

Second DMInfraNet Preparation Meeting

8 January 2025

The Elevator Talk – for Discussion

There is a wide variety of existing and planned dark matter search experiments. Their size typically exceeds the abilities of single institutions – collaboration is becoming increasingly necessary.

DMInfraNet intends to provide a platform for the exchange on organisation, technology choices, technical expertise, infrastructures, construction, integration, exploitation for these experiments. With all these topics in mind, DMInfraNet will become a forum for strategy discussions among the involved institutions. DMInfraNet can become THE place where infrastructure requirements of experiments in the sector of dark matter and feably interacting particles are discussed.

DMInfraNet aims to fill the gap between the basic detector technology development, as addressed by the DRDs, and the exploitation of experimental data and analyses, as intended to be addressed by iDMEu. It is in this respect is orthogonal and complementary to these existing exchange and collaboration mechanisms.

The installation of DMInfraNet and its recognition by the European strategy update will give the topics treated by the network the needed visibility and political weight.

(Concrete) Goals and Steps

Concretely DMInfraNet will address the following topics

- organise an improved flow of information on existing expertise, on available infrastructures and facilities, and on their planning;
- set up the necessary communication structures and collaborative tools;
- provide explicit support in the field of the network members' expertise;
- provide easier access to the infrastructures and facilities;
- provide a common framework for solutions to common questions such as a software eco-system;
- implement a common approach to computing and data handling issues, also in view of increasing open and FAIR data requirements.
- provide scientific scrutiny for new ideas in the field
- organise joint funding applications
- contribute to the shaping of the respective strategy(ies)

As first steps, after the approval, DMInfraNet will work towards a roadmap for infrastructures in the field of dark matter and feably interacting particle experiments in Europe, taking existing roadmaps and strategy / discussion processes into account.

Institutions and Persons Contributing to Discussions So Far

Drivers so far

- Jochen Schieck, Director HEPHY Vienna
- Dirk Zerwas, Director DMLab / IN2P3
- Florian Reindl, Assistant Professor TU Vienna
- Thomas Schörner, DESY

Institutions with people involved in discussions

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| • Boulby | • LPTHE | • U Lund |
| • CERN | • LSM | • U Muenster |
| • DESY | • INFN (LNL, MIB, Roma) | • U Napoli |
| • DMLab | • Max Planck Munich | • U Oxford |
| • Harvard | • NCAC Poland | • U Zaragossa |
| • HEPHY Vienna | • NIKHEF | |
| • IFIC Valencia | • ORNL | |
| • IJCLab | • TU Munich | |
| • KIT | • U Amsterdam | |
| • LPSC | • U Bonn | |