



*f*A EuroHPC

FF₄EuroHPC

Enabling SMEs to benefit from HPC

OPEN CALL-2

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The FF4EuroHPC project

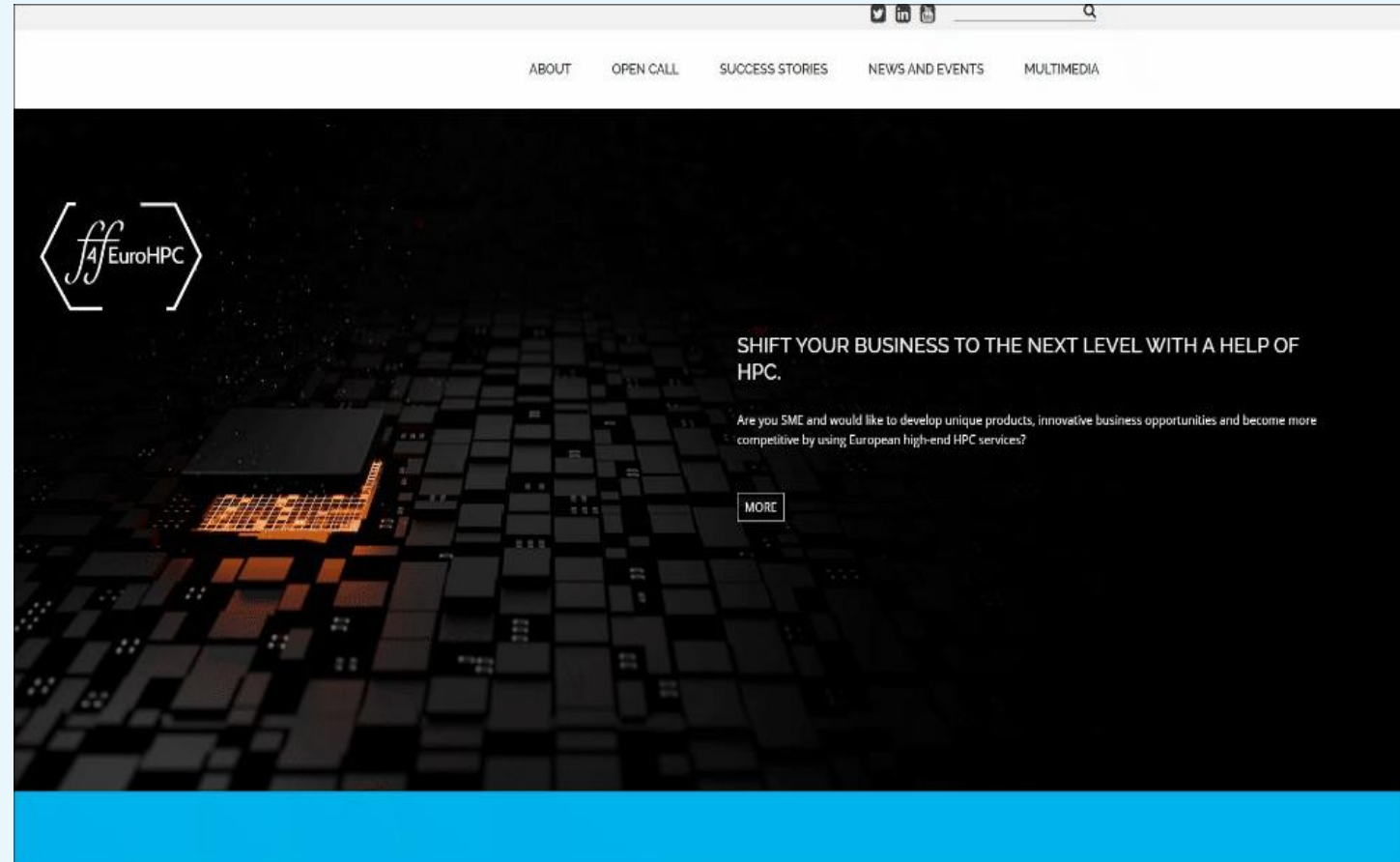
FF4HPC: HPC Innovation for European SMEs

- Funded under the H2020-JTI-EuroHPC-2019-2 Call
- Commenced 1.9.2020; 36 months duration

