

Building Smart Collaborative Spaces Network & Services onto T3 Area

Energizing Urban Ecosystem program 2012-2015

Workpackage: Regional Innovation Ecosystem

Task 7: T3 Ba and Flow & Task 4: Regional Information Modeling

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Presentation at EUE Demo Day 5.12.2012

Research Focus according the EUE programme plan

- The focus of the research is **to define which spatial and operational solutions the entire T3 area requires** in order to become the **world-leading innovation platform** and to create a grounded concept description of how to accomplish this. Task 7 co-operates closely with Tasks 4, 5 and 6, and also with the WP SIC, and utilizes their results.
- The first output of this Task is developing an **Energizing Urban Ecosystems Hub with a common workspace – a physical, mental and virtual space – for the entire EUE program**. Järvelin Design Oy's team, coordinated by Lars Miikki, will create an overall model combining theory and practice, (illustrated with case examples) in 2012, integrating the necessary actors required for the research during 2013-2015.
- During 2013-2015 this Task will conduct **research focused on real life practice** involving **co-creation methods and tools**, as well as **multi-sense based spaces** for **maintaining the energy level** and **supporting these activities**. This conceptualizes the **content and events** into a coherent whole that **systemically connects to society** and will have a **strong societal impact** recognized through **mind-set changes** in the T3 area.

Some pre-grounded Thoughts about Spaces Network & Service Concept Development

1. Bear in mind the increasingly blurred **distinction between** traditionally discrete notions of the “**public**” and the “**private**,” coming from multiple directions.
2. Consider the rather novel ability we now have to represent underutilized **spatial assets on a shared platform**, turning them into **networked resources** and allowing them to perform somewhat closer to their theoretical optimum efficiency.
3. Couple these prospects to our longstanding interest in structures that support a **wider variety of space uses** than have traditionally been the case on T3 area and in Finland.
4. Together, these suggest a requirement for some thinking about the **minimal intervention necessary** to establish occupancy of a place.

Mapping of Otaniemi Spaces: Many potential thematic Hubs for Otaniemi Collaborative Spaces Network – no “Space as Service” development Hub!



Mapping of Outdoor Spaces: Plenty of empty space between the buildings! How to use it? - Cases of HoneyPot and Aitta (ACSI contribution)



HONEY POT –
AN EVERDEVELOPING URBAN
BUILDING CONCEPT AND VOCABULARY

HONEY POTS AND OTANIEMI
/ AALTO UNIVERSITY



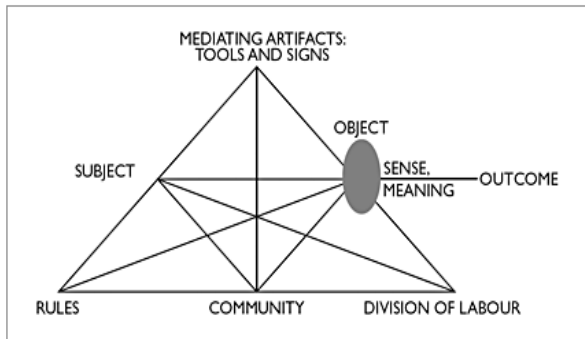
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The path from Collaborative Knowledge Construction to Regional Entrepreneurial Effects!? (single space)

