Research and Innovation on Advanced Computing – an EU Perspective

Thierry Van der Pyl
Director Components and Systems, European Commission

Under 'Components and Systems' in FP7-ICT, over the period 2007–2012, the EU has so far invested about 100M€ on Computing Systems research. Building on the industrial constituencies and activities of the Joint Technology Initiative ARTEMIS and complementing research on embedded systems and control, research and innovation on Computing Systems covers a broad spectrum of issues from multi-core scalability and mastering parallelism to hardware/software co-design and low energy/low cost chips. With the convergence of computing technologies, work covers the broad spectrum of computing systems from customised computing via data servers to high performance systems. Work builds on and expands from European industrial strengths in embedded and mobile computing with low cost and energy efficiency being key drivers.

After a short overview of the research supported, some major trends in computing systems and their role in our society will be discussed. First ideas of new funding opportunities under Advanced Computing Systems in ICT Work Programme 2013 will be outlined. An outlook towards the next Framework Programme for Research and Innovation "Horizon 2020" and an overview of recommendations received from consultation activities with the constituencies in the broad context of Computing will conclude the presentation.