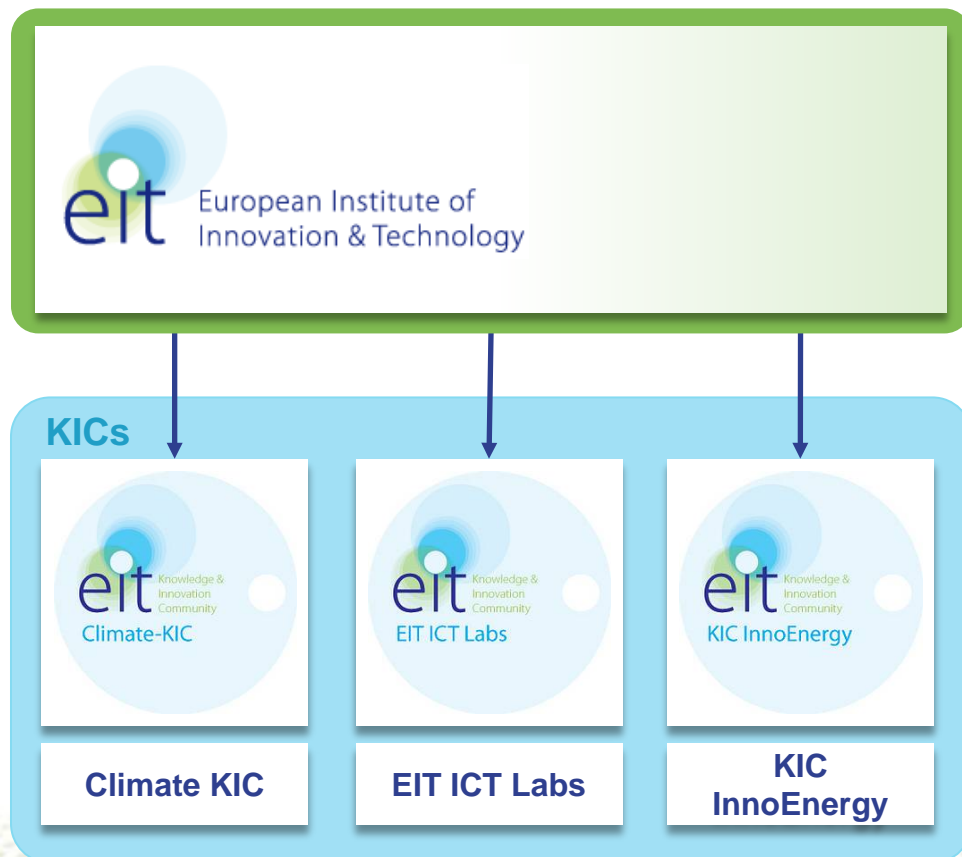# EIT ICT Labs – ARTEMIS Summer Camp
