Vienna Scientific Cluster

Access Control

Preamble

Access to the Vienna Scientific Cluster (VSC) is based on projects that have generally gone through a peer-review process and demonstrate not only scientific excellence, but also the need for extremely high computing power.

The Operating Regulations apply to the execution of projects.

Definitions
see Operating Regulations Annex 1

Authorised institutions

The use of the VSC generally requires the membership in an authorised institution. Partner universities of the VSC are authorised institutions. The contributions of the partner universities to the VSC budget cover the usage costs for all types of projects of the respective university, with the exception of external projects. Other universities and scientific institutions can be admitted as authorised institutions. These have to pay for the used computing time according to Annex 2. The admission as an authorised institution can be established as part of a joint project or other agreement, in which the modality of the settlement is determined.

Project managers from institutions with access rights are authenticated via a system of their home institution.

Access for external users

In principle, the VSC is also available to users from scientific institutions outside the circle of authorised institutions (external users). The activities of these external users are considered to be external projects.

A price according to Annex 2 is charged for the use. The number of minimum charged cores corresponds to the billing and scheduling unit specified in the Operating Regulations Annex 3. The time is calculated from the start of the job to the end of the job. For an example, see Annex 2. These costs include the use in normal extent (fair-use) of mass storage.

The projects of external users, as with all other projects, are managed with the help of the Service Website, but are not subject to peer review by the VSC. The Operating Regulations also apply to external projects, with particular reference to data security regulations. Accounting data for individual jobs are transmitted on request.

The VSC team is authorised by the Steering Committee (SC) to award a maximum of 10% of the total available resources to external users after a technical review of the requests and at the specified terms. A maximum of 3% of the total available resources may be awarded to an external user (institution) for a maximum of 1 year.

Awards to external users, which exceed the above-mentioned scope, are to be individually approved by the SC.

As part of procuring a new system, computation time can be purchased over the entire life span of the system at a subscription price, which has to be paid in advance. The external user acquires an intangible right of use. Such agreements are to be approved individually by the SC.

Project Application

A Project Application for approval of a project is submitted electronically by the project manager via the Service Website and is generally addressed to the SC. The provision of resources at the VSC is confirmed only after the approval of the project. A commitment of the (presumptive) project manager to the availability of resources to third parties (such as sponsors or cooperation partners) prior to approval of the project is not permitted.

The project application must contain:
- Project Title
- Project Manager including contact details
- Affiliation of the project manager to an authorised institution
- Brief description of the software to be used, including previous experience in terms of runtime, parallelisation and efficiency
- Expected start time of the project
- Requested project duration
- Requested computation time measured in core hours
- Number of cores needed at the same time (estimate)
- Requested mass storage
- Information on whether the project will use personal data within the meaning of the GDPR

Additional information required in the case of a funded project or application project:
- Sponsor
- Project number (if available)
- Total approved or requested funding
- Approval date or expected approval date
- Short scientific description of 1–2 pages, for example the abstract of the funding application
- Letter of approval from the sponsors (for funded projects)

Additional information required in the case of an internal project:
- Short scientific description of about 5 pages for peer review
- Suggestion of at least 3 reviewers

Additional information required in the case of an external project:
- Short description of the planned calculations
- Sponsors or project partners
- Explanation regarding the assumption of costs

Notes on the project proposal:
- After creating the project, it is possible to upload files on the Service Website. All information for which no data fields are provided on the Service Website, such as project descriptions, can be transmitted in this way.
- A data-protection relevant project is requested by selecting "Personal Data YES" on the Service Website.
- After applying for a data-protection relevant project, the VSC team will contact the project manager for the necessary further steps.

Approval Procedure

Project applications will initially be sent to the VSC team for the evaluation of technical feasibility, including availability of the software and availability of requested resources. The reviewed applications, with the exception of test projects and private projects, are then forwarded electronically to the SC.

Project applications for funded projects are dealt with directly in the decision-making process of the SC. The SC decides on the approval or rejection of the project and the allocation of resources to the project.

Project applications for application projects are treated as funded projects. After approval of the project by the sponsor, no additional decision by the SC is necessary.

Project applications for internal projects will be sent to reviewers upon receipt by the SC. These may be those proposed by the applicants or other reviewers. The designated member of the SC of the institution of the project manager is responsible for organising the peer review.. The number of reviewers is determined by the SC depending on the scope of the project and amounts to a maximum of 3. In the case of positive opinions, internal projects are subsequently treated like funded projects.

Project proposals for external projects will be approved by the SC subject to free resources, with the SC setting a common cost rate for all external projects (see Annex 2). In case of limited resources, funded and internal projects have priority over external projects.

In any case, projects that touch ethical issues must be explicitly approved by the SC. These include, but are not limited to, projects that affect people's privacy or whose results are classified as Dual Use. Dual Use includes results with potential military or terrorist applications or abuses. Approval by the SC requires compliance with the applicable ethics rules and the possibly required approval of an ethics committee and does not replace either.

