RESCALE FOR UNIVERSITIES

rescale

Academic institutions often experience internal queuing and limited or legacy compute resources that are not optimised to handle engineering and scientific simulation workloads. Through Rescale, researchers, students, and professors have access to the very latest computing technology on-demand. Flexible pricing tiers and the ability to use existing software licenses provides academic institutions with a highly capable and flexible cloud simulation platform.

www.rescale.com

THEMES

| Accelerate Time to Research	Develop Industry Collaboration	Manage University HPC Resources Effectively
• Apply grant money immediately • Access the best architectures and the latest processors across cloud providers • No wait in queues and no wait for procurement of capital equipment	• Make your systems accessible in the cloud • Enable industry collaboration • Get credit for external use of your systems	• Offer a growing number of users simple access to applications on systems on-premise and across multiple cloud providers • Administer users across a multicloud environment • Control budgets to avoid cost overruns

FACULTY, RESEARCHERS AND STUDENTS

- Control budgets effectively
- Accelerate time to results
- Work in new areas of research
- High performance file systems
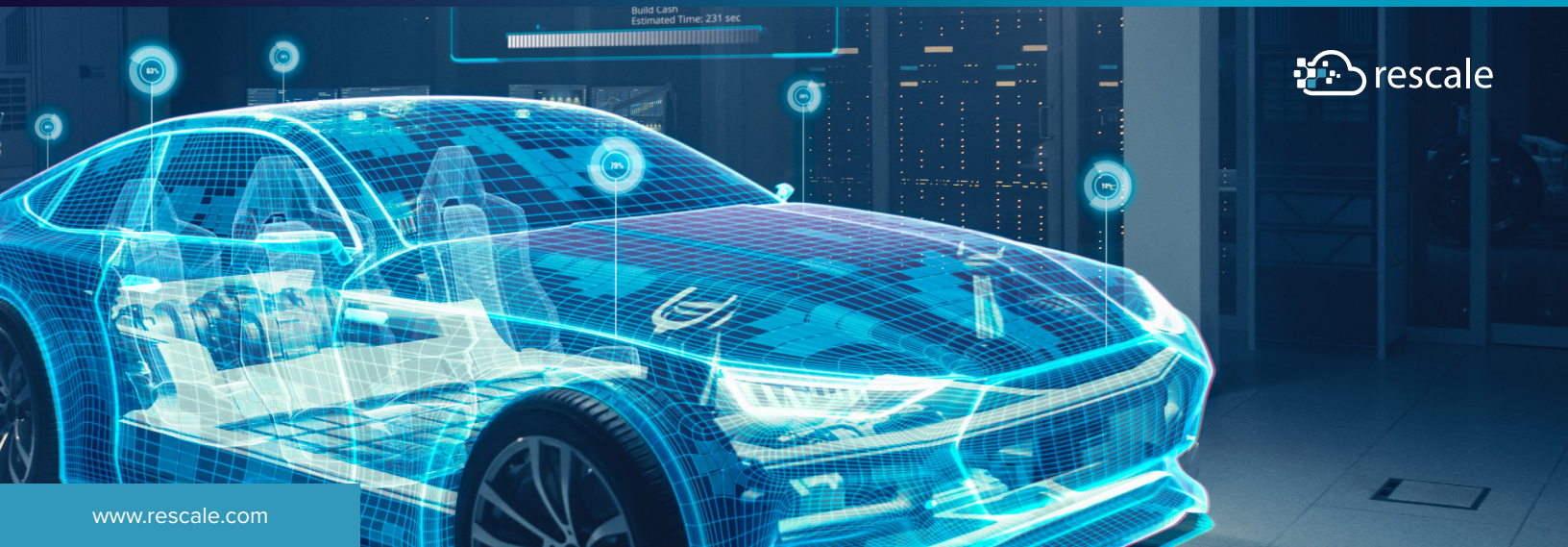- Collaborate with industry and other centers

INSTITUTION

- Enable new areas of research
- Enable new innovation
- Budget flexibility
- Raise visibility of Institution

IT AND HPC ADMINISTRATION

- Multi-cloud administration
- Access new architectures
- Increased agility
- Optimise cost/value
- Instant data insights