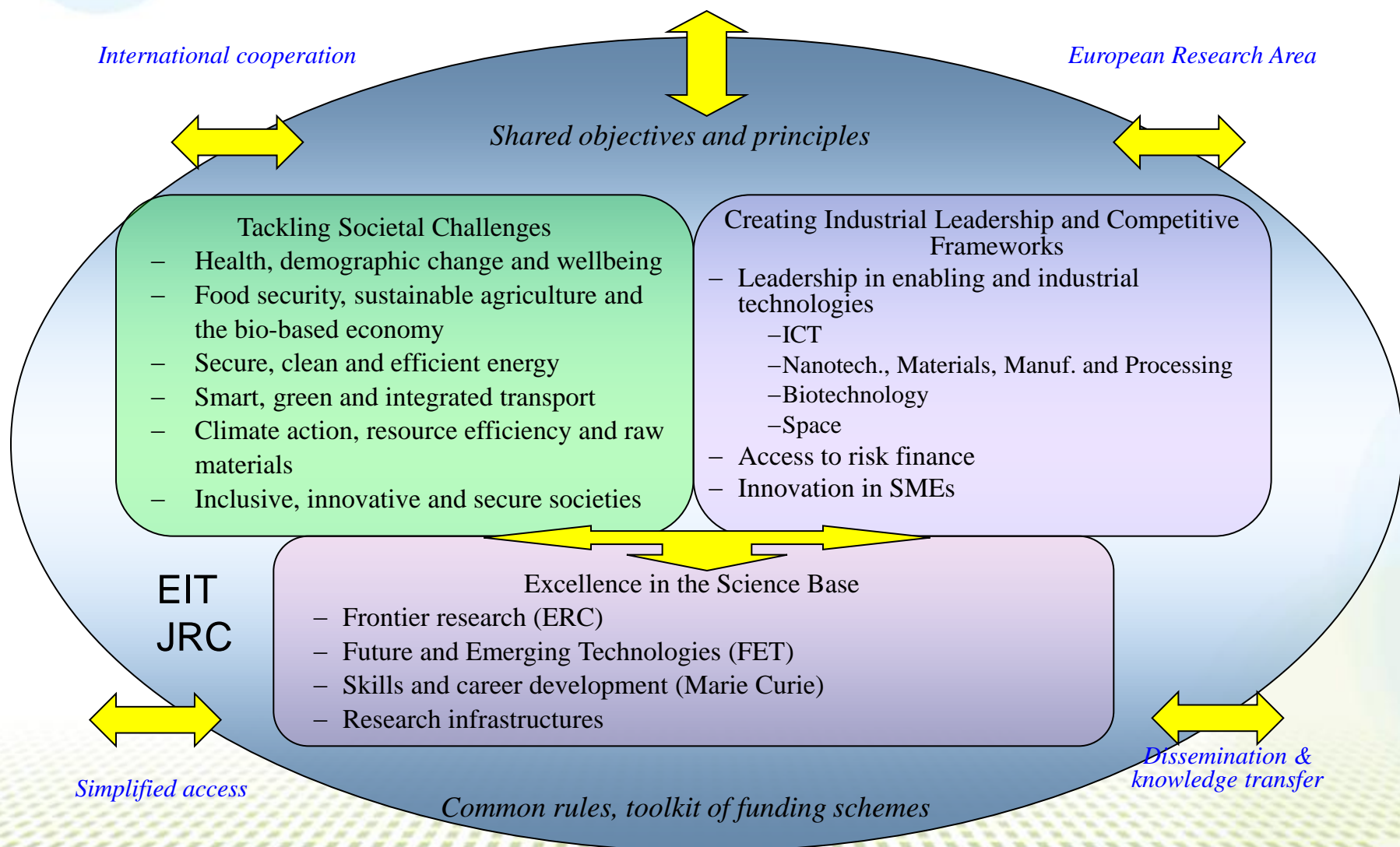
Marko Turpeinen, Node Director Helsinki

