

2007 - 2013

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# FP7 Project ASPIRE

## RFID Information Days – May 2008

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**ASPIRE**

FP7 Integrated project

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**FP7 215417**

## Brief history of ASPIRE

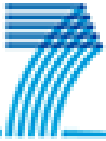
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- OSS RFID Middleware idea was proposed by Open Source Innovation in Brussels in the 2006 RFID Public Consultation
- Objectives:
  - Bring SMEs to the RFID process
  - Standardisation tool
  - Promote innovation
  - Create certifiable privacy-friendly RFID middleware
- A consortium of renowned organisations led by Athens Information Technologies put together an FP7 proposal
- The proposal materialised in the €6M project ASPIRE which started in January 2008

# Challenges facing the RFID revolution

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- Standardisation and interoperability
  - Frequencies and regulations
  - Governance of existing bodies
  - IP situation
- Profitable business cases
  - Adoption and operation costs are too high
- Privacy and security issues
  - Current solution are not satisfying
  - More R&D is necessary, particularly in PETs
- Dissemination to beneficiaries, consumers and citizens
  - Irrational fear by some consumers
  - Irrational opposition by extreme groups

# How can OSS support socio-technological processes?

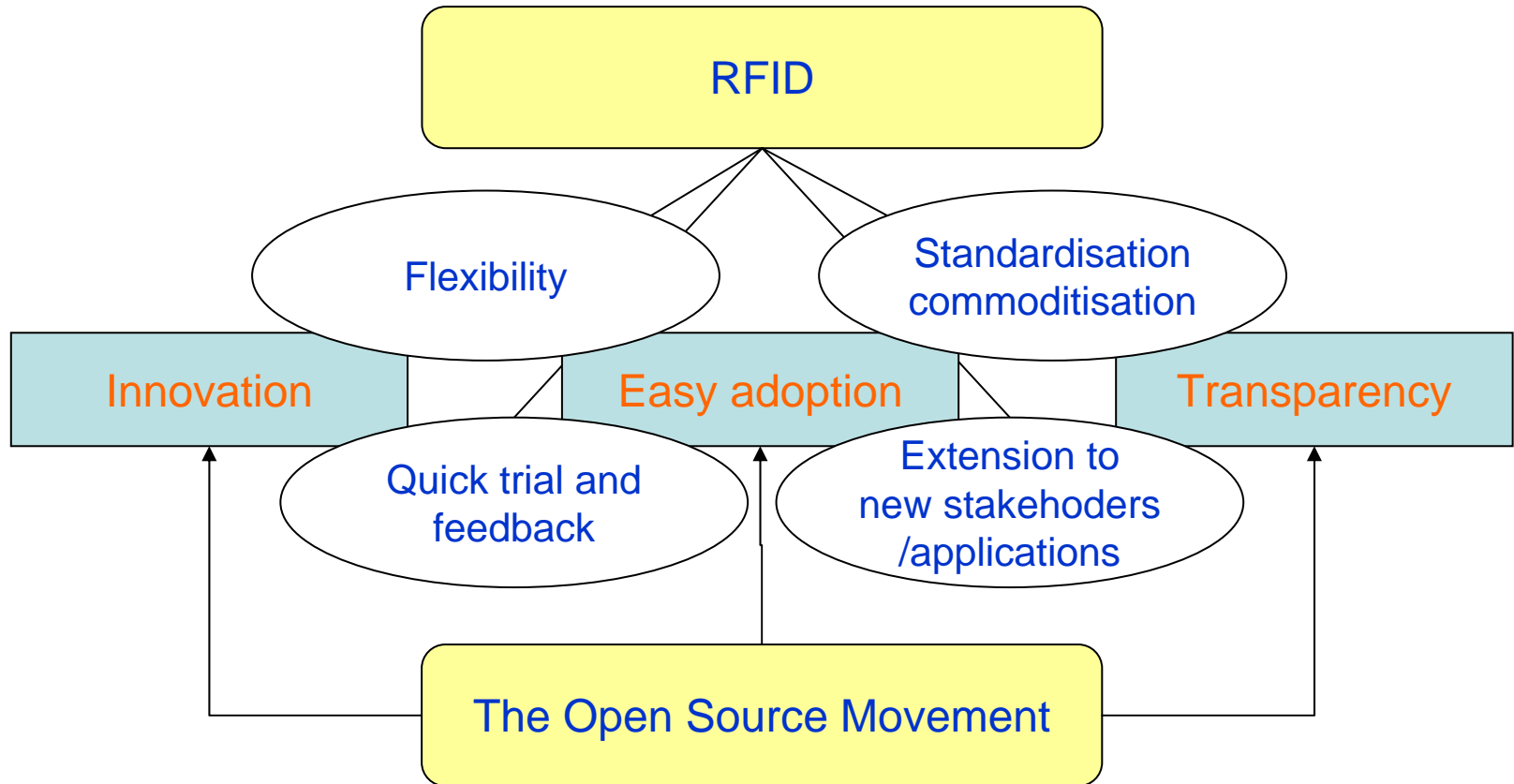


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- Adoption
  - Affordability, availability, flexibility
- Standardisation
  - Open code makes it easier to create or extend interfaces
- Innovation
  - Many minds and eyes involved
  - Knowledge builds over knowledge
  - End-user involvement, quick test and feedback
- Transparency
  - Open code is visible by everyone
- Related academic studies
  - von Hippel, von Krogh (2003) *OSS and the “Private-Collective” Innovation Model: Issues for Organisational Science.*
  - Gallaway and Kinnear (2004) *OSS, The Wrongs of Copyright, and the Rise of Technology.*



# Why OSS for RFID?



# ASPIRE Overview and Goals

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Significantly lower the SME entry cost barrier and Total Cost of Ownership (TCO) for RFID technology solutions:

- Free Middleware running on Low-cost hardware
- Lower effort for managing the infrastructure and developing applications

*Enable RFID scenarios (based on ASPIRE middleware and added value sensors) that improve business results*

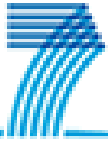
**ASPIRE**

*Develops and will deliver a lightweight, royalty-free, programmable, privacy-friendly, standards-compliant, scalable, integrated and intelligent*

*middleware platform*

