



Handling Research Infrastructures Within Research.fi

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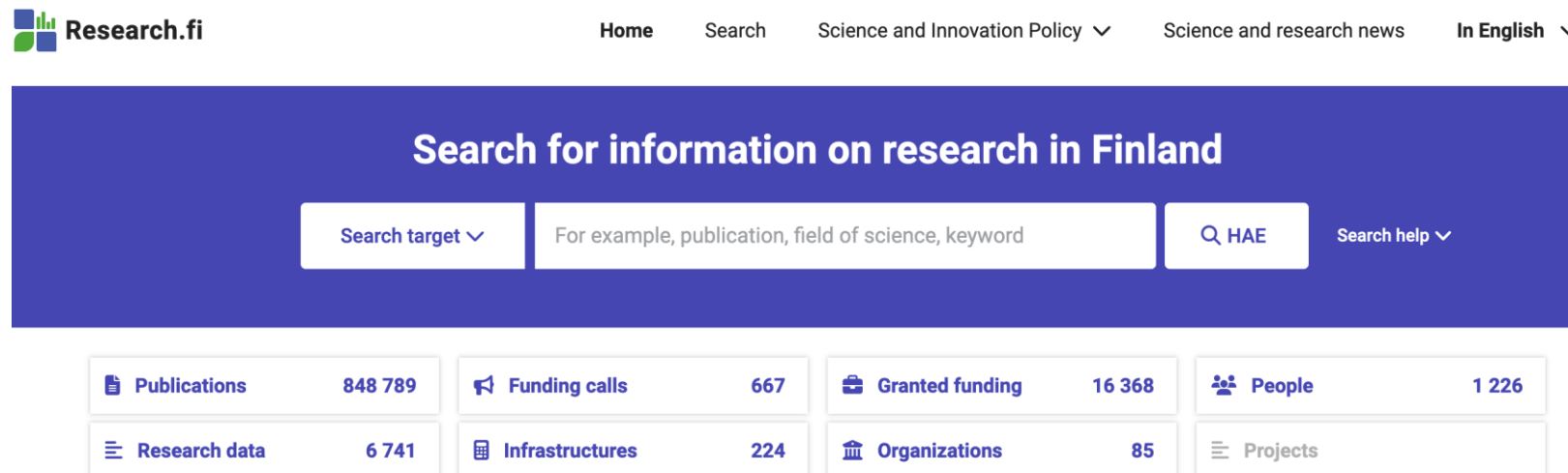
<https://orcid.org/0000-0002-5036-6444>

CSC – IT Center for Science, Finland











On National Research Information Hub and Research.fi

- The Ministry of Education and Culture (MINEDU) of Finland authorized the implementation of the National Research Information Hub to CSC – IT Center for Science Ltd.
 - The project was launched in 2017 and is financed as a part of a seasonal agreement between the MINEDU's department of education and science policy and CSC.
- [The Research.fi service](#), launched in 2020, is the most visible part of the Research Information Hub. The service collects information on research, the Finnish research system, and statistics on the development of research resources and impact.
- The Research Information Hub and Research.fi service are constantly being developed
 - The development is guided by a shared vision of organizational stakeholders and the steering group of Research Information Hub



The screenshot shows the Research.fi website interface. At the top left is the Research.fi logo. The navigation menu includes Home, Search, Science and Innovation Policy (with a dropdown arrow), Science and research news, and In English (with a dropdown arrow). The main content area features a large blue header with the text "Search for information on research in Finland". Below this is a search bar with a "Search target" dropdown, a text input field containing "For example, publication, field of science, keyword", a "Q HAE" button, and a "Search help" dropdown. At the bottom, there is a grid of statistics:

 Publications	848 789	 Funding calls	667	 Granted funding	16 368	 People	1 226
 Research data	6 741	 Infrastructures	224	 Organizations	85	 Projects	

Contents

What exactly is a
research
infrastructure?

Data model

Planned next
steps for
Research.fi



What is a research infrastructure (RI)?

- the facilities, equipment, laboratories, networks, databases, research data and services available in a centralized, decentralized or virtual environments which enable research to be carried out at different stages. RI's also support researcher training and education and are part of the RDI capacity. They can
 - be large or small
 - be governed by one or several organisations
 - be international, national or local
 - offer services to researchers, research groups, private sector – or do not offer them.
 - be independent, part of another RI, part of several other RI's, only part of RI can be part of another RI, etc.
- The answer depends of the question and of the use case.