The SC allocates resources for which the following are considered:
- Requested resources
- Result of the review (for internal projects)
- Opinion of the VSC team
- Available resources relative to the total amount of resources requested
- Distribution of the total consumption of resources among the participating universities

Project decisions of the SC are generally made electronically via the Service Website. It is the sole responsibility of the respective partner university to decide who will be sent as representative of their university into the project approval process to the SC.. Initially, the representatives of the university to which a project is assigned decide on the approval or rejection of the project. When exceeding a resource allocation of 2 million core hours, the representatives of the other universities in the SC are informed about this project application and given the opportunity to reject the project for important reasons (see Item 4.3 of the Letter of Understanding). External projects must be approved by the representatives of all participating universities.

A project which is assigned to a university that does not have voting representatives in the SC is initially subject to an internal decision-making procedure at the corresponding university and is treated after project approval the same way as a project that is assigned to a university with voting representatives.

Adjustment of resource allocations

If resources are no longer available for the assignment of new projects, the SC can redistribute the VSC resources. This includes extending allocated resources over a longer period or, in exceptional cases, reducing them. However, prior consultation with the project managers concerned must ensure that their contractual obligations can continue to be met. If this is not the case, the redistribution of resources should be adjusted accordingly.

At the request of the project manager, the SC may also increase the resource allocation for a project. The corresponding decision-making procedure corresponds to that of a funded project.

Final provisions

This access regulation was issued in the German original version by the resolution of the Steering Committee of 07.09.2009 and in the present version by the resolution of 04.06.2019 and can be changed at any time by a further resolution of the Steering Committee.

Annex 1

Funding agencies with recognised peer-review process:

FWF	Austrian Science Fund
	All funding lines, including the ERA-NET projects coordinated by the FWF
FFG	Austrian Research Promotion Agency
	With all program lines managed by the FFG
ÖAW	Austrian Academy of Sciences
WWTF	Vienna Science and Technology Fund
ERC	European Research Council
EU	European Union
ACRP	Austrian Climate Research Program
OeNB	Anniversary Fund of the OeNB (Österreichische Nationalbank, the central bank of the Republic of Austria)
TWF	Tyrolean Science Promotion

Annex 2

Cost settlement for use of VSC resources/computing power

There are no costs for the use of resources/computing power in the Vienna Scientific Cluster (VSC) by members of the universities involved in the VSC cooperation.

For the use of resources/computing power in the Vienna Scientific Cluster (VSC) by third parties, the following prices are charged:

- Using one core of a standard VSC-3 node for one hour: 0.01 €

Nodes can only be booked as a whole. Therefore, the following prices result for the individual node types (usage per hour):

- VSC-3 compute node standard 0.16 €
  (2 x Intel E5-2650v2, 16 cores, 64 GB main memory)
- VSC-3 plus computing node standard 0.20 €
  (2 x Intel E5-2660v2, 20 cores, 64 GB main memory)

- VSC-3 compute node Medium Memory 0.32 €
  (2 x Intel E5-2650v2, 16 cores, 256 GB main memory)
- VSC-3 compute node Large Memory 0.96 €
  (2 x Intel E5-2690v4, 24 cores, 512 GB main memory)

- VSC-3 compute node standard, High Priority 0.32 €
  (2 x Intel E5-2650v2, 16 cores, 64 GB main memory)
  (limited and only possible with an additional agreement)

- VSC-3 GPU node Small 0.16 €
  (1 x Intel E5-1620v4, 4 cores, 64 GB main memory, 1 x Geforce GTX1080)
- VSC-3 GPU node Large 1.28 €
  (2 x Intel E5-2650v4, 24 cores, 256 GB main memory, 10 x Geforce GTX1080)

- VSC-4 compute node standard 0.48 €
  (2 x Intel 8174, 48 cores, 96 GB main memory)

- VSC-4 compute node Medium Memory 0.72 €
  (2 x Intel 8174, 48 cores, 384 GB main memory)
- VSC-4 compute node Large Memory 0.96 €
  (2 x Intel 8174, 48 cores, 768 GB main memory)

In addition 20% of VAT have to be added (all figures listed above are without VAT).
Changes, errors and mistakes reserved.
The planned time of use must be coordinated in advance with the Technical Manager of the VSC.
The accounting is done by TU Wien Großgeräte Investment- und Betriebs-GmbH (TU-GIB).

Example: A job on VSC-3 will start at 10:15 am and finish at 17:15 pm. For 7 hours, the job requires 6 cores in one node. 16 cores (billing and scheduling unit of the VSC-3) are charged 7 hours = 112 core hours. The cost is € 1.12 plus 20% VAT (€ 1.35).