sensei

Real World Dimension of the Network of the Future

Bled – Future Internet
BO6: Experimental Facilities

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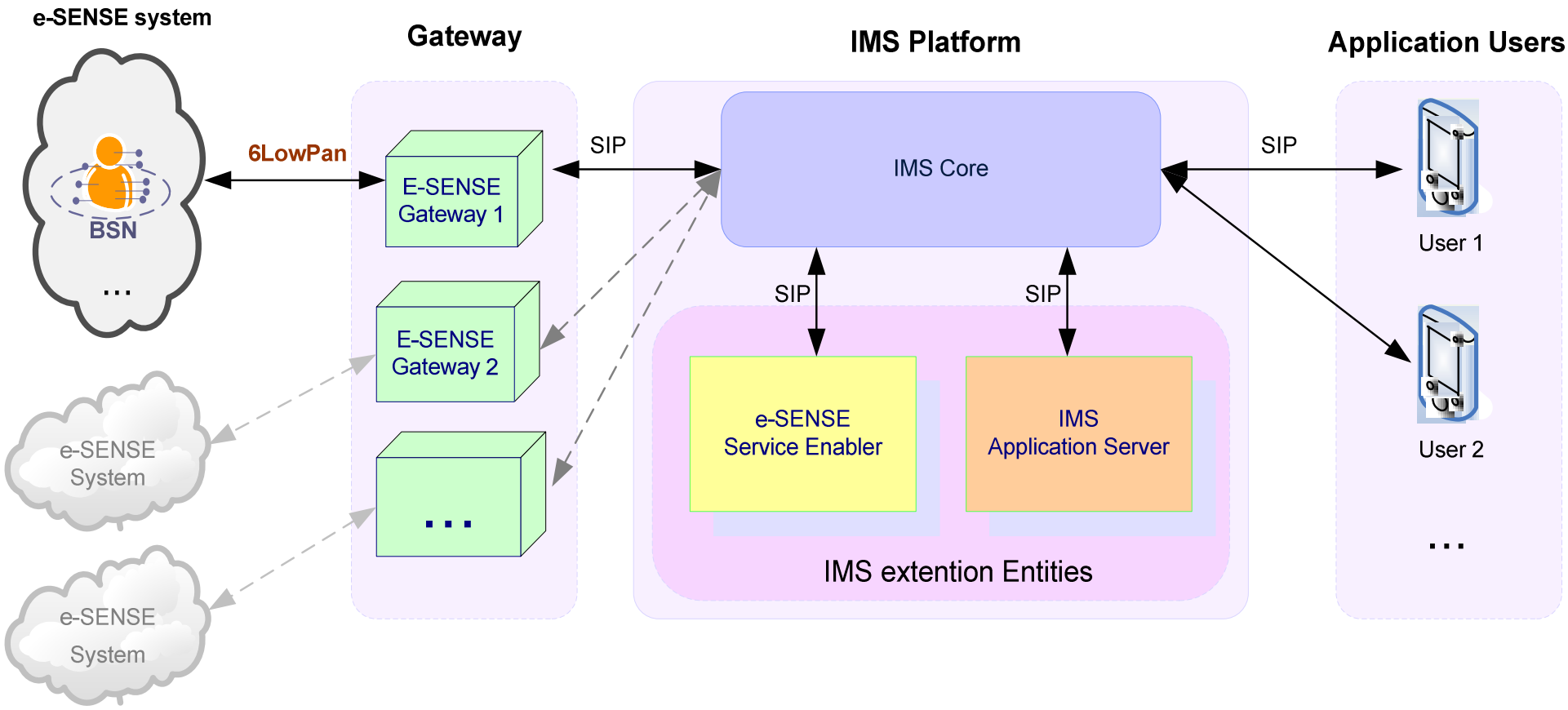
E2E implementation of the e-SENSE Architecture



What is there from previous work and what will be there in SENSEI?