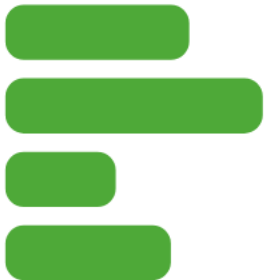


→ Research infrastructure is an ambiguous entity.

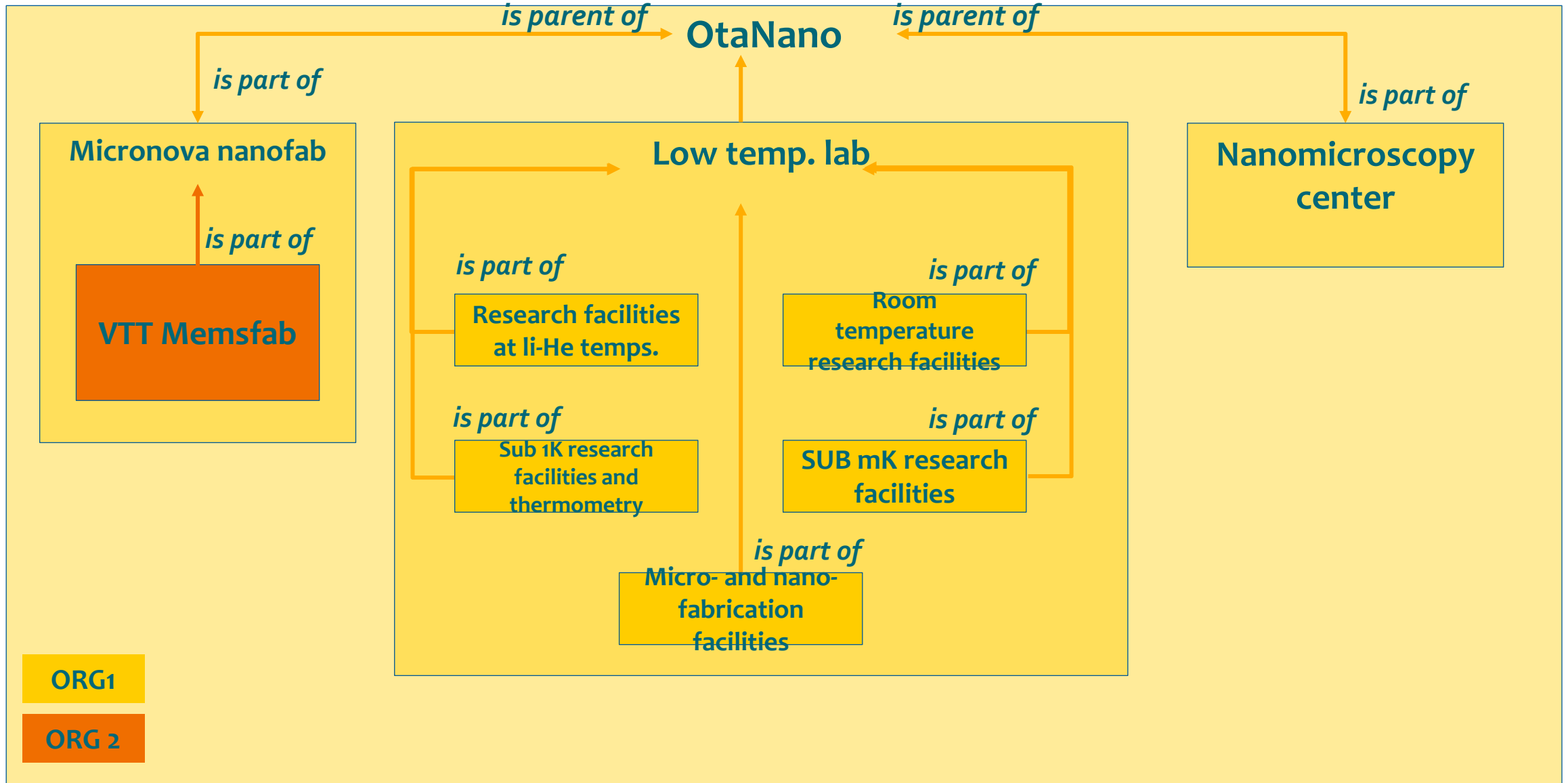


What is a research infrastructure (RI)?

