

# PROMETEO

Plataforma Tecnológica Española de  
Sistemas con Inteligencia Integrada



## ITEA Roadmap 3 Overview

PROMETEO Asamblea 2008

Universidad Politécnica de Valencia

J.Bermejo

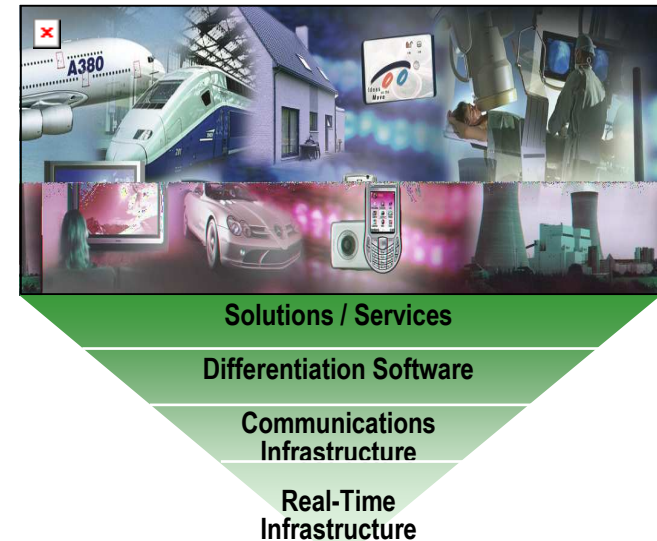


# ITEA 2 Roadmap 3

## A document for all

### Vision

**‘Europe to maintain leadership in Software-intensive Systems and Services building on key European strengths and industries’**



### Definition

- **RM3 is:**
  - a structured vision of future Systems and Services
  - sketching deployment scenarios
  - a description of related key enabling technologies
- **RM3 isn't:**
  - a set of market analysis
  - a succession of yearly work programs

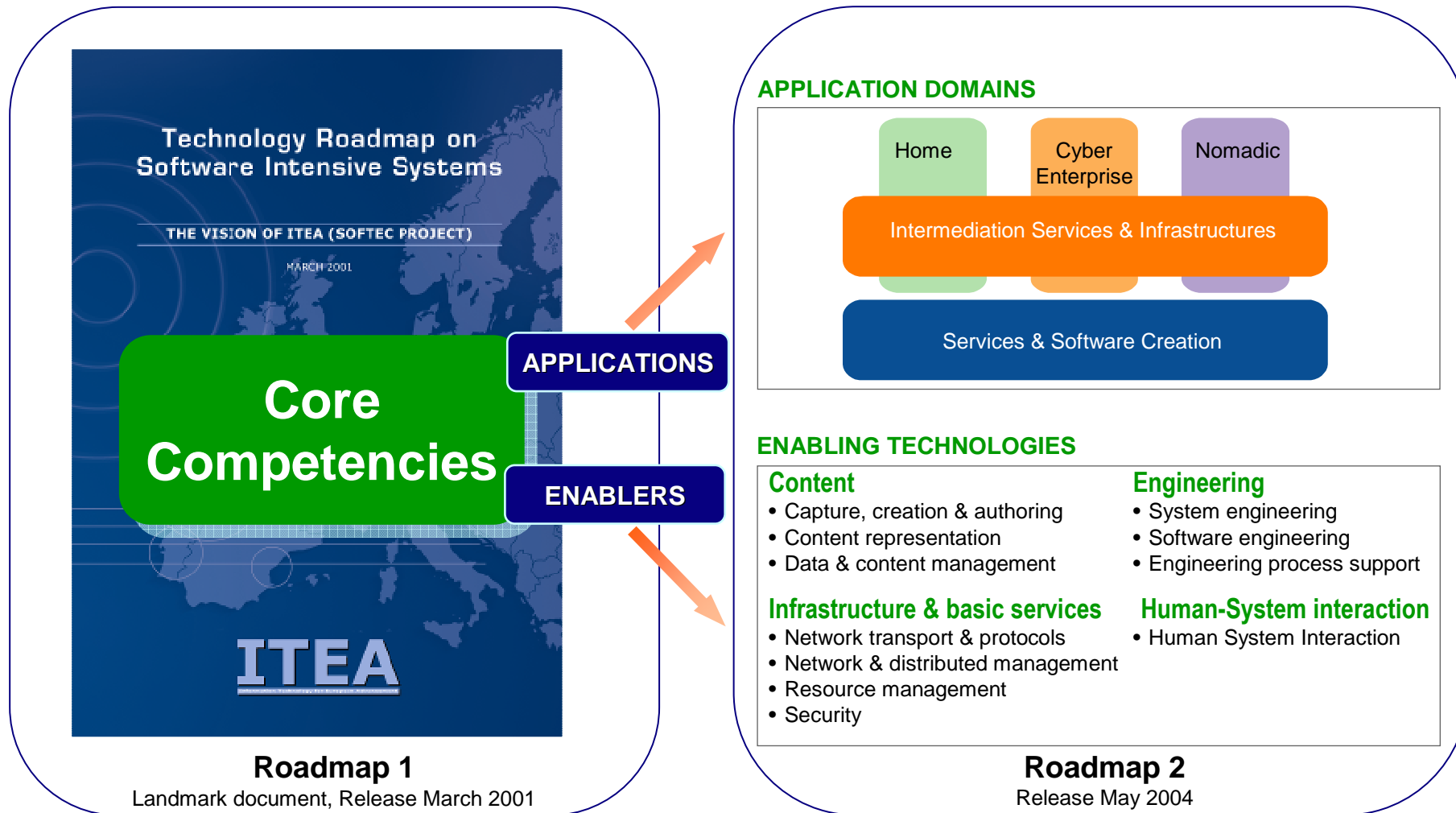
**enabling to understand the general evolutions of Software-intensive Systems and Services, identify major roadblocks and position projects**