EIT ICT Labs is a Knowledge and Innovation Community of the European Institute of Innovation & Technology
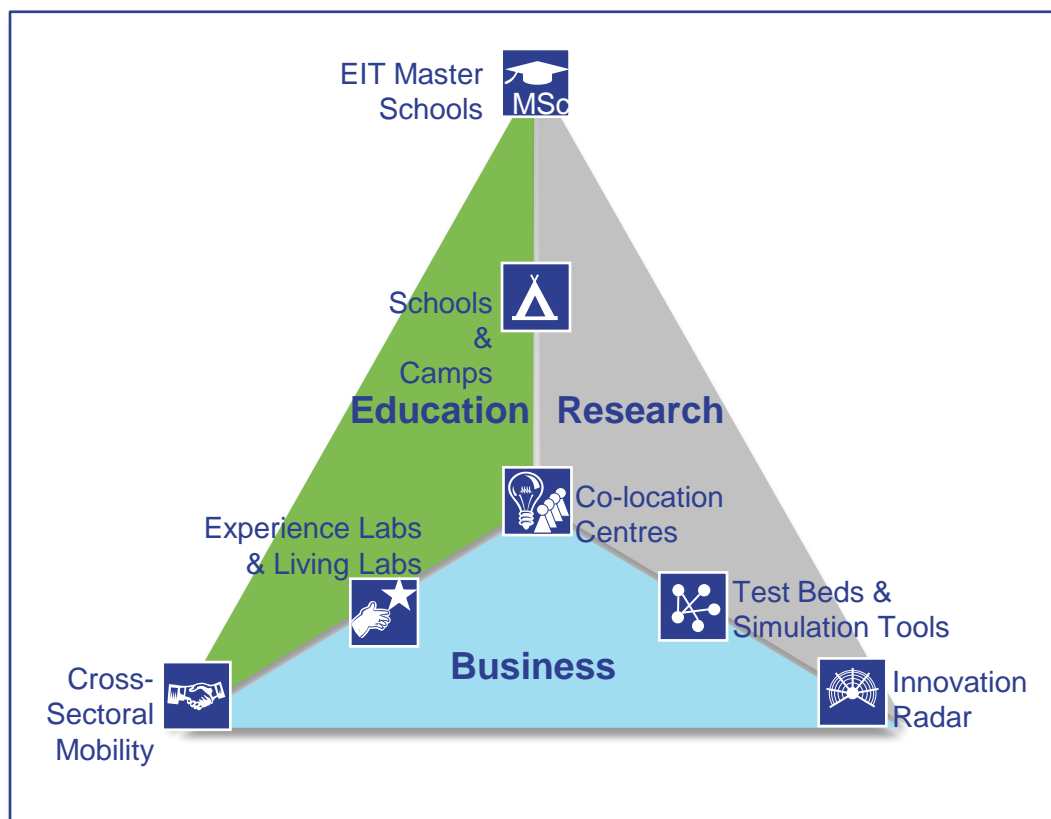
Horizon 2020 Big Picture