→ Coordinator



→ Other Partners



www.ff4eurohpc.eu

Stimulating the innovation potential of SMEs

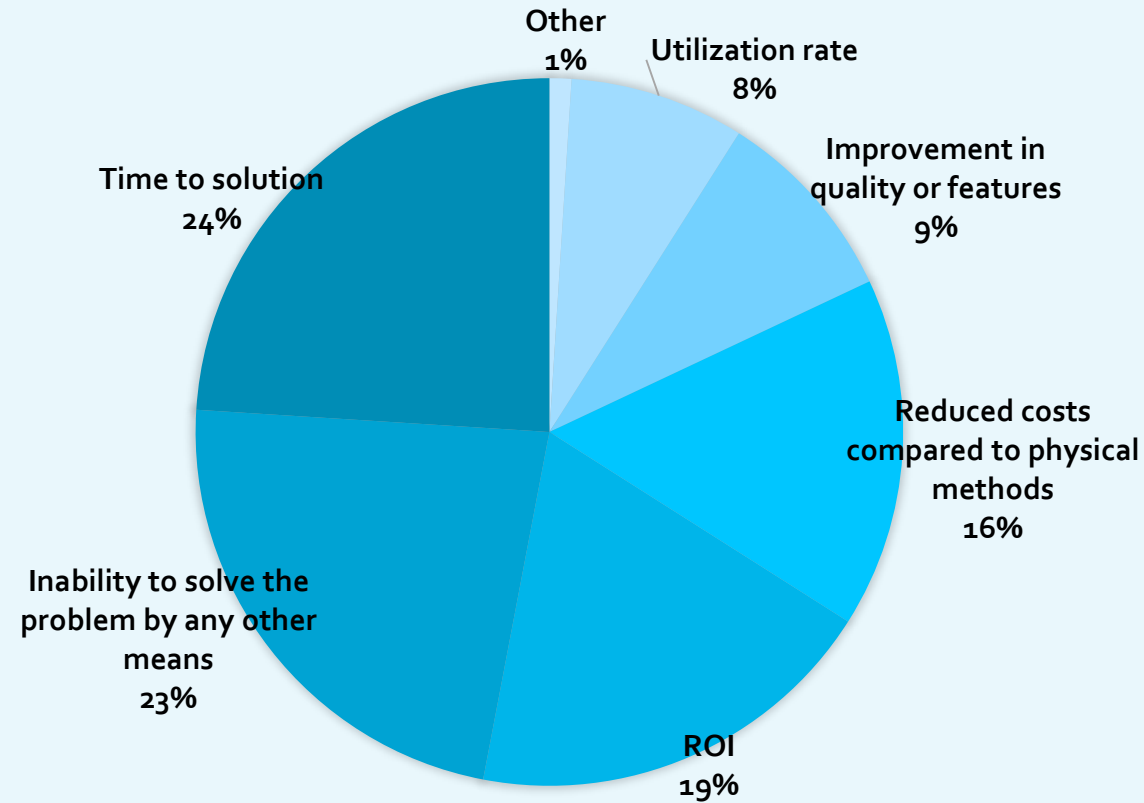
The FF4EuroHPC project aims to

- Increase the **innovation potential of industry**, and in particular of SMEs, using advanced High Performance Computing (HPC) infrastructures, applications and services.
- Provide **access to HPC-based infrastructures and services** to a wide range of users for new and emerging data and compute-intensive applications and services.
- **Foster wider innovations**, for example by exchanging and promoting best practice use cases or application experiences.
- Provide an effective mechanism for **inclusion of innovative, agile SMEs lowering the barriers** for small actors to enter the market and exploit new business opportunities.

Why use HPC in business?

BENEFITS OF HPC

(SOURCE: COUNCIL OF COMPETITIVENESS)



Shift your business to the next level with the help of HPC – OPEN CALL-1



→ Call for proposals targets **highest quality experiments** involving **innovative, agile SMEs**.

