Objective ICT-2011.9.7:
Dynamics of Multi-Level Complex Systems (DyM-CS)

Rationale:

- Many artificial and natural systems are characterized by a high level of differentiation in structure and organization; they exist in areas as diverse as the Internet, energy management, climate, financial markets, infrastructures (including ICT), biology, transport, epidemics, meteorology, urban planning, social simulation and policy impact assessment.

- In order to describe and control these systems there is a need to observe and reconstruct their dynamics and make sense of large amounts of heterogeneous data gathered on various scales.
Objective ICT-2011.9.7: Dynamics of Multi-Level Complex Systems (DyM-CS)
Objectives:

• New mathematical and computational formalism on dynamics of multi-level systems developed and validated on real-world applications involving large and heterogeneous data sets

• World-class international research cooperation, global alliances in this research area, and links with similar actions outside Europe, in particular with participants from USA, Japan and China

Lesser emphasis on:

• Applications driven projects
Objective ICT-2011.9.7: Dynamics of Multi-Level Complex Systems (DyM-CS)

Target outcome a)
- Progress towards a general theory on complex systems
- New ICT-based methods and principles for the management of large scale systems, including ICT systems themselves
- Better understanding of structural patterns (e.g. resilience, sensitivity to failure) of complex systems in socio-economic and technological areas

Target outcome b)
- New EU and global collaborations between researchers in the disciplines involved in CSS
Related activities:

- Objective ICT-2007.8.4: Science of complex systems for socially intelligent ICT (COSI-ICT) – 4 IPs and a CA (ASSYST)


- FuturICT FET flagship pilot (www.futurICT.eu)
Objective ICT-2011.9.7: Dynamics of Multi-Level Complex Systems (DyM-CS)

Extra considerations:

- Pre-proposal service
- On-line registration
- Evaluators
Objective ICT-2011.9.7: Dynamics of Multi-Level Complex Systems (DyM-CS)

-Funding/Instruments:
  22 MEuro, STREPs & IPs,
  1 MEuro, CSAs
-Closing of Call 8 - 17th Jan 2012
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