ARTEMIS Call 2010 Project
269336

D3CoS

Designing Dynamic Distributed Cooperative Human-Machine Systems

ARTEMIS

COMPLETED

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 for multi-modal input and output devices

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
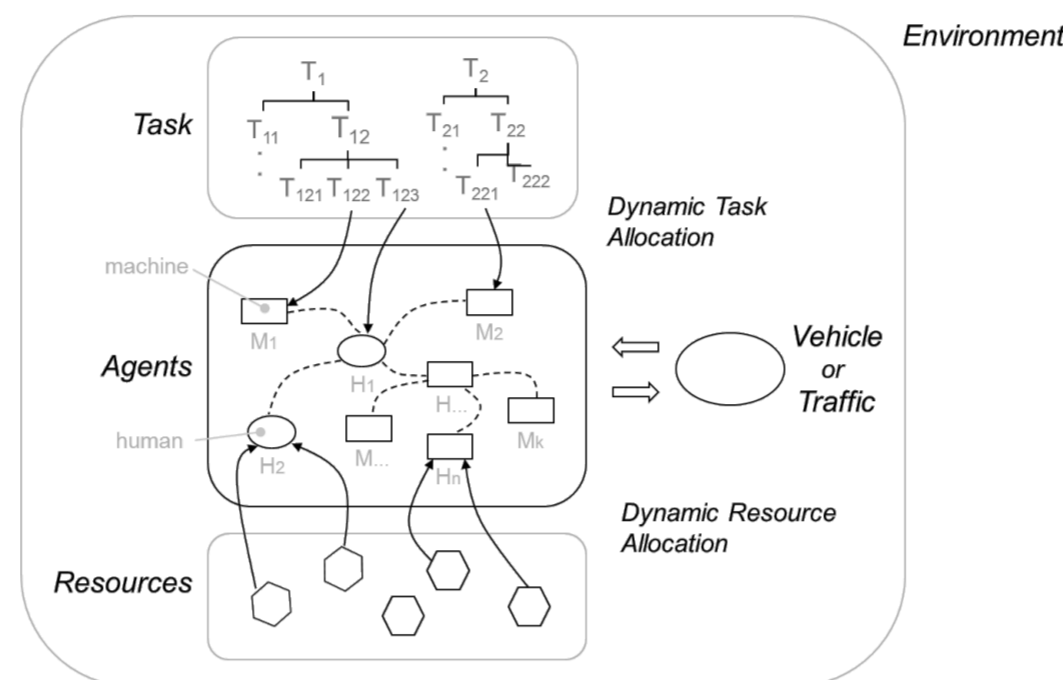
TECHNICAL *innovation*

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.

PROJECT COORDINATOR Jan-Patrick Osterloh	START March 2011
INSTITUTION OFFIS	DURATION 36 months
EMAIL osterloh@offis.de	TOTAL INVESTMENT €14.1 M
WEBSITE www.d3cos.eu	PARTICIPATING ORGANISATIONS 21
	NUMBER OF COUNTRIES 7

DENMARK
MARIMATECH
Survey and Positioning Solutions

NORWAY
KONGSBERG

CHECH REPUBLIC
Honeywell

UNITED KINGDOM
BMT Group

GERMANY
DLR
AIRBUS DEFENCE & SPACE
Lufthansa
RHEINMETALL DEFENCE
TUM
Visteon
FTT technologies group
TRUESTREAM AEROSPACE HUMAN FACTORS
OFFIS INSTITUTE FOR INFORMATION TECHNOLOGY

FRANCE
ISAE Institut Supérieur de l'Aéronautique et de l'Espace
Visteon
ENA

ITALY
FIAT CRF CENTRO RICERCHE FIAT
UNIVERSITÀ DEGLI STUDI DI MODENA E REGGIO EMILIA
AEB TECHNOLOGIES
SELEX GALILEO

Advanced Research & Technology for EMbedded Intelligence and Systems