D3CoS
Designing Dynamic Distributed Cooperative Human-Machine Systems

**PROJECT description**
D3CoS aims to develop new and affordable methods, techniques and tools that support the industrial development process of Dynamic Distributed Cooperative Human-Machine Systems, allowing for an improved development process, reduced costs and time to market.

**RELEVANCE to call**
D3CoS targets ASP8 human-centric design of embedded systems by:
- Defining a common methodology for DCoS Development
- Developing and studying models of multi-modal human-machine interaction
- Developing and studying cross-domain reusable techniques, reference designs and design patterns

**MARKET innovation**
D3CoS results – NEW AND AFFORDABLE METHODS, TECHNIQUES, and TOOLS - will:
- allow for early design evaluations of new systems
- improved evaluation of safety aspects of distributed cooperative human-machine systems due to a model-based development approach
- reduce effort, cost and time to market of innovative and ambitious distributed cooperative human-machine systems
- improve the quality of system design, development, and evaluation
- increase productivity and competitiveness of European manufacturers

**TECHNICAL innovation**
D3CoS goes beyond traditional assistance systems and addresses the whole cooperative system development process from a multi-agent perspective in order to tackle challenges posed by future cooperative traffic environments. The D3CoS project seeks technical excellence through:
- Open experimental simulation platform interfacing models of cooperative human and machine agents
- Support for reusability of successful designs and design patterns for intelligent multi-modal human-machine interfaces
- Support for reusability of designs and design patterns for (human) state inference and state adaptation
- Architectures for cooperative systems with Embedded Systems
- A common methodology to integrate the D3CoS methods, techniques and tools into an easy-to-use, reliable, valid tool chain for DCoS Development, for industrial application

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**WEBSITE**
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**START**
March 2011

**DURATION**
36 months

**TOTAL INVESTMENT**
€14.1 M

**PARTICIPATING ORGANISATIONS**
21

**NUMBER OF COUNTRIES**
7

- CHECH REPUBLIC
- DENMARK
- GERMANY
- NORWAY
- NORWAY
- UNITED KINGDOM
- FRANCE
- ITALY