Discoverer Call for Proposals for Regular Access Mode

Type of Access: Regular Access

Opening Date: 21/01/2022

1ˢᵗ Cut-off Date: 28/02/2022 @ 24:00 Bulgarian Time (EET)

Peer review: March

The Call for Proposals for Discoverer Regular Access Mode is continuously open, with a maximum time-to-resources-access (start-date) of two months after the date of cut-off. The next indicative cut-off dates for proposals are:

- 15 April 2022 –   24:00 AM EET
- 15 July 2022 –   24:00 AM EET
- 15 October 2022 –   24:00 AM EET

The allocations are granted for one (1) year with the option for projects to apply for a continuation. This continuation should be duly justified, limited to a maximum of one (1) additional year, and will depend on an assessment of the ongoing awarded project. Applicants (Principal Investigators) can only have one Regular Access project awarded at any given time.

The Regular access mode is designed to serve **research domains**, **industry open R&D (nonprofit & open access to the results)** and **public sector applications** that require large-scale resources or that require frequent access to substantial computing resources.

Full Call Details:

The application submission form is available on the Discoverer web page portal.

Communication of allocation decision: March 2022
Allocation period for awarded proposals: 15/03/2022 – 14/03/2023
Submission of Final Reports: Within three months after the completion of the project;

Type of Access (*): Single-year Regular Access

(*) **All proposals consist of completed** application form, which must be filled in offline and submitted as attachment via e-mail or directly online and submitted electronically. Proposals that do not follow the template or that are incomplete will be administratively rejected and will not be further evaluated. The peer review team is available to answer questions by email (peer-review@discoverer.sofiatech.bg). **All mandatory fields of the online application form must be completed before it can be submitted. Please note that only officially submitted proposals will be put forward for peer review.**

Researchers from academia, research institutes, public authorities and industry established or located in Bulgaria or any other EU Member State or in a country associated to Horizon 2020 or Horizon Europe are eligible to apply (for further details see "Eligibility criteria" Section).

This Regular access is open to all fields of science, will call for applications with a case to enable progress of science in the domains covered. These applications are expected to be able to justify the need for large allocations in terms of compute time and support resources because they are significantly contributing to the progress in their domain.

The **Discoverer Resource Allocation Committee (RAP)**, composed of leading scientists and engineers, ranks the proposals received and provides a recommendation to award Discoverer resources based on scientific and technical excellence.

Call related documents
The following documents form the reference for this call:

- The Discoverer Access Policy can be found here.
- The Technical Information on Discoverer Supercomputer can be found here.
- The word template for the regular call application form can be found here

System	Architecture	Site (Country)	Total Core Hours available for Regular Call	Minimum request core hours
Discoverer Main CPU Partition	BullSequana XH2000	Sofiatech, (BG)	154 million	6 million or 6 nodes (CPU: 2x AMD EPYC 7H12 (64cores, 2.6GHz) / RAM: 256GB)

Eligibility criteria

Scientists and researchers from academia, industry and the public sector can apply for access to Discoverer PetaSC resources provided that they satisfy the specific criteria listed in the sections below.
Only proposals with a civilian purpose will be eligible to participate in Discoverer PetaSC calls for proposals. Only proposals written in English will be eligible. Double-awarding is not allowed; proposals already granted resources as part of other Regular Access calls, which are currently running, will be rejected.

Eligibility criteria for academia and public research organisations
Users from academia and public research organisations, are eligible to apply as long as:
- the academic or public research organisation is established or located in Bulgaria or other EU Member State or in a country associated with Horizon Europe; and
- the Principal Investigator has an employment contract in the organisation at the time of proposal submission and valid for at least 3 months after the end of the allocation period.

Eligibility criteria for commercial companies and public sector organisations
Commercial companies and public sector organisations may apply on their own or in collaboration with academia/public research organisations (as principal investigators or collaborators). In case the submitted proposal is application or public sector oriented, the Principal Investigator must be from a commercial company or public administration

organisation respectively (collaborators from academia are allowed and strongly encouraged to participate in such type of proposal). Commercial companies and the public organisations are eligible to apply if:
- the company or the public organisation is established or located in Bulgaria or other EU Member State or in a country associated with Horizon Europe;
- the employment contract of the Principal Investigator is in force when the proposal is submitted and valid for at least 3 months after the end of the allocation period; and
- access is devoted solely for **open** and **nonprofit** R&D purposes.

