



**GHENT  
UNIVERSITY**

# TIER1 INFO SESSION

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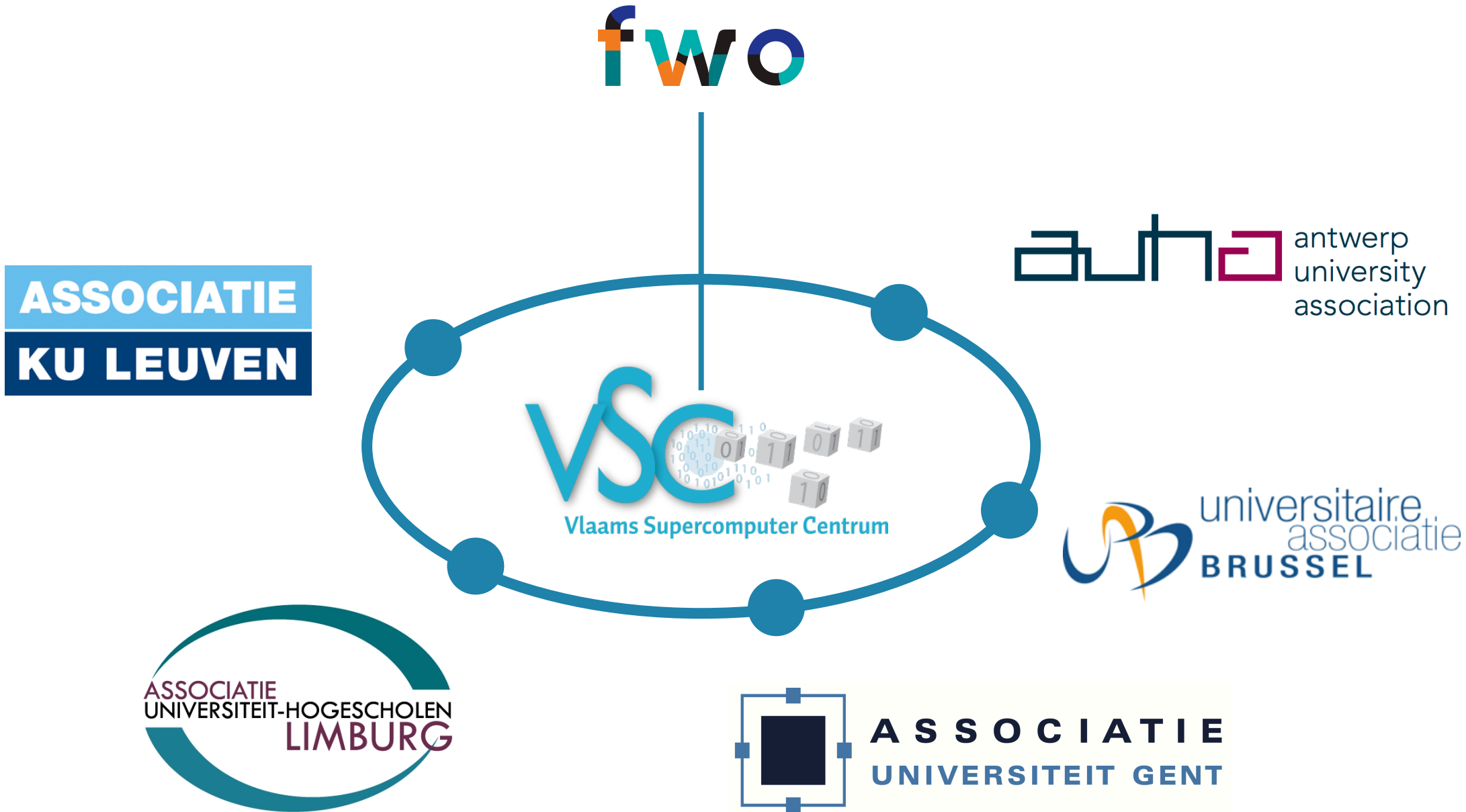
Dr. Ewald Pauwels