# ITEA's Mission & Ambition

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- Contribute research excellence to Europe's competitive software-intensive systems and services building on the European strengths in the domains of automotive, aerospace, consumer electronic, medical, telecommunications, automation ..
- Combine research excellence with innovation
- Deliver tangible results
- Address societal needs
- Anticipate technological disruptions

# ITEA Roadmap evolution



... from core competencies to application domains and enabling technologies; then!!!

# Applications and Services Domains

Multiple types of Services

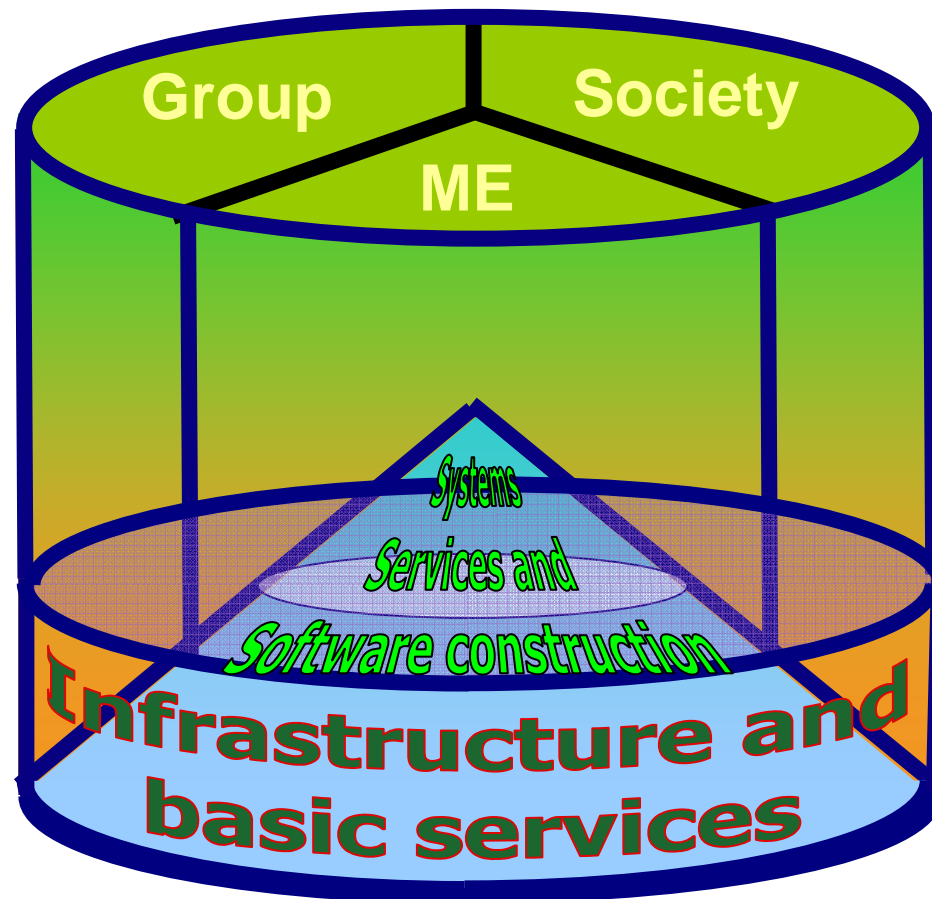
X-2-Y

Where X, Y could be e.g. A, (Agent),

B, (Business),  
C, (Consumer),  
M, (Machine),  
S, (Service).

Major social impact :

- Health
- Aging population
- Urbanization
- Environment
- Knowledge
- Security & safety
- Globalization
- On the move



