

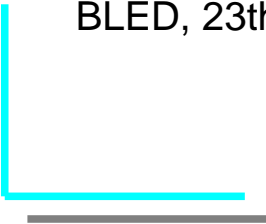
# HPC in cross border region

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## What do we have at Trieste:

- Network of excellent research Institutes, where simulation is one of the main tool .
- Facts:
  - SISSA/DEMOCRITOS users computed for about 7.2 million CPU hours locally in 2011 and at least 3 more time all around the world
  - SISSA/ICTP signed an agreement to build a 150TF system in 2013 and to open a university master in HPC
  - Spin-off companies are born in such Environment

## A CNR/IOM spin-off company

A screenshot of the 'exact' website. At the top left is the 'exact' logo. To its right, the text 'services for high performance computing' is displayed. Below this is a dark blue navigation bar with white text for 'HOME', 'SERVICES', 'SUPPORT', 'PARTNERS', and 'ABOUT'. The main content area features a large 'exact' logo with a blue 'x' on a black background. Below the logo is the tagline 'eXperience on advanced computational technologies'. The bottom section consists of four white boxes with grey borders, each containing a heading, a paragraph of text, and a 'Learn more >' link.

**eXact HPC world**  
eXact has more than ten years experience in HPC, serving and training the scientific community in the fast moving world of high performance technologies, systems and applications.  
[Learn more >](#)

**Smart solutions**  
eXact offers expertise in high performance computing delivering cost effective solutions for installation and configuration of clusters, in both scientific and enterprise areas.  
[Learn more >](#)

**Creating talent**  
Extend your HPC competence. eXact training programs leverage a deep scientific and technical knowledge base, spanning a full range of algorithms, software and architectures.  
[Learn more >](#)

**Be elastic**  
Don't worry about the infrastructure, it's our job. eXact offers pay-per-use solutions that span from bare SSH to web portal access to bleeding edge HPC cluster farms.  
[Learn more >](#)

All the components of an HPC ecosystem are present

A black, hand-drawn, irregular outline containing the word 'HARDWARE' in black, uppercase, sans-serif font.

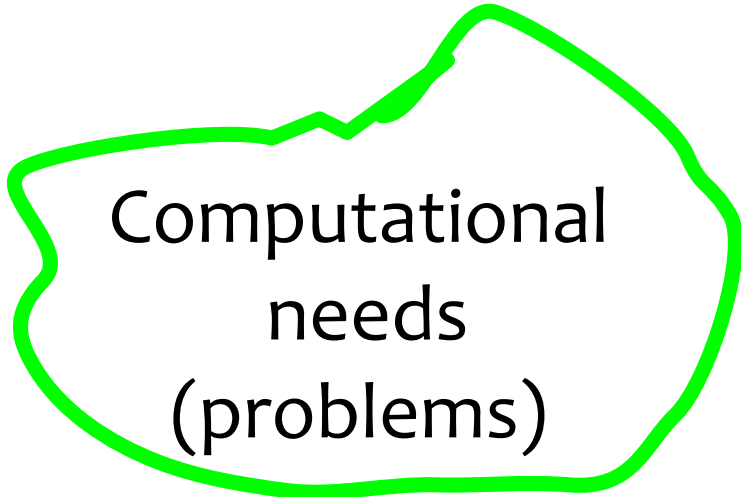
HARDWARE

A dark red, hand-drawn, irregular outline containing the word 'BRAINWARE' in black, uppercase, sans-serif font.

BRAINWARE

A blue, hand-drawn, irregular outline containing the word 'SOFTWARE' in black, uppercase, sans-serif font.

SOFTWARE

A bright green, hand-drawn, irregular outline containing the text 'Computational needs (problems)' in black, sans-serif font, arranged in three lines.

Computational  
needs  
(problems)

## Interact/capitalize/grow : the HPC5 challenge

- Leverage on HPC competences on the Italian/Slovenian border to:
  - STIMULATE HPC needs in SME
  - KNOWLEDGE exchange with ACADEMIA
  - Make business

hpc<sup>5</sup>  
high performance  
and cloud computing  
cross-border competence  
consortium

# Our HPC5 integrated vision :

COMPUTATIONAL NEEDS

Both in SMEs and Research centers

COMPETENCE CENTER :

Identify/analyze/stimulate

Requests and needs

Identify the right platforms for the right need

HPC5 infrastructures

HPC

GRID

CLOUD

LOCAL

# Conclusions

TODAY

- In the cross-border regions there are
- HPC infrastructure
  - competences
  - needs

TOMORROW

HPC5  
 Integrated ecosystem  
 ready to a world wide  
 challenge

