

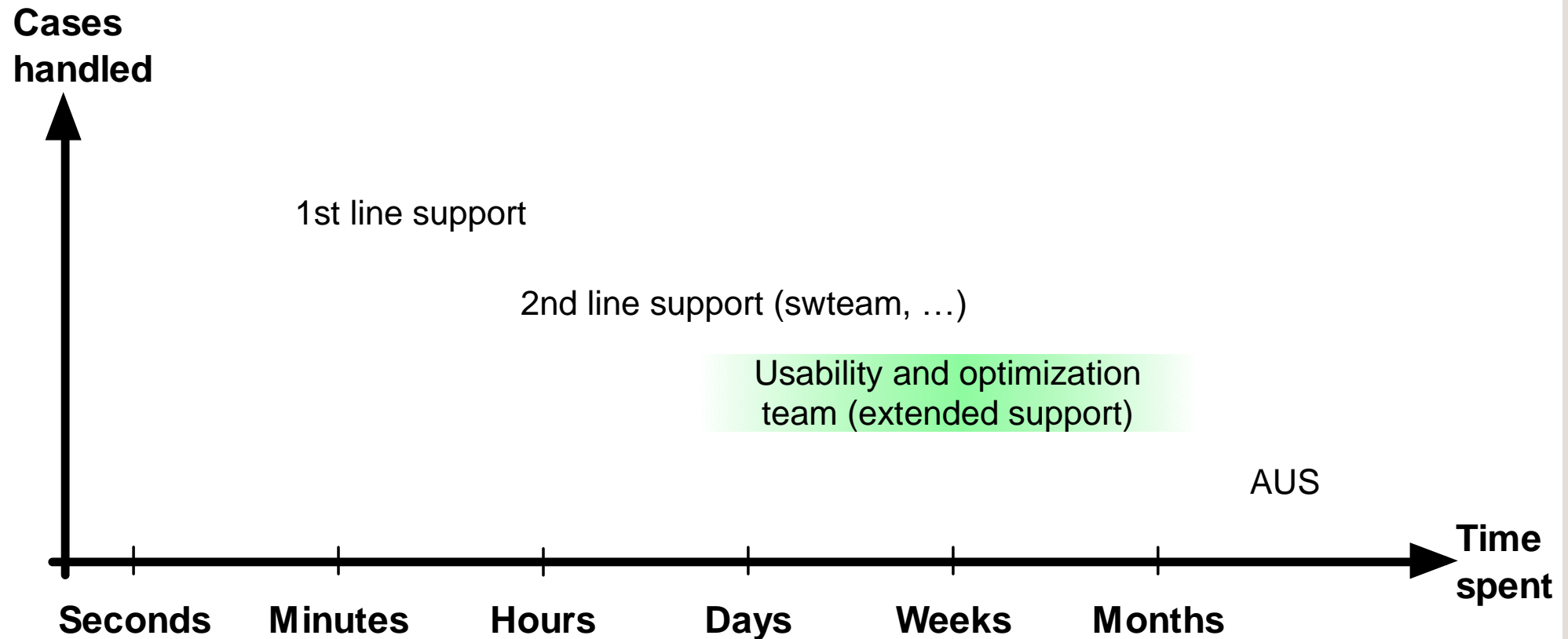
Advanced User Support (AUS)

Getting help to work with GPUs and the coming LUMI system

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The “support continuum”



About Advanced User Support (AUS)

Challenges addressed by AUS:

- Research projects might have applications that could run more efficiently, be ported to a more suitable architecture, or scale up to qualify for running on large HPC systems but lack in-house expertise to optimise their code
- Other challenges related to the use of Sigma2 services that require temporary (but dedicated) assistance by an expert

How it works:

- Continuous application: <https://www.sigma2.no/advanced-user-support>
Evaluation by the Resource Allocation Committee
Help available to assess and defining the case. Please contact us!
- Sigma2 will assign an expert from the Metacenter and cover for the time spent working on the case (typically 1 - 3 months)
- Challenge: Resource (expertise) availability