Physical  
Human

REAL



VIRTUAL

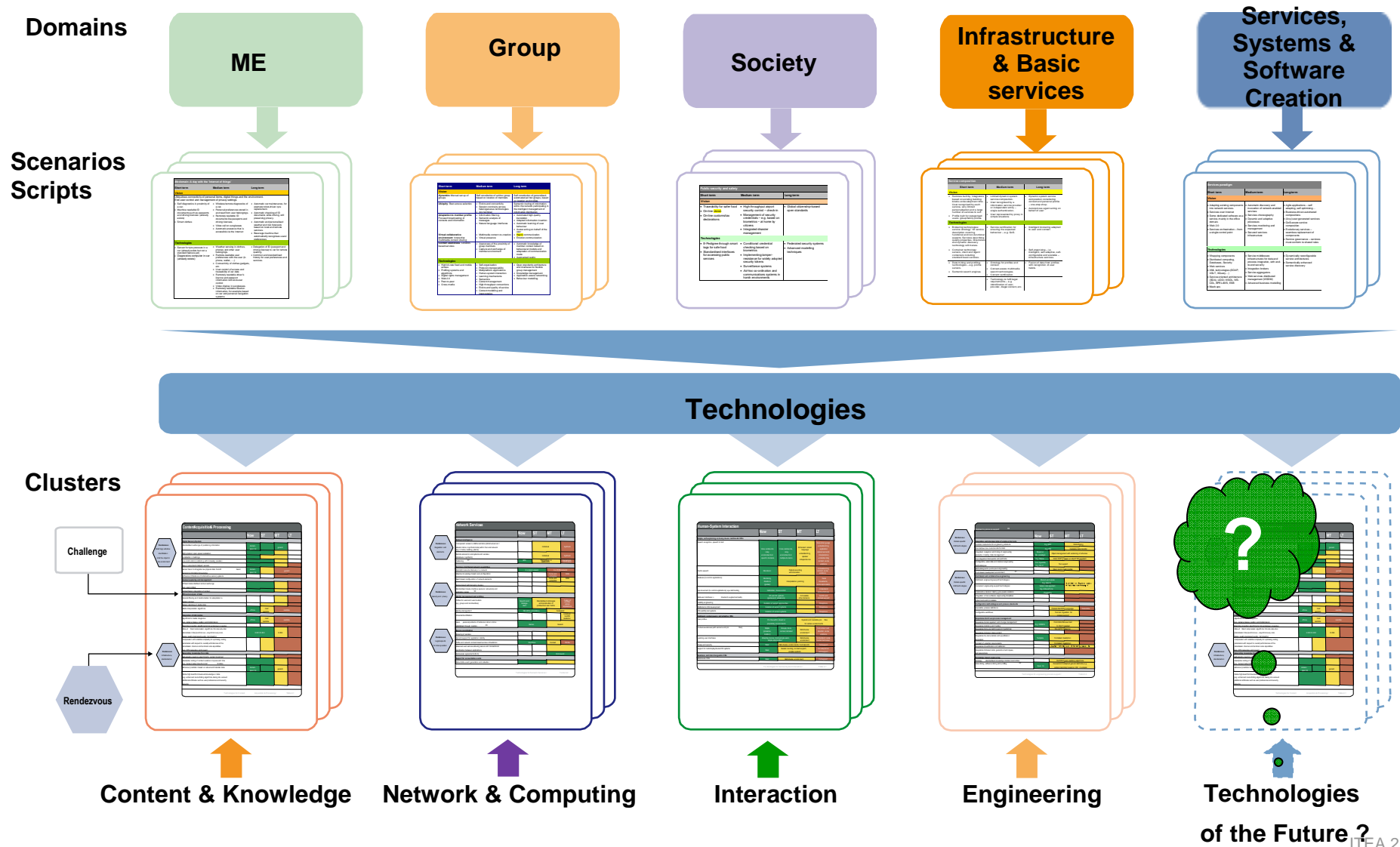
Information  
Knowledge

## Domains definitions

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- - **Me** : Individual entity (persons, devices or machines) achieving and controlling its individual goals and offering/using services to/from others.
- - **Group** : Collection of 'me' or 'groups' cooperating towards achieving a common goal, each member contributing to that goal complying with group-controlled rules.
- - **Society** : Assembly of actors/stakeholders achieving high-level societal or commercial objectives regulated by widely accepted rules and aimed at society as a whole.
