MVD-Workshop: From Lab Data to Knowledge Graph

Live demo and teaching sessions on the digital research data chain with RSpace, CKAN, Galaxy and the ELMO ontology

Date	Tuesday, 24 November 2026
Time	09:00 – 12:15 (CET)
Venue	Online (Microsoft Teams)
Registration	By e-mail to wiebke.beckmann@iwm.fraunhofer.de, stating your name, affiliation, project name and role in the project

Programme

Session 1 | 09:00 – 10:00 — Project introduction & live demo

Time	Topic	Presenters
09:00 – 09:15	**Introduction to MVD: motivation, objectives and roadmap**	MVD Team
09:15 – 09:25	**Demo: Capture data in RSpace ELN** – forms and templates based on the ELMO ontology; entering electrospinning parameters and data	INM
09:25 – 09:35	**Demo: Sync to CKAN & knowledge graph** – transferring RSpace data to CKAN via Galaxy and ingesting it into the knowledge graph using the ELMO electrospinning application ontology	IWM & UFR
09:35 – 09:45	**Demo: Query from CKAN into Galaxy** – querying and exporting selected parameters and images as JSON, then pulling them into a Galaxy workflow	IWM & UFR
09:45 – 09:55	**Demo: Run image analysis workflow** – Galaxy workflow extracting fibre thickness and distribution from electrospun polymer images	UFR
09:55 – 10:00	**Demo: Publish results** – pushing results back to CKAN, ingesting them into the knowledge graph and publishing them for public access	UFR & IWM

Break | 10:00 – 10:15

Session 2 | 10:15 – 12:15 — Four teaching sessions

Time	Topic	Presenters
10:15 – 10:45	**User & data journey** – walkthrough of the end-to-end journey for an exemplary use case	INM
10:45 – 11:15	**Ontology development** – how the ELMO application ontology was developed and applied	IWM
11:15 – 11:45	**RSpace / CKAN / Galaxy interaction & knowledge graph queries** – data flow between the systems and how to query CKAN and the knowledge graph for electrospinning results	UFR (15 min) & IWM (15 min)
11:45 – 12:15	**Galaxy workflows & tool generation** – building workflows and generating tools for image analysis	INM (10 min) & UFR (20 min)

What you can take away

You will see a complete digital chain in action – from data capture in the ELN through semantic annotation, analysis and publication – and learn how to adapt these building blocks to your own research. No prior experience with ontologies, ELNs or Galaxy is required.

Dial-in details, the detailed agenda and preparatory material will be sent out from the beginning of November. In the meantime, please feel free to contact us with questions, specific needs or topics you would like us to address.