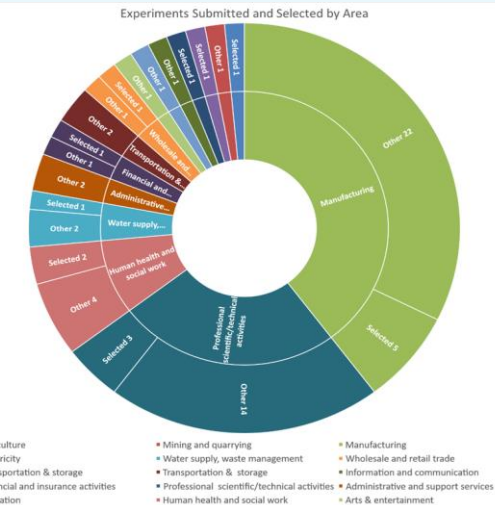
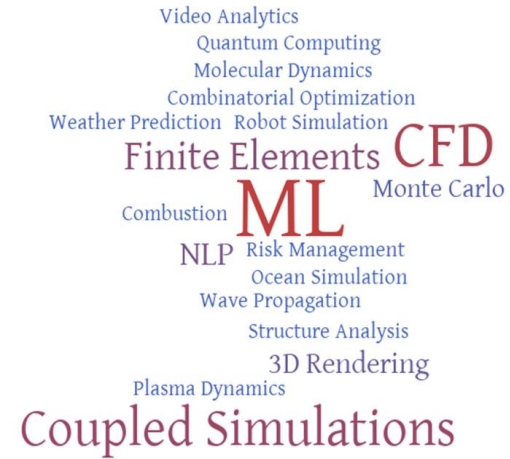
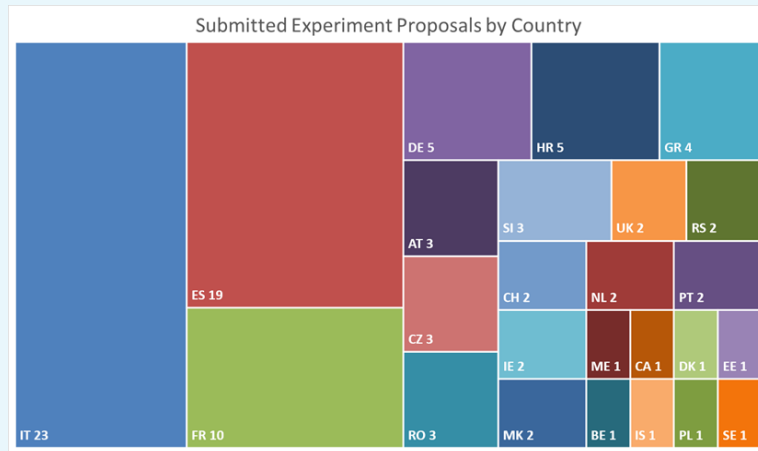
and with work plans built around innovation targets arising from **the use of advanced HPC services**.

→ The FF4EuroHPC mission is to **support EuroHPC** to promote **industrial uptake of HPC technology** and increase **the innovation potential**.

Response to FF4EuroHPC Call-1

→ 68 proposals were received involving 202 organisations and participants from 25 European countries

→ Wide range of application areas



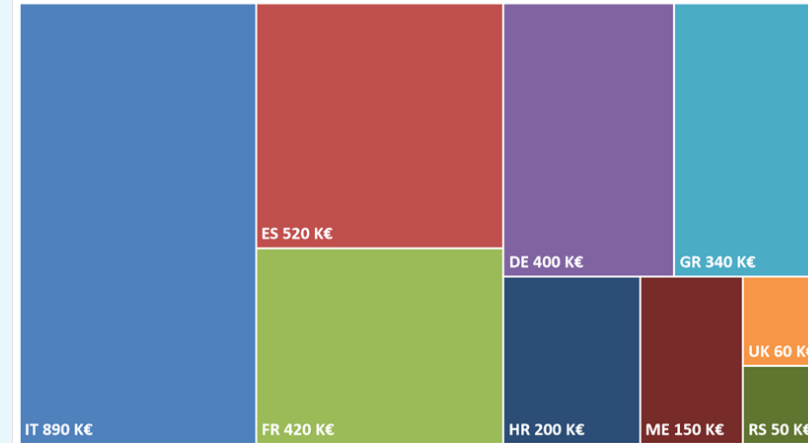
Experiments Selected in FF4EuroHPC Call-1

