

# Objective ICT-2009.1.3. INFO DAY

Internet of Things and Enterprise  
Environments

Brussels, 18 February 2009



**Title:** *The MALL*

**Research domain** Future Internet based Enterprise Systems:  
Internet of Services, Context-awareness, P2P, Dynamic knowledge integration, Pervasive systems, Sensors

**Idea description** **A Virtual Mall is a web portal hosting hundreds of virtual shops, providing customers with a 3D graphical interface for realistic experience, a personalized advertising and a context-aware recommendation system, shared delivery services, offering facilities for tracking delivery and goods' quality during storage and transportation.**

**Why now?** The traditional city shop is disappearing, in favor of expensive boutiques located in the city-center or huge out-of-town malls. This project aims at the survival of shops along with the old personal relationship between customers and vendors. All challenges presented in the following slide are at the frontier of current research.

**Interest for Industry** Application and development opportunities for companies within the realm of Service Oriented Architectures and Wireless Sensor Networks. The project vision is general enough to encompass also different scenarios of collaborative and pervasive environments.



# Objectives and scope

## Main objectives

- Hundreds of virtual shops providing customers with a 3D graphical interface for realistic experience
- Vendors join communities aggregated around a specific target object, by means of a peer-to-peer paradigm:
  - **Purchase groups for specific goods**
  - **shared delivery services, offering facilities for delivery tracking as well as control of environmental parameters which may affect the**



# Expected impact

## Economic impacts

- Possibility for small retailers to continue their business by profiting of an (additional) on-line selling channel, which does not necessarily require the availability of a physical shop
- Personalized customer care, based on advanced profiling, context-aware and preference techniques; its effect is the development of a customisable and user-oriented business model
- The system automatically collects data about the (virtual) commercial transactions, the users' preferences, the timing patterns ..., later used by a Knowledge Management System to support marketing decisions

## Social impacts

- Free aggregation of goal-oriented communities, promoting the dynamic birth of composite business realities
- Easy global access to country-specific goods, like typical food or clothing, which fosters communication and knowledge, towards a common European cultural understanding and background

## Environmental impacts

- Shopping time extended to 24 hours/day, 365 days/year, with no individual transport overhead – causing the well known traffic jams and pollution; this favours an effective merge between real-life and virtual business
- Vendors profit of shared delivery services, offering facilities for delivery tracking as well as control of environmental parameters, which may affect the goods' quality during storage and transportation



# Requests/Contact details

## Competences and Partners sought for

- Business analysis
- 3D graphics and animation
- P2P middleware architectures
- Wireless Sensors Networks producer
- Shopkeeper organization (for result validation)
- Software developers, especially with experience on web portals
- Legal experts on european commercial regulations and privacy issues

## Name, organisation, email, website of the main contact person

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