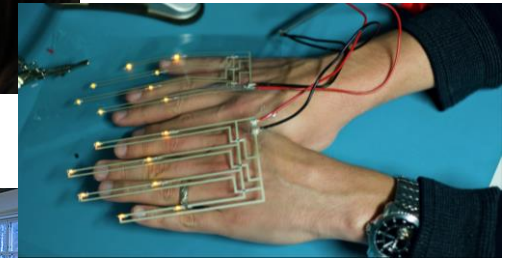
- Could we consider Innovation Co-creation mainly as a **Collaborative Creative Knowledge Work** process? What are then the roles of Learning, Design and Effectuation as enablers of that work, do other enablers exist? Could Trialogic Knowledge Construction thinking be applied on regional level as an Collaborative Innovation work Energizer?
- How can a **Physical Space support** Collaborative Innovation work? Then, how to create and organize e.g. Meaningful Activities, suitable **Boundary Objects**, Distributed Memory, Co-learning and Co-working tools for the space? What are the other important properties of this space? Do the walls of the space carry its meaning for its users or do people that use do it? How is the “self” of the Space created? How do spaces become **Focal Points**?
- What makes a Space smart? Is ICT the only solution? What is the role of People and what of the Technology? How to build inbound and outbound Interfaces for Smart Co-working space's? What are the Internal Support Services for a Smart Space? And what Enabling Services should be offered Before, During and After e.g. an Collaborative Event? What is a sustainable **Business Model for Smart Space**? Where to connect it, how to do it?

**First Conceptual Fix: A Co-working Space (Ba)
enabling Knowledge Co-Creation seen as a primary
level Boundary Object connecting disciplines**

T3 (Otaniemi) Community works around Common Objects which are Collaborative developed using various Mediating Artefacts, Tools and Signs.



Human activity system, Yrjö Engeström, 1987



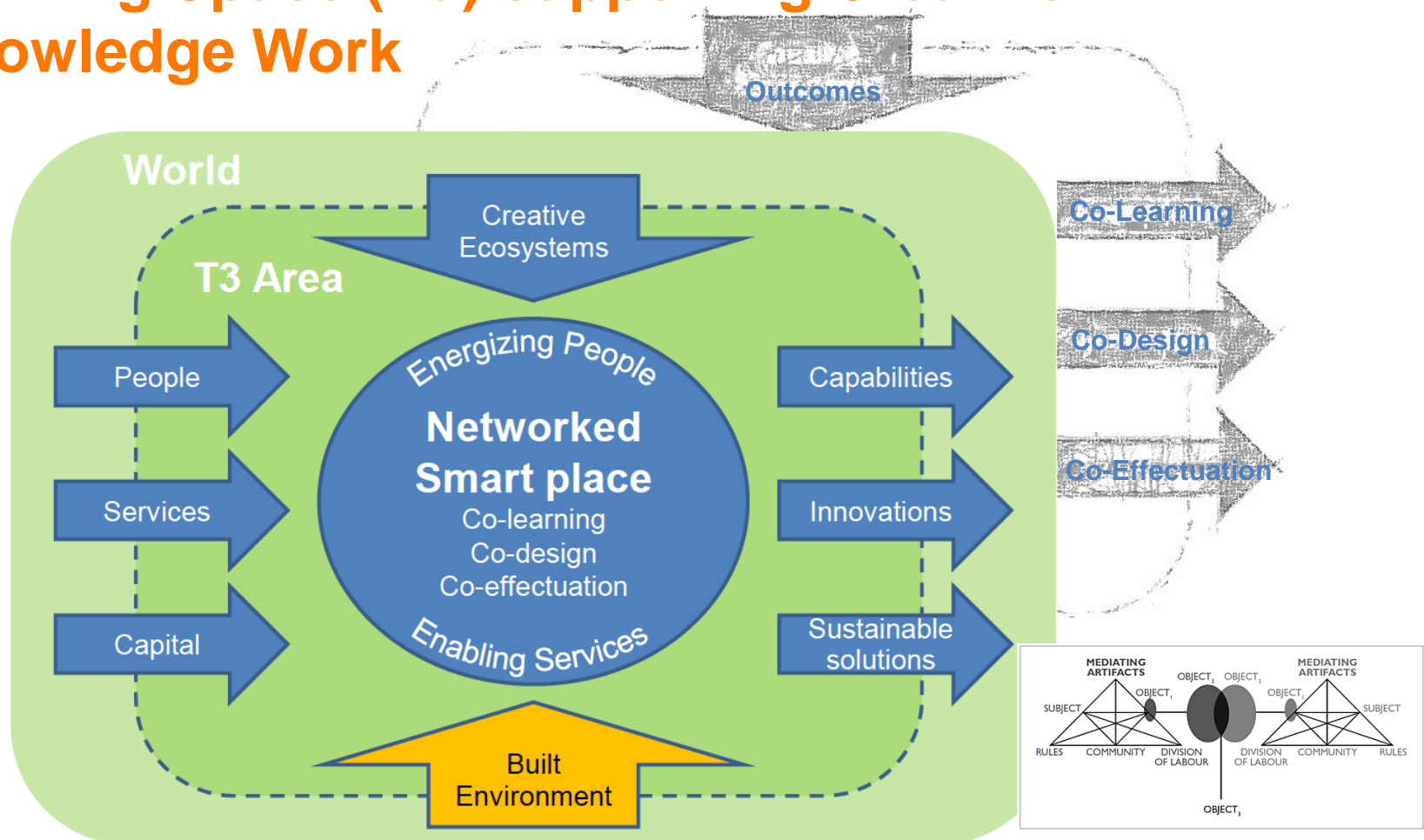
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Three socially enabled support processes required when offering Smart Collaborative Space Services