- RI's form networks. Connected RI's form a new, larger RI. The characteristics of the network can be utilised to represent the RI's. But each RI-object is already alone a working Research Infrastructure.
- RI's are governed (owned) by research organisations. They have the master data.
 - Research funders don't govern the RI's, though they sometimes provide extensive funding for them. Individual funding decisions can point to certain RI via PIDs



Example 1





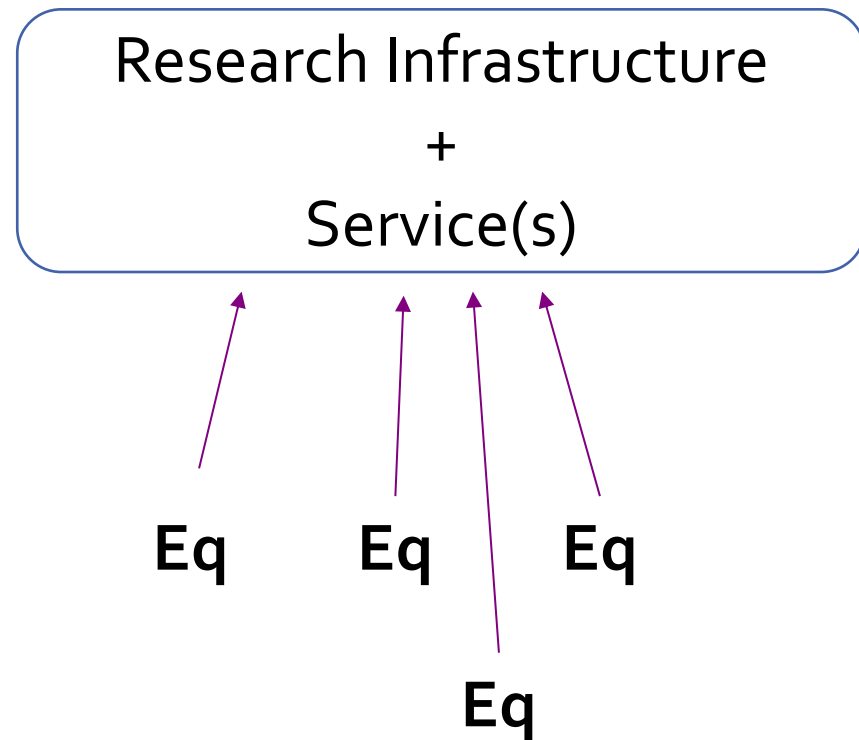
How research service compares to RI?

- Service gives “access” to research infrastructure in some way.
 - It can be a way for researcher to use infrastructure for research
 - It can be paid service that gives some output / result for the client / customer. For example imaging or some measurement devices
 - It can be access to the research data the infrastructure offers for use. For example observatory data
 - Often services have conditions that need to be fulfilled until access is given.

