# PDC Center for High Performance Computing

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# PDC Center for High Performance Computing



- Established in 1990

- Part of the Swedish e-Science Research Centre (SeRC)

- Contributes to the leading position of KTH in Swedish HPC

- Provider of services for Scania and a number of SMEs

- PDC has operated many Top500 systems, recently

  - 2023: Dardel-CPU (no. 153, 5.6 petaflops)

  - 2022: Dardel-GPU (no. 68, 10.2 petaflops)

  - 2021: Dardel-CPU (no. 287, 2.5 petaflops)

  - 2017: Beskow (no. 70, 2.4 petaflops)

  - 2014: Beskow (no. 32, 2.0 petaflops)

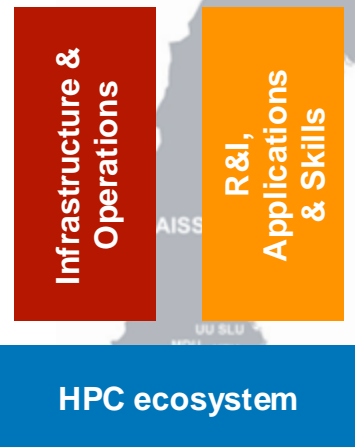  - 2011: Lindgren (no. 31, 300 teraflops)



PRESS RELEASE | 26 January 2023 | European High-Performance Computing Joint Undertaking

## Kick-off of 10 Centres of Excellence in HPC to support the transition towards exascale

On 1 January 2023 the European High Performance Computing Joint Undertaking (EuroHPC JU) launched 10 Centres of Excellence to support research and innovation actions that will develop and adapt HPC applications for the exascale and post-exascale era.

# NAISS ecosystem for HPC

- **NAISS** takes full responsibility for system operations and basic services (L1-and L2-support)

- A well functioning and highly science-productive infrastructure needs a complete **HPC ecosystem**

- Advanced services are in the NAISS model left for the universities to invest in and KTH takes here a leading role

- With **KTH** (and external) funding, PDC engages in sustainable software engineering and development

  - **Gromacs**, molecular dynamics

  - **VeloxChem**, quantum chemistry

  - **Neko**, computational fluid dynamics

  - **UppASD**, atomistic spin dynamics

  - **VIAMD**, visual analysis

**Infrastructure & Operations**

**R&I, Applications & Skills**

**HPC ecosystem**

- **NAISS Operations**
- **NAISS Applications**

"*Software as an infrastructure*"