

Pioneering the Exascale Era

driving innovation together


SURFsara supports individual researchers and large collaborations with their research & education needs as a service & infrastructure provider

Compute solutions

High Performance Computing

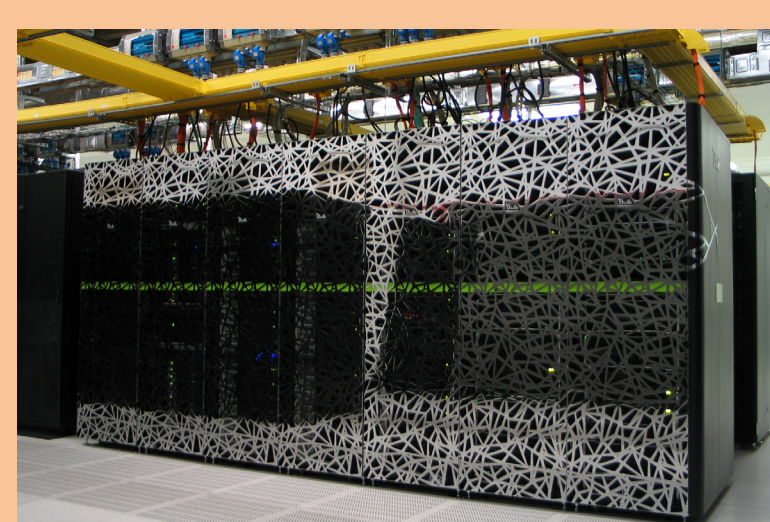
- *Cartesius*: the Dutch national supercomputer with CPUs, GPUs and infiniband interconnects suited for large scale, demanding, parallel applications and Machine Learning.
- *Lisa*: general purpose compute cluster with CPUs and GPUs

High Throughput Computing

- *Grid*: transnational, distributed infrastructure of CPU compute clusters and storage systems for processing very large datasets
- *Spider (2020)*: interactive & interoperable platform for large data
- *MS4 (2020)*: co-creation and service hosting platform 

Cloud Computing

- *HPC Cloud*: dynamically scalable & fully configurable compute and storage resources with both CPUs and GPUs



> 80,000 compute cores

see: surf.nl

(image: Dutch national supercomputer: Cartesius)

Data storage & management

• Data Archive

Safely archive up to PB's of valuable research data

• Grid storage

Extremely scalable disk & tape storage for TB - PB size data

• Research Drive

Cloud-based, sync & share, collaborative storage for TB size data

• High speed network

Internal compute-storage: 1200 Gbit/s , External: >100 Gbit/s

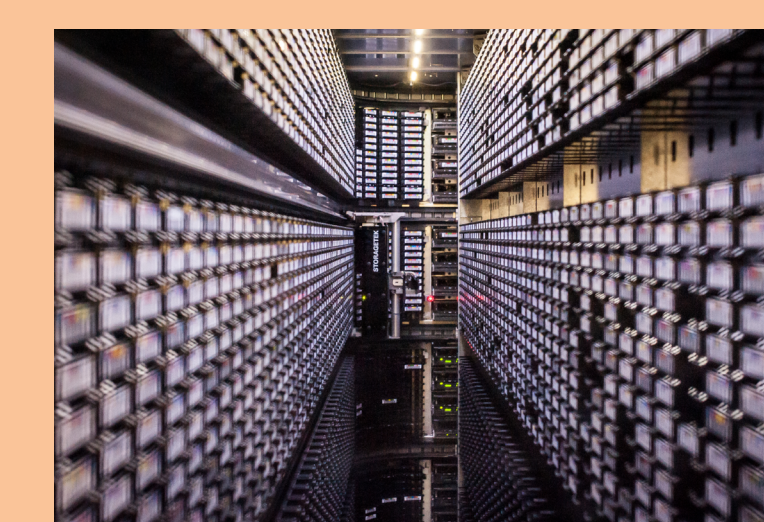
• Data management

Solutions & training to help you manage your research data

> 60 PB of science data

see: surf.nl

(image: SURF tape robots - 2 libraries @ 2 locations)



Support

Optimization

Visualization

Training

Collaboration

SURF ACCESS & INFO

[HTTPS://WWW.SURF.NL/EN/APPLYING-FOR-ACCESS-TO-COMPUTE-SERVICES](https://www.surf.nl/en/apply-for-access-to-compute-services)



-> SURF booth @ ADASS2019



SURF is ISO 27001 certified and meets the high requirements for information security.



SURF & Astronomy

• LOFAR - SURF

provides >25 PB of storage, HPC and Grid compute for breakthrough science
(Shimwell et al. 2019, A&A 622)



• Exoplanets - SURF

provides HPC, GPU compute & support to study the survivability of planets
(Cai et al. 2019, MNRAS 489)



SURF is the collaborative ICT organisation for Dutch Education and Research
SURF offers students and scientists in the Netherlands access to the best possible ICT facilities. More info at surf.nl and via helpdesk@surfsara.nl



Raymond Oonk
Sr. Advisor

* raymond.oonk@surfsara.nl

* tel: +31 (0)20 800 1300