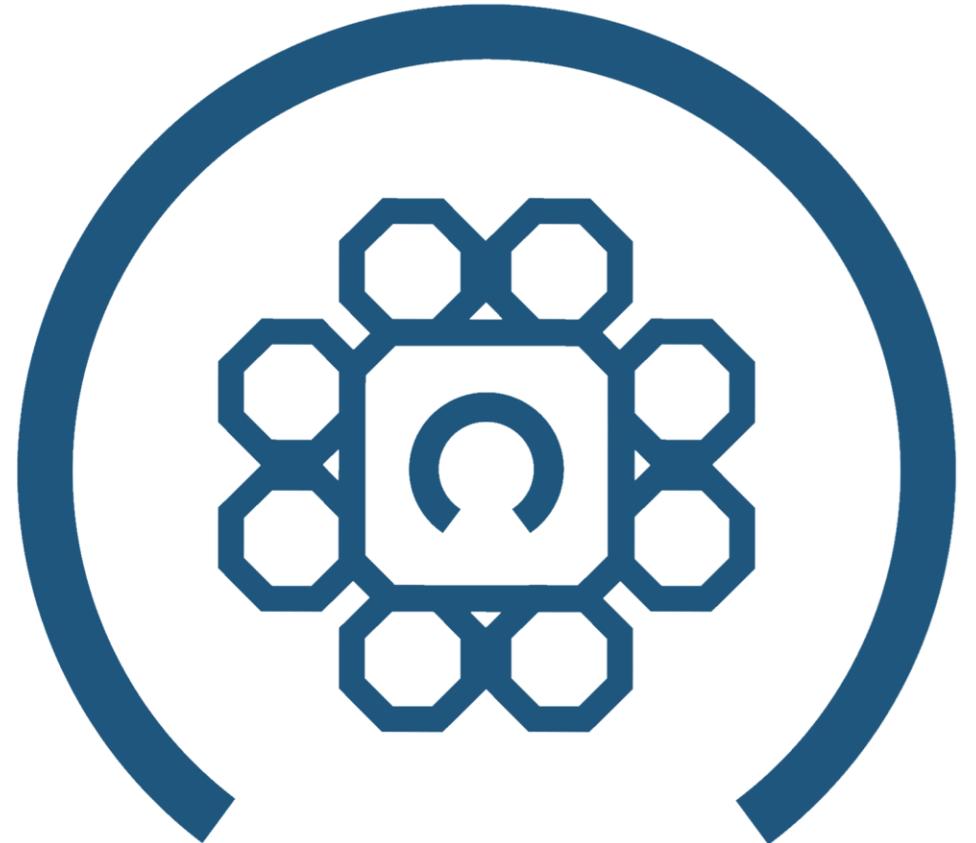


## The OEFamily and the Open Energy Platform (OEP)

A framework for research data management and a community database for energy data

