The PUNCH4NFDI Consortium
Newsletter Number 10

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1. News and Highlights

Since October 2024, **PUNCH4NFDI is admitting users to register to the PUNCH-AAI** and access the available resources as well as submit workflows via REANA. Integrated resources currently include the federated compute and storage resources (Compute4PUNCH and Storage4PUNCH), REANA, the PUNCH GitLab, and the registry for digital research products (RPR). Information on the services and registration process are available under *https://results.punch4nfdi.de/*.

The new release of **REANA 0.9.4** from 16th December 2024 supports the Compute4PUNCH infrastructure. This effort was strongly supported by PUNCH4NFDI task areas 2 and 4 in collaboration with CERN. An example on how to run a workflow via REANA on Compute4PUNCH is accessible with the PUNCH-AAI *here*. Further examples and tutorial for REANA are publicly accessible on *https://gitlab-p4n.aip.de/punch_public/*.

In addition, the consortium now provides a **helpdesk** to answer questions related to our services and tools as well as to general topics concerning PUNCH4NFDI. To contact the helpdesk, write an email to *support@punch4nfdi.de*.

A **Letter of Intent** was signed between the ESCAPE project and PUNCH4NFDI in September 2024. Thus, the two partners plan to strengthen their collaboration and share expertise in order to enhance scientific data management, as well as FAIR and Open Science.

Figure 1: Presentation of PUNCH4NFDI at the DFG Zwischenberichtssymposium, February 2025 in Bonn. Image: Andreas Haungs

PUNCH4NFDI has submitted the **progress report** to DFG by end of September 2024. This was the first step in the mid-term evaluation of consortia which was followed by a symposium in February 2025. Subsequently, in August 2025, PUNCH4NFDI will submit a renewal proposal for the second funding phase. Preparations for the renewal proposal have recently started.

In case you have news that you want to share with PUNCH4NFDI, don't hesitate to send a mail to *info@punch4nfdi.de*. You can access all newsletters on our *web site*.

2. NFDI and related topics

The NFDI was selected as one of the Potential Candidate Nodes for EOSC in November 2024 and has recently been named a **Candidate Node**. Further information on the process as well as the Candidate Nodes is available in the *EOSC News*.

The report by NFDI director Prof. York Sure-Vetter, **Erfahrungen mit der strukturellen Gestaltung von NFDI**, was published in February 2025 *on Zenodo*.

Base4NFDI: After the first six rounds of proposals, there are currently eight Base4NFDI projects. The latest addition is RDMTraining4NFDI, which will start in February 2025. Furthermore, PID4NFDI and TS4NFDI recently started the integration phase.
Proposals for the seventh round have recently been submitted in January 2025. The next deadline for proposal submission to Base4NFDI is on 23 April.

NFDI sections and task forces: The first publication by the Task Force Governance and Sustainability is available on Zenodo: Status quo und Zukunft der NFDI - Eine Perspektive der Fachkonsortien (*https://zenodo.org/records/14277471*).

