



# Unlocking European-level HPC Support




Co-funded by  
the European Union



**EuroHPC**  
Joint Undertaking

This project has received funding from the European High Performance Computing Joint Undertaking under grant agreement No. 101139786. Views and opinions expressed are, however, those of the author(s) only and do not necessarily reflect those of the European Union or EuroHPC Joint Undertaking. Neither the European Union nor the granting authority can be held responsible for them.



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  2. **Mission**
  3. **Main Goals**
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  5. **Support Services**
  6. **Access the Resources**
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# Context

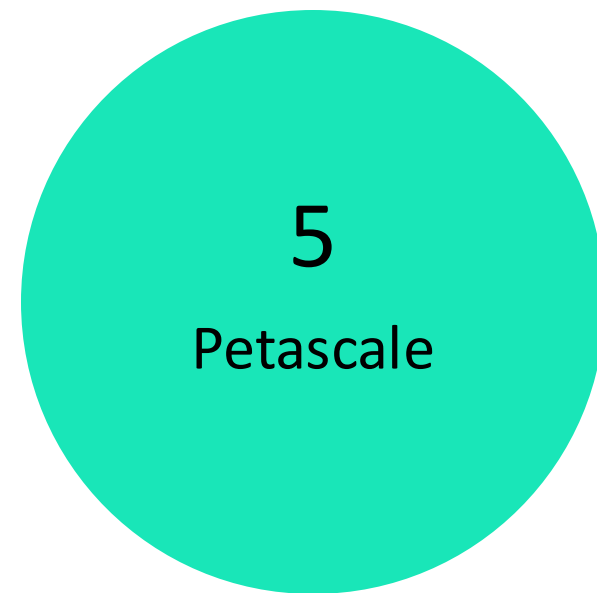
**HPC** has enabled technologies with a positive impact on society

- More **precise** climate and weather modelling
- Reduced healthcare **research costs** through simulation
- **Planning** and **yield prediction** of renewable energy resources
- Train **larger** and more **complex** Artificial Intelligence models
- ...

**Installation of supercomputers in multiple countries reflects a commitment to HPC's technological potential**

- **EuroHPC JU** has been instrumental in elevating European supercomputing

# Context



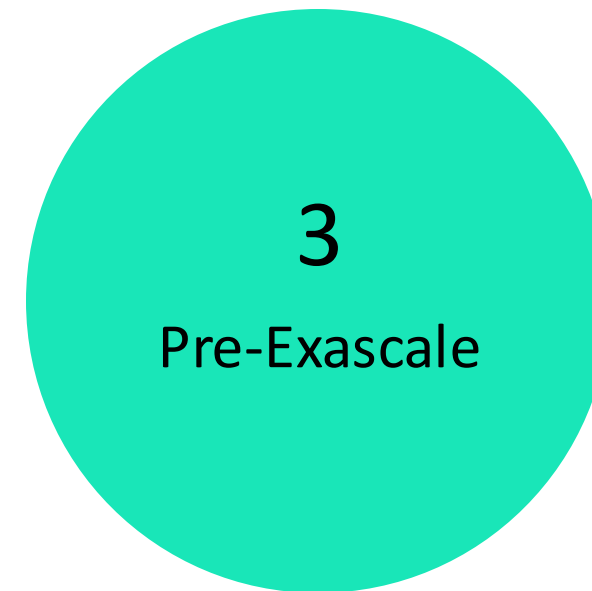
KAROLINA

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DISCOVERER

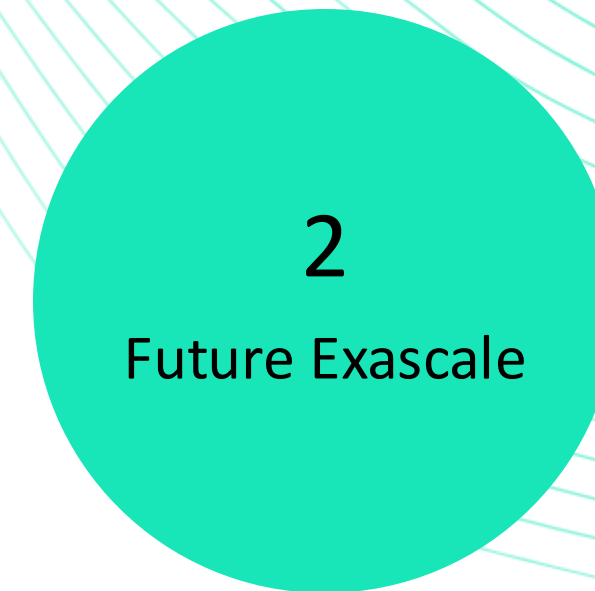
DEUCALION



LEONARDO


LUMI

MARE NOSTRUM 5



JUPITER

ALICE RECOQUE

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# Mission

EPICURE draws on the **experience** and **knowledge** of the current and future EuroHPC supercomputer hosting organisations to provide better user support

- Adequate code installation and porting to different architectures (**Level 2**)
- Intra- and inter-node optimisation, focusing on accelerators and scalability (**Level 3**)

Knowledge exchange through the organisation of hardware-specific **training**, **hackathons**, **webinars**, and **workshops** in several EU countries


- Promotes **sharing of expertise** among hosting organisations
- Provides users with a wide knowledge pool

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# Main Goals

- **To establish** a four-year operation of a distributed European-wide high-performance computing application support service bringing together Application Support Teams (ASTs);
- **To reach** a large pool of EuroHPC users;
- **To develop** a European HPC Application Support portal;
- **To contribute** to the development and improvement of the European HPC Application Support Service;
- **To collaborate** with the Centers of Excellence to develop an HPC-skilled workforce.




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# Expected Outcomes

- **Publish** best practice guidelines on how to code applications that use EuroHPC supercomputers adequately;
- **Create** a knowledge pool publicly available with the resources of training and webinar activities;
- **Provide** the community with optimised codes of various scientific domains;
- **Foster** an educated HPC user community;
- **Provide** a wide range of support services across all EuroHPC JU centers.



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# Support Services

## Meet our Support Services



### Code enablement and scaling

Support for enabling and increase the scalability of user codes to EuroHPC supercomputers



### Performance Analysis

Performance analysis for HPC codes



### Benchmarking

Our service focuses on developing a benchmarking suite to evaluate the performance of EuroHPC machines.



### Code refactoring


This service involves restructuring or rewriting parts of an application code to improve its maintainability but without changing its function.



### Code optimization

Our service aims at improving the efficiency and performance of the software such that it consumes fewer resources



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# Access the Resources

**Need to optimise your code on EuroHPC supercomputers?**

## Who's eligible?

Having a EuroHPC JU allocation project is **required!**

Don't have one yet? **We can help** you apply!



## Ready to optimise?


**Request support:** You can request EPICURE support.



Do you **need a EuroHPC allocation?** Check the EuroHPC Access Calls!





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# Consortium







**EPICURE**  
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# Thank you!



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**Follow us**



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