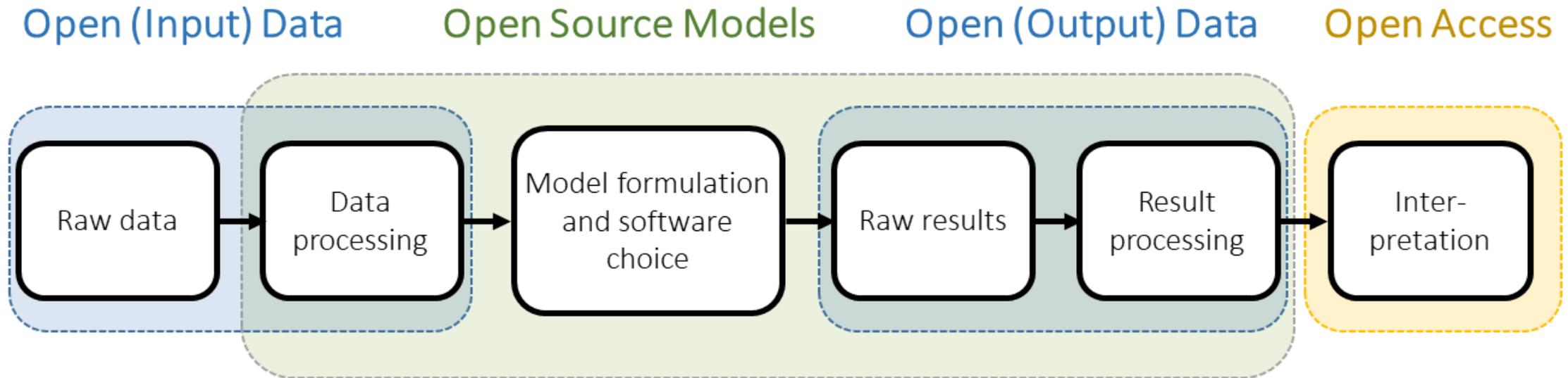


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# Open Energy Family

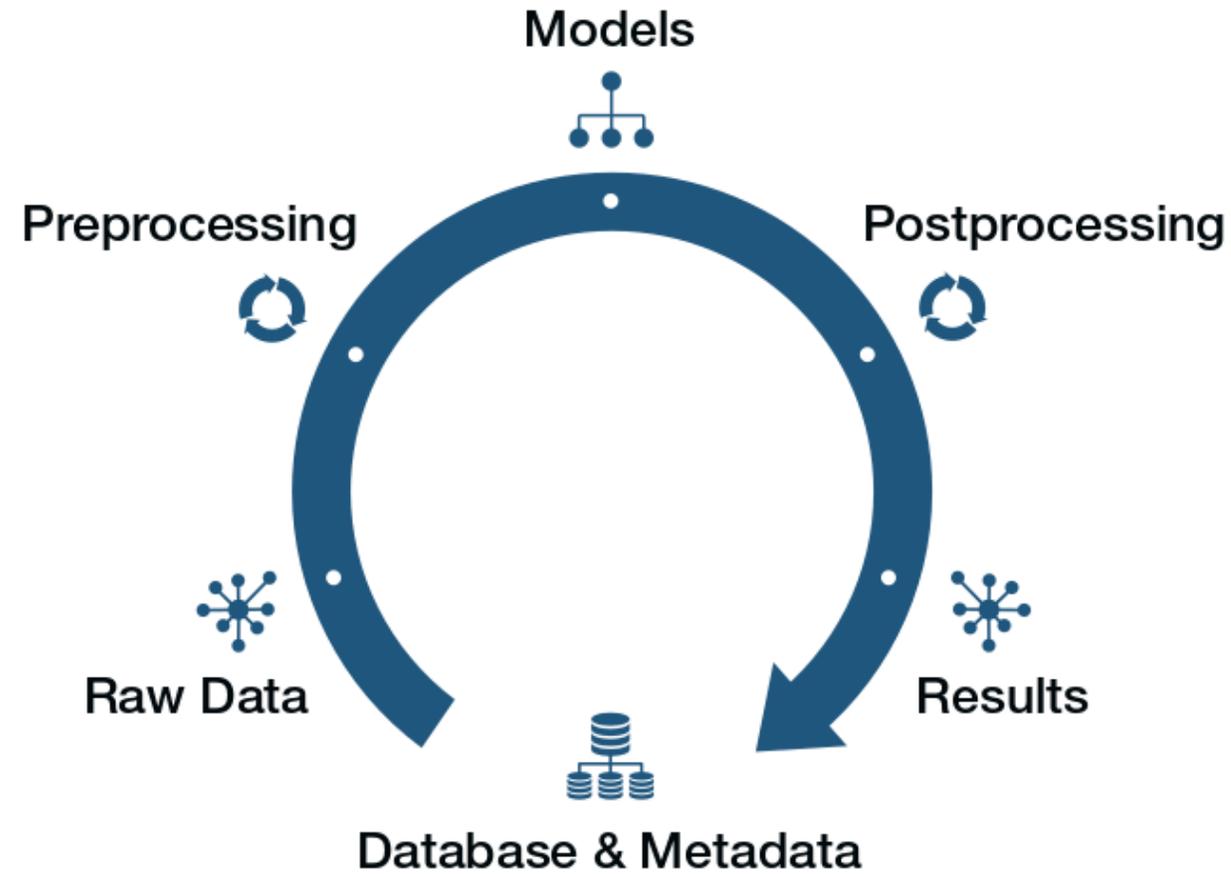
# Open Science - Energy System Modelling