- - **Services, Systems & Software Creation** : A range of activities and software tools required to help actors/persons/agents engaged in designing, implementing, verifying, maintaining and modifying software-intensive products and/or systems and services.
- - **Infrastructure & Basic Services** : Distributed adaptive services, generic support services and framework services used to support and (dynamically) compose services, applications and systems.

# Methodology and evolution of RM3



# Technology clusters & categories (programme sphere)

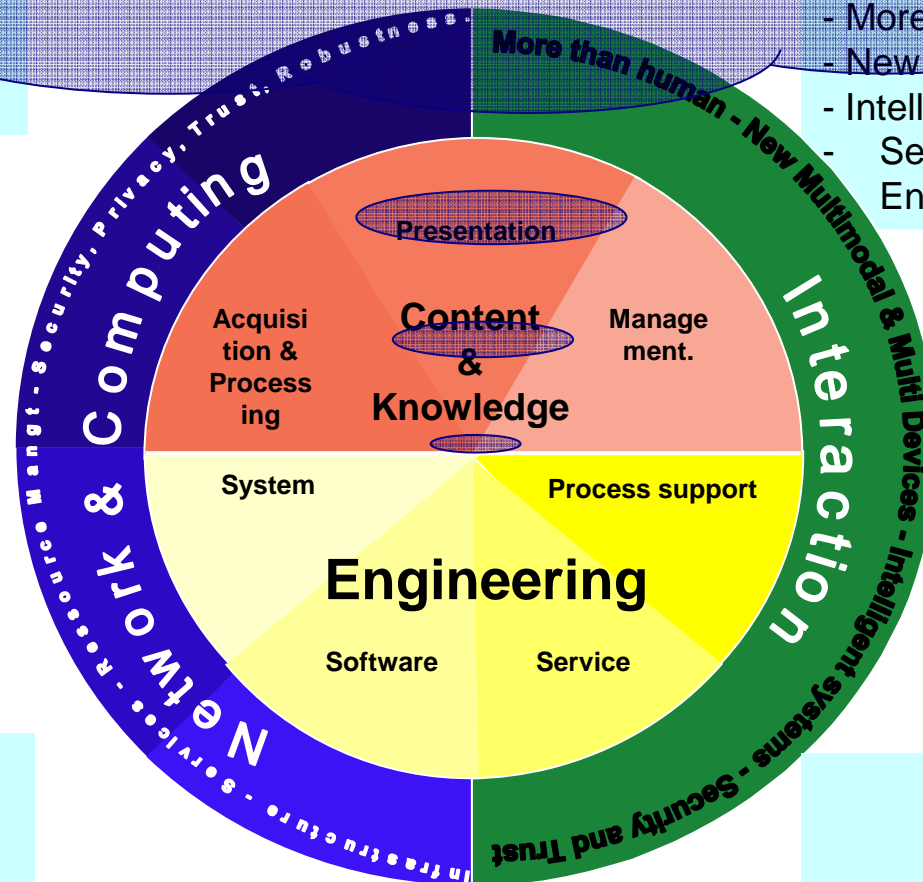
Technologies  
Of the  
Future?

