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Rheologic: customer journey through the European HPC ecosystem

Numerous European initiatives support companies in the use of high-performance computing (HPC). The example of Rheologic shows how businesses can benefit from this support network. From free code optimisation and commercial use of the Vienna Scientific Cluster to appearances at international events – get inspired for new opportunities available for companies in Austria and all over Europe.

Rheologic is an Austrian micro-enterprise providing Computational Fluid Dynamics (CFD) services and solutions for complex flow in architecture, pharma, energy, and engineering. Due to computationally intensive simulations, Rheologic is a user of high-performance computing (HPC). Facing the need to optimise their **Urban Heat Island Solver**, Rheologic contacted **CoE POP - Performance Optimisation and Productivity Centre of Excellence in HPC**, an EU initiative helping SMEs free of charge.

*“The POP performance assessment found the root cause of some load imbalance in the code and by addressing the issues, Rheologic obtained a **25% faster time-to-solution for their urban microclimate simulations**,”* says Bernd Mohr, Deputy Division Head "Application Support" at Jülich Supercomputing Centre.

In 2020, EuroCC Austria approached Rheologic to become one of their first commercial (pilot) customers for the **Vienna Scientific Cluster (VSC)** to assess advantages of commercial access to academic supercomputing infrastructure. Due to their expertise in microclimate and wind engineering for architecture, Rheologic was chosen as a speaker at a **webinar by Creative Industries Austria** and co-organised by EuroCC Austria.

Now Rheologic has made yet another step on the European level via the service network of EuroCC. The company will present its know-how and services in computation for the pharmaceutical industry at a pharma/medtech **event of EuroCC Romania**.

Rheologic is very pleased with all the support it got to this date via the various initiatives of the **EuroHPC JU** ecosystem. If you are interested in opportunities of HPC or could use the support of one of these initiatives, contact us:

EuroCC Austria: info@eurocc-austria.at

EuroCC Romania: eurocc@ici.ro

POP CoE: <https://pop-coe.eu/contact>

Links:

Pop CoE, 25% Faster time-to-solution for urban microclimate simulations for Rheologic GmbH:

<https://pop-coe.eu/blog/25-faster-time-to-solution-for-urban-microclimate-simulations-for-rheologic-gmbh>

Rheologic, Highest computation performance by parallelization:

<https://rheologic.net/articles/parallel-computation-speedup/>

Rheologic, Urban microclimate simulation:

<https://rheologic.net/services/microclimate-simulation/>

Rheologic, Urban microclimate simulation explained:

<https://rheologic.net/articles/urban-microclimate-simulation-explained/>

Overview of the 33 EuroCC Competence Centres: <https://www.eurocc-access.eu/>