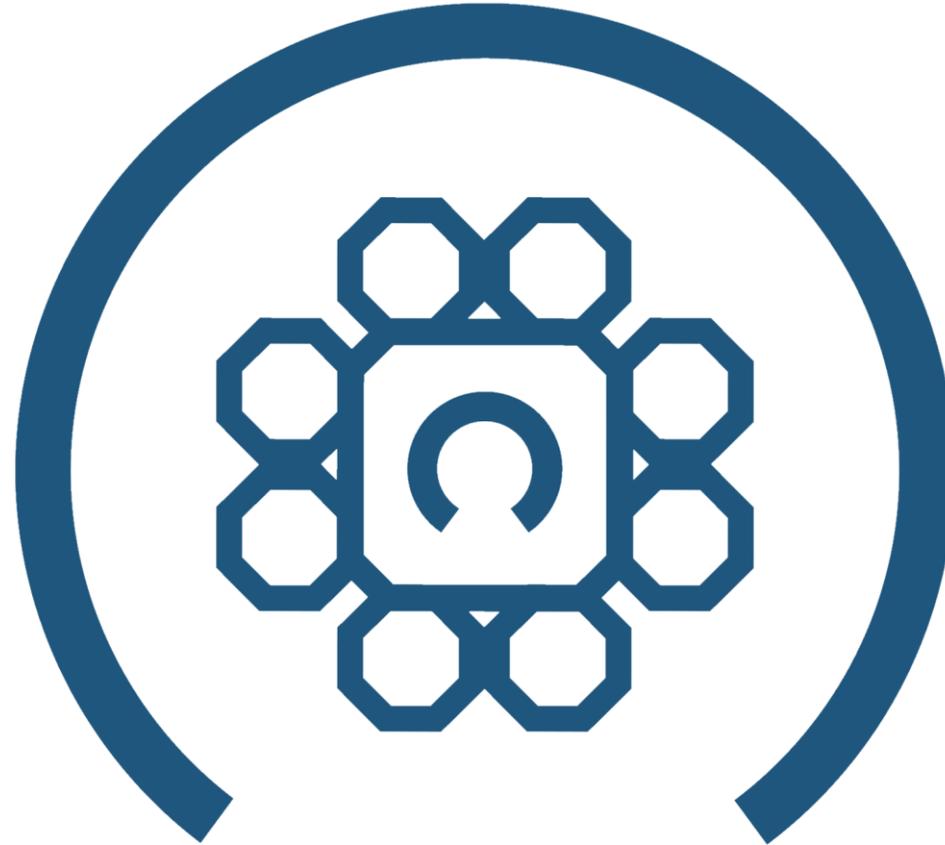


„Open data, open source, and open access in relation to the energy modelling process.”  
[Pfenninger et al. \(2018\)](#) licensed [CC BY 4.0](#)

