

FAQs

ADVANCED COMPUTING AND RESEARCH DATA

The consolidation and strengthening of the National Scientific and Technological System are priorities of national science and technology policy, as defined in the mission of *Fundação para a Ciência e a Tecnologia, I.P.* (FCT). In this context, it is particularly important to promote and strengthen the skills of scientific and technological institutions by involving their teams in projects with advanced computing resources that may include HPC (High Performance Computing) tools, the use of GPUs (Graphic Processor Units), access to data repositories, cloud computing resources, access to AI (Artificial Intelligence) tools and other technologies. To this end, FCT provides Advanced Computing Resources on the **DEUCALION and MARENOSTRUM 5 platforms** to the research and innovation communities, through published calls on the [FCT website](#).

A. QUESTIONS RELATED TO ADVANCED COMPUTING RESOURCES

1. What are “Advanced Computing Resources to be provided by FCT”?

FCT may provide advanced computing resources on platforms such as Deucalion and MareNostrum 5 to the beneficiaries of approved projects who answer “yes” to the question “Does the work plan requires advanced computing resources to be provided by FCT?” in the published calls on the [FCT website](#) (see figure 1).

Find out more about these resources at <https://www.fct.pt/en/financiamento/programas-de-financiamento/computacao/recursos-computacionais-fct/>.

WORK PLAN

Computing and data

Advanced computing

The work plan requires advanced computer resources to be provided by FCT?

No Yes

Figure 1. Question on the application form (example of the myFCT platform).

2. How do I request and access the “Advanced Computing Resources provided by FCT”?

To access the computer resources, the candidates must answer the questions indicated on the form (figures 2 and 3).

If the candidate answers “yes” to the question “Do you have previous experience with High Performance Computing?”, they must indicate the platforms they have previously used in the appropriate field (figure 3).

WORK PLAN

Computing and data

Advanced computing

The work plan requires advanced computer resources to be provided by FCT?



No Yes

Do you have previous experience with High Performance Computing?

No Yes

Which of the following amounts of resources (per year) is suitable for your project?

Brief justification for the requested computational resources

B I U |  | 



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Figure 2. Questions on the application form (example of the myFCT platform).

Do you have previous experience with High Performance Computing?

No Yes

Refer previously used computational platforms

B I U |  | 

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Figure 3. Question on the application form (example of the myFCT platform).

3. Which are the limits applied to “Advanced Computing Resources to be provided by FCT”?

In the question “Which of the following amounts of resources (per year) is suitable for your project?”, the option that best applies should be indicated (figure 4).

Which of the following amounts of resources (per year) is suitable for your project?

F1 - up to 100,000 CPU core hours, up to 1,000 GPU hours, up to 10TB disk

F2 - up to 5,000,000 CPU core.hours, up to 5,000 GPU.hours, up to 100TB disk

F3 - other resources quantities to be justified in the next field

Figure 4. Quantities of available computing resources to be provided by FCT.

Available computational model:

HPC (High Performance Computing) – High Performance Computing makes it possible to run parallel processing applications, access GPUs, access machines with high memory capacity, among others.

Characteristics of **HPC platforms** provided can be found [here](#).

Additional advanced computing resources may be requested based on the beneficiary's justification and prior experience with HPC. The maximum number of hours to be allocated will depend on the previous experience, the work plan, existing availability and the limits adopted in the FCT Advanced Computing Project Calls. The duration of the project will be 12 months, renewable.

Associated technical support:

This is intended to facilitate access to them, as well as providing access to the technical documentation available. It does not provide for code analysis or optimisation, or training for beneficiaries. We suggest analysing the website <https://eurocc.fccn.pt/> which offers technological courses on the use of HPC.

Regulations in Portuguese for these accesses:

- [FCT Projects Regulation](#)
- [Specific Regulation for the Innovation and Digital Transition Thematic Area](#)
- [Advanced Computing Projects Regulation no.10/2022](#)

4. Is it possible to obtain secure online servers with these 'Advanced Computing Resources to be provided by FCT'?

No, this HPC model is ideal for processing large volumes of data, and it is not suitable for secure online servers. At this stage, the advanced computing offer does not provide for secure online servers.

B. QUESTIONS RELATED TO RESEARCH DATA

5. How should I proceed if I identify the need of using the research data repository service?

If you anticipate that your work plan requires space in a research data repository, you should answer “yes” to the question in figure 5 on the application form.

Institutional and/or thematic research data repositories should be preferred. Nonetheless, FCT makes available a multidisciplinary and generalist research data repository service called the Polen Repository. This service is currently in the pilot implementation phase, with production scheduled to the first quarter of 2025.

The work plan requires access to a research data repository provided by FCT?

Figure 5. Question on the application form (myFCT platform).

If the project is selected for funding, the beneficiary must submit a **Data Management Plan** to FCT within six months of the funding’s start date, according to the model provided by FCT.

Access to the repository service will be assessed based on the shared information in the Research Data Management Plan.

6. What is a Data Management Plan?

A Data Management Plan (DMP) is a formal document that describes how research data will be managed throughout its life cycle.

This document details various aspects, from the creation/collection and processing of data during and after the research project, identifying how it will be created and documented, how access control will be managed, where it will be stored and preserved, and how it will be shared.

This good practice supports compliance with the FAIR Data Principles (findable, accessible, interoperable and reusable data).

7. How can I prepare and submit the DMP?

FCT provides a Data Management Plan System based on the OpenAIRE Infrastructure's ARGOS tool. This tool integrates FCT’s DMP template (Portuguese and English versions).

ARGOS is an open, collaborative platform that uses the services and information sources inferred from OpenAIRE to facilitate the process of creating and publishing DMPs.

You can access ARGOS through the following [link](#).

8. What is the FCT's DMP template?

FCT provides a DMP model covering the following topics relevant to research data management:

- Data information;
- Documentation and metadata;
- Storage and security of data and metadata;
- Personal data, intellectual property rights and ownership;
- Data sharing and long-term preservation;
- Responsibilities and resources.

The FCT's DMP template can be accessed via the ARGOS tool mentioned in the previous question.

9. Which FCT service supports the scientific community in managing and sharing their research data?

Created in 2022, the POLEN service aims to promote the practice and principles of Open Science, as well as respond to the needs of the scientific community in managing their research data.

More information on POLEN and training materials on research data management can be found here: <https://polen.fccn.pt/>.

10. Where can I get more information on the procedures to follow when submitting a DMP and applying for access to the FCT data repository resource?

For more information, you can access the following link: <https://polen.fccn.pt/gdi/>.

The POLEN support contact is the following: helpdesk.polen@fccn.pt.