

Action points following from the MAPPER – PRACE meeting

May 13, 2011

This document summarizes the final discussion of the PRACE – MAPPER meeting on June 13, 2011, in Amsterdam, The Netherlands.

First collaborative action over Summer

MAPPER proposed two applications (in-stent restenosis and nano material science) as first candidates to demonstrate distributed multiscale computing, also in an interoperable mode, coupling 'prace-type' systems (e.g. a Tier-1 system, with the same software stacks as PRACE machines, LRZ, SARA) with a 'egi-type' machine (being resources from PL-Grid at PSNC) and a local machine (e.g. from UCL).

The idea is to form a small team for two pilot demonstration (next 6 months):

Mapper – **Chris Kurowski** (driving this activity) + colleagues in the MAPPER services and operations activities and representatives from the two selected applications.

PRACE – Axel Berg, Giuseppe Fiameni (Technology), Gabriele Carteni (Service deployment)

EGI - Steve Brewer, Tiziana Ferrari, Gergely Sipos

This team will investigate what should be done, what can be done, set up a plan, and execute.

Requirements list

This activity is related to getting more information on the MAPPER applications and their requirements, and to get feedback from the PRACE (Tier-0) point of view.

This activity involves:

MAPPER - **Derek Groen** (driving this activity), Bastien Chopard (MAPPER WP7 –Applications – leader), Alfons Hoekstra

PRACE – Giuseppe Fiameni, Giovanni Erbacci

EGI, Steve Brewer

Derek will select relevant (technical) MAPPER deliverables, maybe summarize, and share these with PRACE and EGI. They will go through these deliverable, and get some feedback from the Tier 0 point of view.

Services and Technology synchronization

The idea of this activity would be to zoom in to more detail on the technology, to provide more information on details of scheduling, monitoring systems, etc. The proposal is to postpone this activity to after the first summer activity and once the two pilot demonstration projects are finished. Chris Kurowski will share MAPPER deliverable 6.1 with relevant persons (the summer activity team). Kris, Ilya and Stefan from MAPPER, Giuseppe and Gabriele from PRACE.

Mid Term activities

After review of MAPPER deliverables, application requirements can be made more precise, and we can investigate if petascaling for selected applications is required, and how this could be established. Also the preparatory access could be a good way to prepare MAPPER applications for access to

PRACE Tier-1 or Tier-0 systems. We could also directly work with PRACE (with Alan Simpson and Giuseppe)

For other applications, prep. Acces

==> We could also collaborate with Alan and Giuseppe Fiameni for some of the single scale codes used in MAPPER.

MAPPER colleagues Eric Lorenz and Carles Bona Casas (both from UvA) will create a prioritized list of real single scale applications codes and work directly with Alan and Giuseppe on these codes.

MAPPER WP7 on applications will meet in Cracow, on July 4-6, 2011. This seems like a perfect occasion for PRACE representatives to join this technical meeting, and work with selected application developers from MAPPER.

Other Activities

If another PRACE User survey is planned, the suggestion would be that one or two MAPPER related questions could be included, with the goal to identify the breadth and depth of the Distributed Multiscale Computing as proposed by MAPPER.

There may be a PRACE user forum meeting in May next year. Derek Groen from UCL, also a MAPPER colleague, is in this loop and will facilitate MAPPER presence at this meeting.