NFDI4Chem - Nationale Forschungsdateninfrastruktur für Chemie

Dr. Johannes Hunold
open-access.net Workshop "Auf dem Weg zu mehr Open Access im Fach Chemie - Rolle der Bibliotheken", 30. Juni 2021
NFDI in General

Federal Government and the 16 States decided to fund a Nationale Forschungsdateninfrastruktur (NFDI) in Germany

- formal establishment of the NFDI association in October 2020
- providing up to 85 million € for a period of 10 years
- up to 30 consortia from all areas of science are funded
- self-organized & strictly science-driven process of close collaboration (not competing within the individual scientific fields)
- Aim: exploit the valuable potential of research data and make them findable, accessible, interconnected and (re)usable = FAIR

Explaining videos of DFG what is the NFDI (https://www.youtube.com/watch?v=x3Cvn1vNQ98&t=2s) & how is the review process (https://www.youtube.com/watch?v=XTzwPwMAgHM&t=1s)
NFDI4Chem - The Consortium for Chemistry

- consortium addresses the specific interests & needs of the chemical community

Chemistry disciplines

- Organic chemistry
- Inorganic chemistry
- Physical chemistry / Theoretical chemistry
- Polymer / Macromolecular chemistry

Related disciplines

- Physics
- Material science
- Chemical engineering
- Biology
- Pharmacy
- Biochemistry
- Pharmacy
Who we are
Our Vision

- Digitalisation
- Standards
- Community

- Electronic Lab Notebooks
- Repositories
- Common Standards
- Interoperable Data
Smart Lab - Seamless Data Flows

Devices

Electronic Lab Notebook (ELN)

Data

Generation of SI for "traditional" Paper Publication

Federated Repositories

Data

Process & Analytics

Spectroscopy

Subdomain-specific

Multi-disciplinary / Generic
Strategy & Resulting Services

Portal
- Helpdesk / Support
- Knowledge Base
- Teaching / Training
- Search

SmartLab
- ELN
- Software Tools
- Devices/API

Data

Repositories

Software
- Standards
- Legal / Policies
- Terminology
The Role of TIB in NFDI4Chem - Synergies & Cross Cutting Topics

- Infrastructure partner with longterm, sustainable service portfolio
- Expertise in: semantic annotation and linking of research data artefacts
  - Standardisation of metadata and data
  - Ontology development & curation (together with domain experts)
Activities of TIB within NFDI4Chem

- Ontology Curation & Development
  Comprehensive survey of existing ontologies for NFDI4Chem and Chemistry
  NMR-RD Ontology, RXNO Contribution (Realization of an exemplary procedure with 3rd party maintainer)

- NFDI4Chem Terminology Service (online end of June)
  Release 1.0 with 18 ontologies, cooperation with NFDI4Health OLS Development

- Integration of Terminologies in NFDI4Chem Services
  Use Case: chemotion ELN fetches RXNO data from Terminology Service

- Cross-Cutting Topics
  Co-authoring Declarations on Cross-Cutting Topics, Report on NFDI Cross-Cutting Workshop
  Shaping the Sektion (Meta)Data, Terminologies and Provenance in NFDI e.V. / NFDI-AAI
  cross-consortia working group
  Developing Minimum Information Standards for Chemistry (together with RDA, IUPAC)

- NFDI4Chem Helpdesk Service (in place since April)
NFDI4Chem - Become a member of the Community

Looking for more information on NFDI4Chem?
- visit our website nfdi4chem.de
- subscribe to our newsletter
- follow us on twitter @Nfdi4Chem
- contact us via contact@nfdi4chem.de

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