EURO²

Workshop

"Център за компетентност HPC+ в България"

24 април 2023 г.

- Facilitate **access** to the **HPC ecosystem** including **testbeds**, **hands-on sessions on HPC**, **HPC application optimising and scaling**

- Facilitate **uptake** of **HPC applications** by different users, including SMEs (e.g. promoting locally relevant **success stories**)

- Provide **scientific/technical expertise/consulting** through **application-oriented HPC knowledge**/focus (e.g. HPC and HPDA), as well as access to **advanced simulation** and **modelling algorithms, software codes** and **tools**

- Contribute with the expertise to the **development activities** of SMEs to enable their **efficient use of HPC resources** (e.g., **software porting and customization, deployment of advanced simulation** and **modelling algorithms, methods,** and **tools** etc.)

- Provide **on-site evaluations** of **new technologies**, **experimenting**, **proofs of concept** as well as enable **validation** and **demonstration of HPC technologies**, **software codes**, **tools**, and **algorithms** in relevant environments.

- Facilitate **access** to **supercomputing** and **data management** for **exploring innovation solutions** of interest to end users, including SME user industries.

- **Awareness raising** and **outreach** on the benefits of HPC to potential user industries, including SMEs.

- Implement **technology transfer activities** at local/national level and the Digital Single Market.

This task will continue the existing collaborations with industry and enhance, and maintain an extensive service portfolio to address SMEs and larger industry.

- ***Services*** to ***facilitate access to supercomputers and data storage***, and analysis infrastructures for SMEs and industry will be evolved.

- The work with SMEs will comprise of ***provision*** of ***technical*** and ***scientific expertise*** and ***consulting*** services for industry. These ***services*** will be ***developed***, ***implemented***, and ***validated***, and the NCC will contribute to ***development activities***.

    especially for ***sectors*** IT/ HPC systems, services & software providers, Health care, Transport, Agriculture, and Manufacturing.

- Hands-on sessions and ***workshops*** will be organized, when possible, ***jointly with other NCCs***, to ***support*** the ***end-users*** with access to ***testbeds*** and ***optimization of applications***.

- Another goal of this activity is to ***establish*** and ***maintain business relationships***, especially involving ***SMEs and academia***.

- ***Marketplace***

- *Collaborations* between *companies*, *universities* and research organizations will be *formalized,* e.g., via *contracts* and *agreements*, to support the utilization of HPC and the related scientific methods in industry and to simplify on-site evaluations of new technologies, *proofs of concepts*, as well as services related to the *optimization* and *validation of the utilization of HPC* and *associated technologies*.

- Important role of the collaborations with *DIHs* and *industry clusters* is envisaged in this respect.

- *Services* on *technology transfer* towards the digital single market are part of actions in this task, for which the *existing technology transfer offices* at the partners will contribute, also providing web-based access.

- *Consulting services* on *development* and *protection* of *intellectual property rights* will be provided. Specific actions to facilitate access and *increase the use of HPC* technology by SMEs, e.g., by provisioning of *demonstration prototypes*, will be undertaken.

Services for SMEs & Large Industry

- HPC+ Training – introductory/intermediate

- HPC+ Training – advanced/specialized

- HPC+ *Technical consultation* – code optimisation/benchmarking/profiling/bottleneck analysis, etc.

- HPC+ *Technology consultation* – advice on use of technologies, acquiring or access to hardware, investing opportunities, project preparation, etc.

- Software design and development for *Proof of Concept* using HPC+

Thank you for the attention!

Kamelia Stefanova, UNWE