- **Trialogic Learning (Socially Created)**
 - “Conscious and systematic effort to collaboratively develop socially shared objects in order to exceed the prior learning. Social community works around a common object which features are collaboratively developed using various mediating artefacts and tools.” *Yrjö Engeström, Kai Hakkarainen et al.*
- **Co-creative Design (Socially Constructed)**
 - “Design is seen as the approach for the conception of services and products. Contextually derived usage of design, co-design, participatory design and co-creation approaches for developing successful services. Interdisciplinary approach, links e.g. With Architecture and Urban Design, Construction, Service innovation, Marketing and Process Development. Design With, For and By Citizens”. *Aalto EUE/RIE Approach*
- **Effectual Entrepreneurship (Socially Embedded)**
 - “Effectuation processes takes a set of means as given and focus on selecting between possible effects that can be created with that set of means. Four principles of effectuation in Entrepreneurship context: affordable loss, strategic alliances, exploitation of contingencies, control of an unpredictable future.” *Saras D. Sarasvathy*

Energizing Urban Ecosystems Research Programme 2012-2014, Kari Mikkilä, Järvelin Design Oy 21.10.2012

Conceptual proto 1: A Smart Networked Co-Working Space (Ba) supporting Creative Knowledge Work

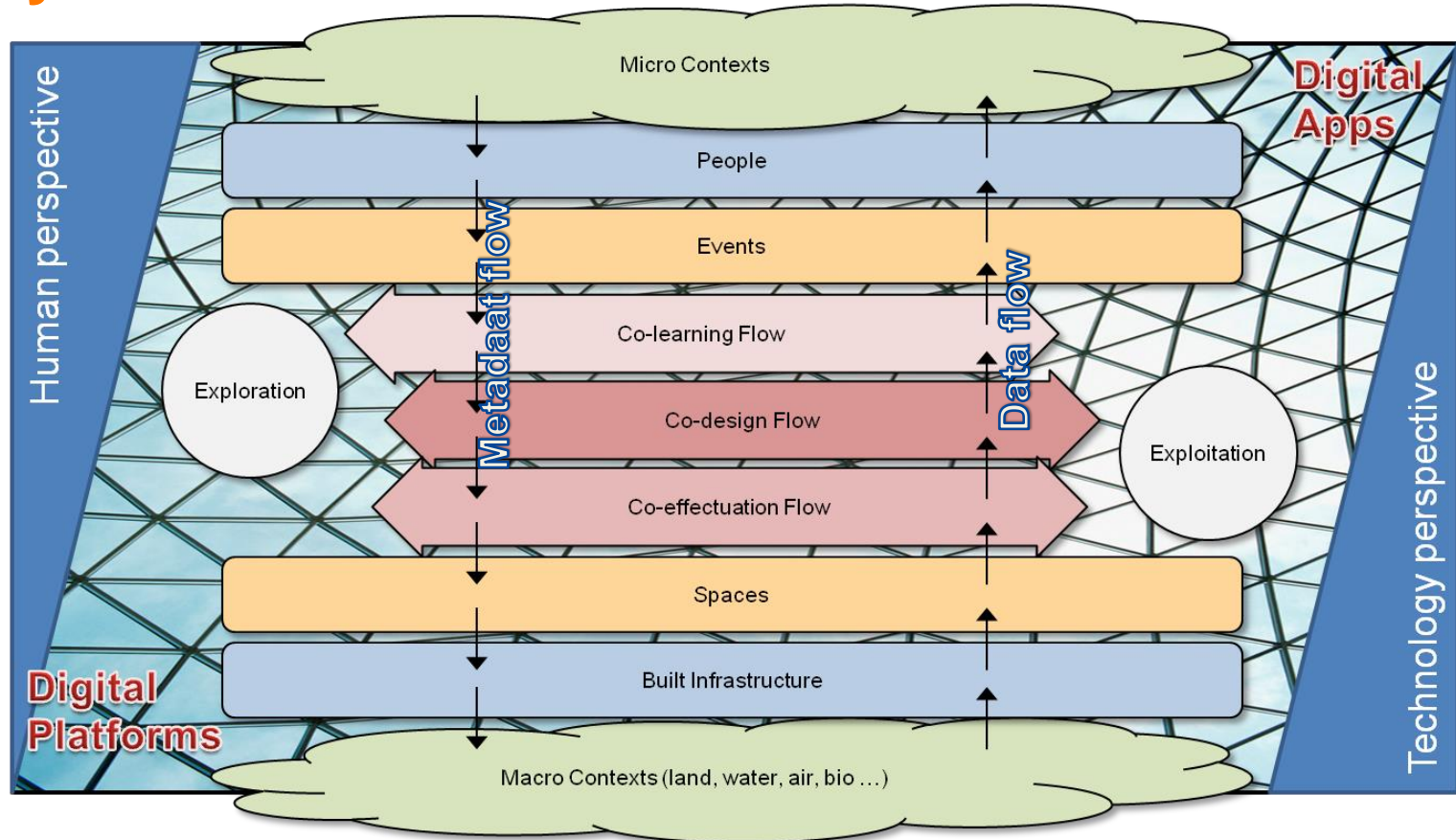


Energizing Urban Ecosystems Research Program 2012-2015 Lars Miikki & Kari Mikkilä, Järvelin Design Oy 21.8.2012

The path from Collaborative Knowledge Construction to Regional Entrepreneurial Effects!? (space network)

- If we connect Smart Spaces and build a **Smart Spaces Network**, how should we proceed? Is there an existing development path for that or should we create a new one? What are the interaction **processes and value flows** between Networked Smart Spaces? And what are they between the Smart Space Network and Regional Innovation Ecosystem - or Global Actors? Are those interactions and flows attached to people or to technologies? What are the **Boundary Objects which bridge** different spaces and communities with a meaningful way?
- How could a Smart Space Network **support all Innovation activities of the region**? How should the region support the Network? What services can the Network offer? What services should be offered by other regional actors for the Network? What are properties of all the interfaces between different actors within the Space Network context, how to build and connect those interfaces? Who should be considered as **users or producers of the Network**?
- What new services could the Region offer to **global or local actors** through Spaces network? What are the interfaces of the region and how to organize them? What is the role of the region in its chosen global context? **Could the Region be seen as a Service** itself? Could that service be Entrepreneurial Effectuation - making it easy for people to learn, develop and exploit their ideas and innovations in business, public or community contexts?

