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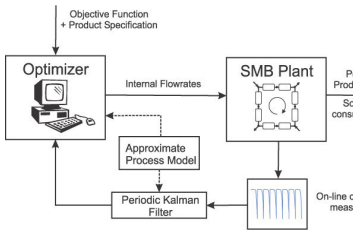

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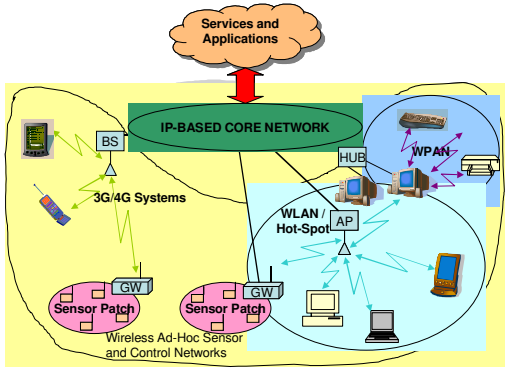

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European Commission

Sixth Framework Programme
Priority 2

Information Society
Technologies

NETWORK OF EXCELLENCE

HYCON
TAMING HETEROGENEITY AND COMPLEXITY

Hybrid Control:
Taming Heterogeneity and Complexity of Networked Embedded Systems

www.ist-hycon.org
Starting date: 15 September 2004
Duration: 4 years

Five main objectives

Scientific and Technological Integration

To co-ordinate the fragmented European research community in networked embedded control systems design: analysis, modelling and simulation, synthesis, communications and advanced control

To develop a shared research infrastructure amongst the network partners for the purpose of enabling durable collaborative research. This will help in particular to contribute to bridging the gap between control engineering and software system engineering

Achievement of a durable integration

To provide leadership to the European Hybrid Systems research community both within and outside the NoE consortium by establishing a **European Institute for Hybrid Systems (EIHS)** and maintaining it after the termination of the project.

Spreading of excellence

To implement new working methods and to increase research efficiency through a series of coordination, training, mobility and mentoring programmes.

To collaborate with industrial partners on four application domains: power management, industrial control, automotive control and multimedia communication networks.

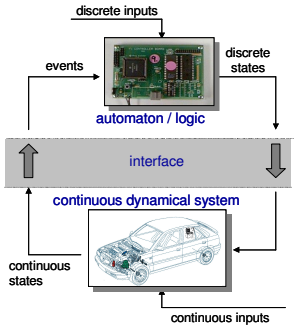
Thematic Activities (TA), from modelling to implementation:

TA1: Hybrid system analysis – Development of a systematic analysis methodology, to increase the level of confidence and the quality of embedded controller design.

TA2: Modelling and simulation of hybrid system – Development of tools for the reliable modelling and simulation of complex systems, model abstraction and model identification from measured data.

TA3: Hybrid system synthesis – Development of a common framework and tools for the synthesis of systems.

TA4: ***Implementation-aware control -*** Study of the interface between "functional" (control) specifications and "implementation" specifications.



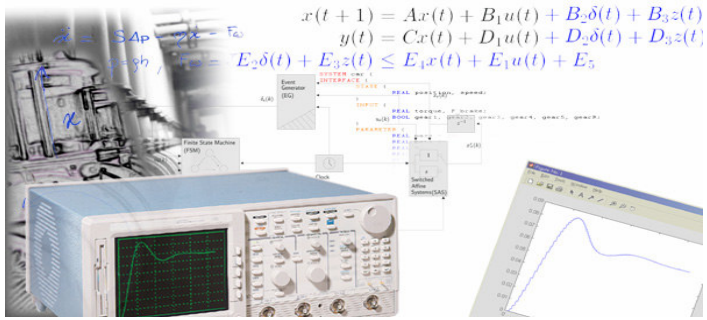
Joint Programme of Activities (JPA) structured around the following workpackages (WP):

Integrating activities:
- *WP1: Creation of the European Institute for Hybrid Systems*
- *WP2: Performance evaluation platform (Benchmarking)*
- *WP3: Tool Integration*

Research activities:
- *WP4a: Energy Management*
- *WP4b: Industrial Controls*
- *WP4c: Automotive*
- *WP4d: Multimedia Communication Networks*

Spreading of excellence activities:
- *WP5: Knowledge Management*
- *WP6: Industrial bridging*

Management activities:
- *WP7: Management activities*
- *WP8: Assessment, evaluation and quality*



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