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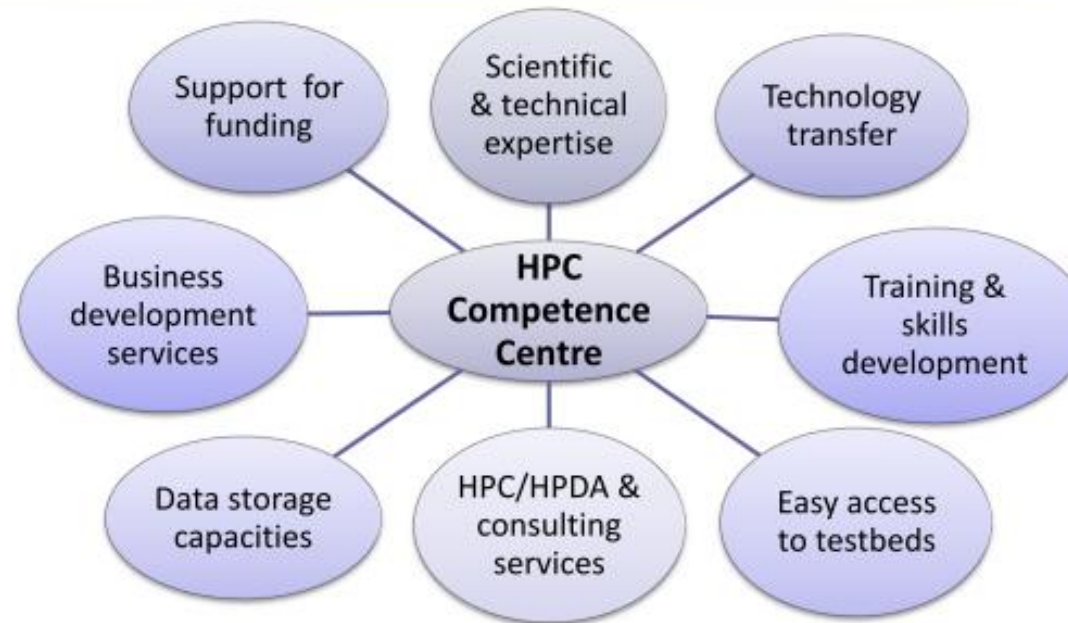
- **1) Project based AUS:**
 - Can be the sole initiative of a researcher or a science area
 - Granted by RFK with 1-3 PMs spent over a maximum of 6 months, continuous applications
- **2) Discipline specific AUS**
 - Initiated by Sigma2 in cooperation with a science discipline
 - Can have allocations of more than 12 PMs spent over a maximum for 2 years
 - Joint funding
- **3) User Liaisons**
 - Enabling sharing of (extreme) competence or assigned to support a user group (e.g. CoE or ESFRI node)
 - 2 - 6 PMs/yr., case-by-case. Joint funding sought
 - Modelled after XSEDE Campus Champions (and UiO hub-node model), EuroHPC Competence Centers (?)
- **Under development: "Extended support"**
 - Framework within Usability and Optimisation team (formally Application Management (AF))
 - Fast turnaround, short duration (1-4 weeks efforts)
 - Not a "real AUS", but could often lead to an AUS (thus the nickname "mini-AUS" by some)