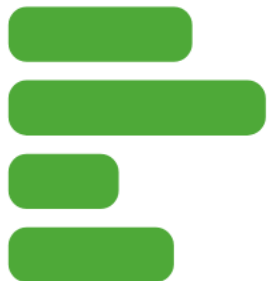




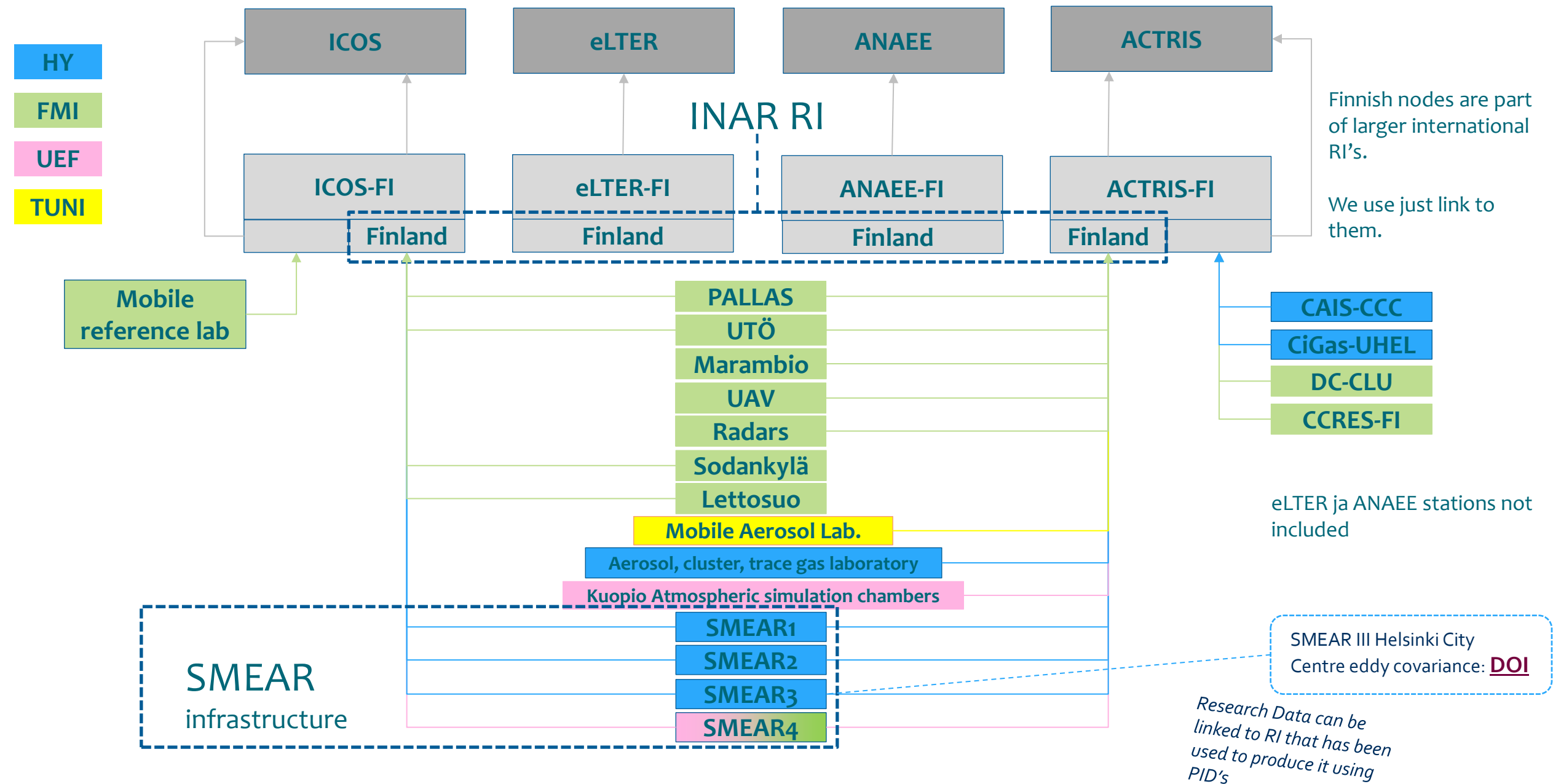
How about research equipment then?



