

Exploring the real and potential impact of HPC on Latin America and Europe

MISSION

The RISC2 European project aims to create a network for supporting the coordination of High-Performance Computing research between Europe and Latin America.

Another main goal is to establish a solid bridge between key players in these regions, namely researchers and innovators from all areas of society with access to knowledge and tools for developing and deploying HPC-based services.

Besides advocating for science, technology and innovation, the project will not only contribute to the implementation of the UN Sustainable Development Goals (SDGs) bult also address social, industrial, and environmental issues:

- climate change;
- cybernetics policies;
- energy security.



MAIN GOALS

- Assess the collaboration potential in the High-Performance Computing, Artificial Intelligence and Computational Science areas in both regions;
- Raise awareness of policy makers in the EU and in LATAM about HPC research cooperation and results and facilitate dialogue among policy makers, companies, civil society and the research community;
- Empower actors across a broad spectrum of academic, industrial and societal sectors with the necessary knowledge, facilitating training and access to HPC infrastructures and tools;
- Establish **strong relationships** with Latin American HPC networks to co-organise **awareness-raising events** about the EC's ICT R&I programmes;
- Provide advanced support services to a selected number of prominent Latin American HPC actors to build long-term relationships with key EU counterparts.



OUTCOMES

- White Paper on HPC RDI in LATAM presents overview of the HPC activity in Latin America. Includes recommendations for encouraging sustainability in HPC RDI and strengthening biregional collaboration.
- <u>HPC Observatory</u> as relevant source of information for EU and Latin America research communities
- Roadmap for HPC R&I between Europe and Latin America identifies key technologies and analyses the potential for bi-regional collaboration, including funding schemes, prograammes, and initiatives to make collaboration effective
- Joint Action Plans are tailored roadmaps for collaboration between the Eu and IATAM organisations on topics that show a substantial potential
- 4 major Awareness and Networking Events, 7 Training Events, and 8 Webinars



HPCwire prized as best HPC policy project at SC22







Awareness Raising Events

Workshop – HPC for Intl. Collaboration between Europe and Latin America

- IEEE Cluster 2022 Conference
- Heidelberg, Sep 6 2022



Workshop – HPC and Data Sciences meet Scientific Computing

- CARLA 2022 Conference
- Porto Alegre, Sep 26 2022









Awareness Raising Events (II)

RISC2 Policymakers Event -- Future of EU-LATAM collaboration on HPC

- Co-located with EU_CELAC Summit
- Brussels, Jul 18 2023

Final RISC2 Awareness and Networking Event

- CARLA 2023 Conference
- Cartagena de Indias, Sep 18 22 2023



Training Events

Costa Rica HPC School 2022 (CRHPCS)

- San José, Costa Rica, Aug 8-12 2022
- https://kabre.cenat.ac.cr/hpc2022/





2022 ACM summer school in HPC architectures for AI and dedicated applications

- Barcelona, Spain, Aug 29 Sep 2 2022
- https://europe.acm.org/2022-acm-europe-summer-school

First School for HPC sysadmins of Latin American and the Caribe

- Santiago de Chile, Chile, Oct 17 28 2022
- https://www.nlhpc.cl/eventos/escuela-hpc-admin-1/

Costa Rica HPC School 2023 (CRHPCS)

- San José, Costa Rica, Jan 30 Feb 3 2023
- https://kabre.cenat.ac.cr/hpc2023/







Training Events (II)

Buenos Aires HPC Scool

- Buenos Aires, Argentina, Mar 13-17 2023
- http://ecar2023.hpclatam.org/en/





SCCAMP - International Supercomputing Camp

- Cartagena de Indias, Colombia, Mar 13 17 2023
- https://sc-camp.org/2023/

2023 ACM summer school in HPC architectures for Al and dedicated applications

- Barcelona, Spain, Jul 2 7 2023
- https://europe.acm.org/hpc-summer-school







Webinars Series "HPC System and Tools"

Getting Scientific Software Installed: From EasyBuild to EESSI (Aug 24 2022) Kenneth Hoste, Ghent University

Cetting Scientific Software Installed: From EasyBuild to EESSI

24.01 (4 p.s. (975-1)

Winner Many

Many Many



<u>Interactive High-Performance Computing with JupyterLab</u> (Sep 21 2022) Jens Henrik Göbbert, Jülich Supercomputing Centre

<u>Application Benchmarking with JUBE: Lessons Learned</u> (Oct 19 2022) Marc-André Hermanns, RWTH Aachen

HPC system and job monitoring with LLview (Dec 7 2022) Vitor Silva and Filipe Guimarães, Jülich Supercomputer Centre





Developing complex workflows that include HPC, Artificial Intelligence and Data Analytics (Feb 22 2023)

Rosa M. Badia, Barcelona Supercomputing Center

A roadmap to quantum computing integration into HPC infrastructures (Mar 15 2023) Alba Cervera Lierta, Barcelona Supercomputing Center

<u>Improving energy-efficiency of High-Performance Computing clusters</u> (Apr 26 2023) Lubomir Riha and Ondřej Vysocký, IT4Innovations National Supercomputing Center

Addressing the challenges of scientific visualization in the Exascale age (May 31 2023)

João Barbosa, INESC TEC









CONSORTIUM

The RISC2 project includes 16 partners, from 12 different countries:









































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DISCLAIMER: The sole responsibility for the content lies with the authors. It does not necessarily reflect the opinion of the European Commission (EC). The EC are not responsible for any use that may be made of the information contained therein.



Thank you!

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