Cenaero

WORKSHOP Call PRACE Tier0

October 4th, 2018

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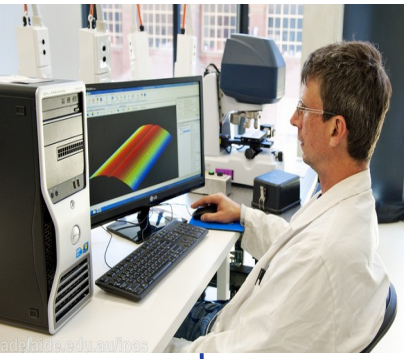
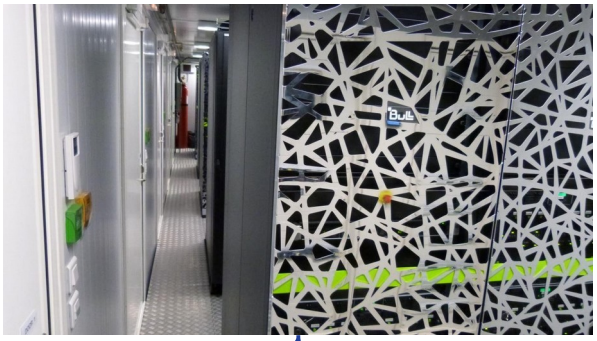
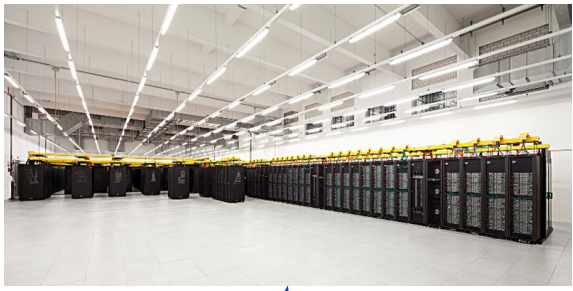
AGENDA

- **9h20 - Welcome**
  - Presentation of Tier0 supercomputers
  - Contents of the Workshop
- **9h30 - How to write a good proposal to PRACE call**
  - by John Clifford (Prace Peer Review Officer)
- **10h15 - Case studies / Lessons learned**
  - by Giovanni Lapenta (KU Leuven)
  - by Koen Hillewaerts (Cenaero)
  - by Philippe Chatelain (UCL)
- **11h00 – Q&As**

Hierarchy of Supercomputers







You	Tier 2	**Tier 1**	**Tier 0**
Tens of cores	Thousands of cores	Tens of thousands of cores	Hundreds of thousands to millions of cores
64 Gbytes ?	Some Tbytes	Tens to hundreds of Tbytes	Some Pbytes
1 TB	Hundreds of Tbytes	Some Pbytes	Tens to hundreds of Pbytes

- **What is PRACE ?**
  - **PRACE provides access to Europe's world class High Performance Computing Research Infrastructure, enabling scientists and researchers from academia and industry to carry out complex and excellent experiments and simulations that address society's grand challenges**

- **PRACE activities**
  - **Access to computational resources**
  - **Outreach activities**
    - reaching out to new and the next generation of computational scientists
  - **Training**
    - Training the next generation of computational scientists
  - **Operation of the european HPC infrastructure**
  - **Prototyping activities**
    - Optimizing codes
    - Helping users run on Tier systems

PRACE Provides access to 7 large (Tier-0) and smaller (Tier-1) systems

Joliot-Curie – 34 – 4 PFlops

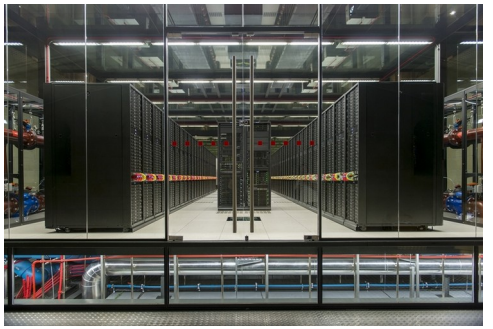
Hazel Hen – 27 – 5.6 PFlops

Juwels – 23 – 6.2 PFlops

Marconi – 18 – 8.4PFlops

SuperMUC – 58 – 2.8 PFlops

Piz Daint – 6 – 19.6 PFlops



MareNostrum – 22 – 6.5 PFlops

BELGIAN PRACE GRANTS

3rd	June 22, 2011	Universe Sciences	ULB
3rd	June 22, 2011	Engineering	ULB
4th	January 10, 2012	Engineering	UCL
4th	January 10, 2012	Universe Sciences	KU Leuven
5th	May 30, 2012	Mathematics and Computer Sciences	Cenaero
6th	November 14, 2012	Engineering	VKI for Fluid Dynamics
6th	November 14, 2012	Chemical Sciences and Materials	UCL
6th	November 14, 2012	Mathematics and Computer Sciences	KU Leuven
6th	November 14, 2012	Chemical Sciences and Materials	University of Mons
7th	March 26, 2013	Mathematics and Computer Sciences	Cenaero
8th	October 15, 2013	Universe Sciences	KU Leuven
8th	October 15, 2013	Chemical Sciences and Materials	UCL
9th	March 25, 2014	Chemical Sciences and Materials	Toyota Motor Europe
11th	March 18, 2015	Mathematics and Computer Sciences	IMEC & Universiteit Antwerpen
12th	November 12, 2015	Universe Sciences	KU Leuven
14th	November 21, 2016	Engineering	Cenaero
14th	November 21, 2016	Chemical Sciences and Materials	UCL
14th	November 21, 2016	Fundamental Constituents of Matter	KU Leuven
15th	May 30, 2017	Universe Sciences	KU Leuven
15th	May 30, 2017	Engineering	Cenaero & NUMECA
17th	May 2, 2018	Universe Sciences	KU Leuven