Scientific coordinator HPC @ Ghent University

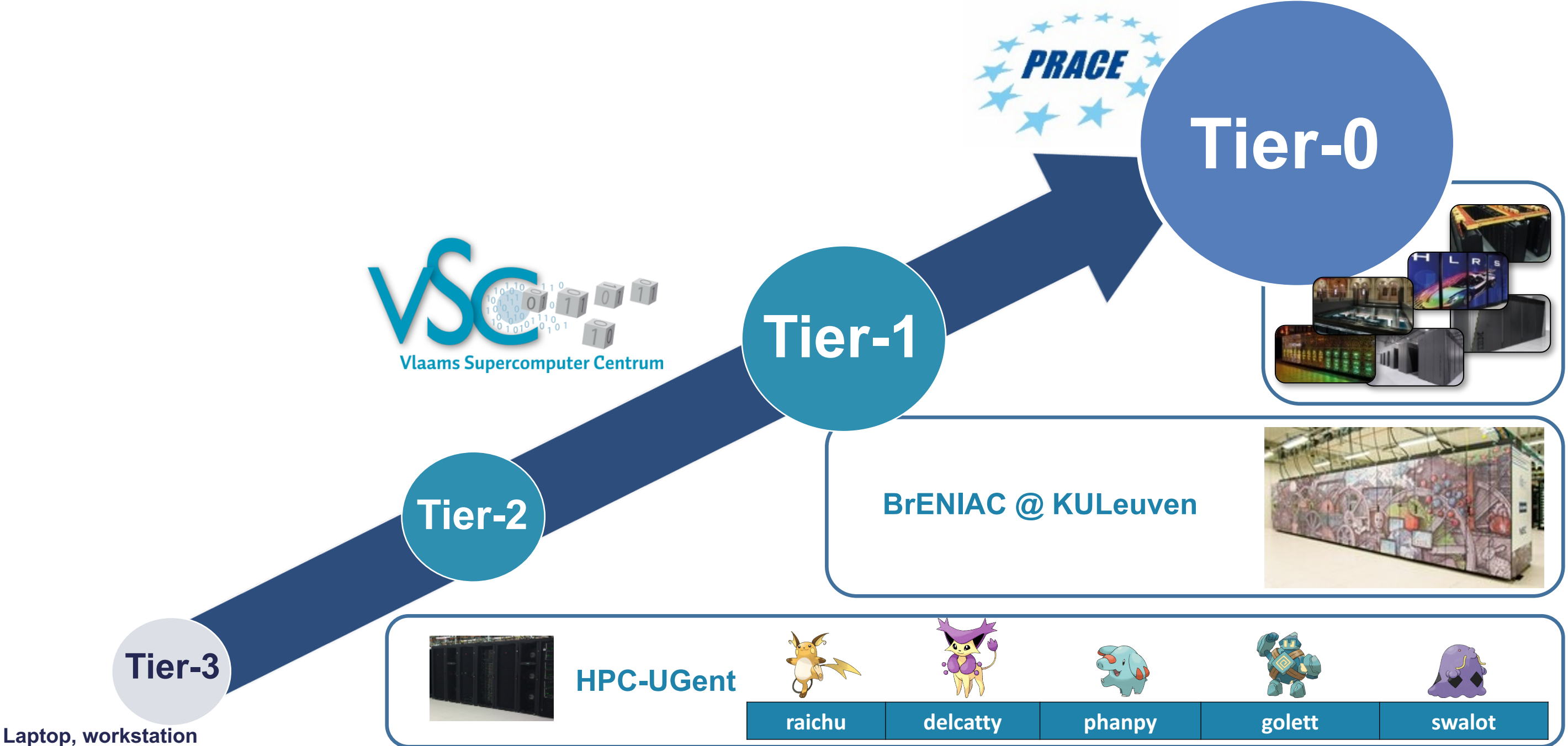
Vice-coordinator VSC

4/09/2017

# FLEMISH SUPERCOMPUTER CENTER (VSC)



# SUPERCOMPUTING INFRASTRUCTURE



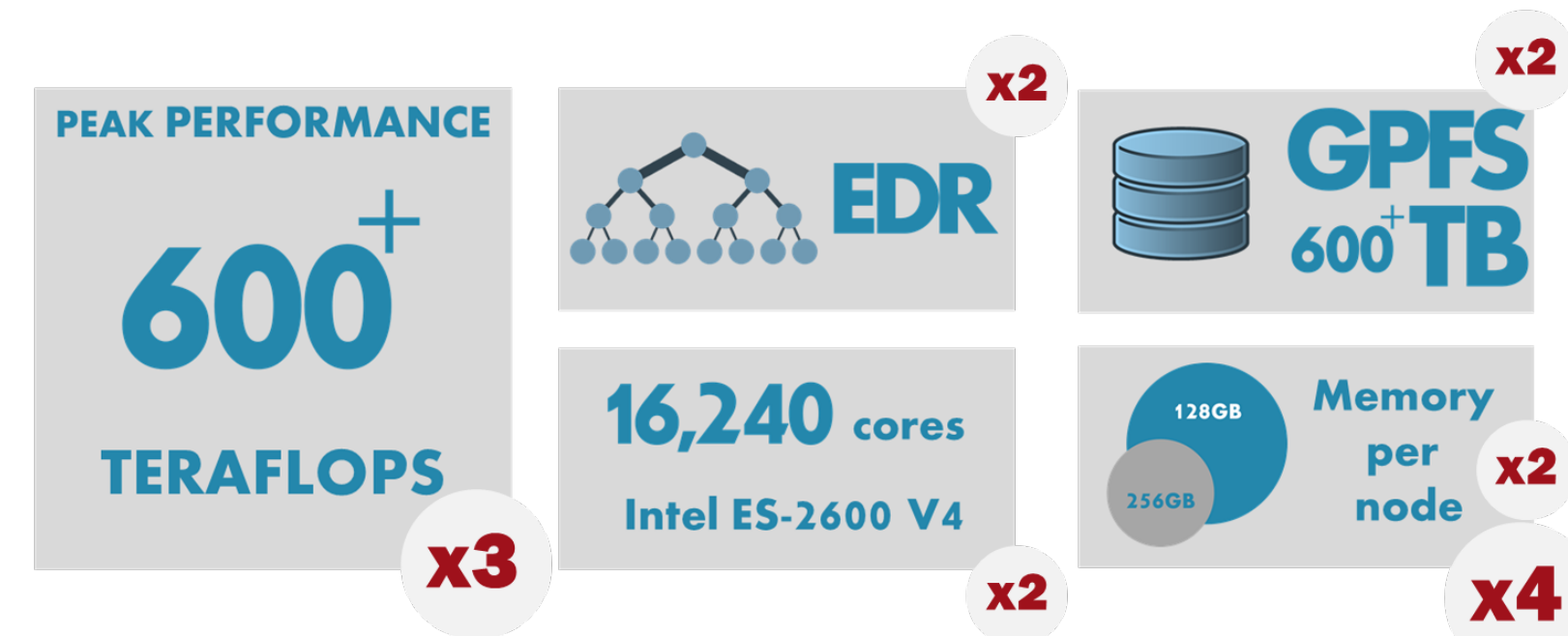
# TIER1 SPECS

## BRENIAC (Leuven)

- 580 nodes
- 2 Intel Xeon Broadwell → 16.240 cores
- 128/256 GB RAM
- InfiniBand EDR interconnect
- 634 TB storage



Compared with previous Tier1  
(muk, Gent, now decommissioned)



# TIER1 SPECS

## BRENIAC (Leuven)

- Single job walltime = 3 days
- Environment very comparable to Tier2 @ UGent
  - Creditsystem
- 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 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

<https://www.vscentrum.be/en/access-and-infrastructure/tier1-starting-grant>

- Purpose = explore, do scaling tests of your software, prepare for project
- 100 node days (=  $100 \times 28 \times 24 = 67.200$  core hours)
- Available for 2 months
- Personal grant
- Fast submission procedure, very short proposal
- Constantly reviewed
- Success rate = 100%
  