Conceptual proto 2: ICT enabled Spaces Network Service (Flows) embedded to Social Networks and the Physical Innovation Environment

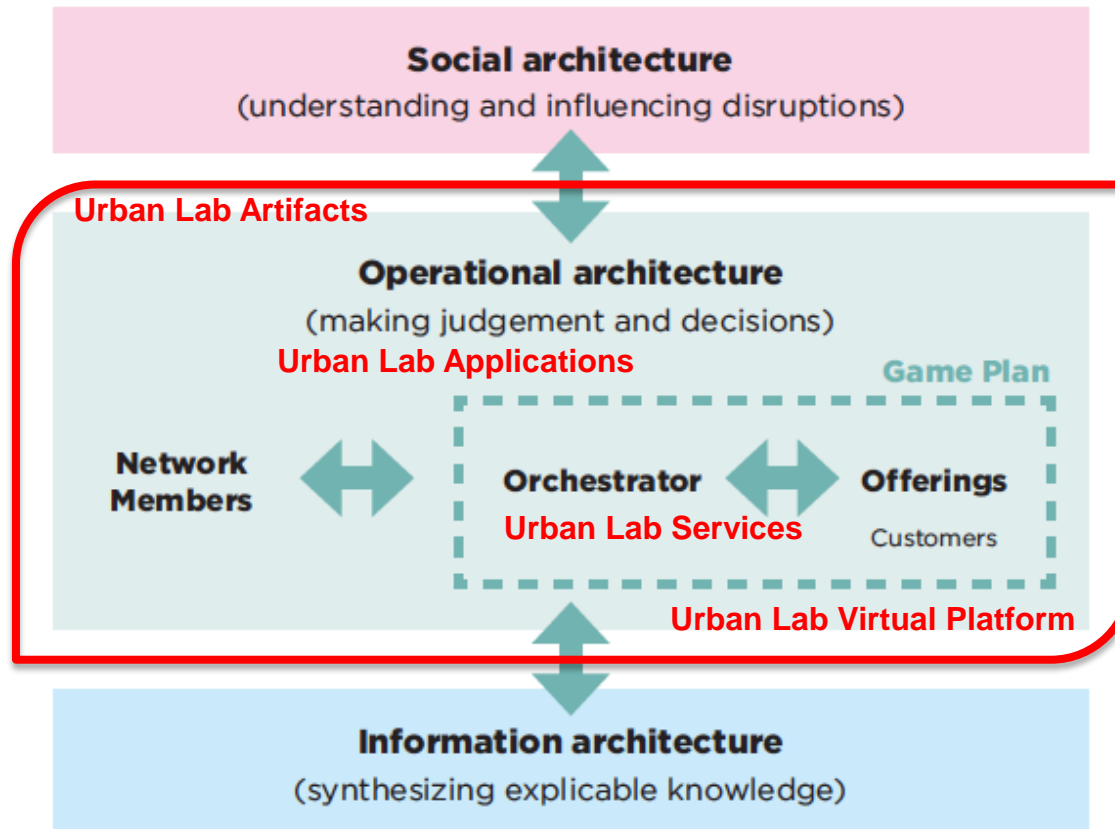


Energizing Urban Ecosystems Research Program 2012-2015 Lars Miikki & Kari Mikkilä, Järvelin Design Oy 21.8.2012

Smart Spaces Network Service: Virtual Spaces bridging Mental and Physical Spaces

- Human Activity Systems (upper picture levels) and Built Environments (lower picture levels) are interconnected through two information flows. Metadata flow (left) and Data flow (right) should be open for all physical space users provided as a digital platform service of the built infrastructure (see e.g. <http://data.aalto.fi>). Different spaces use their own thematic ontologies.
- Open Information and Contact flows are offered for the users of the physical spaces before, during and after peoples attendance there including e.g. open data of courses, publications, research projects and outputs, places and equipment, researchers, staff, visitors, organizational structures, news and events. These flows can be exploited using digital services or applications (see e.g. <http://www.twheel.com>)
- Different Spaces in a Space Network are interlinked through Co-learning, Co-Design and Co-Effectuation Flows. These inter-space flows can be carried either by people or digital means. Interfaces between different spaces should include services and tools which enable creation and enhancement of these inter-space flows.
- Micro-Context linking: How can users background contexts be presented in the space and how can info created in the space brought to its user's micro-contexts? Macro-Context linking: How can macro-context data be presented in the space and how can new data created during events, by users, brought to the macro-level data sources?

