

# Objective 2007.1.3.

« *ICT in support of the networked enterprise* »

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# The Networked Enterprise & Radio Frequency Identification (RFID) Unit

- Our **mission** : towards pervasive Business systems
  - Research supporting more agile, inventive, and responsive enterprises, especially SMEs
  - The network is the business system
- Three **clusters** of projects
  - ICT for collaborative ambient intelligence-based solutions (RFID)
  - Interoperability of enterprise software and applications
  - Digital 'business' ecosystems
- Our projects portfolio
- Main perspectives for 2007-08
  - ICT Programme 07-08, Call 1: Objective 1.3 ICT for the Networked Enterprise
  - Policy perspectives for 2007



# Link to the overall Challenge

- Overall Challenge 1 to support research on the Networked Enterprise
  - Ubiquitous and intelligent network and service infrastructures are essential in a demanding business environment
    - Reducing infrastructure constraints (complexity, accelerating change, changing business requirements, end-to-end QoS management, reactive management, high-quality services)
    - Providing embedded management functionality to increase value for service providers, ICT actors, and their customers
- Research on the Networked Enterprise to support overall Challenge 1
  - Future enterprise products and services will largely depend on the Network of the Future
    - Security and trust are key for RFID deployment and the emergence of an Internet of Things
  - ICT research on Networked Enterprise requires novel service/software approaches



# Cross-objective proposals

- Towards a common message to potential bidders on **Cross Objective Proposals**, outlining:
  - Why: Rationale, Objectives
  - What: Topics that lends themselves to X Objective proposals
  - How: these proposals are encouraged/handled



# Why

- The set of Challenge 1 Objectives are **not independent**. Common threads to Challenge 1 issues are:
  - Scalability, Flexibility of usage, Complexity , Convergence, multiplicity and Interoperability, across the service/content delivery chain
- FP6 constituency request and visible concern of **ETP SRA's**:
  - e\_mobility SRA (e.g. net+sce+sec)
  - NEM (e.g. net+ sce + content)
  - **NESSI** (e.g. Sce+ entr + sec+ net)
  - ISI (e.g. net+sec+sce)



# Why

- Purpose of Cross Objective proposals projects:
  - **Answer** a visible request from the constituency;
  - **Break** the possibly artificial “objective boundaries” that had to be selected for programme definition purpose;
  - **Enable** more systematically multi disciplinary research;
  - **Reflect** the challenges deriving from convergence and blurring sector boundaries;
  - **Offer** the possibility to move from a project logic towards a programme logic



# What

- **The following Challenge 1 Objectives are open at Call 1, and potentially subject to proposals cutting across several Objectives:**
  - **1.1: The Network of the Future (3 Sub Obj)**
  - **1.2: Service and Software Architectures, Infrastructures and Engineering (4 Sub Obj)**
  - **1.3: ICT in support of the networked enterprise (3 Sub Obj)**
  - **ICT-2007.1.4: Secure, dependable and trusted Infrastructures (4 Sub Obj)**
  - **ICT-2007.1.5: Networked Media (2 Sub Obj)**
- **Any subset is possible.**
- **Subsets also possible at Sub Objectives level**



# How, at proposal stage

- What our WP says (CH1):  
*“Proposals for large scale integrating projects cutting across several of the objectives 1.1 to 1.5 of Challenge 1 and addressing interrelated objectives from an overall system perspective are encouraged. The intention is to significantly advance the State-of-the-Art for each of the targeted objectives and to obtain a federating, multiplier and catalytic effect on the expected impacts”* (v ISTC 7-12-06)
- What our IP guide for applicants says: (p. 39)
  - Work programme topics addressed
  - (if more than one, indicate their order of importance to the project)
  - (specifically indicate if your proposal is a Challenge 1 cross-objective proposal : see Work Programme 07-08Section 3.1)
- Limited number of such proposals expected



# Objective 1.3 Overall Recommendations

- **Focus**
  - Objective 1.3 will not support research on Digital Ecosystems and Collaborative Working Environments in current WP
  - The 3 priority topics have a clear focus, as indicated in slides above (relevance is not an evaluation criteria anymore >pre-reading by EC)
- **Vision: reminder**
  - The “Networked Enterprise”
    - Ability to learn and adapt, sense and respond, collaborate and interoperate, and recombine assets in a self-organising manner
    - Agile but sustainable, built on an integrated infrastructure that is capable of supporting continuous adjustments
- **Time horizon**
  - Priority given to proposals with longer time-to-market (more than 3 years from project start) – demonstration/close-to-market activities to be minimised
- **SMEs**
  - Specific needs of SMEs to be systematically addressed, where appropriate