Europe 2020 priorities

International cooperation

European Research Area

Shared objectives and principles

Tackling Societal Challenges

- Health, demographic change and wellbeing
- Food security, sustainable agriculture and the bio-based economy
- Secure, clean and efficient energy
- Smart, green and integrated transport
- Climate action, resource efficiency and raw materials
- Inclusive, innovative and secure societies

Creating Industrial Leadership and Competitive Frameworks

- Leadership in enabling and industrial technologies
  - ICT
  - Nanotech., Materials, Manuf. and Processing
  - Biotechnology
  - Space
- Access to risk finance
- Innovation in SMEs

EIT
JRC

Excellence in the Science Base

- Frontier research (ERC)
- Future and Emerging Technologies (FET)
- Skills and career development (Marie Curie)
- Research infrastructures

Simplified access

Dissemination & knowledge transfer

Common rules, toolkit of funding schemes

Our strategy integrates all dimensions of the Knowledge Triangle

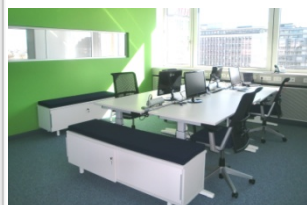# EIT ICT Labs operates from six European colocations bringing together top ICT players

Berlin	Eindhoven	Helsinki	Paris	Stockholm	Trento

EIT ICT Labs Management Team

KIC Central Coordination

CEO
Willem Jonker

CSO
Martti Mäntylä

COO
Stan Smits

MarCom
Johanna Gavefalk

ERB-Directors

Education Director
Hannu Tenhunen

Research Director
Olivier Festor

Business Director
Klaus Beetz

Node Directors

ND Berlin
Udo Bub

ND Eindhoven
Patrick Strating

ND Helsinki
Marko Turpeinen

ND Paris
Valérie Issarny

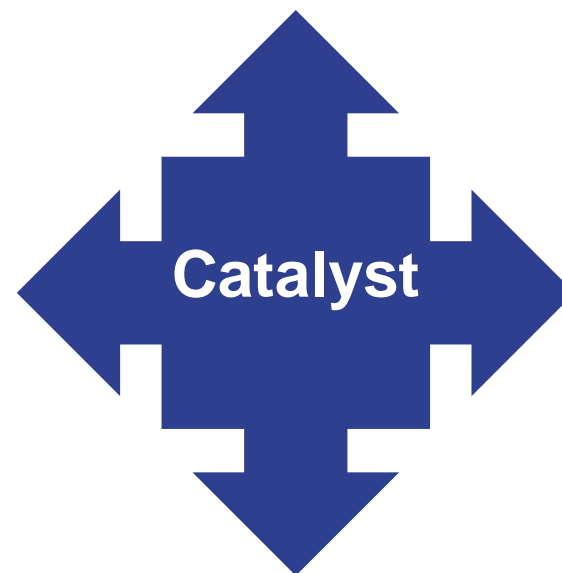**ND Stockholm**
Gunnar Landgren

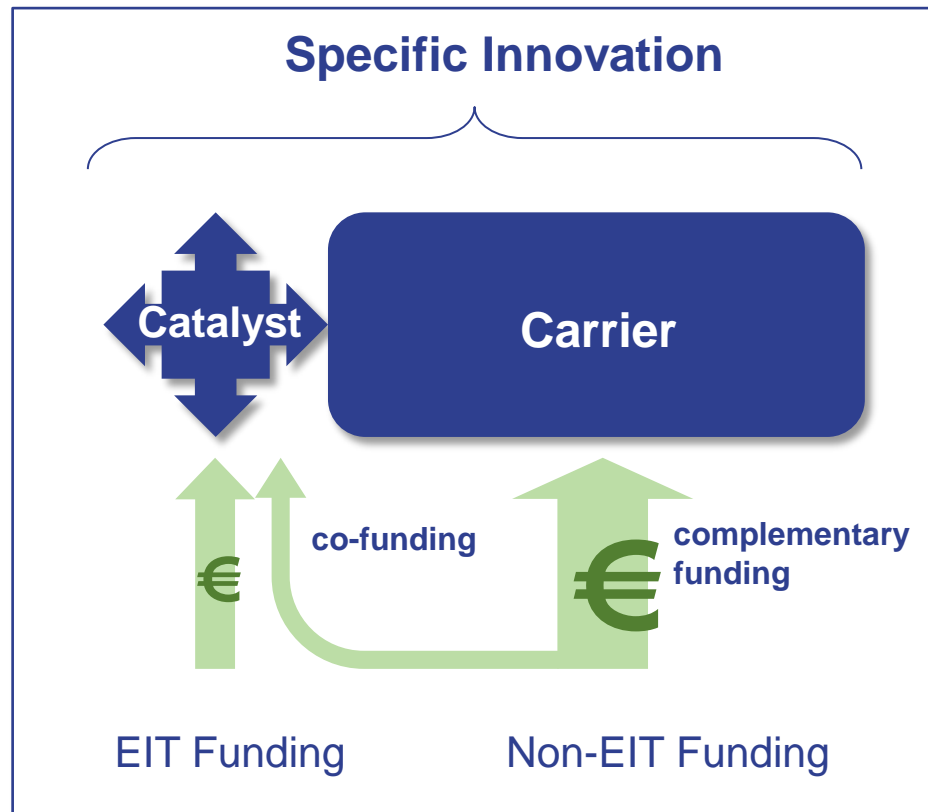**ND Trento**
Roberto Saracco

Catalysts

A Catalyst has

- … an innovation objective that contributes to the EIT ICT Labs strategy

- … clear output(s)

- … clear definition of the added value

- … quantitative Performance Indicators

- … a specific budgeting model indicating which costs can be funded by EIT

- … a lead responsible of defining the catalyst and guiding its use

Catalysts and Carriers

- Activities apply catalysts to carriers to produce specific outputs and achieve a Specific Innovation

