

Supercomputing Expertise for Small & Medium Sized Enterprises Network

SME Business Improvement Based on HPC Technology

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**39th International
Convention**

**ICT Electronics &
Microelectronics**

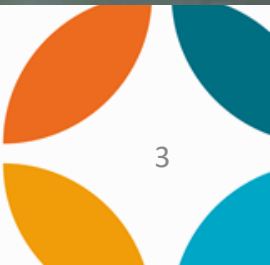
HPC for SME Forum

1st June 2016



Project Coordinator – Karen Padmore

Presenting from North Wales



H2020: SESAME Net Funding Overview

- 🌀 **Call identifier:** H2020-EINFRA-2014-2
- 🌀 **Topic:** EINFRA-6-2014
- 🌀 **Start:** 1st June 2015
- 🌀 **Duration:** 24 months
- 🌀 **Funding from the EC:** €2m
- 🌀 **Total funded effort:** 272 PMs
- 🌀 **Contract n°:** 654416
- 🌀 **Project type:** Coordination and support action
- 🌀 **Web page:** <http://sesamenetwork.eu>

- Supporting one network of HPC competence centres to **promote access to computational expertise anywhere in Europe** and enable the dissemination of **best practice in HPC industrial use particularly for SMEs.** (EU HPC strategy).



Aim

- To create an inclusive network to exchange best practice materials and training provision by bringing together a mix of Centres and Organisations and helping remove some of the barriers in engaging with HPC for SMEs.



- 🌀 Promoting access to computational expertise
- 🌀 Establishing a focal point at European level for expertise in HPC use by SMEs
- 🌀 Increasing the size of the HPC market
- 🌀 Supporting a network of HPC centers and SMEs
- 🌀 Addressing coordination, outreach, training and the exchange of best practice at the EU level
- 🌀 Increasing the number of SMEs that actively use HPC



EXECUTIVE SUMMARY **High Performance Computing in Progress on the Implementatio European HPC Strategy**

Executive Summary of the Draft Final R

A study prepared for the European Commission
DG Communications Networks, Content & Technolog
Internal identification

Contract number: 30-CE-0663100/00-22
SMART number: 2014/0021

This study was carried out for the European Commission



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ISBN number

DOI: number

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5.) Industrial exploitation of HPC including regional/national centers for the access of industry (including SMEs) to HPC (HPC Competence Centers), industrial HPC-based development and innovation, education and training in HPC, HPC trained workforce in Europe, and more.

- Europe already has some of the world's leading HPC centres for collaborations with industry, including SMEs. These include HLRS (Stuttgart), Teratec (Paris), SURFsara (Amsterdam), CINECA (Bologna), and LRZ (Munich), to name a few. Europe, like the rest of the world, also has many HPC centres that have recently added industrial outreach programs and are struggling with how to work with industry. Centres with strong industrial experience are well positioned to mentor less-experienced centres, and to assume leadership roles in any future HPC competence centres.
- Many of the European HPC stakeholders IDC interviewed for this study agreed that European programs supporting industrial access and collaboration, such as PRACE, SHAPE and Fortissimo, have been successful but need to do more. Only a small percentage of European SMEs that could be helped by HPC seem aware of these opportunities, for example. In addition, existing programs tend to award access on the same basis that is used for science—peer review to determine the scientific merit of projects. Europe's economy would be better served if SMEs could also gain limited, initial access ("try it out") to HPC resources, including expertise, based on the value HPC could bring to their businesses, even without the prospect of advancing the known science or engineering.
- The EC hasn't done an optimal job of communicating the HPC strategy, resources, plans and contact persons to the broader HPC community, and in particular to industry.

