



## Newsletter

Issue 1 | August 2013

### Introduction

Current digital manufacturing ICT platforms have provided a series of useful tools, including CAX, PDM and PLM systems, to support engineers in a series of activities. However:

Today's ERP systems are often detached from the engineering knowledge, while PLM systems provide no link to actual performance indicators, such as cost, time, and quality parameters; Engineering knowledge is often dispersed over many stakeholders and IT systems; Current User Interfaces (UI) are often too complex and require much effort to follow; A large part of the revisions and the process iterations during the product and process development could be avoided with the use of new IT tools taking advantage of existing knowledge and experience.

### Objectives

The Know4Car consortium will address the following objectives, utilizing a modern technical approach:

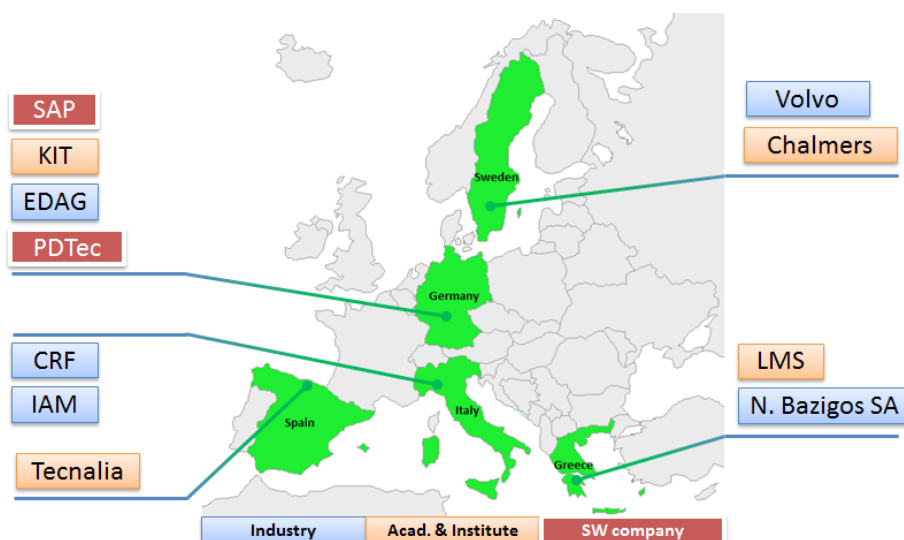
More efficient knowledge management and collaboration, throughout the process lifecycle, supporting the capture and systematic organization of knowledge across different stakeholders:

Systematic analysis of shop floor data for process and product design specifications; Automatic extraction and representation of knowledge from history of design changes.

Revolutionize the UI context in the engineering office and the shop floor, addressing the needs of blue-collar workers and engineers with particular emphasis on training activities:

Faster, easier, error-free UI for data entry / checking in the shop floor along with intuitive UI for instantaneous knowledge retrieval from workers and engineers; Serious games options for training and design purposes.

### Consortium



**Partners:** Volvo Technology AB, SAP AG, University of Patras – LMS, Centro Ricerche Fiat SCPA, Karlsruhe Institute of Technology, Fundacion Tecnalia Research & Innovation, PDTEC AG, Innovazione Automotive E Metalmeccanica SCRL, Chalmers University of Technology, EDAG GMBH & CO, Bazigos S.A.

### News

#### ICT2013 networking session

When: Nov 08, 2013 from 09:50 AM to 10:35 AM

Where: Lithuanian Exhibition and Congress Centre LITEXPO in Vilnius / Lithuania, Room H1E

Contact Name: Dr. Nikolaos Papakostas

### Recent publications

#### Assembly support using AR technology based on automatic sequence generation

J. Provost, A.H. Ebrahimi, K. Åkesson, 12th IFAC/IFIP/IFORS/IEA Symposium on Analysis, Design, and Evaluation of Human-Machine Systems. Las Vegas, USA, August 2013.

#### Augmented Reality for Human-based Assembly: Using Product and Process Semantics

L. Rentzos, S. Papanastasiou, N. Papakostas, G. Chryssolouris, 12th IFAC/IFIP/IFORS/IEA Symposium on Analysis, Design, and Evaluation of Human-Machine Systems. Las Vegas, USA, August 2013.

#### Multi-View Hand Tracking using Epipolar Geometry-Based Consistent Labeling for an Industrial Application

Y. Yun, I. Gu, J. Provost, K. Åkesson, Seventh ACM/IEEE International Conference on Distributed Smart Cameras. October 29 - November 1, 2013. Palm Springs, California, USA

#### Contacts:

Project Coordinator:  
Dr Thomas Lezama  
thomas.lezama@volvo.com  
Volvo Technology

Dissemination Manager:  
Dr. Knut Åkesson  
knut@chalmers.se  
Chalmers University of Technology

www.know4car.eu