Conceptual proto 3: Operational architecture interlinking social architecture with digital information architecture



<http://www.linkedin.com/>

<http://www.twheel.com/>


e.g. Linked Open Aalto Data Service:
"University data should be open for reuse and transparency (when possible), interlinked with each other for enriching it, and available as datasets and operational web services for easy application development."

<http://apps4finland.fi/>


<http://data.aalto.fi>

Kari Mikkela, Jarvelin Design Oy, 2012

Conceptual proto 4: A Beta-Blueprint of a Smart Networked Co-working Spaces (Ba&Flow)



Aalto Venture Garage



700 m2 coworking space - this is where the magic happens

Brief description

Aalto Venture Garage s a coworking space focused around entrepreneurship. Startups, developers and entrepreneurial minded people—you will find'em all here!

Aalto Venture Garage is a coworking space focused around entrepreneurship. Startups, developers and entrepreneurial minded people—you will find'em all here! The Garage doors are open:7:45-4:15 Mon-Fri

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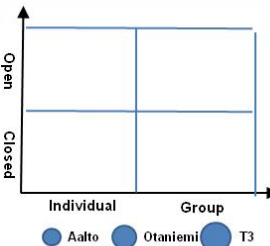
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Space Benchmark

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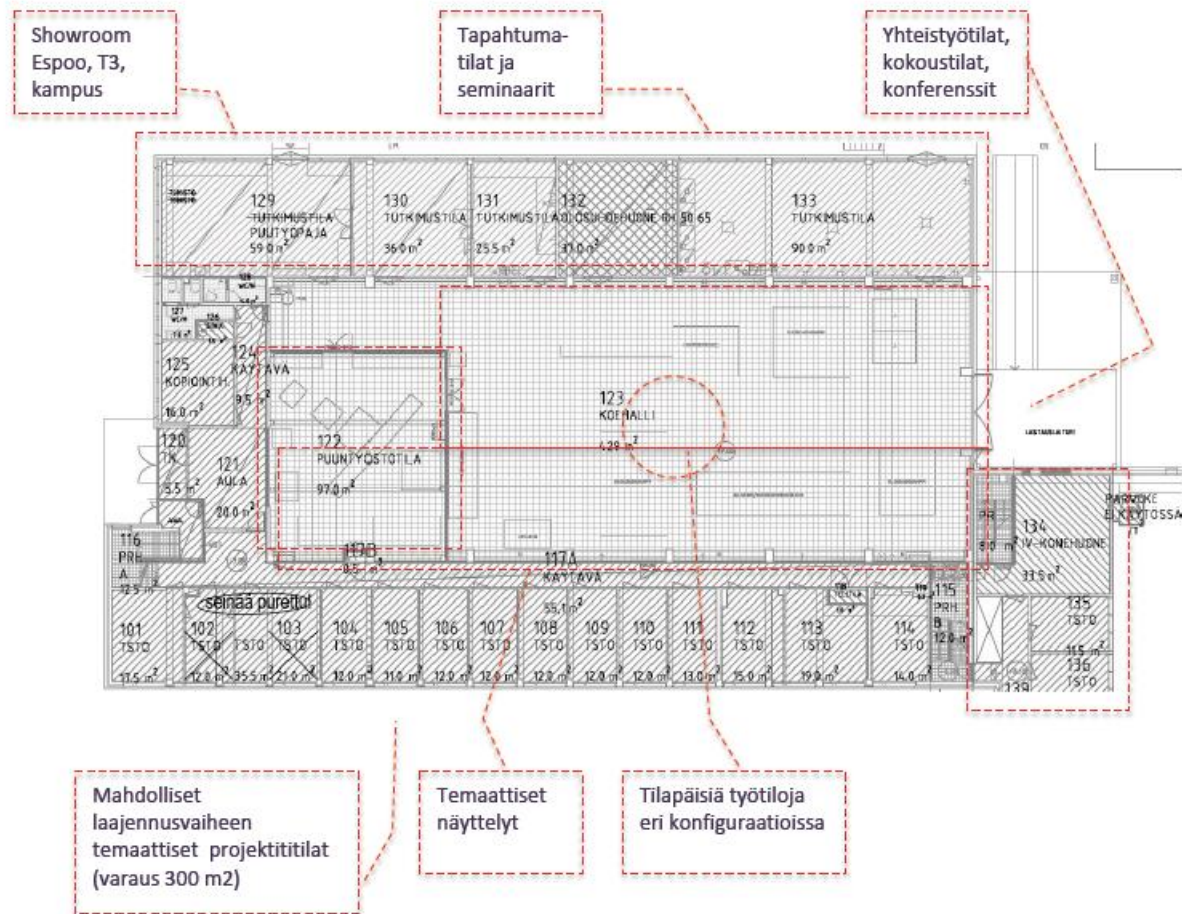
Energizing Urban Ecosystems Research Program 2012-2015 Lars Miikki & Kari Mikkilä, Järvelin Design Oy 29.6.2012