# Open Energy Family

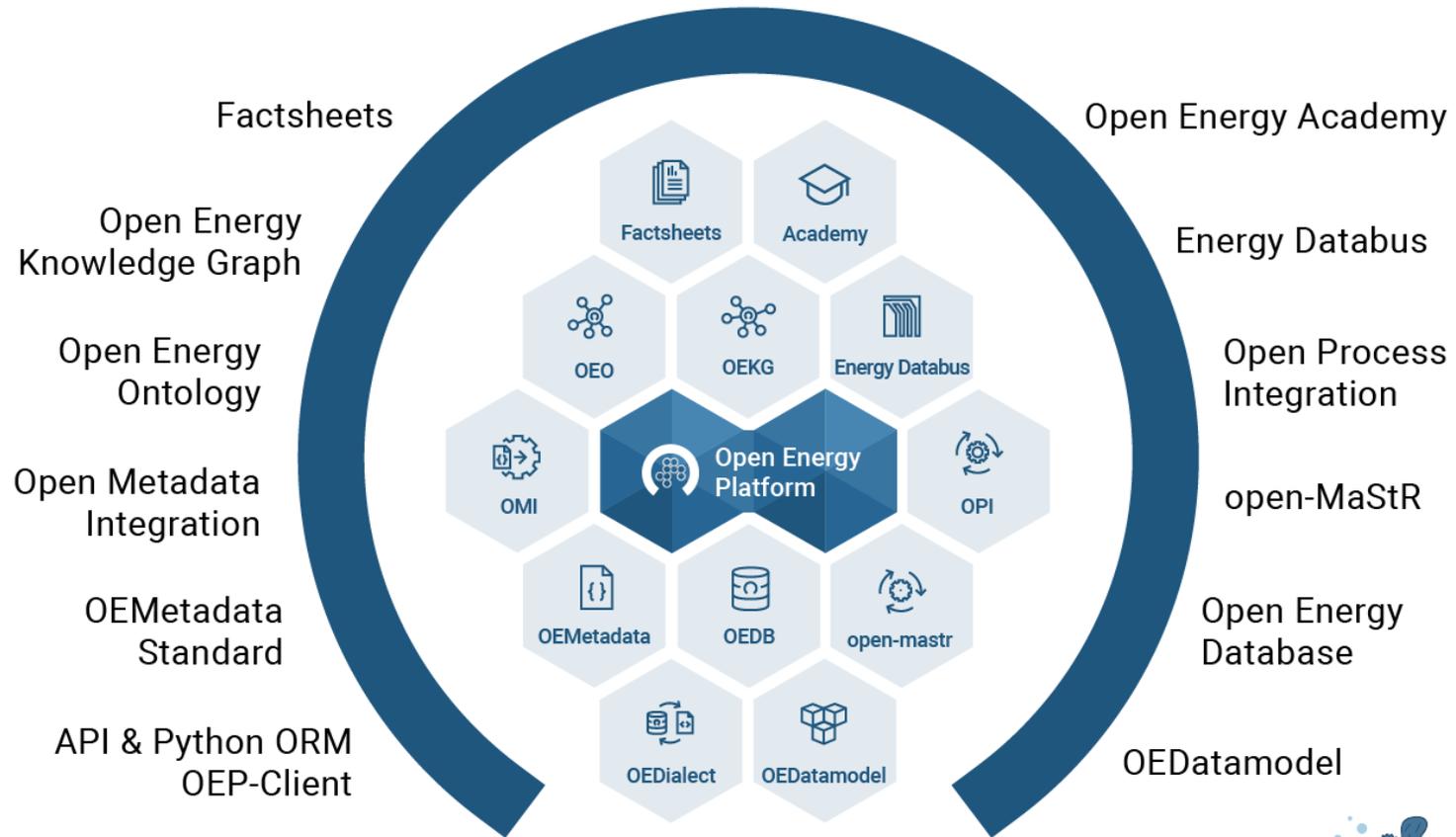
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**Open Energy Family**

# Open Energy Family



# Open Energy Family



# Open Energy Family



openenergy-platform.org

- University Magdeburg (OvGU) is host and main developer
- Funded projects until 2028
- Server deployment for +10 years guaranteed by OvGU
- Cross-tier community project
- Code available at [GitHub](#)



Gefördert durch:



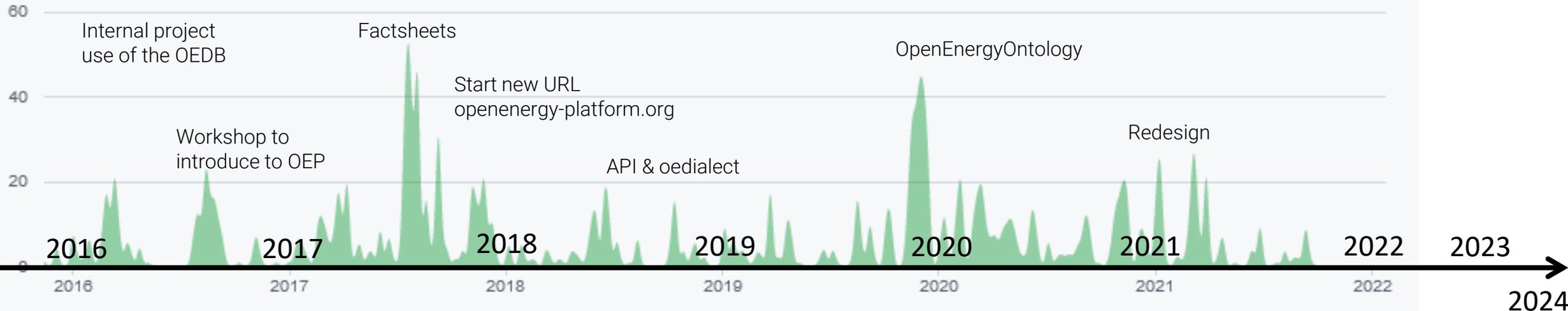
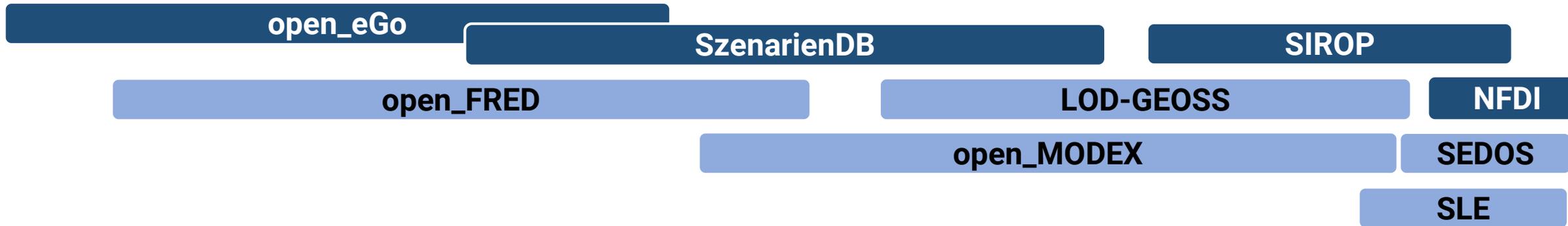
Bundesministerium  
für Wirtschaft  
und Energie