→ 16 proposals selected for funding, with a funding budget just in excess of € 3M

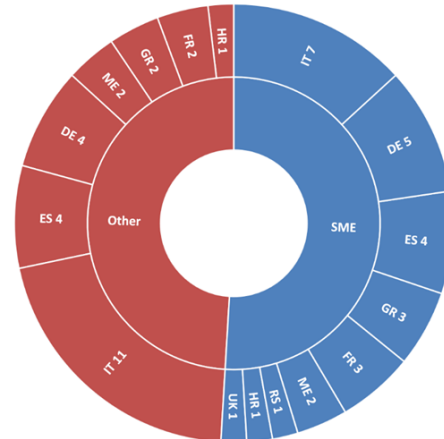
→ Involving 53 organisations, 27 of which being SMEs

→ Strong SME participation and range of themes addressed

Funding for Selected Experiments per Country



SME and non-SME Partners by Country



Weather Prediction
NLP
Risk Management
ML
CFD
Coupled Simulations
3D Rendering
Video Analytics
Molecular Dynamics
Ocean Simulation
Monte Carlo

Are There Differences Between Call-1 and Call-2?

YES.

The key changes affect the selection process and have been introduced to:

- (i) give a higher priority to experiments addressing the business benefits of manufacturing SMEs;
- (ii) achieve a broad geographical distribution of participants.

OPEN CALL-2 objectives

- Experiments should address business challenges from **European SMEs from varied application domains**
 - The highest priority is given to proposals directly addressing the business challenges of manufacturing SMEs
 - Preference being given to engineering and manufacturing, or sectors able to demonstrate fast economic growth or particular economic impact for Europe.
 - Research-focused business models are not within the scope of the Call

- Priority will be given to consortia centred on **SMEs that are new to the use of advanced HPC services**

Expectations for experiments

→ **Involve all necessary parties** required for the effective and efficient execution of the investigation and impact demonstration to address SME business challenges through the use of HPC

→ **Define the resources they need and budget for them**

FF4EuroHPC will not be in a position to provide computing resources.

→ **Define the data protection and data/information access issues** that impact its proposed work plan and ensure that the operation of the experiment adheres to those requirements.

→ **Generate publishable success stories** based on solution of the SME's real-world problems that clearly identify the business benefits realised or obtained.

→ **Align, where appropriate, with regional priorities**, such as industrial specialisation areas.

→ **Be complementary to those already included in the past Fortissimo and Fortissimo 2 projects.**



Key Call Details

- Submission Deadline: **29th September 2021, 17:00**
Brussels local time
- Funding for Call-2: The indicative total funding budget is **EUR 5 Mio.**
- Expected duration of experiments: **maximum 15 months** with expected commencement **1st March 2022**
- Maximum funding request per proposal:
EUR 200,000 (covering all participants)
- Proposal submission: in **electronic form**
- Language: **English**
- Submission site:
<https://www.ff4eurohpc.eu/calls/submission>