- FREE OF CHARGE



# TIER1 ACCESS – PROJECT ACCESS

<https://www.vscentrum.be/en/access-and-infrastructure/project-access-tier1>

- 500 - 5000 node days (= 336.000 – 3.360.000 core hours)
- Available for 6 months
- Can be granted to multiple researchers
- Reviewed 3x per year by Tier1 Evaluation Committee
  - Next deadline = 2 October 2017
- Success depends on quality of your proposal
  
- FREE OF CHARGE

# TIER1 ACCESS – INDUSTRIAL EXPLORATORY

<https://www.vscentrum.be/en/hpc-for-industry>

- Purpose = explore Tier1 platform for industry
- 100 node days (= 100 x 28 x 24 = 67.200 core hours)
- Contact [hpc@ugent.be](mailto:hpc@ugent.be) or [industry@fwo.be](mailto:industry@fwo.be)
  
- FREE OF CHARGE

# TIER1 ACCESS – BUYING COMPUTE TIME

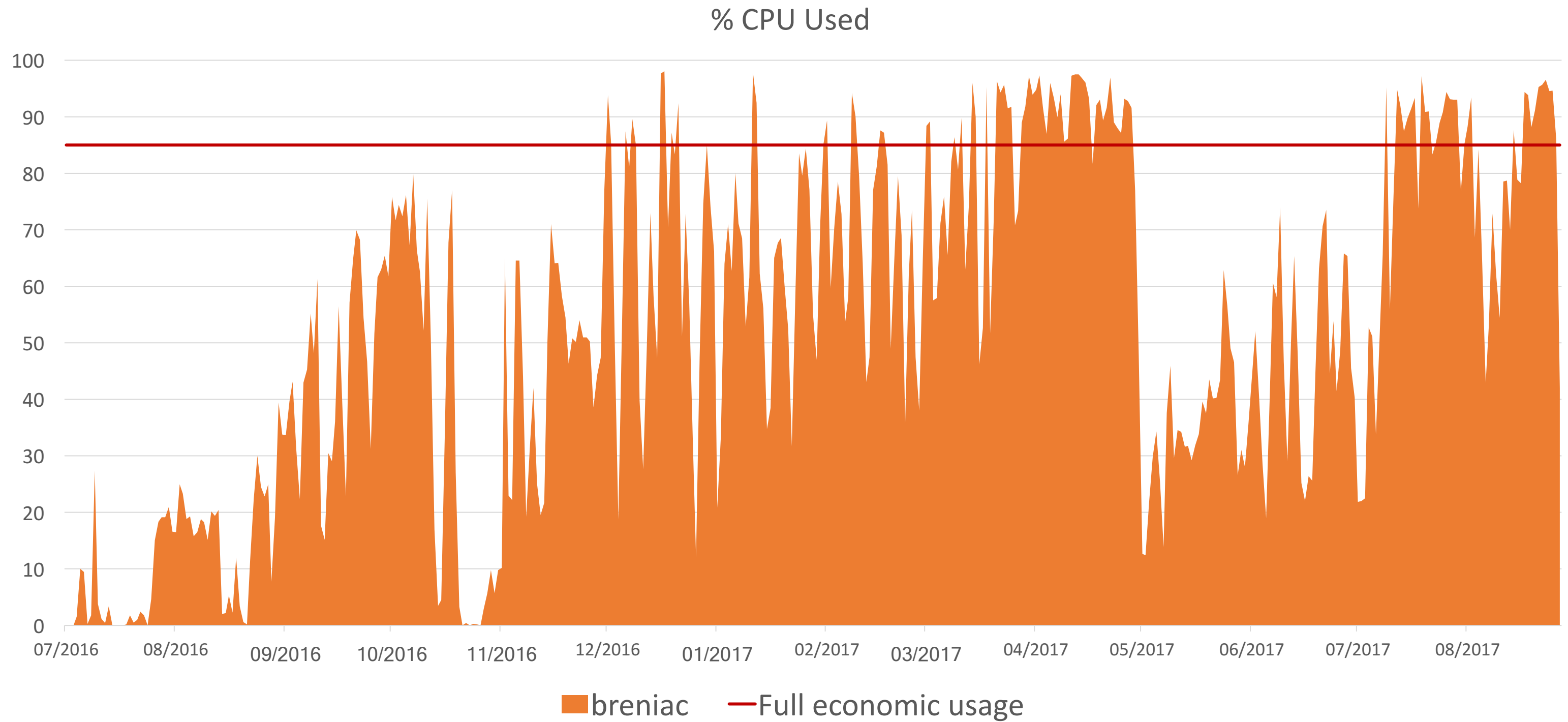
<https://www.vscentrum.be/en/access-and-infrastructure/access-industry>