aufgrund eines Beschlusses  
des Deutschen Bundestages



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# Open Energy Family - History



# Open Energy Family

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OEDB

- Open **community database** for energy climate and modelling data
  - Status: 1000+ data tables
  - Planed: Constant maintenance and clean-up



OEP

- **Platform** and web interface
  - Status: Redesign and usability
  - Planed: More frontend for existing tools + OEO



Factsheets

- Standardised **Fact sheets** for frameworks, models and scenarios
  - Status: 20+ frameworks and 200+ models
  - Planed: Scenarios using the Ontology and Knowledge Graph

# Open Energy Family



OEDialect

- SQLAlchemy dialect using the **REST-API**
  - Status: Easy to use; additional tools available (e.g. OEM2ORM)
  - Planed: Bugfixes and support of additional data types



OMI

- Metadata integration to **process** and translate OEMMetadata
  - Status: Release of v1.5.1 in progress
  - Planed: Mappings to other standards like DCAT-AP



OPI

- Process integration, **data pipelines** and data review
  - Status: 100+ datasets under review (GitHub process)
  - Planed: Move process to the OEP, display with data



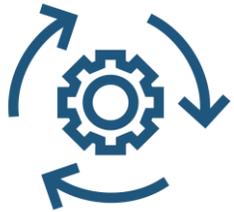
OEO

- **Ontology** - a formal collection of terms
  - Status: 1000+ issues; 2000+ classes (terms)
  - Planned: Integrate and improve [OEO-Viewer](#)

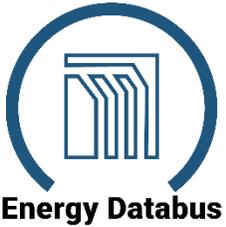


OEKG

- Open Energy **Knowledge Graph** (OEKG)
  - Status: First prototypes under development
  - Planned: Factsheets, Scenario Comparisons



- Data **pipelines** (open\_MaStR) and helper tools (OEM2ORM, SAIO)
  - Status: Used for automations
  - Planned: Update, integrate, and documentation



- **Energy Databus** for LOD and federated databases
  - Status: 1000+ datasets; OEP Pipeline, MOSS-MOD
  - Planed: Redesign, Integration OEP, Usability
  - <https://energy.databus.dbpedia.org/>
  - <https://moss.tools.dbpedia.org/>



## Conclusion

- A robust framework for data management is essential for energy research
- The OEFamily has been proven effective and widely adopted
- The Open Energy Platform (OEP) and Open Energy Database (OEDB) are ready to publish modelling data for further collaboration and research
- A collaborative approach may be more challenging, but it ultimately leads to better results and outcomes
- We welcome other institutes and projects to join us



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A framework for research data management and a community database for energy data (2023)”

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## Ludwig Hülk

E-Mail: [ludwig.huelk@rl-institut.de](mailto:ludwig.huelk@rl-institut.de)

Web: <http://www.rl-institut.de>

Twitter: [@LudwigHuelk](https://twitter.com/LudwigHuelk)