

REGISTRATION

Access to MetaCentrum's resources is free of charge for students and employees of Czech academic and research institutions. MetaCentrum attribution is required for any research outputs generated with the provided resources. New users must first register for membership using the following link: <https://metavo.metacentrum.cz>.

Our mission is to support researchers in accessing powerful computational resources.

 <https://metacentrum.cz>

 <https://docs.e-infra.cz>

 meta@cesnet.cz



Watch our videos about MetaCentrum's computing resources and cloud technologies here:

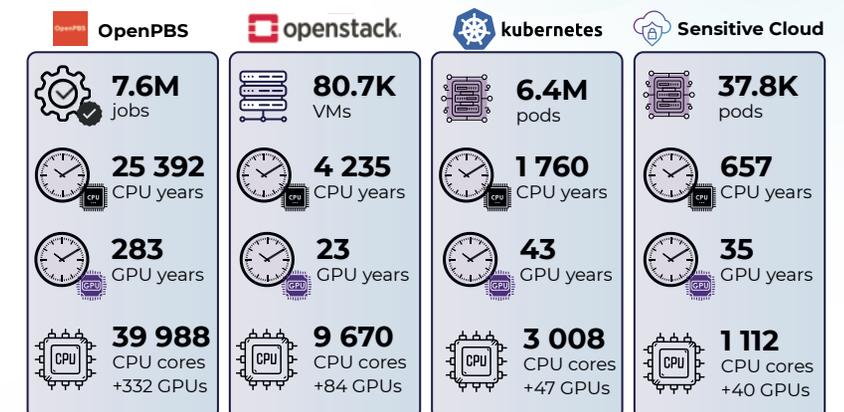


High-Performance Computing for Czech Researchers

MetaCentrum provides access to a high-performance computing system, data storage, specialised hardware, application tools and various graphical interfaces for individual researchers and large scientific teams. All this is free of charge.



Metacentrum's primary infrastructure is a high-throughput grid managed by a PBS (Portable Batch System) scheduler, where users submit jobs that run on shared compute nodes. When elevated privileges or a more isolated environment are required, Metacentrum offers custom virtual machines provisioned via OpenStack and containerised workloads orchestrated with Kubernetes. A Sensitive Cloud infrastructure is available for researchers dealing with sensitive data.

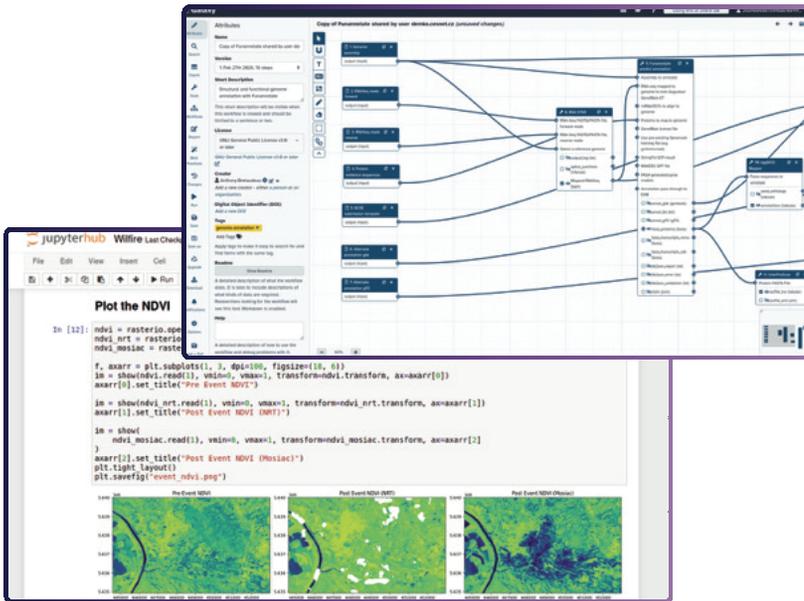


Infrastructure usage statistics for 2025

PLATFORMS



Building on this infrastructure, MetaCentrum provides several user-friendly, interactive platforms that make advanced computing accessible without requiring deep knowledge of the underlying systems. Platforms such as Open OnDemand, JupyterHub, and Galaxy offer familiar web-based graphical environments for interactive computing, data analysis, and workflow execution.



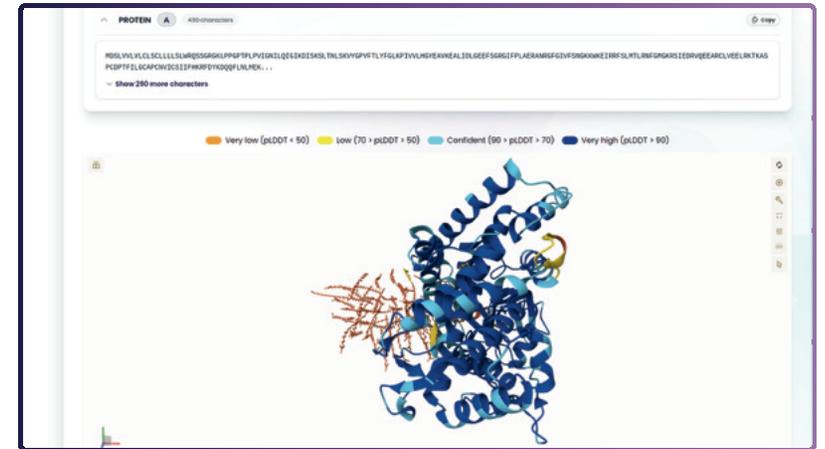
These platforms run on the same computing resources while hiding the complexity of the underlying infrastructure. This allows researchers to focus on their scientific objectives, rather than on scripting, job scheduling, resource management or system configuration.



APPLICATIONS



In addition to the platforms, the infrastructure can run hundreds of ready-to-use research applications. Some graphical applications, including RStudio, MATLAB and Gaussian, can be launched via the OnDemand portal, providing users with interactive sessions. Locally hosted AI models (LLMs) and the protein-folding suite Foldify are also available. The list of available applications is maintained in the documentation.



STORAGE

MetaCentrum provides storage capacities for live research data. For backups and long-term data persistence, using CESNET's S3 object storage is highly recommended. Additionally, users can transfer data to the National Repository Platform.

