

## A Platform for the Provision of Teaching and Training Contents in Data Literacy: DALIA4NFDI

### Authors:

Jochen Ortmeyer<sup>1\*</sup>, Thomas Stäcker<sup>2</sup>, Gábor Kismihók<sup>3</sup>, Matthias Müller<sup>4</sup>, Peter F. Pelz<sup>5</sup>, and Sonja Herres-Pawlis<sup>6</sup>

\*Lead presenter

<sup>1</sup>jochen.ortmeyer@ac.rwth-aachen.de, RWTH Aachen University, Institute of Inorganic Chemistry

<sup>2</sup>Technische Universität Darmstadt, Universitäts- und Landesbibliothek

<sup>3</sup>Technische Informationsbibliothek Hannover, Leibniz Informationszentrum Technik und Naturwissenschaften

<sup>4</sup>RWTH Aachen University, IT Center, Lehrstuhl für Informatik

<sup>5</sup>Technische Universität Darmstadt, Institut für Fluidsystemtechnik

<sup>6</sup>RWTH Aachen University, Institute of Inorganic Chemistry

### Abstract:

As we navigate an increasingly data-driven world, teaching and training in research data management (RDM) is essential for FAIR (Findable, Accessible, Interoperable, Reuseable) data usage and supply. To have the ability to effectively manage and utilize data, education in data literacy should start from the very beginning. Inspired by this increasing importance of data competencies, members of several NFDI Consortia as well as of the Section Training & Education assembled to establish a platform for data literacy. The formed initiative DALIA (DAta LIteracy Alliance) is developing this platform as a user-centred knowledge graph based on semantic web technology. These efforts contribute to DALIA's paradigm: "Data literacy for all from the very beginning!"

DALIA promotes learning and teaching of data literacy through the curated provision of open teaching and learning content to empower everyone to collect, analyse, critically evaluate and use data in a FAIR way. The knowledge base can only be successful – i.e., accepted – if quality-assessed informational, teaching, and learning materials are available and if these materials are offered and recommended according to the personal needs of the users. Therefore, the DALIA platform is designed as a single point of entry, which makes suggestions for materials according to individual needs in a heterogeneous and constantly growing landscape of informational, teaching, and learning materials. The users are individuals from academic and adjacent fields, who have different roles (researchers, teachers, learners), various career and RDM experience levels, and come from different scientific disciplines. As a result, the knowledge base will assist users with their questions on the usage (data science) and provision of FAIR data, refer to appropriate teaching and learning materials, and suggest learning paths and best practice documents.

In the early stages of the project (funded by BMBF), the first operating DALIA platform will be provided. After the end of the project, DALIA's operational concept intends the transfer of the platform to the NFDI to keep the knowledge base within the community. For a sustainable operation, the platform has to be established as a basic service in the NFDI (DALIA4NFDI). This will provide a solution for the provision of teaching and training contents in data literacy for all NFDI members and beyond. Therefore, the presentation will highlight and discuss the current stage of the platform development and future steps towards a base service.

The close connection to the NFDI and its sections enables a very strong synergy between the findability, recommendation, and quality assurance of teaching and learning materials, as well as the future development of these materials within the framework of the NFDI consortia. In summary, the project, with its intended results, makes an important contribution to increasing data competency and establishing a data culture in the academic environment.

**Keywords:** Data literacy, education, training, knowledge base, DALIA