In general, for what concerns access to commercial companies and Small and Medium Enterprises (SMEs), the relevant Horizon Europe rules of participation shall be applied.

Terms of access

The Principal Investigator (PI) shall lead the project and is expected to be an essential participant in its implementation. The PI will have the overall responsibility for the management of the project and interactions with Discoverer PetaSC. The applicants should make sure that the contact details for the PI are consistent in the different forms to be completed and that all e-mail addresses used are professional e-mail addresses.

The usage of Discoverer resources needs to be acknowledged for all data produced through Discoverer PetaSC allocations, both in publications and when depositing the data to other infrastructures.

The PI **commits** to:
a) Provide to Discoverer PetaSC a final report within **3 months** of the completion of an allocation, using the proper Discoverer PetaSC template, with the results obtained through the access to the Discoverer PetaSC systems, as well as qualitative feedback on the use of the resources.
b) Acknowledge the role of the Discoverer PetaSC and EuroHPC JU in all publications which include the results above mentioned. Users shall use the following wording in such acknowledgement in all such papers and other publications:
   "We acknowledge Discoverer PetaSC and EuroHPC JU for awarding this project access to Discoverer supercomputer resources"
c) Respecting the words in quote above is particularly important since Discoverer PetaSC will use this word pattern when searching for bibliographic references in scientific articles. In case additional resources have been used, the acknowledgement should include a clear breakdown of which part of the work was performed using Discoverer PetaSC and EuroHPC JU resources.
d) Allow Discoverer PetaSC to publish the report mentioned in section (a) above after one year from the termination of the allocation period.
e) Contribute to Discoverer PetaSC and EuroHPC JU dissemination activities and other Discoverer PetaSC and EuroHPC JU events. Selected awardees are expected to contribute to and attend such events at least once over the two-year period, starting from the end of the allocation period. Awardees will also be expected to reply favorably, when asked to be interviewed for Discoverer PetaSC and EuroHPC JU publications and/or send visualizations or other materials for promotional purposes.

Access to Discoverer PetaSC resources is for **Open, nonprofit** Research and Development purposes and is free of charge provided that the eligibility criteria and terms of access described herein and in the online Application Form are fulfilled/respected.

Users will not hold liable Discoverer PetaSC and its Directors and staff, with regard to any claim and expense arising out of the use of the resources.

From the start to the end of the access period, the applicant should direct questions and requests for support to the user support of Discoverer PetaSC.

Applicants must inform promptly the Discoverer PetaSC of any changes to a successful proposal, namely a decrease in the amount of resources needed or on the distribution of the usage of the resources within the agreed time plan of the project.

Peer Review assessment procedure

The assessment procedure (peer review process) abides to the Discoverer peer review principles
stated in "The Peer Review Process". The peer review process encompasses 4 phases:

1. Administrative check. Proposals not complying with the Discoverer PetaSC eligibility criteria will be rejected at this stage and will not continue to the next phase. During this phase, applicants may be contacted by the peer review administration in case of concerns regarding potential errors.
2. Technical Assessment. Proposals will be technically reviewed by technical experts of Discoverer technical team, who will assess the suitability of the application to run in the indicated system.
3. Peer Review Evaluation. Proposals will be peer reviewed by recognized independent scientific and/or industry experts grouped in domain areas. A ranking per domain is produced by each domain leading expert who is also a member of the Scientific and Industrial Advisory Committee.
4. Global Consolidated Ranking. The global consolidated ranking is done by a panel led by the Chairman of the Scientific and Industrial Advisory Committee. The panel will apply the quality cut-off thresholds described. Proposals that ranked under this threshold will not be awarded, even if there are resources available on the systems.

After the project approval, successful applications are notified by email and are contacted by Discoverer technical team member. Prospective users will be requested to sign an Acceptable User Policy before accessing the system. For the rejected project, the reason for the rejection can be sent back to the applicant upon their request.

Reviewing Process

A Review Panel established by the Discoverer Resource Allocation Committee composed by at least two scientists competent in the area of the proposals shall discuss the scientific merit of the proposals with the support of a technical team and recommends which proposals should be granted based on the criteria listed below.

