



**GHENT
UNIVERSITY**

TIER1 INFO SESSION

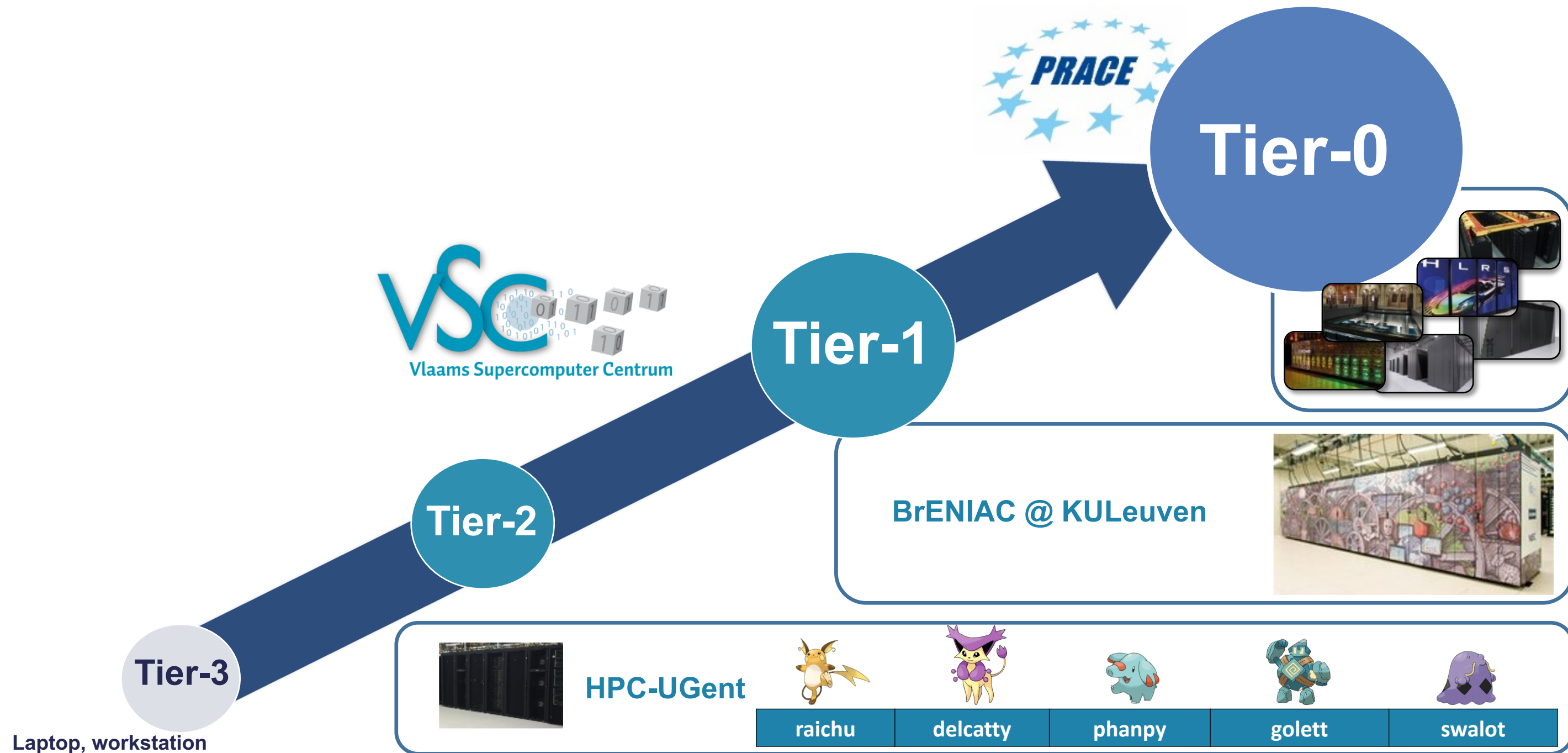
Dr. Ewald Pauwels

Scientific coordinator HPC @ Ghent University

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27/09/2019

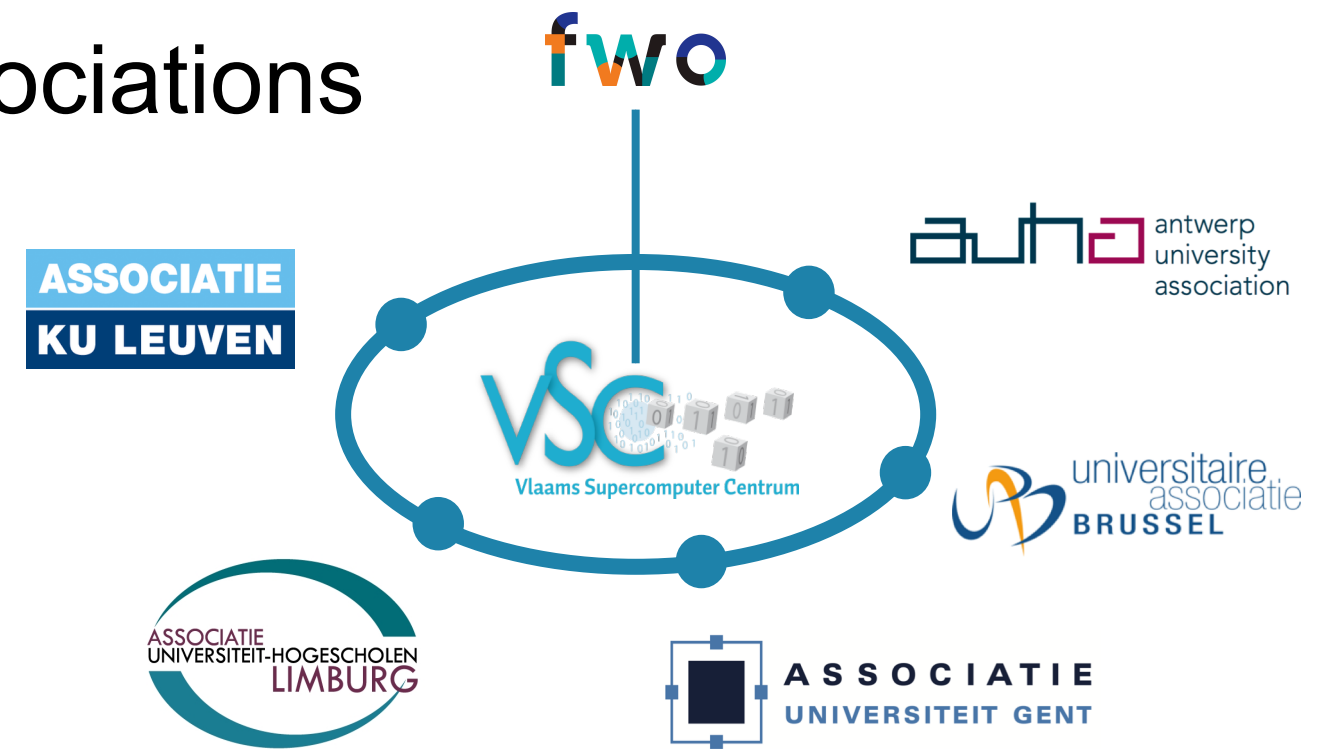
SUPERCOMPUTING INFRASTRUCTURE



ABOUT VSC

VSC – Flemish Supercomputer Center

- Partnership between Flemish university associations
- Infrastructure in four hubs
- Managed by FWO



Mission

The VSC encourages the use of scientific and technical computing in the Flemish academic and industrial landscape. To this end, it offers infrastructure, training and services. In addition, VSC acts as a lever to promote the importance of scientific and technical computing and its added value to society.

TIER1 SPECS – BRENIAC (KULEUVEN)

<https://www.vscentrum.be/tier1>

580 nodes

- 28 cores Intel Xeon E5-2680v4 (Broadwell)
→ 16.240 cores
- 128/256 GB RAM

408 nodes

- 28 cores Intel Gold 6132 (Skylake)
→ 11.424 cores
- 192 GB RAM

InfiniBand EDR interconnect
634 TB storage



TIER1 SPECS – BRENIAC (KULEUVEN)

- Single job walltime = 3 days
- Environment very comparable to Tier2 @ UGent
 - Creditsystem
 - For quick start guide, see:
https://vlaams-supercomputing-centrum-vscdocumentation.readthedocs-hosted.com/en/latest/jobs/credit_system_basics.html
- Software
 - Lots of packages already available
 - If installable on Tier2, probably doable on Tier1
 - BEWARE of licenses = your responsibility
