefit with little additional effort for each researcher.
- Approach:
  - joint community efforts, such as this workshop
  - learn from other communities



Programme day I

May 3, 2023

Community aspects, practical issues

14:00	**Welcome**
14:15	**RDM in the low-temperature plasma community** *Marina Prenzel (RUB), Markus Becker (INP)*
14:45	**Introduction and use of the electronic laboratory notebook eLabFTW** *Henning Timm, Stephanie Rehwald (Universität Duisburg-Essen)*
15:15	*Coffee break*
15:30	**World Café: Research information services for physics** *Holger Israel (TIB Hannover), Johanna Hickmann (PTB Braunschweig)*
18:30	**Dinner**

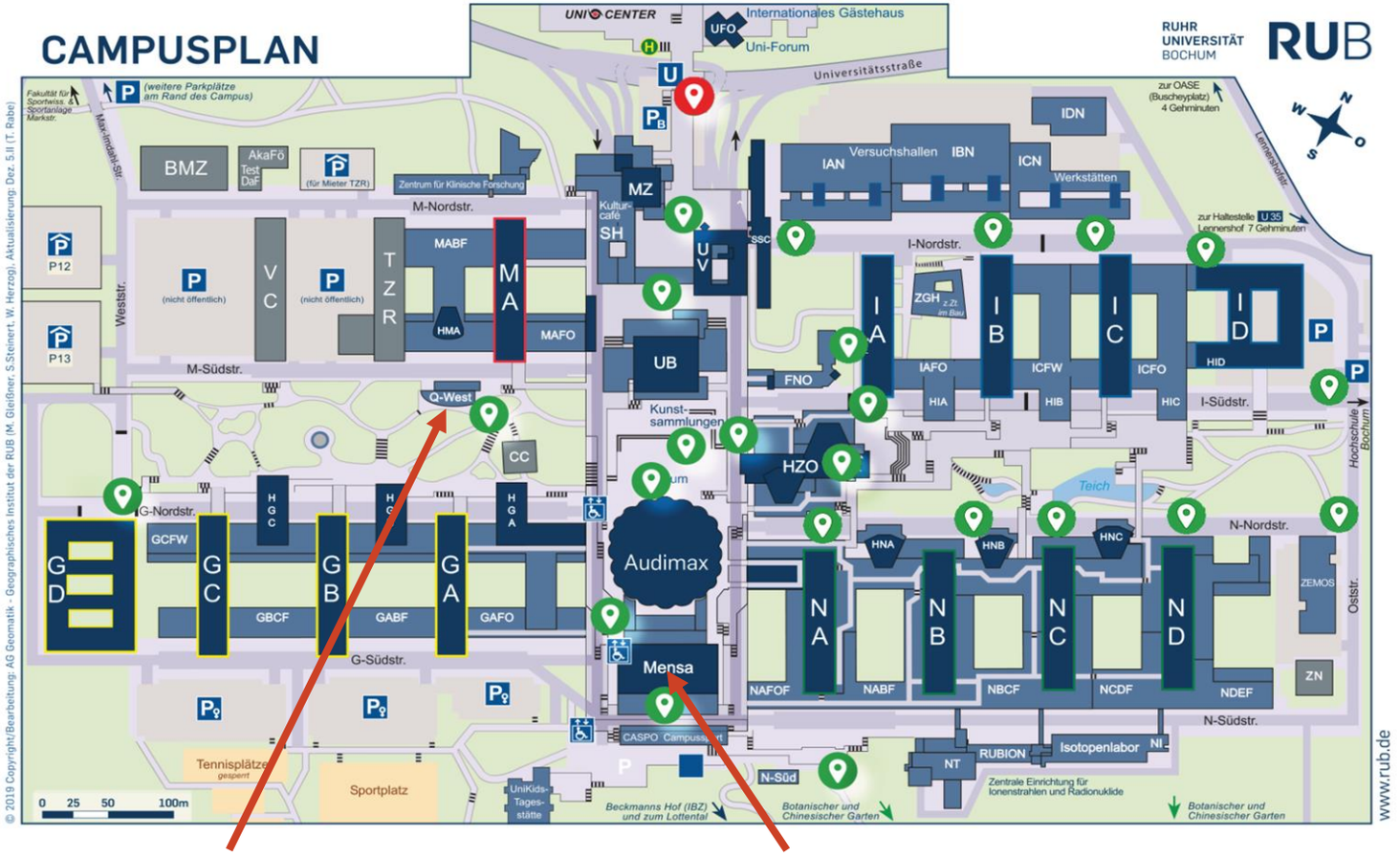
Programme day II

May 4, 2023

How to get RDM and FAIR data standards into the lab?

09:00	**Sensors and automation** *Philipp Mattern (INP)*
09:30	**Research data management systems in materials science based on FAIR principles** *Victor Dudarev (RUB)*
10:00	**Database and formal schemas for plasma modelling** *LXCat team*
10:30	*Coffee break*
11:00	**Towards reporting standards and unified metadata schemas** • Plasma sources, such as COST Jet or kINPen • Diagnostics, such as MS or XPS • Modelling, such as fluid or particle methods *INP, RUB, CAU*
11:45	**Organisation of group discussion**
12:00	*Lunch break*
13:30	**Parallel discussions on introduced topics** *Plasma sources, diagnostics, modelling*
16:00	**Closing**

Campus plan



Dinner will be here

Workshop and lunch will be here