- An activity with multiple partners consists of several tasks aimed at a joint objective where partners apply catalysts to carriers

- Catalyst applications should take place or have a clear presence at co-location centres

Specific Innovation

Catalyst ⟷ **Carrier**

€ co-funding   € complementary funding

EIT Funding   Non-EIT Funding

2011:	16,6 M€	67,1 M€ (actual)
2012:	27,3 M€	84,2 M€ (planned)
2015:	80,0 M€	240,0 M€ (target)

Catalysts 2013

Common Catalysts

KIC Management
lead the KIC to make it a leading force in ICT

Action Line Management
lead an action line towards its goals

Activity Management
lead an activity towards its objectives

Co-Location Centres
lead nodes and CLCs towards w... *Updated*

Workshops and Conferences
consolidate goals, plan joint work, share results, create networks, gain visibility

Project Proposal
catalyse ERB carriers matching our strategy

Best-Practice Benchmarking
integrate global best-practices to create a self-re-enforcing innovation ecosystem

Mobility Program
foster inter-node and inter-doma... educators, researchers and innov... *Updated*

Education Catalysts

I & E Education for MSc Programs
integrate robust entrepreneurship education for EIT ICT Labs M.Sc. programs

I & E Education for PhD Programs
integrate robust entrepreneurship education for EIT ICT Labs doctoral programs

Professional Training
provide professional training to indu... *New*

Doctoral Training Centre
integrate doctoral training with industry

Quality Assurance and Accreditation
assure quality of educational programs

Summer and Winter Schools and Camps
provide intensive educational events

Student Mobility
coordinate student mobility

Thematic Alignment of Technical M...
align the content M.Sc. programs w... *New*

Research Catalysts

Open Source Booster
catalyse industrial take-up of open source flagship projects

Patent Booster
intensify creation of new patents

Test Beds, Testing Platforms & Simulation Tools
integrate joint hardware or software platforms to experiment and validate technologies or applications

Experience & Living Labs
test and modify product and service designs with real users and use contexts

Standards Booster
foster impact and ensure sustainabi... results through standards *New*

Entrepreneurial Research
stimulate entrepreneurial research in... research community *New*

Business Catalysts

Innovation Radar
create business intelligence of the future

Strategic Coaching
coach start-ups towards growth s... *Updated*

Access to Finance
ensure capital availability for all ... *Updated*

Technology Transfer
increase the flow of technologies from academia to companies

Technology Scouting
seek opportunities for business incu... *New*

Business Modelling
provide techno-socio-economical modelling of a business domain

