Composing, Executing and Sharing Multiscale Applications in an Integrated Environment

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\section*{Goal}

- Build an environment for composing, executing and sharing multiscale applications
- Provide the ability to connect software modules to form complex, multiscale simulations
- Support hybrid distributed execution, i.e. different parts of the same application can be executed on various types of e-infrastructures i.e. on a grid (e.g. EGI), HPC (e.g. PRACE) or on a cloud
- Support a variety of possible configurations of multiscale simulations in a unified and non-invasive way

\section*{Tools}

- MAPPER Memory is a semantic-aware persistence store to record metadata about model sand scales
- Multiscale Application Designer is a user-friendly visual composition tool transforming high level MML descriptions into executable GridSpace experiments
- GridSpace Experiment Workbench supports execution and result management of generated experiments on infrastructures via interoperability layers
- Provenance Tracking System supports storing and providing detailed information about experiment execution and its results

\section*{References}


\section*{Acknowledgements}

This research was partially supported by the EU ICT MAPPER project (grant 261507).
The authors thank A.G. Hoekstra, J. Borgdorff, C. Bona Casas, E. Lorenz, M. Ben Belgacem, and B. Chopard.