 - Proof of validity
 - Valid in Leuven
 - Enough license seeds

TIER1 SPECS – BRENIAC (KULEUVEN)

BRENIAC (Leuven)

If you need help, e.g.

- Trouble with credit system
- Software installation requests
- Errors

Don't hesitate to contact ICTS@kuleuven.be

Always put hpc@ugent.be in cc

TIER1 ACCESS

- Starting grant
- Project access

- Industrial exploratory access

- Buy compute time

- Flemish university associations
- Research institutes under supervision of Flemish community
- Strategic research center (VIB, IMEC, ...)

TIER1 ACCESS – STARTING GRANT

Form can be downloaded from <https://www.vscentrum.be/tier1>

- Purpose = explore, do scaling tests of your software, prepare for project
- 500 node days (= $500 \times 28 \times 24 = 336.000$ core hours)
- Available for 4 months
- Personal grant
- Fast submission procedure, very short proposal
- Constantly reviewed
- Success rate = 100%

FREE OF CHARGE

TIER1 ACCESS – PROJECT ACCESS

Form can be downloaded from <https://www.vscentrum.be/tier1>

- 500 - 5000 node days (= 336.000 – 3.360.000 core hour or +5000 node days 'if justification is provided')
- Can be granted to multiple researchers
- Reviewed 3x per year by TAB
- Upcoming deadlines:
 - 7 October 2019
- Success depends on quality of your proposal

FREE OF CHARGE

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HPC-UGent

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www.ugent.be/hpc