Other HPC Center

Public Cloud

On-premise HPC
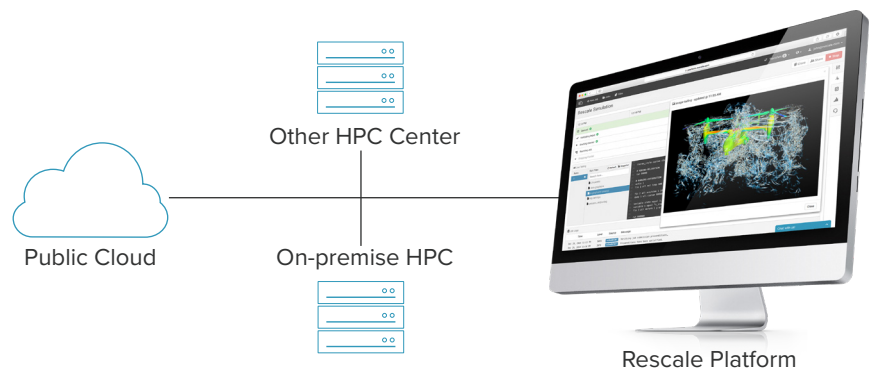
Rescale Platform

RESCALE HELPS TU/e TAKE HPC TO THE CLOUD

"Thanks to the extensive list of applications that Rescale offers, a great deal of time and hassle is saved by not having to install ourselves and the platform interface is also very user friendly.

The students of today are the scientists and engineers of tomorrow, and we must deliver the right technological toolkit to help them thrive. With the use of the Rescale HPC platform in the cloud I believe we are doing exactly that."

Richard Zoontjens - Lead for TU/e HPC Lab

Eindhoven University of Technology (TU/e) is a research-driven institution of international standing, with over 11,000 students in attendance.

The university's High Performance Computing (HPC) Lab helps scientists and students across nine departments and four institutes with challenges that require HPC infrastructure and application support in the fields of engineering, medical research and physical sciences, as well as the growing areas of Artificial Intelligence and Machine Learning.

One of the key challenges in being able to support this includes serving a number of different user types each with varying sets of requirements. Furthermore, this community has a broad range of IT skill levels from a novice running a simulation job for the very first time, to more experienced users. However in both cases, these users didn't need to be an HPC expert – they just required ease of use, application support and quick access to HPC facilities with no queues or wait times.

Additional important considerations included having the newest technology available and paying for usage only to help utilise departmental budgets as efficiently as possible.

TU/e Investigated several solutions that offered an HPC platform with Software as a Service and selected Rescale following a successful pilot project. Significant results were realised early on with CFD simulation times reported as being three times quicker than they were previously. The solution is now being used by various stakeholders of the HPC lab in projects as diverse as the building of solar powered vehicles and utilising AI to protect wildlife from poachers.

For universities, Rescale delivers the benefits of HPC in the cloud, with the challenges of automation, administration, software and licensing management already removed and all accredited with the highest level of security certification.
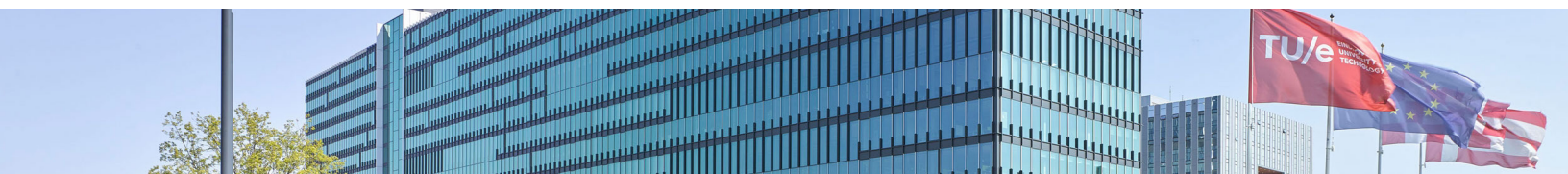
ACCELERATING CFD SIMULATION WITH RESCALE

"The Rescale platform has been an excellent addition to the department. It's intuitive interfaces and features such as the end-to-end desktop have allowed both undergraduates and postgraduates to easily utilise the platform to accelerate CFD simulation, cutting simulation times from days to hours".

Dr Pritesh Narayan - Associate Head of Department of Engineering Design and Mathematics

The University of the West of England, Bristol (UWE Bristol) is a public research university, located in and around Bristol, UK. The university has more than 30,000 students and 3,000 staff and is the largest provider of higher education in the south west of England. UWE Bristol is focused on solving future global challenges through outstanding learning, world-leading research and a culture of enterprise.

UWE's Department of Engineering Design and Mathematics has used Rescale primarily to accelerate the solving of complex Computational Fluid Dynamics (CFD) problems at both undergraduate and postgraduate levels. Rescale allows students to work flexibly and be able to access high performance computational resources through the platform which would not be available on standard desktops or laptops.