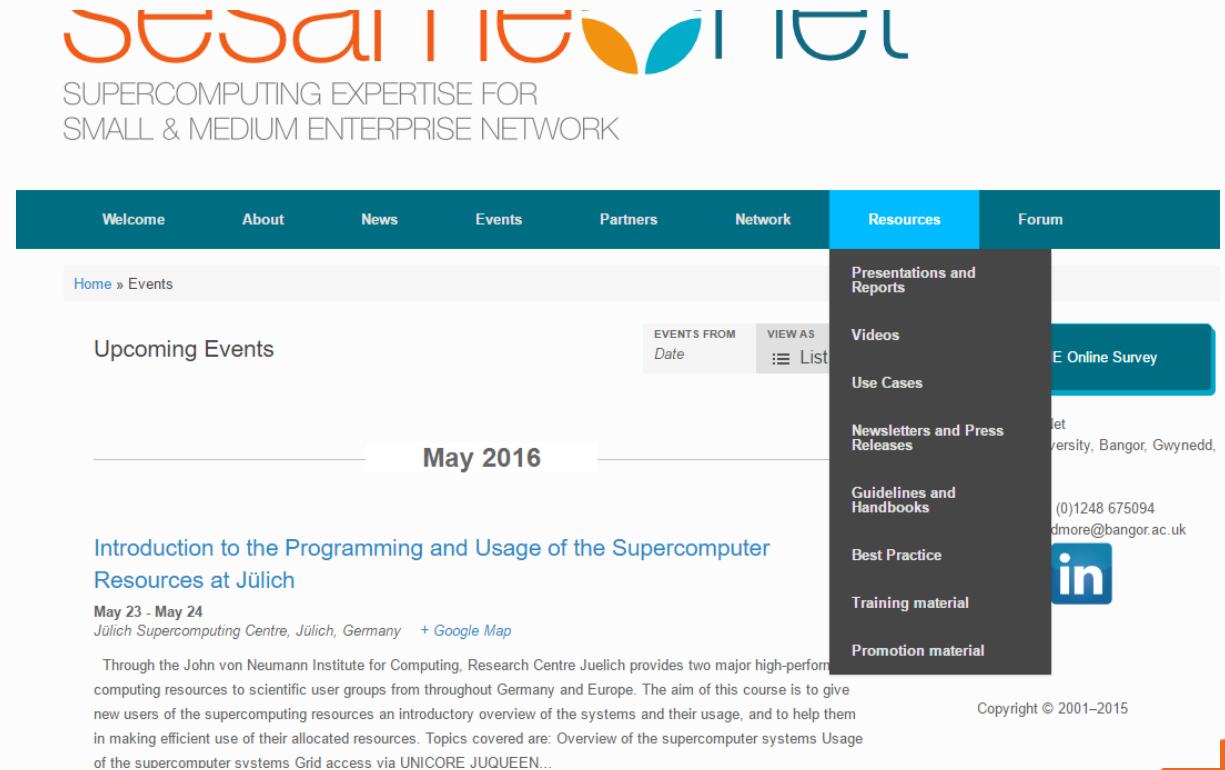
- *“Member States are encouraged to set up HPC competence centres that facilitate access of industry and specifically SMEs to HPC services, and should support supercomputing centres to transfer expertise to them”, can only be achieved by building a “bridge” of industry support structures at both national and regional levels.*
- *SMEs in particular require either regional support structures, such as clusters around centres of expertise (computer centre or university), or to be part of the supply chain of a large company which defines their HPC strategies - UK regions have specific access support programmes for SMEs (e.g., HPC Wales, Supercomputing Scotland)*





Progress to date

- 🌀 Website and active social media presence
- 🌀 Expanding repository of information and resources:
 - 🍂 Events Calendar
 - 🍂 Presentations and Reports
 - 🍂 Newsletter and Press Releases
 - 🍂 Guidelines and Handbooks
 - 🍂 Best Practice Webinars
 - 🍂 Training materials
 - 🍂 Information exchange
- 🌀 SME Workshops
- 🌀 Opportunities to collaborate



Industrial Case Studies

- One of the essential elements delivered by SESAME Net is the processing and dissemination of case studies
- Partners have described the successful collaboration between their own Centres and SMEs in several different sectors of business including:
 - Energy, Water and Environment
 - Life Sciences
 - Manufacturing and Materials
 - Creative and New Industries



Applications & Technologies.....

Coming up next.....



SCAI



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-  Visit our website: <http://sesamenetwork.eu/>
-  Follow us on Twitter: twitter.com/sesamenet
-  Join our LinkedIn group: www.linkedin.com/pub/sesame-net/106/60/887