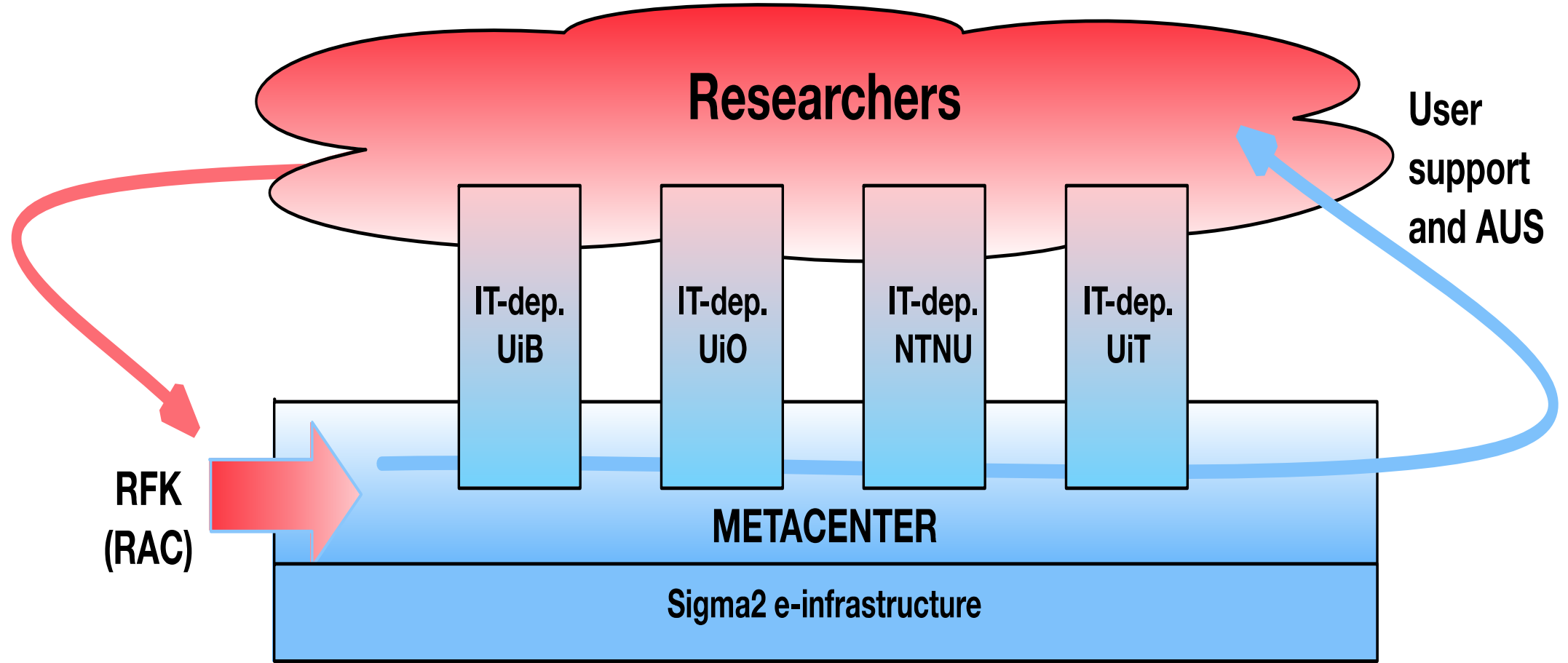
EuroHPC National Competence Centre

Role of an HPC-Competence Centres

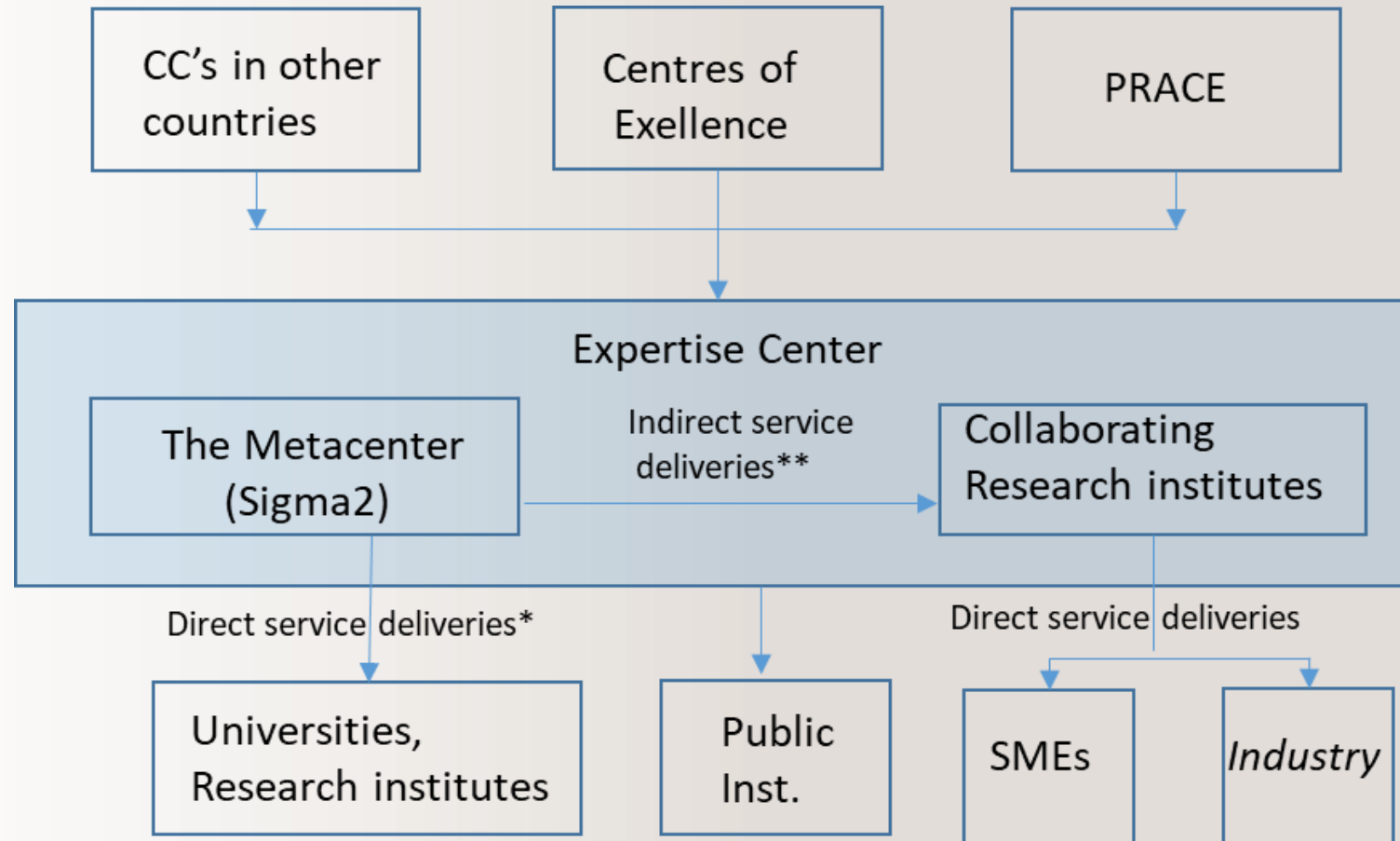


A 'one-stop-shop' offering services mainly to industry (including SMEs), and to public administrations





Norway's EuroHPC Competence Centre



*Sigma2 primary target group (non-commercial)

**Sigma2 secondary target group (commercial)

AUS and other efforts for GPU-codes and LUMI

- AUS for LUMI and other EuroHPC systems aimed at porting and scaling of code, enabling code for GPUs, setting up advanced workflows
 - The coming EuroHPC Competence Center will increase our capacity for EuroHPC-related AUS
 - Additionally, assistance to industry (in particular SMEs) and research institutes
- Dedicated effort for aiding Norwegian research projects in getting access to the shared EU part of the EuroHPC resources (50% of all EuroHPC systems!)
- Training events and workshops

Resources for national EuroHPC Competence Centre

- Initially 20 MNOK for the coming years
 - (10 MNOK from Ministry of Commerce & Fishery + 10 MNOK from EU)
- Extensive partnership with SINTEF and NORCE
- Currently hiring 5 new persons
 - Reassign internal staff