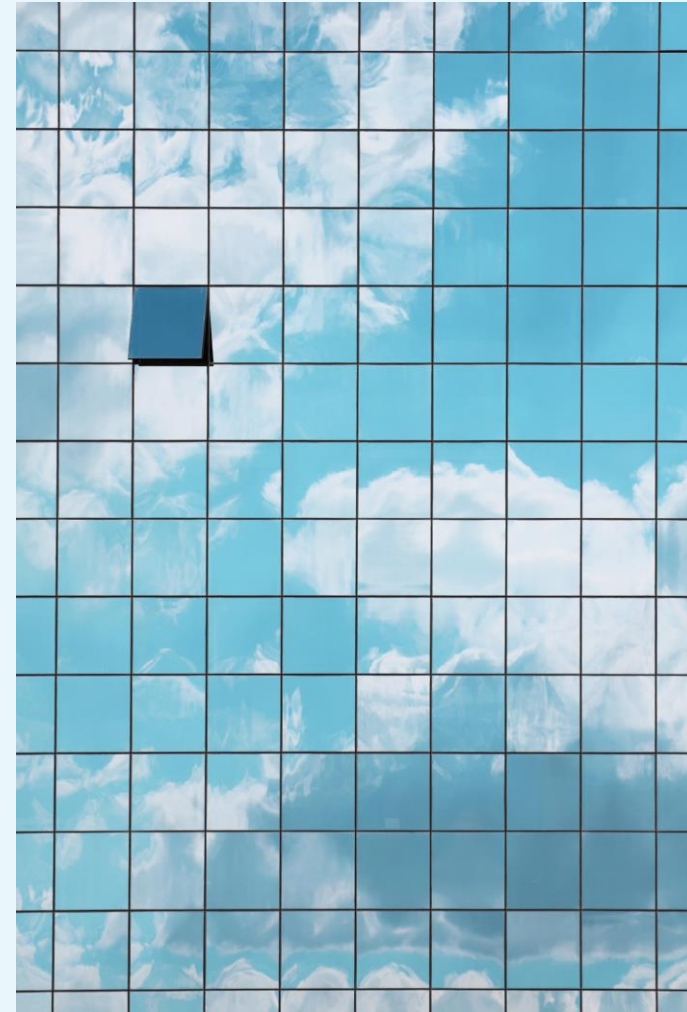
Evaluation criteria

The criteria for evaluation will comprise:

1. Impact including industrial relevance and exploitation plans;
2. Soundness of concept, innovation and quality of the work plan;
3. Quality of the consortium as a whole and of the individual proposers;
4. Effective and justified deployment of resources

For Criteria 1 to 4, each criterion will carry a score ranging from 0 to 5. Criterion 1 will have a weight of 2x, Criteria 2 to 4 a weight of 1x (leading to a maximum score of 25 points). A threshold score of 3 will apply to the first three criteria.

Experiments involving **manufacturing SMEs**, the maximum score on Criterion 1 that will be assigned to a proposal not directly addressing the business challenges of manufacturing SMEs will be 4.0 points.



Key Call Details

Proposals must comprise 2 parts:

→ **Part A (administrative information)**

Cover page and a set of tables to provide administrative data – no additional info to be included!

→ **Part B (body of the proposal)**

Cover page + max. 10 pages

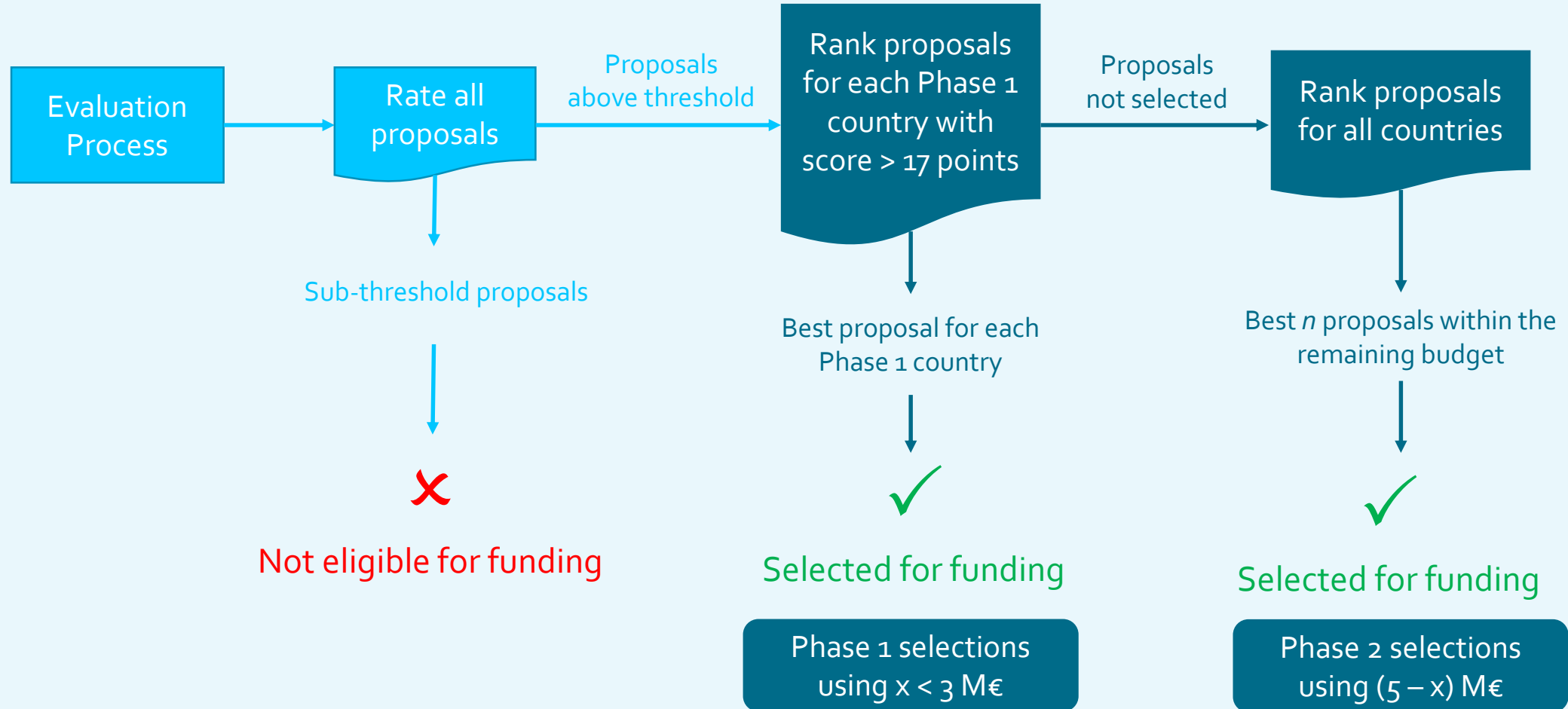
Proposals not adhering to the page limit & content guidelines will be rejected!