- Mostly for industry
- Open for everyone in case you don't want to submit a proposal
- Contact [hpc@ugent.be](mailto:hpc@ugent.be) or [industry@fwo.be](mailto:industry@fwo.be)
- Pricing
  - Compute: 13 euro / node / day
  - Storage: 15 euro / TB / month

*(Starting grant = worth 1.300 euro)*

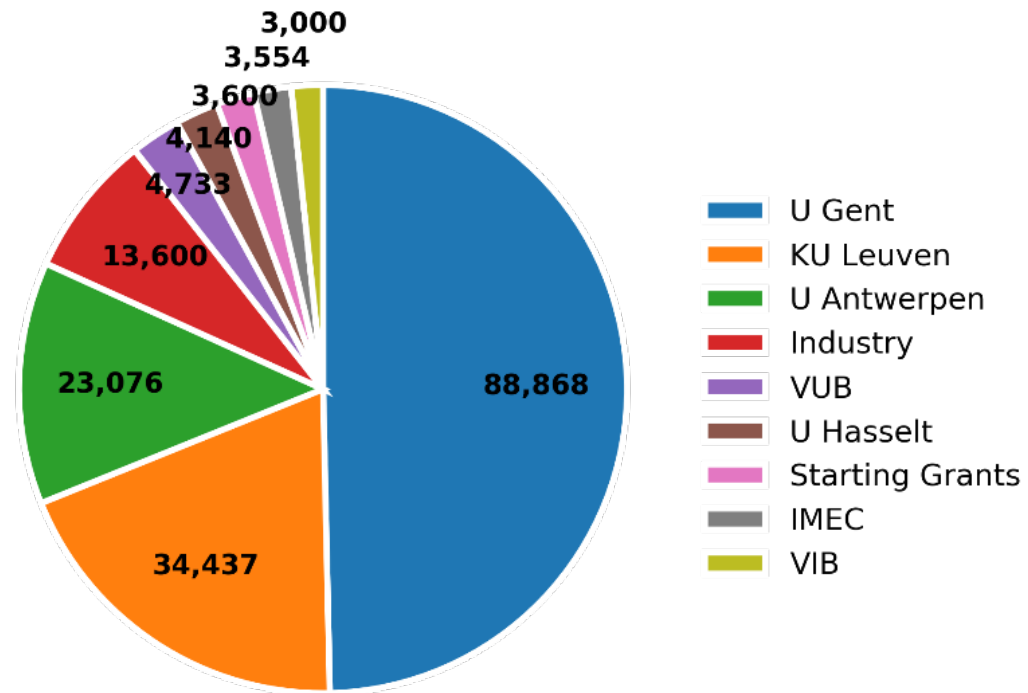
*(Granted project = worth 6.500 – 65.000 euro)*

