Contribution ID: **7**                                                    Type: **Presentation short (15 min)**

# F-UJI : A Tool for the automated assessment and improvement of the FAIRness of Research Data

*Wednesday, 20 October 2021 11:30 (15 minutes)*

Funders, publishers and scientific organizations have highly endorsed the adoption of FAIR principles (Findable, Accessible, Interoperable, and Reusable) to promote research data reusability and reproducibility. However, FAIR principles are high-level guidelines without explicit requirements for their implementation. Several aspects should be taken into account to translate the principles into practice. Practical solutions such as metrics and associated tools are required to support the assessment of FAIR compliance of research artefacts such as services and datasets. FAIR assessment tools are important for many stakeholders to assess the reusability of data and -related services and thus their suitability for supporting science. For the individual researcher as well as research initiatives these tools can help to select for example appropriate data archives, but they can also be used by data service providers to iteratively improve their data offerings, e.g., as part of FAIR advisory processes. The FAIRsFAIR (Fostering Fair Data Practices in Europe) project aims at providing practical solutions for the application of the FAIR data principles throughout the research data life. One of the outcomes of the project is the development of an open-source tool named F-UJI to support trustworthy data repositories committed to FAIR data provision to programmatically measure datasets for their level of FAIRness over time. The tool supports a programmatic FAIR assessment of published research datasets based on the FAIRsFAIR object assessment metrics. For each of the metrics, we have designed and implemented practical tests based on existing standards and best practices for research data. This presentation gives an overview on the development and application of F-UJI and the underlying metrics and tests. We further demonstrate the use of the tool in a combined consultative approach applied to pilot data repositories. As part of iterative development of the tool, the automated assessment of multidisciplinary datasets was used to derive recommendations for improving the FAIRness of the datasets tested using the tool. We summarize the experience and lessons learned from the development, testing and application of F-UJI.

Speaker bio:

Robert Huber is a marine geologist and information specialist working in the PANGAEA working group at the Centre for Marine Environmental Sciences (MARUM, University of Bremen). Here he is responsible for projects in the fields of e.g. ontology development, marine observatory networks, scientific data management and FAIR data in general. In the context of the FAIRsFAIR project, Robert is leading Task 4.5 and responsible for the F-UJI FAIR assessment tool.

## By submitting my abstract, I agree that my personal data is being stored in accordance to conference Privacy Policy

## Most suitable track

Delivering services and solutions

**Primary authors:**   HUBER, Robert (Universität Bremen);  Dr DEVARAJU, Anusuriya (Terrestrial Ecosystem

Research Network (TERN), University of Queensland, Australia)

**Presenter:** HUBER, Robert (Universität Bremen)

**Session Classification:** Delivering Services and Solutions - Presentations