- e-SENSE Show Cases/Test Beds:
  - Integration of WSN into IMS service platform (e-SENSE service enabler and gateway extensions)
  - Body Sensor Network for Mood Sensing
  - ULP hardware prototype – 20nJ/bit compliant IEEE 802.15.4
  - Smart Signs for the built environment
  - Activity recognition BSNs
  - Many functioning in house WSN test beds focusing on technologies, e.g. time synchronisation, routing, cross-functional (e.g. routing and MAC)

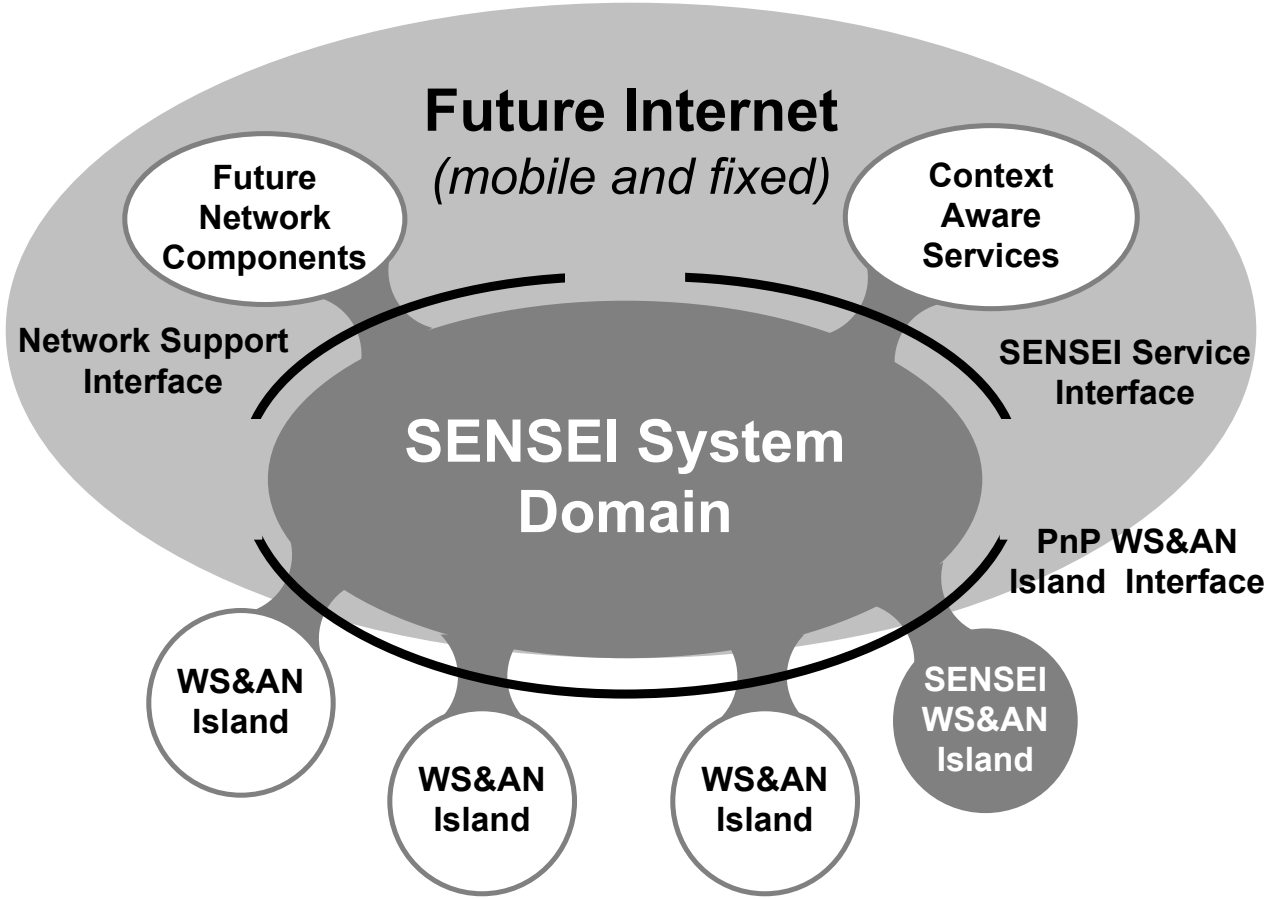
  - This was achieved with little over **50 person months**

- What will be in SENSEI:
  - Many in house WS&AN of a large variety of platforms (reflecting future deployment diversity)
  - connected with each other
  - using functions of the SENSEI system domain
  - and running some applications (pretty large scale) for field trials

  - SENSEI commits close to **400 person months** over a 2 year period (final 2 years of SENSEI) for the test bed activities

