Get into SHAPE

PRACE

SME HPC Adoption Programme in Europe

YOU ARE:

- A European Small to Medium-sized Enterprise
- Interested in increasing your competitiveness
- Keen to enhance your software via more powerful computers

SHAPE is an opportunity **you** should not miss

SUCCESSFUL APPLICANTS TO THE SHAPE PROGRAMME GET:

- Individual support from a high performance computing expert
- Effort on developing and enhancing your applications
- Compute time on some of Europe's most powerful computing systems

TO IMPROVE YOUR:

- Time to solution
- Product quality
- Service innovation

INTERESTED?

Visit: **https://prace-ri.eu/hpc-access/shape-access**
or contact the SHAPE team at: **shape@prace-ri.eu**

SHAPE has regular calls,
the next opens:
1 April 2020 - 1 June 2020

Over 50 SMEs have already taken
advantage of the opportunities
opened up by being part of SHAPE

DON'T GET LEFT BEHIND!

AERODYNAMICS
HPC SMEs
EUROPE PERFORMANCE CLOUD
BIO-INFORMATICS INDUSTRY
SOFTWARE
SCIENCE ENERGY
MEDICAL
OPTIMISATION
ENGINEERING
EXPERT
DATA

PRACE SHAPE
SME HPC Adoption Programme in Europe

SHAPE (SME HPC Adoption Programme in Europe) is a pan-European initiative supported by the PRACE (Partnership for Advanced Computing in Europe) project. The Programme aims to raise awareness and provide European SMEs with the expertise necessary to take advantage of the innovation possibilities created by High Performance Computing (HPC), thus increasing their competitiveness. The programme allows SMEs to benefit from the expertise and knowledge developed within the top-class PRACE Research Infrastructure.

It can be challenging for SMEs to adopt HPC. They may have no in-house expertise, no access to hardware, or be unable to commit resources to a potentially risky endeavour. This is where SHAPE comes in, by making it easier for SMEs to make use of high performance computing in their business - be it to improve product quality, reduce time to delivery or provide innovative new services to their customers.

Successful applicants to the SHAPE programme get effort from a PRACE HPC expert and access to machine time at a PRACE centre. In collaboration with the SME, the PRACE partner helps them try out their ideas for utilising HPC to enhance their business. So far, SHAPE has assisted over 50 SMEs (see the project website **https://prace-ri.eu/hpc-access/shape-access/shape-awarded-projects** for examples).

To find out more about the project, visit the website:
https://prace-ri.eu/hpc-access/shape-access
or contact the SHAPE team at:
shape@prace-ri.eu

Case Study 1

Albatern: producing power from waves
www.albatern.co.uk

Albatern, an innovative Scottish SME of 15 engineers has developed a highly scalable, modular wave power generator. Albatern's project supported by SHAPE marked the start of the development of a physics code capable of simulating and predicting the power of a large scale Wavenet array (100 or more devices).

Through their SHAPE Project Albatern has prototyped with the support of PRACE experts a parallel multibody dynamics solver, using the PETSc open source numerical library and scaled out on ARCHER, the CRAY XC30 at EPCC.

"The PRACE project has helped Albatern develop in house software that will directly aid expanding the scope of their simulation capability. Albatern is now in a position to write a multibody dynamics code that will share common parts of the simulation procedure allowing interchange of either the simultaneous or sequential methods." says Dr. William Edwards of Albatern.

ALBATERN Wave Energy

Case Study 2

Ergolines s.r.l.
www.ergolines.it

Ergolines s.r.l. is an Italian SME with expertise in the design and development of advanced technologies for process control in metal casting and foundry. This SHAPE project was concerned with using HPC-based numerical simulations to study the fluid dynamics of liquid steel under the effect of electromagnetic stirring in an electric arc furnace. In collaboration with PRACE, Ergolines have ported their solver to the CINECA Fermi HPC system, which has enabled them to perform simulations in 20 minutes that would have taken them 15 hours on their local systems - thus enabling them to carry out many more extensive and detailed analyses to feed in to their design processes.

ergolines INNOVATION PARTNER