

PRACE 15th Call continues to award outstanding research in HPC

The 15th PRACE Call for Proposals yielded 76 eligible proposals of which 46 were awarded a total of close to 1.7 thousand million core hours. This brings the total number of projects awarded by PRACE to 570. Taking into account the two multi-year projects from the 13th Call that were renewed and the 8.6 million core hours reserved for Centres of Excellence, the total amount of computing time awarded by PRACE to date is nearly 16 thousand million core hours.

The 46 awarded projects are led by principal investigators from 12 different European countries. In addition, these projects involve co-investigators from the USA (7) and Russia (2).

This Call was the second providing resources under the PRACE 2 Programme (<http://www.prace-ri.eu/prace2-council-ratification/>), which was open to principal investigators from both Hosting Member and participating General Partner countries. In addition, resources remaining from the PRACE initial phase, also known as PRACE 1, were also allocated.

Among the newly awarded projects, six scientific domains are represented: 4 projects are linked to the fields of Biochemistry, Bioinformatics and Life Sciences; 18 to Chemical Sciences and Materials; 2 to Earth System Sciences; 8 to Engineering; 8 to Fundamental Constituents of Matter; and 6 to Universe Sciences.

The largest allocations were awarded on **Piz Daint hosted by CSCS, Switzerland** to proposals by Prof. Javier Jimenez of the Universidad Politécnica de Madrid (122.4 million core hours) and Dr. Thomas Kluge of the Helmholtz-Zentrum Dresden-Rossendorf (109 million core hours). The former is in the domain of Engineering and focuses on simulations of wall-bounded flows and the latter is in the domain of Fundamental Constituents of Matter and focuses on 3D particle-in-cell simulations to better understand the fundamental principles of plasma dynamics.

Two PRACE-awarded projects are linked to the EU FET Graphene Flagship programme. **Charge Transport in Perovskite Solar Cells (CATNIP)**, which will be led by Prof. Feliciano Giustino, received 20 million core hours on **MareNostrum hosted by BSC, Spain**. **Electronic and Optical Properties of High-Performance Monolayer and Multilayer Materials**, which will be led by Prof. Nicola Marzari, received 30 million core hours on **Marconi-KNL hosted by CINECA, Italy**.

A collaboration between industry and academia was awarded 68.5 million core hours on **MareNostrum hosted by BSC, Spain**. The project will be led by Cenaero (Belgium, public/private R&D center in aeronautics/combustion) and will involve NUMECA International (Belgium and USA, private company in computational fluid dynamics), and the University of Bergamo, Italy.

Overall, PRACE 15th Call awarded resources to 8 ERC (5 Advanced, 2 Starting and 1 Consolidator), 1 COST Action, and 2 Marie Skłodowska Curie funded projects, 8 H2020 and 1 FP7 funded projects,



2 EC FET Flagship projects, 2 projects with links to the MaX Centre of Excellence, 1 project with links to the NOMAD Centre of Excellence and 2 projects with links to EUROfusion.

All information and the abstracts of the projects awarded under the 15th PRACE Call for Proposals can be found here: <http://www.prace-ri.eu/prace-15th-project-call/>

The 15th Call for Proposals for PRACE Project Access (Tier-0) was open from 5 April until 30 May 2017. Selected proposals will receive allocations to PRACE resources from 2 October 2017 to 30 September 2018. The 16th Call for Proposals for PRACE Project Access (tier-0) will be open from 26 September 2017 to 21 November 2017, 10:00 CET, see here: <http://www.prace-ri.eu/prace-project-access/>

About PRACE

The Partnership for Advanced Computing in Europe (PRACE) is an international non-profit association with its seat in Brussels. The PRACE Research Infrastructure provides a persistent world-class high performance computing service for scientists and researchers from academia and industry in Europe. The computer systems and their operations accessible through PRACE are provided and funded by 5 PRACE members (BSC representing Spain, CINECA representing Italy, CSCS representing Switzerland, GCS representing Germany and GENCI representing France). The Implementation Phase of PRACE receives funding from the EU's Seventh Framework Programme (FP7/2007-2013) under grant agreement RI-312763 and from the EU's Horizon 2020 Research and Innovation Programme (2014-2020) under grant agreements 653838 and 730913. For more information, see www.prace-ri.eu

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