## Content & Knowledge

- Acquisition & Processing
- Presentation
- Management

## Interaction

- More than Human
- New Multimodal & Multi Device
- Intelligent systems
- Security & Trust Engineering and development



## Network & Computing

- Infrastructure
- Services
- Resource Management
- Security, Privacy, Trust & Robustness

## Engineering

- Systems
- Software
- Service
- Process support

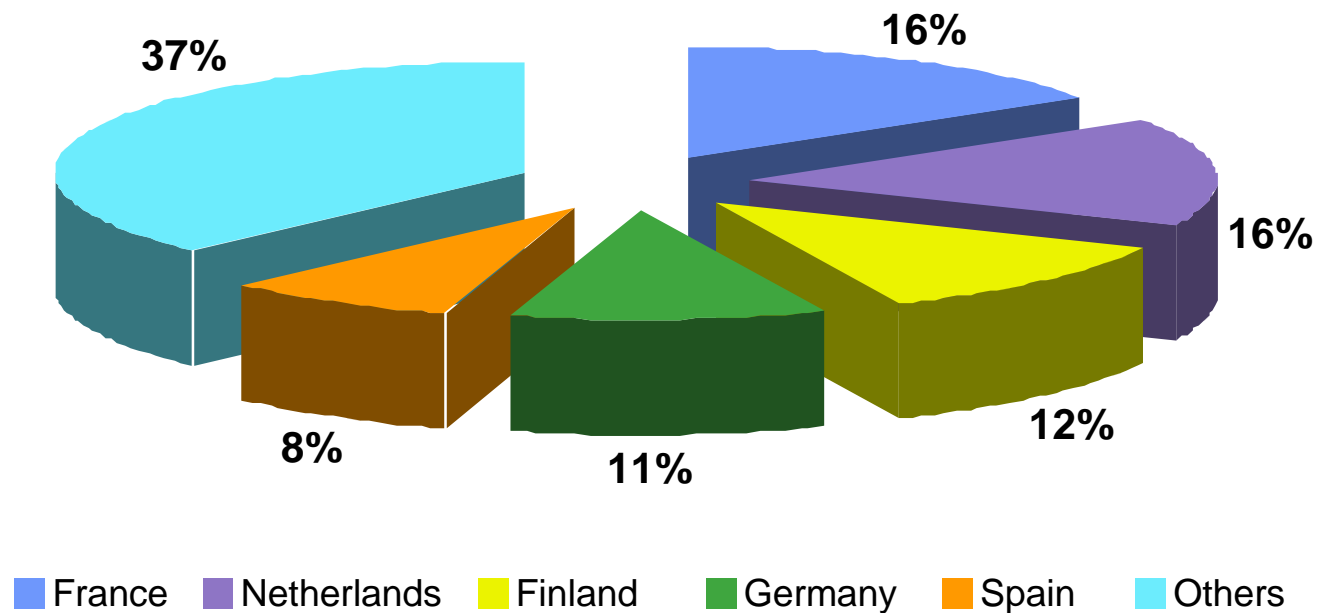
# Megatrends & Grand Challenges

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- ICT is penetrating “**all aspects of economy and society**”
- “**societal computing**” is the next wave after enterprise and personal computing
- The grand challenges in the application domain are “**service innovation**” on enterprise level and “**sustainability**” on societal level
- The grand challenge in the technical domain is “**massive scalability**”

# Downloads ITEA Roadmap - edition 2

## Breakdown per country



Others = Australia, Austria, Belgium, Bosnia and Herzegovina, Brazil, Bulgaria, Canada, China, Colombia, Denmark, Dominican Republic, Estonia, Ethiopia, Greece, Hong Kong, Hungary, Iceland, India, Indonesia, Iran, Ireland, Israel, Italy, Japan, Korea, Nigeria, Norway, Pakistan, Philippines, Poland, Portugal, Romania, Russia, Serbia and Montenegro, Singapore, Sweden, Switzerland, Taiwan, Tunisia, Turkey, Ukraine, UK, USA

## RM3 team

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- Olivier Audouin Alcatel-Lucent
- Jean-Claude Bourhis Bull
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- Remi Houdaille Thomson
- Frank van der Linden Philips
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- Kari Systa Nokia

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- **Y** Yong Talents
- **Z** Yong Talents

# PROMETEO

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Thank you for your attention



European leadership in Software-intensive Systems and Services. The Future of Embedded and Distributed Software.

  
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