

# Virtual Automation Networks

## PROJECT DETAILS

Integrated Project  
 Funded by the EU – 6FP  
 Information Society Technologies  
 Contract number: 016969  
 Duration: 2005 - 2009  
 Coordinator: Siemens AG  
 Web site: [www.van-eu.eu](http://www.van-eu.eu)

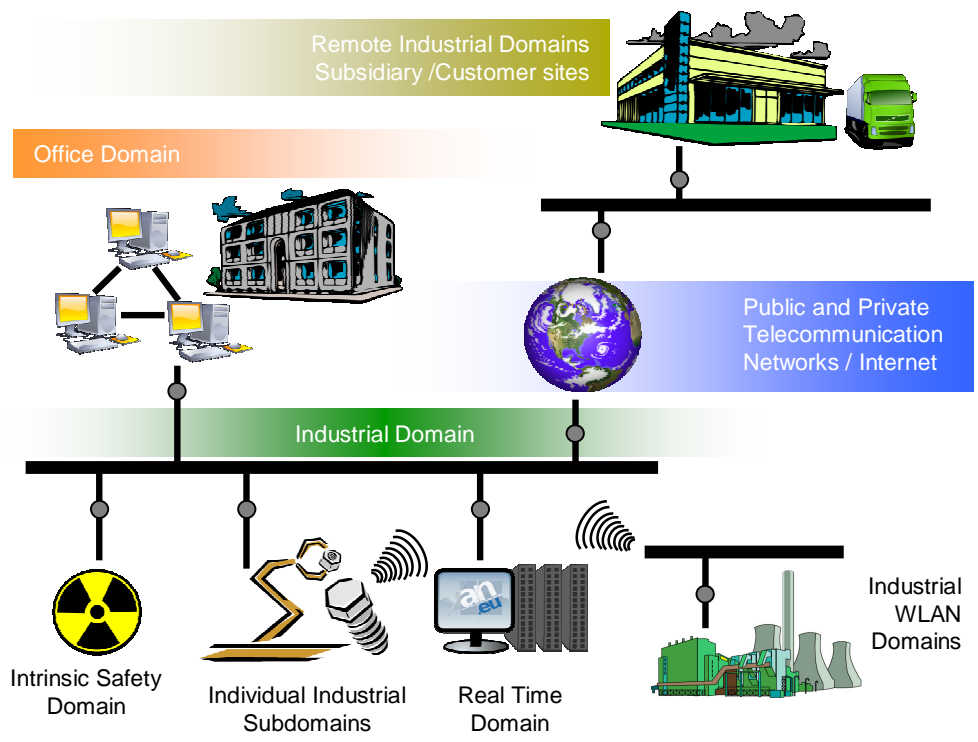
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## VAN VISION

To strengthen European leadership in industrial communication and automation, the vision of VAN is an open universal, seamless multivendor networking solution which is able to link worldwide components in process and factory automation from the single sensor in one factory plant to remote machinery in decentralized enterprises/sites.

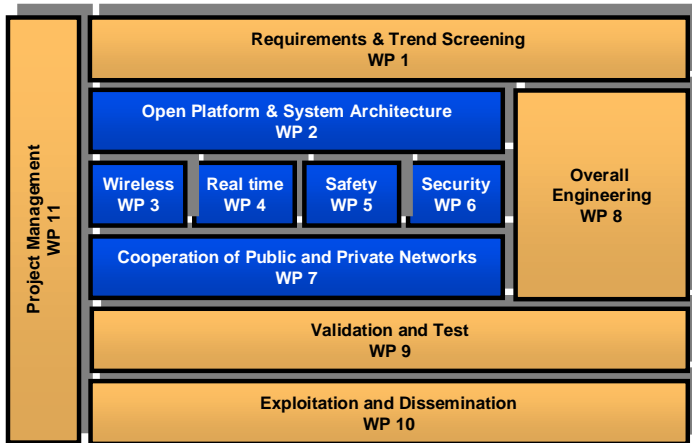
VAN's interoperable communication can be realized via fieldbuses, office networks and even the public communication infrastructure - wired or wireless. Core of this approach is PROFINET, enlarged by web-services and other IT based technologies to enable VAN's all-embracing communication approach.



By means of a common engineering model the user may not see the single building blocks of the underlying communication infrastructure and regards the whole network as a homogeneous system.

To realize this totally new concept, the VAN solution provides scalable real-time, safety and security strategies, needed to meet QoS requirements over the whole Virtual Automation Network, necessary in automation-science and -practice.

# WORKPLAN



The basis for the different technologies is WP2, where an **open infrastructure for automation components** for the VAN goals is being developed and specified.

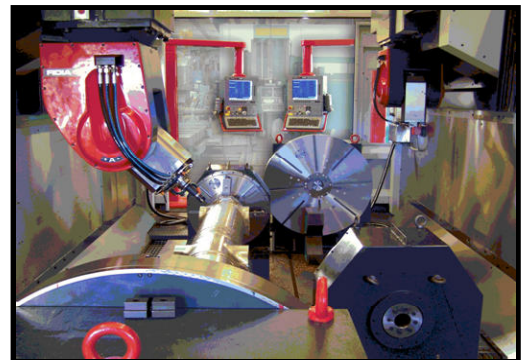
Different solutions for **wireless communication, safety, security and real time aspects** are being investigated and developed inside WP3 to WP6. Concepts and solutions shall be developed to link the **automation pyramid** e.g. with the Internet (WP7). The set up/installation procedure for the technologies and prototypes is handled by WP8. Results from WP2 to WP7 are necessary to define the requirements of an engineering system.

The developed solutions (WP2-WP8) will be implemented in **Industrial Experimental Setups (IESs)**, on the one hand in the specific WP (e.g. prototype for the Real-Time solution in WP4) and on the other hand in an integrated IES covering factory and process automation.

VAN project is structured into **11 work packages**, the first 10 covering the technological content.

During the first two years of the project, WP1 has formed a baseline of work for all other (technical) WPs.

On the third year the main goal is to perform an afresh and thorough **trend screening** of VAN relevant emerging technologies to enable both **inclusion of the latest developments and solutions** into the VAN implementation, and support risk analysis with respect to competing solutions.



## EUROPEAN COMPETENCE GROUP

The aim of VAN European Competence Group (ECG) is to provide a platform for dissemination of the project knowledge and concepts, as well as to extend the project results beyond the project consortium and time frame. The competence group represents the requirements and concepts for industrial automation and communication with respect to real-time, security, safety and integration with a European focus.

End-users, suppliers and system integrators will be aware of new techniques and new products resulting from VAN project by means of regularly ECG activities and articles in relevant industry magazines.

ECG activities are free of charge for interested companies and meetings – for discussing their own requirements and constraints – will be held regularly during major events of automation industry such as Hannover Fair or SPS/IPC/Drives in Nuremberg.

## PARTNERS