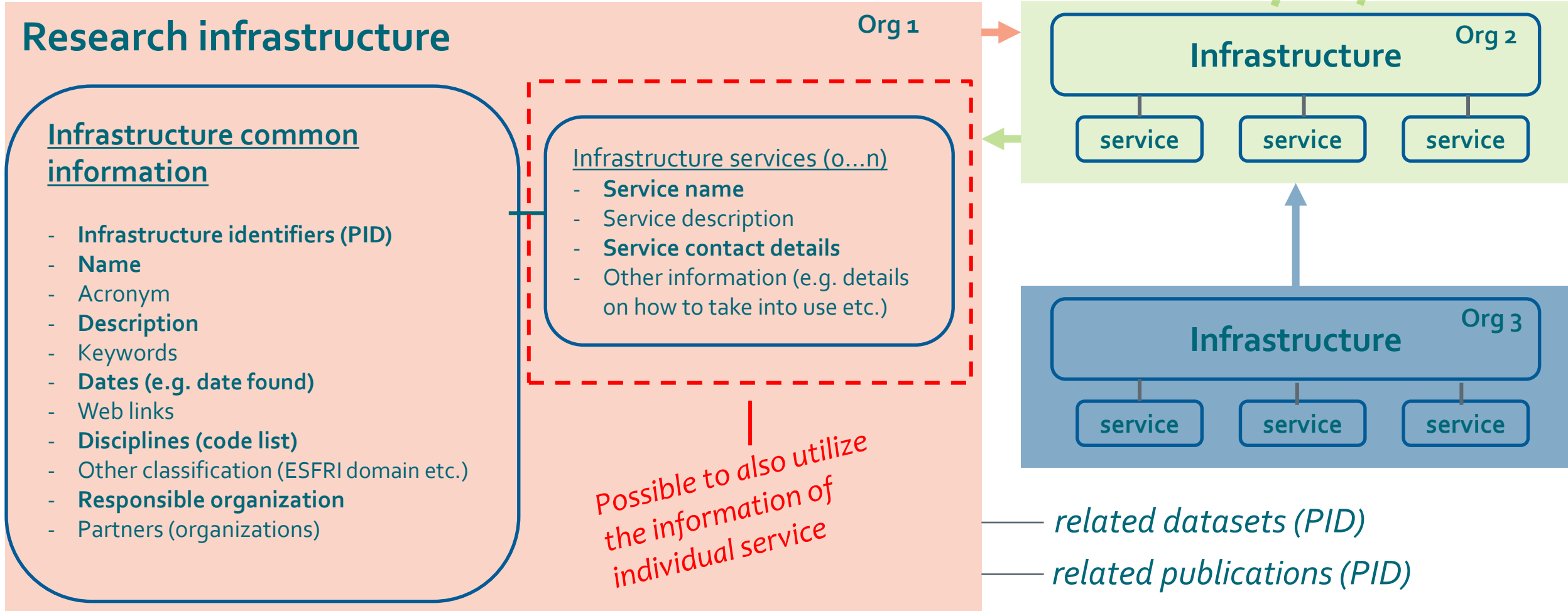
- Equipment alone are not a RI itself. However they are crucial elements of them.
- Equipment databases are maintained by organisations. "Granularity" is too small for Research.fi



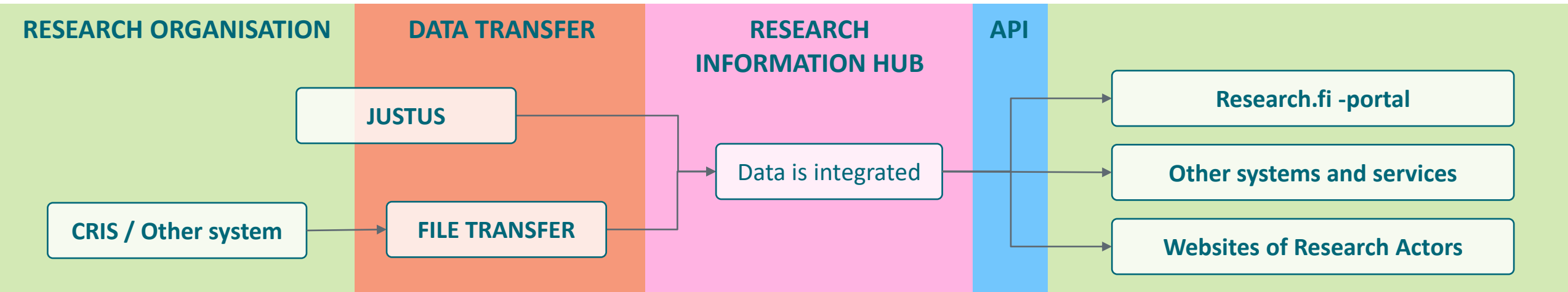
Example 2



Data model for research infrastructures (RIs)



Research Infrastructure (RI) information available from Research.fi – next steps



Identifies and describes research infrastructures (RI) based on common data model.

Plans the process of internal data collection.

Utilizes the shared RI information internally through the API

JUSTUS-service 2025 – A new add-on for delivering and maintaining the organisation’s RI information.

File transfer
The organisation creates a transfer file for its RI data according to the transfer format guidelines.

complete in 2024 – common data model updated

complete in 2024 – transfer format for RI information

2025 – API for RI information

2025 – transfer files are uploadable

2025 – updating current RI information

USE CASES

- I) Enhancing RDI efforts and supporting collaboration
 - business collaboration and discoverability
 - boosting innovation activities
 - supporting service operations
- II) Landscape of Finnish RIs
 - harmonized information available to research actors and stakeholders
- III) Evaluating the impact of RIs
 - joint research infrastructure policies
 - making the role of RI’s visible

Thank you!