Selection of Experiments for Funding

- **Two-phase process** - specific intent to increase the geographic distribution of FF4EuroHPC experiments
- **FF4EuroHPC Call-1 selected proposals involving organisations from the following 9 countries:** Croatia, France, Germany, Greece, Italy, Montenegro, Serbia, Spain, and the United Kingdom.
- **Phase 1:**
 - A selection of experiments with a cumulative funding of **up to € 3 M**
 - Selection from will be made from those proposals **with a score exceeding 17 points** and taking, for each country **not in the aforementioned list**, the highest ranked proposal involving an organisation from that country (if any).
- Phase 2 will use the ranking of all remaining proposals irrespective of country affiliations to select the remaining experiments **for funding with the budget not used in the first phase**

Selection of Experiments for Funding



Funding of Experiments

- FF4EuroHPC will make use of the [Financial Support for Third Parties](#) method to enable the inclusion of new experiment partners.
 - Funding of Third Parties to follow the same principles as used for FF4EuroHPC beneficiaries, which receives European Commission funding within the R&D&I programme of the EuroHPC Joint Undertaking. In particular, Third Parties will receive 100% funding of eligible costs arising.
- The funding for an individual experiment [may not exceed 200 K€](#) (covering all participants).
- The maximum funding that can be allocated to any Third Party, across all FF4EuroHPC experiments in which that Third Party is involved, [is 150 K€](#).
- The participation of certain FF4EuroHPC beneficiaries in experiments is eligible, but the costs for their activities in experiments are not included within the requested funding for experiments.
- [Note: Proposals to FF4EuroHPC Call-2 that do not adhere to the abovementioned funding restrictions will be rejected without further evaluation](#)

Have more questions?

Find the answers in FAQ →

<https://www.ff4eurohpc.eu/calls/faq/>



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Get inspired by success stories

2 Fortissimo projects → 92 SMEs → more than 90 experiments → 79 success stories

All success stories could be found on the project website: www.ff4eurohpc.eu/en/success-stories/

• SUCCESS STORY EXAMPLE 1

Zyba: Cloud-based optimisation of a multi-body wave energy device



- The Challenge
- The Solution
- Benefits
- Reduced simulation set up time **from 2 hours to less than 1 minute.**
- Mitigated use of physical modelling, providing a **ninefold reduction in cost.**
- Reduced HPC costs from **0,09€/core-hour to 0,05€/core-hour** as all software used was open source.
- Ability to concurrently run simulations improved productivity **by a factor of 7**



Thank you



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