# Budget & Call Information

- 1st Call WP 2007-08: FP7-ICT-2007-1
  - Opening: 22/12/2006 - Closing: 08/05/2007
- Indicative budget allocation per funding scheme
  - 1 CA for co-ordination of EU activities on RFID
  - 1 SA for global RFID related standardisation activities

|                                      | IP                  | STREP              | SA               | CA |
|--------------------------------------|---------------------|--------------------|------------------|----|
| Enterprise interoperability          | X<br>> 11 million € | X                  |                  |    |
| Distributed Networked devices (RFID) | X                   | X<br>>11 million € | X<br>1 million € | X  |
| Intra-enterprise collaboration       |                     | X                  |                  |    |



## Further Information & Contact

- Web address:
  - [http://cordis.europa.eu/fp7/ict/programme/challenge1\\_en.html](http://cordis.europa.eu/fp7/ict/programme/challenge1_en.html)
  - <http://cordis.europa.eu/ist/ict-ent-net/index.html>
- Contact details:
  - [alain.jaume@ec.europa.eu](mailto:alain.jaume@ec.europa.eu)
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C. Martinez



# Objective ICT-2007-1.3: ICT in support of the networked enterprise

- Three **ICT challenges** to master for the Networked Enterprise:
  - Solutions for **EI and collaboration**
  - Tools and technologies for **K-oriented enterprise collaboration**
  - Architecture and platforms for **network devices (like RFID)**
- **Research results** should support highly distributed operations, reduced life-cycle cost, and integration with legacy systems.
- **SMEs**:
  - The work should in particular support business networks addressing the specific needs of SMEs.
  - SMEs are also an important part of the consortia



## Target Outcome (I) 1/2

- Generic integrated solutions for inter-enterprise interoperability and collaboration in the context of the networked enterprise
  - **An Interoperability Service Utility**
    - Built around an open architecture supporting heterogeneity, flexibility, usability, and continuous evolution
    - Provides individual services enabling information exchange between diverse sources of knowledge, software applications, and Web services
    - Requires collaborative and sustainable business models as well as good governance models



## Target Outcome (I) 2/2

- A “science base”
  - A challenge for the Enterprise Interoperability research field to become an enabler for innovation and value creation
    - Research decoupled from particular technologies/products
    - A new set of concepts, theories and principles
    - Associated methods, techniques and practices



## Target Outcome (III)

- Tools and technologies that enable intra-enterprise collaboration and the definition and execution of tasks and workflows for operation across multiple domains
  - Knowledge-oriented collaboration
    - Tools and methodologies enhancing knowledge for collaboration
    - Tools for knowledge management/ collaboration/ generation to support enterprise interoperability
    - Collaboration knowledge bases
    - Knowledge representation tools in VO



# Expected Impact

- Improving the competitiveness of enterprises in Europe by fostering the creation of new networked applications and services capable of interoperation across a wide variety of business domains and organisations of all sizes
  - Enterprise Interoperability will deliver greater value to enterprises, enable rapid service deployment and increase capabilities
  - Effective knowledge sharing to form successful VOs
  - New ICT-based services and products delivered by the Networked Enterprise
- Reinforcing Europe's technology and industry strengths in application and business specific software, service and applications development
  - Enterprise Interoperability research needs to be based on solid and rigorous scientific theories and principles
  - A networked enterprise platform with unseen high level of flexibility



# F. Frederix



## Objective ICT-2007-1.3: ICT in support of the networked enterprise

*The network is the business system*

- ICT architectures and platforms for the integrated enterprise to support massively distributed networked devices (e.g., enhanced RFID-based systems)
  - Integrated solutions for the Real Time Enterprise
  - Networked enterprise architectures and platforms supporting the lifecycle of highly innovative products and services
  - Highly distributed enterprise platforms and systems



*The network is the business system*

## Target Outcome (II) 1/3

- Integrated solutions for the Real Time Enterprise
  - Item identification and tracking in real time
  - Sensor networks
  - Exploiting capabilities of RFID, Galileo, next generation mobile and other nomadic technologies.



## Target Outcome (II) 2/3

*The network is the business system*

- Networked enterprise architectures and platforms supporting the lifecycle of highly innovative products and services
  - Future products and services of the ubiquitous information society will need dynamic infrastructures, and very flexible business systems to support them



## Target Outcome (II) 3/3

*The network is the business system*

- Highly distributed enterprise platforms and systems
  - Future business systems could be based on distributed intelligence contained in a larger set of intelligent and agile agents (or objects).
  - Making the vision "***Then network is the business system***" a reality



*The network is the business system*

## Expected Impact (II)

- Improving the competitiveness of enterprises in Europe by fostering the creation of:
  - a. A highly efficient networked enterprise, saving the environment, responsive to customer needs and issues in the supplier and production networks.*
  - b. A networked enterprise able to deliver new ubiquitous information society services and products that will enhance customer experiences, increase safety, security, convenience and well being of European citizens.*
  - c. A networked enterprise platform with unseen high level of flexibility able to reconfigure to changing business needs, almost in real time, without costly migration paths characteristic for today's centralized business systems architectures.*



Thank you for your attention