Soft Landing
help SME's to grow to European lev... *New*

Entrepreneurial Talent Developm...
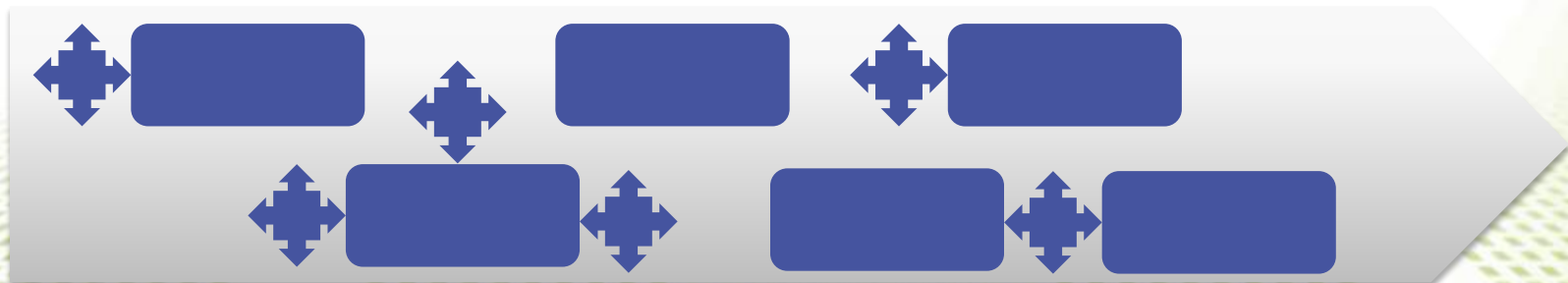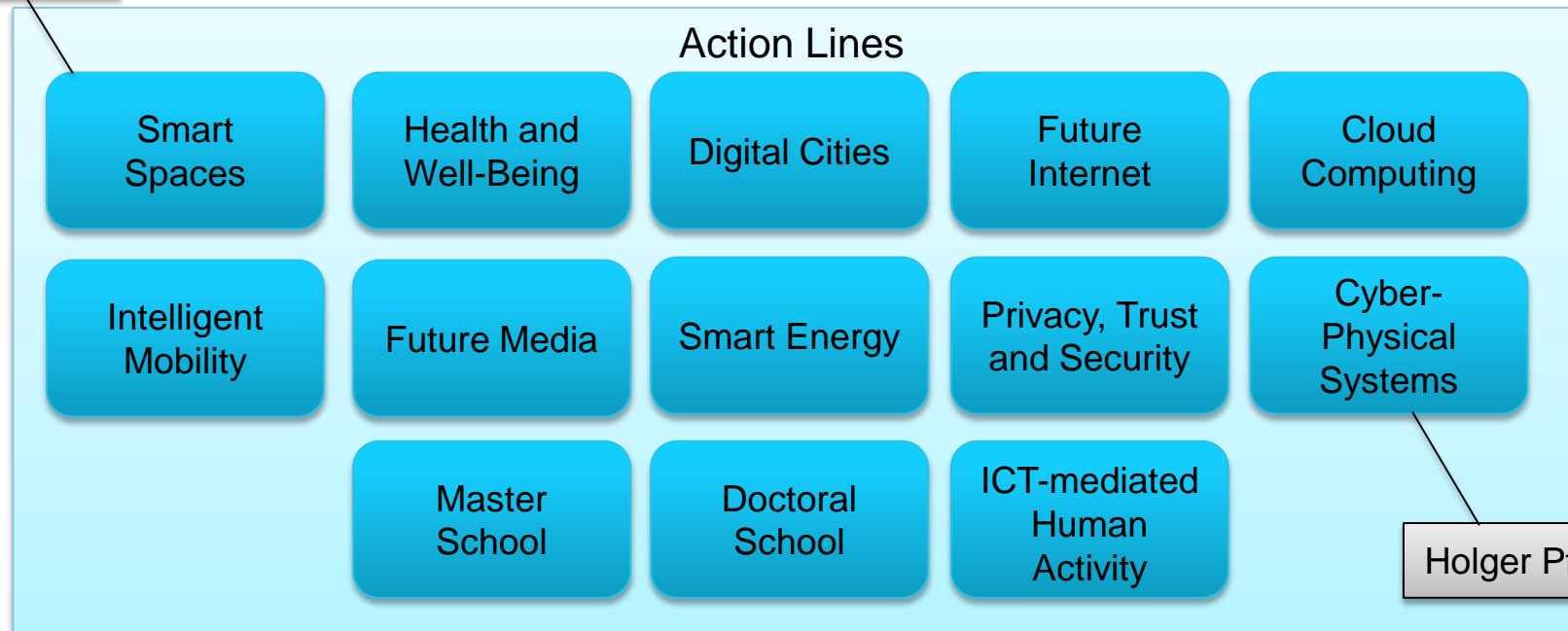train and link entrepreneurs to innov... *New*

Action Lines

An Action Line has

- … a strategic goal that contributes to the overall ICT Labs strategy

- … a major and quantifiable innovation goal traced with KPI's

- … priority themes for making progress towards the goal

- … a coherent set of activities contributing to the priorities

- … an action line leader reporting to and coached by a member of the MC

- … European dimension involving multiple ICT Labs Nodes

Action Lines 2013

Action Lines

Smart Spaces	Health and Well-Being	Digital Cities	Future Internet	Cloud Computing
Intelligent Mobility	Future Media	Smart Energy	Privacy, Trust and Security	Cyber-Physical Systems
	Master School	Doctoral School	ICT-mediated Human Activity	

