



Overview of Action Lines' Priorities

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A. Guarise (Trento RISE)

2014-15 EIT ICT Labs “Innovation” Action Lines list



- **Future Cloud (CLD)**, AKA “Computing in the cloud”
- **Cyber Physical Systems (CPS)**
- **Future Networking Solutions (FNS)**, merging “Internet Technologies and Architecture” together with “Networking Solutions for Future Media”
- **Health and Wellbeing (HWB)**
- **Privacy, Security and Trust (PST)**
- **Smart Energy Systems (SES)**
- **Smart Spaces (SSP)**
- **Urban Life & Mobility (ULM)**, merging “Digital Cities of the Future” and “Intelligent Mobility and Transportation System”

Future Cloud (CLD) priorities



- Focus

“Accelerate the use and development of trusted Cloud technologies to create brand new innovations and leverage Big Data infrastructures so that businesses and public administration in Europe will reach the full potential of the digital economy”

- Leader: Tua Huomo (tua.huomo@eitictlabs.eu)

- Priority Areas

1. Establish Leadership as a Trusted Multi-Cloud Infrastructures and Services Provider	<ul style="list-style-type: none">• Real-time Cloud services, infrastructures and solutions addressing businesses and public administrations• Ensuring security, privacy and trust
2. Cloud with Big Data Analytics	<ul style="list-style-type: none">• Cross-technology developments mixing Cloud, IoE and Big Data• Relation to the European Stratosphere platform

Cyber Physical Systems (CPS) priorities



■ Focus

“Combine embedded systems, sensors, control systems, and data aggregation and analysis technology into smart systems-of-systems to increase the efficiency and reliability of industrial production systems and critical infrastructures”

■ Leader: Holger Pfeifer (pfeifer@in.tum.de)

■ Priority Areas

1. Cyber Physical Systems for Production Systems	<ul style="list-style-type: none">• Digital product memory, system anomaly detection (production monitoring and planning)• Workflow management and BI systems• New business models leveraging production process data analytics
2. Cyber Physical Systems for Critical Infrastructures	<ul style="list-style-type: none">• Operation and management of large-scale infrastructures• Improved service and resource efficiency for the maintenance of critical and aging infrastructures• Focus on water management and traffic networks• Maturation of reliable wireless communication technology

Future Networking Solutions (FNS) priorities



- Focus

“Help to ensure the European lead in solutions and standards based on cost-effective as well as energy efficient networking technology, which support the increasing traffic, new traffic profiles and the flexibility to manage large demands for instantaneous traffic”

- Leader: Henrik Abramowicz (henrik.abramowicz@ericsson.com)

- Priority Areas

1. Green Mobile Access Networks	<ul style="list-style-type: none">• Drive standardization activities related to high-bandwidth solutions (e.g. “5G”)• Establish liaison with ETSI• Push energy efficiency and develop relevant metrics• Demonstrate smart cell deployment concepts
2. Software Defined Networks (SDN) / Virtualization Opportunities for Networking and Management	<ul style="list-style-type: none">• Push disruptive SDN approach able to challenge US/Asia dominance• Improve flexibility and efficiency of resource management and dynamic service offerings
3. User-friendly Generic Internet of Things (IoT)	<ul style="list-style-type: none">• Extend cellular networks support for M2M communication• Modularization of the communications layer

Health and Wellbeing (HWB) priorities



- Focus

“Reduce the demand for expensive healthcare by detecting small physical and mental health issues early and avoiding larger health problems by suitable lifestyle interventions”

- Leader: Jean H.A. Gelissen (jean.gelissen@eitictlabs.eu)

- Priority Areas

1. Early detection and treatment of physical anomalies with a focus on cardio-vascular diseases (physical wellbeing)	<ul style="list-style-type: none">• Develop cardiovascular prevention monitoring solutions for early detection of anomalies• Create awareness about potential of primary prevention• Cardio fitness programs• Generate effectiveness evidence• Professional claim validation
2. Early detection and treatment of mental deterioration with a focus on stress and dementia (mental wellbeing)	<ul style="list-style-type: none">• Early detection of cognitive decline (burn-out and dementia care)• Unobtrusive wearable sensor technology (“activity of daily life sensing”)• Collection of long-term evidence data

Smart Energy Systems (SES) priorities



- Focus

“Contribute to the creation of an open European energy market by testing and deploying ICT solutions for decentralised power generation infrastructures and user-centric services for smart energy systems”

- **Leader: Heiko Lehmann** (heiko.lehmann@eitictlabs.eu)

**New ALL from T-Labs
(Research & Innovation)
at Deutsche Telekom**

- Priority Areas

1. ICT for Decentralized and Aggregated Power Generation Infrastructure	<ul style="list-style-type: none">• Reliable and secure communication of decentralised network units (generation, storage)• Facilitate the establishment of large-scale virtual power plants (ideally > 1 GW)• Work towards standardisation, e.g. IEC61850
2. User-centric Services for Smart Energy Systems	<ul style="list-style-type: none">• Create user friendly services and devices to increase transparency and controllability of consumption (home systems, electric vehicles)• Promote interoperability and standards• Collaborate with urban planning offices and municipal energy utilities

Smart Spaces (SSP) priorities



- Focus

“Apply advanced ICT to everyday working and living environments and create comfortable service experiences for users and efficient resource optimization solutions for businesses”

- Leader: Petri Liuha (petri.liuha@eitictlabs.eu)

- Priority Areas

1. Smart Retail Experience	<ul style="list-style-type: none">• Facilitate the creation of scalable retail analytics solution and business with SMEs• Retailer- and brand-driven in-store smart retail services trials• Integrate payment to combined online in-store solutions
2. Smart Urban Experience	<ul style="list-style-type: none">• Develop content-creation software tools for smart urban information services (advertising) through new channels, such as outdoor screen• Introduce outdoor game-type services to consumers with SMEs
3. Smart Buildings	<ul style="list-style-type: none">• Analytics-based indoor solutions for facility operators and flexible asset management• Machine vision systems and heads-up user interaction for indoor navigation

Urban Life & Mobility (ULM) priorities



- Focus

“Turn ICT breakthroughs into new up-scaled urban services to develop new behaviours and citizen empowerment and validate new business models in the context of the Smart Cities paradigm”

- Leader: Gilles Betis (gilles.betis@eitictlabs.eu)

- Priority Areas

1. Mobility Paradigm Shift	<ul style="list-style-type: none">• Mobility planning integrating multiple transport means, crowd-sourced information and services (seamless approach)• Extension to goods logistics in combination with or as an alternative to personal mobility
2. Citizen Engagement and Empowerment	<ul style="list-style-type: none">• Turn passive and consumer-minded individuals into active and sharing-oriented citizens (addressing trust/confidence awareness)• Leverage on gamification, crowd-sensing/sourcing• Involve City governance bodies

Privacy, Security and Trust (PST) priorities



- Focus

“Support users and businesses in protecting their digital assets and transactions, promoting robust and safe products and services that realise data privacy and security”

- **Leader: Jovan Golic** (jovan.golic@eitictlabs.eu)

**Presentation from Jovan
right after this!**



Thanks for your attention!