



Discussion with TNA users

PITHIA-NRF Networking Meeting

Brussels, 3 June 2025

On the nodes operation

- Possibilities to enhance the **strengths of each node** with
 - Organization of special observing campaigns in supporting collaborative experiments among nodes that offer supplementary facilities
 - **Additional instrumentation** to operate in the nodes.
 - **Additional data processing tools** to be offered by the nodes (ground-based, space born, conjunctions, other?)
- Possibilities to reinforce **interoperability** between the nodes and with the eSC
 - Implement as a standard operational feature in the future, the (near) real-time data exchange between the nodes and the eSC
- Ideas for **joint campaigns with academia and industry** (test new sensors, data analysis pipelines, or cross-layer coupling hypothesis?)
- Please name a **scientific challenge** that you would like to see **to be addressed** using current and future facilities in PITHIA-NRF nodes.

On the eScience centre operation

- Considering that this first version of the eSC puts the emphasis on the FAIRness, where the **eSC focus should be** in future developments?
 - Central data quick visualization environment.
 - Predictive modeling tools to anticipate phenomena like anomalies and disturbances
 - Machine learning workflows and toolkits (e.g. notebooks, preprocessed datasets)
 - AI-ready benchmark datasets (annotated, cleaned, labeled)
 - Real-time usage of stats, and data summaries for easier exploration
 - Custom dashboards by user type (student, researcher, data scientist)
 - Other ideas?

On central PITHIA-NRF activities

- Considering that **physical access time to the nodes** can be limiting, which possible enhancements would you consider useful (e.g., improving virtual access options, allowing longer access periods, allowing multiple access periods in one TNA project, allowing remote control of instruments, ...)?
- Would you consider as useful **enhancements to the TNA activities** the possibility provided to the user:
 - to access complimentary data sets and results (reports) from previous campaigns by other users?
 - to share projects with other TNA applicants who may have similar or complimentary objectives?
- Do you need **more training and information regarding instruments and models offered by the PITHIA TNA nodes** in order to discover tools useful for you research? Do you or your students plan to participate in future summer schools, training workshops?