

AI Challenge 2026

Call for Compute-Intensive AI Projects

The Computing Centre of the Slovak Academy of Sciences (CC SAS) is launching the *AI Challenge 2026*, a competitive call for scientifically or technologically excellent projects requiring large-scale GPU resources for AI model training and development. Applications must be submitted exclusively through the HPC user portal at register.hpc.sav.sk.

1. Scope of the Call

The AI Challenge 2026 supports scientifically or technologically excellent projects that are ready to scale AI model development and other computationally intensive AI workloads to high-performance GPU infrastructure.

The call targets mature, compute-ready projects with a clearly defined research or development objective, prepared datasets and computational workflows, and demonstrated technical feasibility. Applicants should be ready to move from smaller-scale experimentation to large-scale GPU-accelerated AI workloads on the NVIDIA GH200 accelerated module of the PERUN supercomputer.

Relevant projects may include, but are not limited to:

- foundation models and large language models (LLMs),
- multimodal models,
- computer vision,
- graph neural networks,
- scientific machine learning,
- domain-specific AI models,
- reinforcement learning and large-scale AI optimization,
- large-scale model evaluation, benchmarking or synthetic data generation, where these activities constitute a computationally substantial part of the proposed research or development project.

The call is intended for projects where access to large-scale GPU computing resources represents a key remaining barrier to achieving the proposed scientific or technological objective.

2. Proposal Requirements

Proposals must demonstrate both scientific or technological excellence and a high level of *computational readiness*. Information regarding these crucial points must be stated in the project description or directly in the submission form.

Scientific and technological excellence

The proposed project must address a clearly defined and relevant research or development challenge. It should demonstrate the potential to deliver significant scientific, technological or innovative results and clearly explain the expected impact of the proposed work.

Computational readiness

- The call is not intended for early-stage exploratory projects that have not yet demonstrated technical feasibility at a smaller scale.
- Applicants must demonstrate that the project is ready to make effective use of the requested GPU resources immediately after the allocation becomes available. This should be supported, where applicable, by preliminary experiments, benchmarks, previous training runs or other evidence of technical feasibility.
- The required datasets, model architecture and computational workflow should already be prepared or sufficiently developed to allow the proposed computational campaign to start within the project period.

Scalability and efficient use of resources

Applicants must demonstrate that their computational workflow can efficiently utilize the PERUN GPU infrastructure. The proposal should provide evidence of parallel or multi-GPU scalability appropriate to the requested allocation and explain how the available GPU resources will be used efficiently.

Justification of computational resources

- Each project must request a minimum of **15,000 GPU-hours**.
- There is no predefined maximum allocation per project. Applicants should request the amount of GPU resources necessary to achieve the proposed objectives and provide a clear technical justification for the requested allocation.
- The justification should describe, where applicable, the expected number and scale of computational runs or experiments, model size, dataset size, GPU configuration, estimated runtime and other relevant computational parameters.
- Applicants must also demonstrate that the requested allocation can realistically be consumed within the six-month project period. Use reference to previous HPC projects, if applicable.
- Requests for particularly large allocations must provide proportionally stronger evidence of scalability, computational efficiency and the ability to utilize the requested resources within the six-month allocation period (such as benchmark results).

3. Available Infrastructure

The call provides access exclusively to the accelerated GPU module of the PERUN supercomputer operated by the Computing Centre of the Slovak Academy of Sciences.

The accelerated module is based on NVIDIA GH200 Grace Hopper Superchips and is designed for computationally intensive GPU workloads and large-scale parallel computing.
Total GPU capacity available under this call: 500,000 GPU-hours.

4. Allocation Rules

- The minimum allocation request is **15,000 GPU-hours per project**.
- The number of projects to be supported is not predetermined. The available capacity may therefore be allocated to a smaller number of highly ranked projects with larger, well-justified computational requirements.
- Resources will be allocated competitively based on the quality of submitted proposals, their technical readiness and the justified computational requirements of the projects.
- The evaluation committee reserves the right not to allocate the full capacity available under the call if the submitted proposals do not meet the required scientific, technological or technical quality.
- The evaluation of proposals will be carried out by internal CC SAS panel consisting of technical and domain experts.

5. Project Duration and Use of the Allocation

- The maximum and fixed project duration is six (6) months.
- The allocated GPU-hours must be consumed within the six-month project period.
- Extensions of the project period, increases of the awarded allocation, or transfer of unused GPU-hours beyond the project end date will not be permitted.

6. Eligible Applicants

Free access under the AI Challenge 2026 is available to researchers from Slovak public universities and the Slovak Academy of Sciences, as well as eligible organizations from the public and state administration sectors.

Access is provided exclusively for civil, non-commercial, open-science research and development activities.

7. Call Timeline

Call opening: 7 September 2026

Application deadline: 5 October 2026, 17:00 CET

Notification of results: within 5 days after the application deadline

Start of allocations: 10 October 2026

Project duration: 6 months

8. Expected Project Outputs

Successful projects are expected to:

- submit a final project report no later than two months after the end of the project;

- report peer-reviewed publications and other scientific outputs resulting from the project through the HPC user portal and include the required acknowledgement of the HPC resources used;
- make relevant project results and outputs, such as trained models, openly available through an appropriate open repository, where possible;
- actively present project results at a Slovak HPC conference organized by the call coordinator, for example through a poster, presentation or other contribution;
- upon request, cooperate with CC SAS in communicating the project and its results through an interview, article, use case or other dissemination activity.

The principal investigator agrees to acknowledge the use of HPC infrastructure in all publications resulting from the project in the following format:

“(Part of the) Research results were obtained using the computational resources funded by the EU NextGenerationEU through the Recovery and Resilience Plan for Slovakia under the project No. 17I03-04-P02-00001, Development and construction of a supercomputer for national supercomputing centre.”