



5 research centers

5 HPC centers

3 education & business partners



> 70 researchers

2 data, workflow & interoperability suites



~6.500 users (subscribers)

4 flagship codes



# MAX PARTNERS

MaX is a consortium involving 5 research teams, 5 HPC centres and 3 educational and business partners. Over 70 researchers collaborate in MaX efforts.



MAX - CENTRE OF EXCELLENCE

c/o CNR NANO - via Campi 213A

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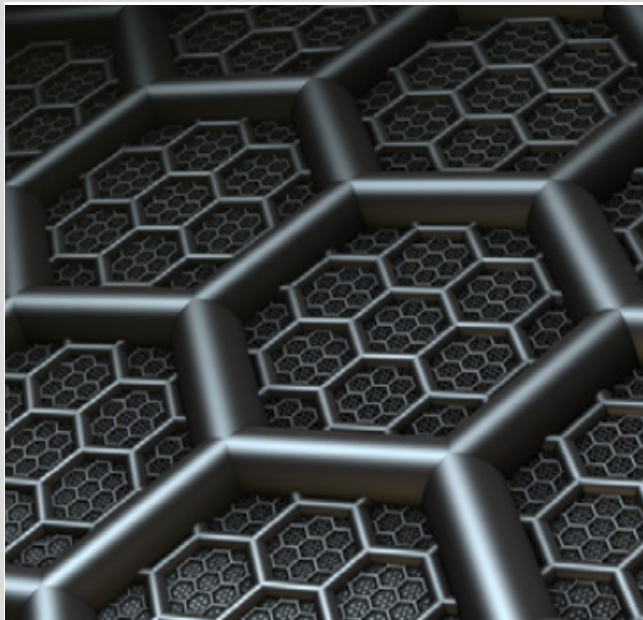
[www.max-centre.eu](http://www.max-centre.eu)



DRIVING THE EXASCALE TRANSITION



MaX (Materials at eXascale) is a European Centre of Excellence for enabling the best use and evolution of HPC technologies by creating and enforcing an ecosystem of knowledge, capabilities, user-oriented services, applications, data workflows, and analytic tools

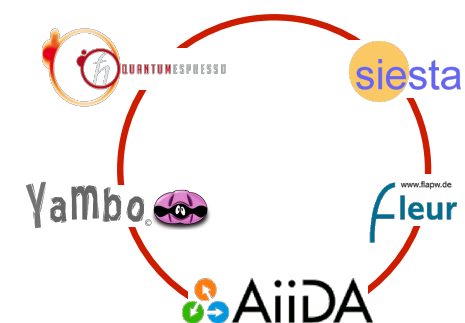


**Materials** are crucial to technological change, industrial competitiveness and to tackle societal challenges – from energy and environment to health care, information and communications, industrial processes and manufacturing, safety and transportation.

*“What if materials simulations were 1000x faster and more workable? MaX is aimed to build an ecosystem of capabilities and applications to innovate material discovery”*

#### MAX GOALS

- ➔ Implementing a **Sustainable Programming Platform** for quantum engines kernels
- ➔ Building a **Dynamic Data Framework** to manage HTC, automatic data storage and workflows interchange
- ➔ Supporting a strong action for **Exascale Transition Enabling** through the development of novel algorithms, domain specific libraries, in memory data management and co-design
- ➔ Developing a **Catalog of Services** accommodating end-users help-desk and support



*MaX flagship codes ecosystem*

- ➔ Contributing to the diffusion of material simulations through **Training and Education Programs**
- ➔ Establishing a **Need-Solution Integrations** Protocol by aligning technological offer with lead users requirements