*Validate the above developments in RFID trials*

**ASPIRE**

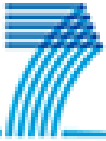


## ASPIRE Consortium

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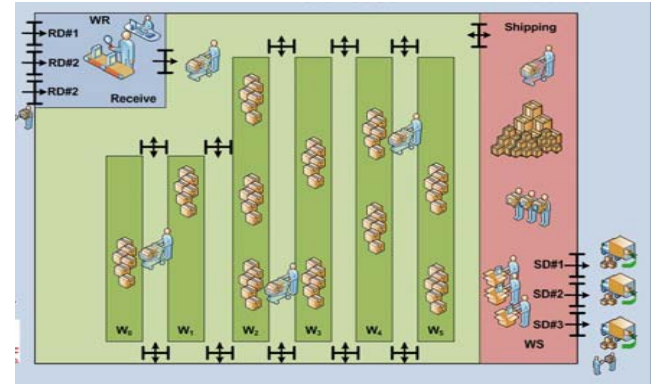
- **Aalborg University – CtiF, Denmark**
- **INRIA (ObjectWeb, POPS), France**
- **Université Joseph Fourier – Grenoble University – LIG Laboratory, France**
- **Research and Education Laboratory in Information Technologies – Athens Information Technology, Greece**
- **Melexis technologies SA MELE, Switzerland**
- **Open Source Innovation Ltd OSI UK**
- **UEAPME, Belgium**
- **Sensap S.A, Greece**
- **Pole Traceability Valence, France**
- **Instituto Telecomunicações IT, Portugal**
- **Timeframe: 01/01/2008 – 31/12/2010**



# ASPIRE SME Orientation – our customers!

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- **ASPIRE development will be SME driven and SME oriented**
- **Liaison with SMEs**
  - **Requirements Collection and Analysis**
  - **RFID Technology Dissemination – Workshops for SMEs / “RFID Information Days”**
  - **Trials Organization – Deployment (ASPIRE middleware)**
  - **Liaise with existing trials – Deploy new**



# The privacy-friendly society - fundamentals

**ASPIRE**

**Object data**

**Personal data**

**Privacy-friendly tags**



**Certification programmes**

**Consumer awareness**

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## Other characteristics of ASPIRE

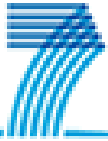
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- Programmability
  - Flexibility to adapt to all possible business processes
- Compatibility / interoperability
  - With ISO, EPCglobal and other RFID standards
  - Development of new standards if necessary
- Royalty-free OSS
- Low-cost sensors and readers
- Adapted to European needs and requirements

## ASPIRE – Ongoing activities

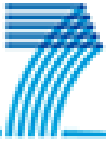
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- Early engagement of SMEs to provide end-user requirements and participate in ASPIRE
- Study of existing RFID OSS for reuse purposes
- Study of current standards for compliance
- Design and development of ASPIRE's architecture
- Programming of ASPIRE's necessary modules
- Engagement of the Open Source Community
  - Presentation in conferences
  - Submission of project to OW2
- Setup of collaborative tools

## Invitation to SMEs



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- We would like European SMEs to join the ASPIRE project by contributing end-user requirements, completing the anonymous survey, and optionally participating in trials and tests
- SMEs are the main customers of ASPIRE and, if successful, this project will produce royalty-free, OSS RFID middleware tailored to European SMEs requirements.

ASPIRE is for you!