3. Formal, legal and financial topics

PUNCH4NFDI is on track with spending the funds. The consortium has reduced the request for transfer of money to less than 1% of the grants in 2024.
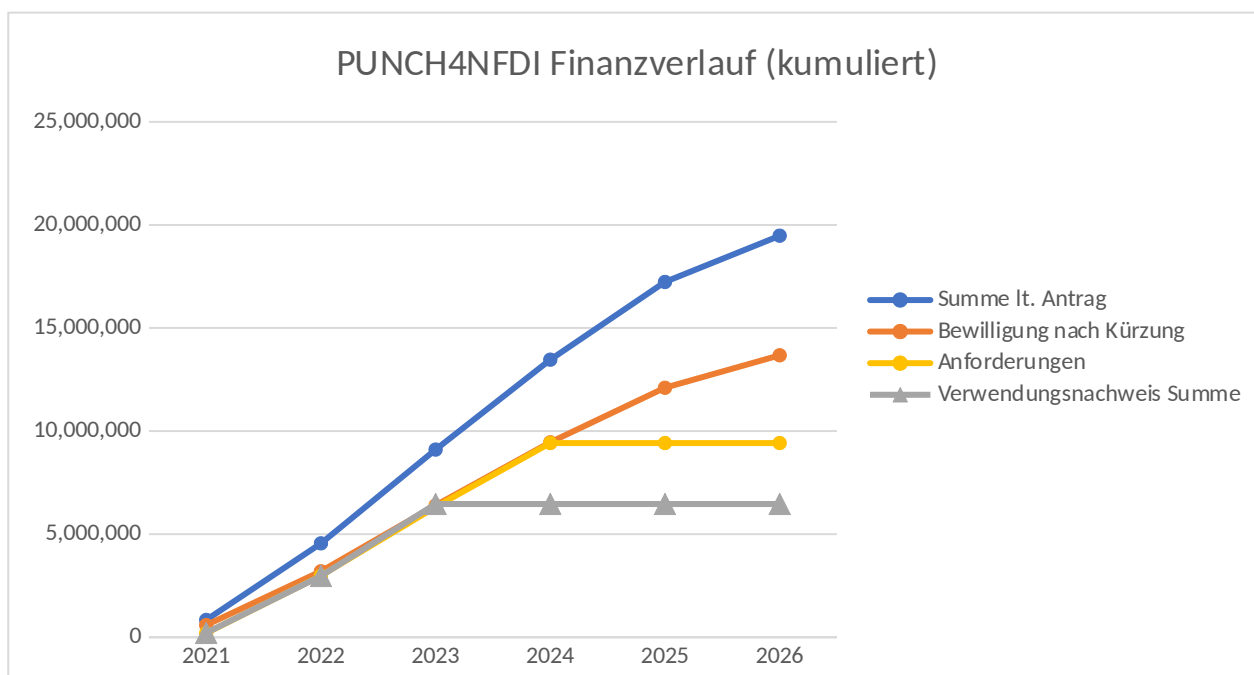
Figure 2: Spending profile of PUNCH4NFDI including Q4/2021 – Q4/2024. Blue - proposal; orange - DFG grant; yellow - actual spending; gray - Jahresverwendungsnachweis.

4. Upcoming events and excitements

- The **DPG spring meetings**, relevant for PUNCH sciences, take place on *10 – 15 March in Cologne* (Hadron and Nuclear physics) and on *31 March – 4 April in Göttingen* (Matter and Cosmos Section). PUNCH4NFDI will be present with a booth at the exhibition part of the conference in Göttingen.
- The *E-Science Tage* in Heidelberg will take place on 12 – 14 March.
- The **Physical Sciences Join Colloquium** will continue in 2025 with a first seminar organized by NFDI4Chem. On 17 March, Prof. Sören Auer from TIB Hannover will speak about *From Research Data towards Leveraging AI for Research*. *Info & registration*.
- On 1 – 2 April, the second International RDM Community Meeting *Fellowship of the Data* will take place in Jena.
- Save the date for **CoRDI 2025**, the second Conference on Research Data Infrastructure, on 26 – 28 August in Aachen. The *Call for Contributions* is open until 17 April.

5. Recent talks, results, and publications

This is a collection of several publications by PUNCH4NFDI members which can also be found at least partly on the web page, the *results page* and in ZENODO (*https://zenodo.org* – just search for "PUNCH4NFDI" or – if you are interested in the broader scope – "NFDI").

- PUNCH4NFDI Progress Report Part 1
- OmniJet-αC: Learning point cloud calorimeter simulations using generative transformers
- Lattice gauge ensembles and data management
- GraphNeT 2.0 – A Deep Learning Library for Neutrino Telescopes

Deliverable reports
- TA2 (B. Roland and M. Giffels): Demonstrator for a federated compute infrastructure
- TA7 (B. Achkar, A. Quadt): Establishment of the PUNCH4NFDI Young Academy