Award criteria, scores and weighting

Proposals will be evaluated by experts, based on the award criteria of 'excellence', 'innovation and impact' and 'quality and efficiency of the implementation'. In detail, the following aspects are considered during the evaluation for each evaluation criterion:

a. Excellence: This criterion aims to evaluate the scientific quality and merit of the project through the following dimensions:
- Clarity and relevance of the objectives;
- Soundness of the concept;
- Scientific and technical maturity of the project;
- Credibility and appropriateness of the proposed methodology;
- Clarity, consistency and adequacy of the proposal regarding the theoretical framework, the objectives, the methodology, the work plan, and the expected outcomes and impacts.

For pure academic proposals, scientific excellence will twice higher weight, when compared with other criteria.

b. Innovation and Impact: This criterion intends to assess the innovative nature, the potential impacts and contributions of the project. It evaluates to what extent the proposed work is beyond the state of the art, and demonstrates innovation potential (e.g., ground-breaking objectives, novel concepts and approaches, new products, services or business and organizational models). The following dimensions are considered:
- Originality and novelty of the objectives;
- Innovative nature of the proposed project;
- Contribution of the project to the advancement of scientific knowledge and potential innovations;
- Impact of the project results on the societal, economic and/or technological dimensions.

For more **industrially oriented applications**, proposals should demonstrate the innovation and industrial impact on the specific market and the broader socio-economic impact.

For **public sector** oriented applications, the proposal should demonstrate the innovative aspects of the applications, the expected societal impact, and how the application will contribute to the delivery of quality and efficient public sector services.

c. Quality and efficiency of the implementation: This criterion is intended to evaluate the quality and feasibility of the project work plan in order to deliver the project successfully. Proposals should demonstrate a balanced distribution of resource utilization during the lifetime of the project, ensuring a stable consumption of the total awarded time during the awarding period. The following dimensions are considered:
- Feasibility of the project plan;
- Alignment between the resources requested and the objectives of the project;
- Appropriateness of resource allocation schedule to successfully complete the project;
- Appropriateness, quality, and skills of the team members to perform the proposed objectives and tasks and accomplish the proposed schedule.

Scoring principles
Experts score each award criterion on a scale from 0 to 5 (half point scores may be given):

- 0 – Proposal fails to address the criterion or cannot be assessed due to missing or incomplete information.
- 1 – Poor. The criterion is inadequately addressed or there are serious inherent weaknesses.
- 2 – Fair. The proposal broadly addresses the criterion, but there are significant weaknesses.
- 3 – Good. The proposal addresses the criterion well, but a number of shortcomings are present.
- 4 – Very good. The proposal addresses the criterion very well, but a small number of shortcomings are present.
- 5 – Excellent. The proposal successfully addresses all relevant aspects of the criterion. Any shortcomings are minor.

The maximum overall score is thus 15. The minimum threshold for each criterion is 3 and the overall threshold for the sum of all criteria is 10. All criteria are equally weighted (1.0). However, in case of a tie in the score ranking, different rules apply for breaking the tie depending on the application track:
- For Scientific applications, in case of a score tie, proposals are ranked based on the individual criteria scoring applying the following priority: a. Excellence, b. Innovation and Impact and c. Quality and efficiency of implementation.
- For industry and public sector oriented applications respectively the following priority applies in case of a tie: a. Innovation and Impact, b. Excellence and c. Quality and efficiency of implementation.

How to Submit

To submit proposals, fill in the application form available online or manually fill in the form and send it as attachment to peer-review@discoverer.sofiatech.bg.

The Discoverer Peer Review team will send you confirmation within a couple of days on the receipt of the application, if you do not hear back from us, please write an email to check if the proposal has been received successfully.

For technical questions or support before the application submission, you can contact us at peer-review@discoverer.sofiatech.bg.

All proposals must be fully completed and submitted by the closing date. We will not accept applications for a dedicated cut-off date that are submitted after the closing date. In the case of technical difficulties, the decision of Discoverer PetaSC as to whether an application can be accepted is final. Applicants are advised to make sure, that they submit proposals as early as possible before the given deadline, in order to ensure that all mandatory fields are completed, and submission is accepted.