SENSEI vision

Real World Dimension of the Network of the Future



Target outcomes

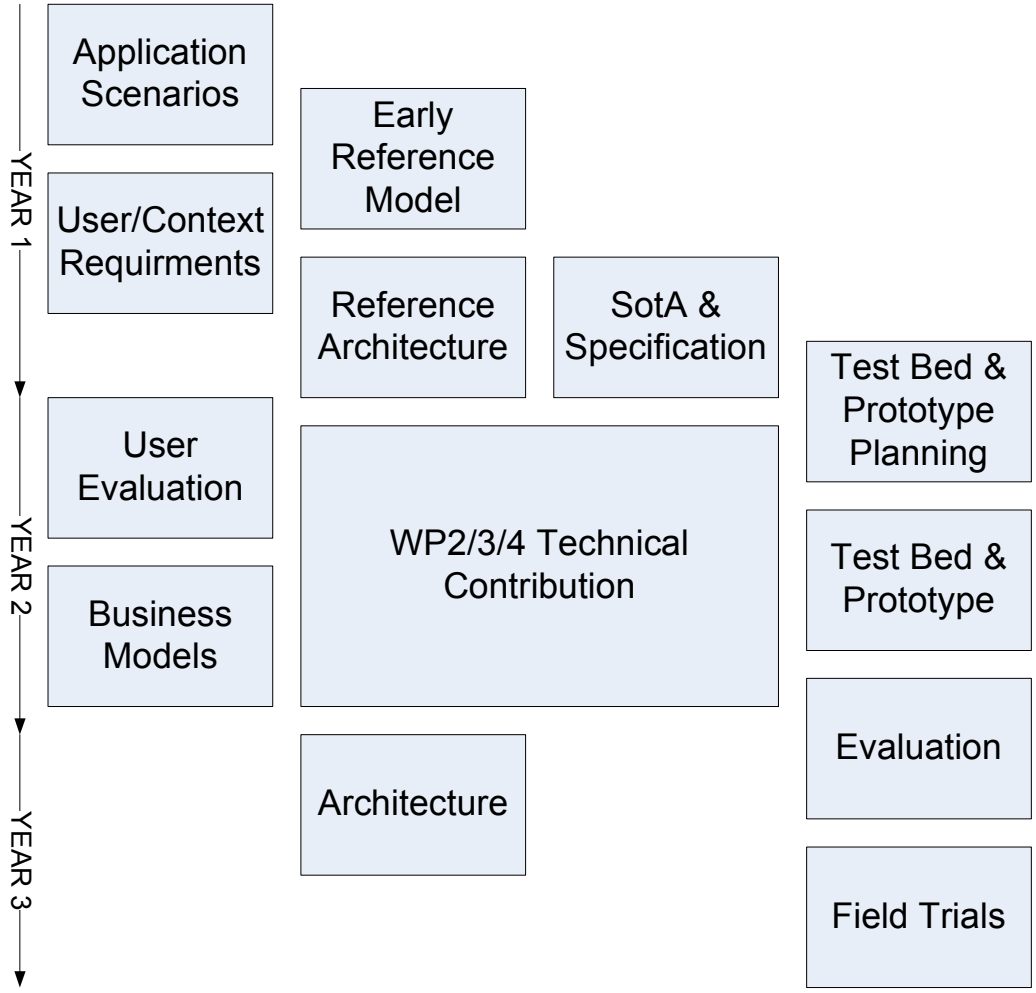
1. **Pan European test platform**, enabling large scale experimental evaluation of the SENSEI results and execution of field trials - providing a tool for long term evaluation of WS&AN integration into the Future Internet.

2. A **highly scalable architectural framework** with corresponding protocol solutions that enable easy plug and play integration of a large number of globally distributed WS&AN into a global system – providing support for network and information management, security, privacy and trust and accounting.

3. An **open service interface** and corresponding semantic specification to unify the access to context information and actuation services offered by the system for services and applications.

4. **Efficient WS&AN island solutions** consisting of a set of cross-optimised and energy aware protocol stacks including an ultra low power multi-mode transceiver targeting 5nJ/bit.

Work flow



- Application scenarios and Requirements
- Reference architecture
- SotA & specification
- Test bed & prototype plans
- Technical contributions
- Test Beds → pan-EU test bed
- Evaluation
- Field trials
- Architecture
- Business Models