Petri Liuha

Holger Pfeifer

Catalyst Development

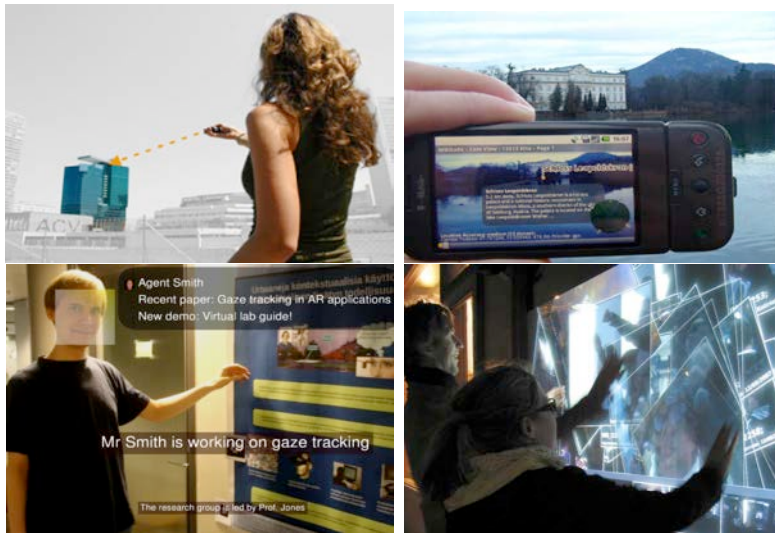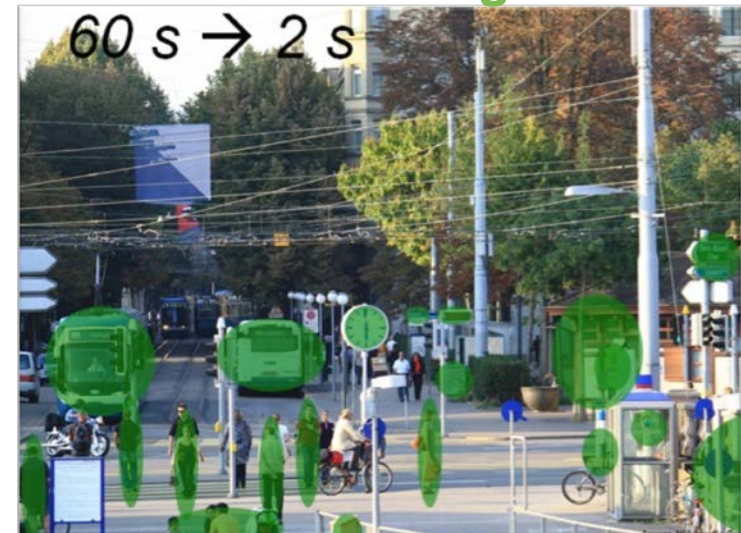|		
Education Catalysts	Research Catalysts	Business Catalysts

Smart Spaces addresses the challenges of intelligent environments

Cyber Physical Interaction

Near Real-Time Event Handling

Virtual Mirror
DFKI IRL

Product X-ray
VTT

Indoor WiFi positioning
HIIT / U Helsinki CS

EIT ICT Labs Smart Spaces Action Line: Call 2013

▪**Public spaces** like exhibition areas, travel and waiting areas, including games and applications using user generated content in public areas

▪**Retail environments** – solutions supporting the retail business and providing new services for the customers

▪**Office environments** – creating the level of standard and complete solutions for the smart office working environment

▪**Home and households** – solutions easing the every-day life of different kinds of users and user groups

▪**Education or event applications** with new ways of interacting in small or large rooms