# TIER1 USAGE

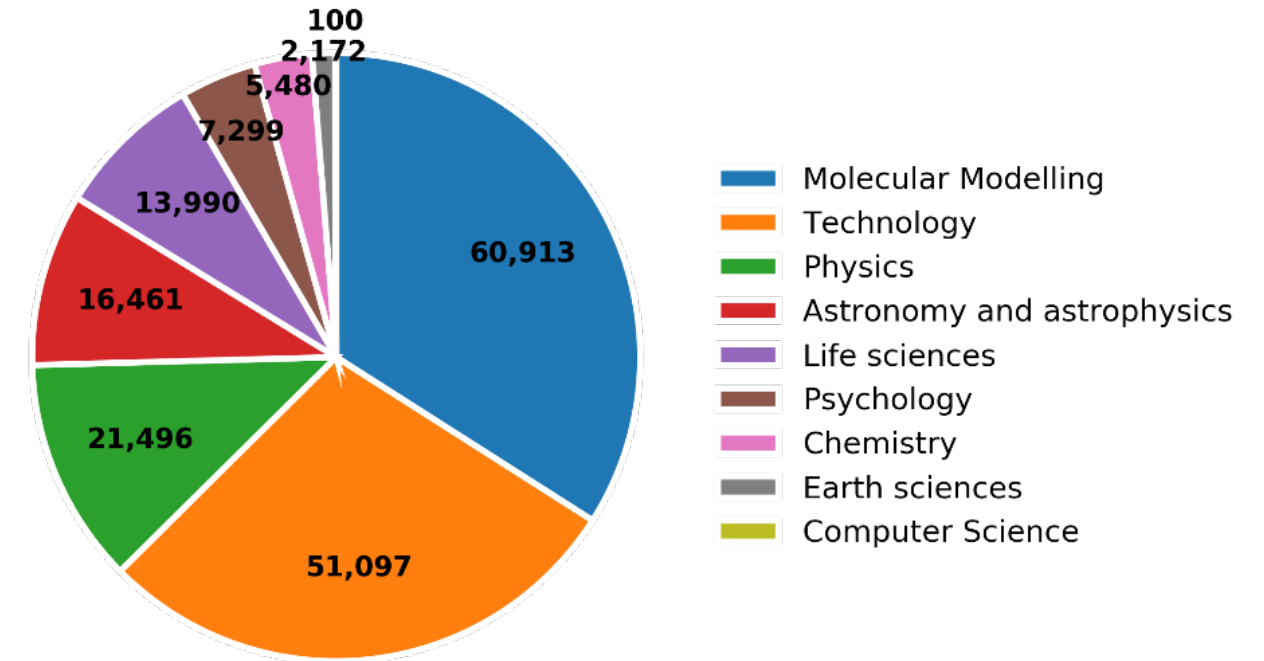


# TIER1 USAGE

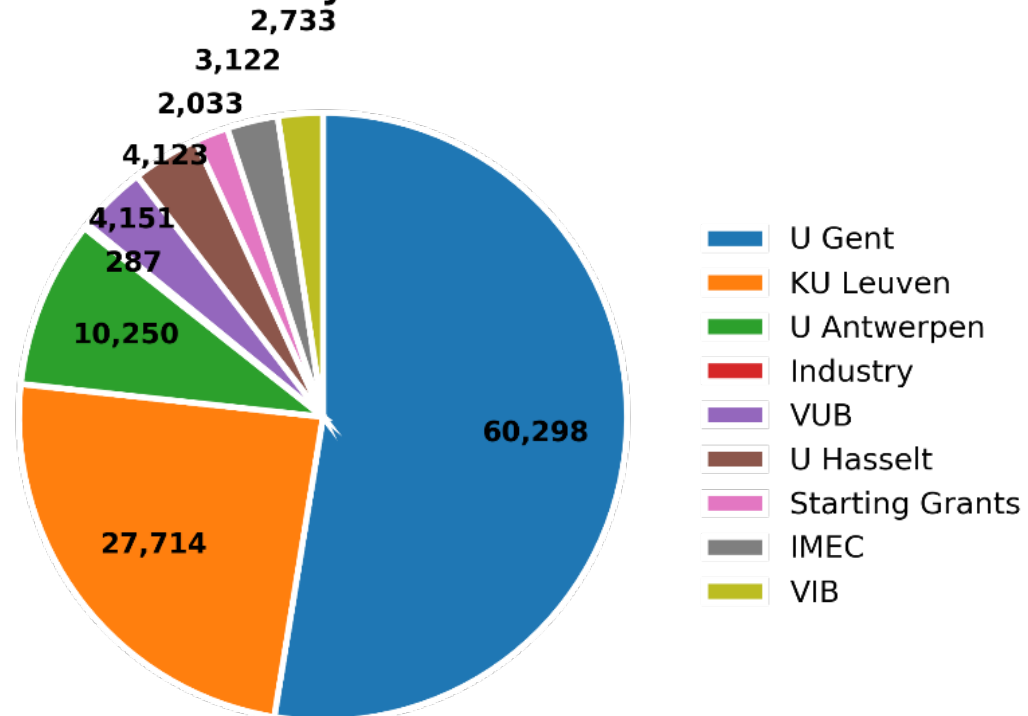
Allocated time by institution



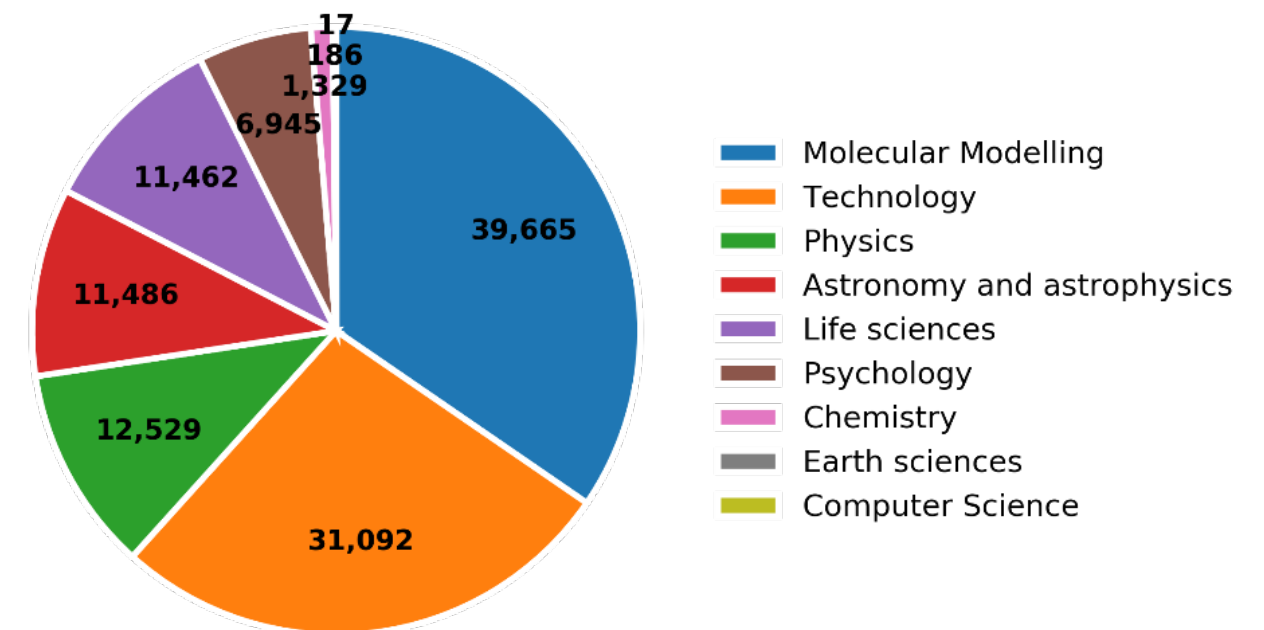
Allocated time by Science Field



Used time by institution



Used time by Science Field



# TIER1 PROJECT ACCESS

<https://www.vscentrum.be/en/access-and-infrastructure/project-access-tier1>

- Application form
- Guidelines for writing good application  
*(Feedback from Tier-1 Evaluation Committee)*
- Example application

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Vice-coordinator VSC

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