EIT ICT Labs Cyber-Physical Systems Action Line: Call 2013

CPS systems engineering
- Models of CPSs, requirements engineering
- Software architectures, engineering environments, model-based development
- Compositionality, reconfiguration, flexible evolution
- User involvement: participatory analysis and design

CPS enabling technologies
- Sensing technology, real-time control
- Dependability, safety and security, assurance
- Context-awareness, adaptivity, self-organization
- Human-machine interaction, cooperation

CPS architectures and applications
- Communication infrastructures, cloud
- Reference architecture, interoperability
- Middleware, modular service architectures
- CPS platforms

CPS Knowledge Community
- To form a common understanding of and exchange knowledge about CPS challenges, needs and trends.

Our current Business activities focus on Start-ups and SMEs

Each EIT ICT Labs node has a dedicated Business Developer to support local start-ups

Berlin
Corina Weber
TU Berlin

Eindhoven
Alain le Loux
University of Twente

Activity Lead
Aard Groen
University of Twente

Operational Lead
Björn Kijl
University of Twente

Trento
Paolo Lombardi
Trento RISE

Helsinki
Antti Aarnio
Aalto University

Stockholm
Raoul Stubbe
STING

Paris
Pierre Pleven
Institut Télécom

Companies coached within the Entrepreneurship Support System

Coached Company	Node	Thematic Action Line
Smart Signs bv	Eindhoven	Smart Spaces / Digital Cities
CED/Diagnostics	Eindhoven	H&WB
MagnaView	Eindhoven	Future Media
Telcred	Stockholm	Smart Spaces
Komoot	Berlin	H&WB / Digital Cities
HPC	Paris	Smart Energy / Digital Cities
E3S	Paris	Future Media
Login People	Paris	Future Media
Script & Go	Paris	Future Media
IP Label	Paris	Future Media
Backelite	Paris	Future Media
Green Communications	Paris	Digital Cities
Innorange	Helsinki	Smart Spaces
CLS	Trento	Smart Spaces / Future Media
Practix	Trento	Smart Spaces
Fabrica Ludens	Trento	Smart Spaces
RSens	Trento	Smart Energy
U-Hopper	Trento	Digital Cities
SayService	Trento	Digital Cities

innorange

Green communications   pluriCast

Alignment with European innovation programs is crucial to our success

EIT ICT Labs is a core ingredient in the European ICT Innovation landscape

EIT ICT Labs is an ICT Innovation Engine uniting top European ICT players in Education, Research and Business

EIT ICT Labs complements existing European R&D instruments through the embedding of Education and Business Development

EIT ICT Labs has the longevity to invest for impact in structural game changers in the Digital Society

EIT ICT Labs and Smart Spaces: Proposals for 2013

- Smart Radio

- Dynamic Shared Spaces for Ambient Assisted Living

- Semantic, Adaptive and Infomedia Light

- Location-aware Smart Services

- Pervasive Information, Interfaces, and Interaction

- Digital Design Room

- Open Local Data Applications

- Localization Toolkit

- Smart Spaces Summer School

- Innovation Radar

- The Interaction Toolkit

- EFX - EIT Office Experience

- Smart-M3 platform resilience

- Mobile Urban Augmentation

- Connected Textiles

- Software and Service Campuses

- Brick and Mortar Retail Analytics

- Public Display Living Labs

- Workflow Design Workbench

EIT ICT Labs and Cyber-Physical Systems: Proposals for 2013

- Innovation Platform Cyber-Physical Systems Engineering

- From WSN Testbeds to CPS Testbeds

- Low energy processing for CPS

- Medical CPS Environments

- CPS Summer School

- Cross-Layer CPS Validation

- FAMOUS Friendly Aspire Middleware for Optimal Uses and Services

- A Security Monitoring Platform for 6LoWPAN-enabled Cyber-Physical Systems

- ICT Infrastructures for CPS

- UrbanFlood Launching validator