First EUE programme year's physical proto: Operational concept for the Urban Innovation Lab!?



UrbanLab

Urban Lab's planned opening at 1.1.2013



Multiple space solutions and working modes in Urban Lab

01 SISÄÄNTULOKOKEMUS URBAN CAFE

lähestymis kokemus, kutsuva, kertova, intuitiivinen

Lastauslaituri muutettu kahvio terassiksi, kokemus vuorovaikutuksesta
Terassi esimerkiksi suojattu verhoilla jolloin se suojattu tuulelta ja sateelta, katossa lämpölamput



02 KOKEMUS TEKEMISESTÄ URBAN LIBRARY

Sisääntulo kokemus Näkymä sisääntulosta
Toiminnan logiikka heti esillä, vasemmalla urbaani kirjasto oikealle jäävät työtilat ja keskeinen tapahtumatalo jonka perällä laboratorio
Permennolla aktiiviset tapaamistilat, urban boothit, sogvoryhmöt jostak aksutoitu, kontteja tms



03 COWORKING KOKEMUS URBAANI DNA

Sali jossa akustoitavia elementtejä ja työskentelytiloja, urbaani DNA näkyvissä ja koettavissa



04 TYÖSKENTELY KOKEMUS URBAN DNA

Jokaisella Urban Labissa olevalla tutkimusyksiköllä on tilannehuone, tila jossa projekti voi olla esillä, kehittyä ja keskittyä. Tila valaistu ja akustoitu niin että siellä työskentely miellyttävää, tila avoinna tapahtumatorille
Tilan kalusteena yksi iso pöytä whiteboard seinä sekä tuolit ja säilytyskaapisto



05 KESKITTYMISEN KOKEMUS URBAN SAUNA

työpajatalo akustoitu tiimityöskentelyympäristö, kalusteena työpöydät kpiodn ympärilläkokoustuoleja, esityst seurataan erilaisista näytöistä, esiintyjä mahdollisimman lähellä päättyseinällä



Multi-disciplinary and multi-talented cooperative innovation work in a Urban Lab (2013: vol. 3 M€)

Urban Lab ensimmäisen vaiheen KÄYTTÄJIÄ

- 01.a Ensimmäisen vaiheen pääkäyttäjänä esim. RYM-SHOK:n EUE-ohjelma urbaanien ekosysteemien tutkimus
- 01b. Tämän rinnalla heti alusta mukana EKA B-hanke (edelläkävijäalueet)
- 02. Arkkitehtiosaston kaupunkisuunnittelun studio (esim. Urban Renewal kaupunkistudio ja kansainväliset työpajat Shanghai 2012, Rio De Janeiro 2013, Cape Town 2014, Espoo 2015)
- 03. Living + Aalto tutkimusryhmän temaattisesti sopivat osat 2013-
- 04. Urban Fab Lab / 3d printterilaboratorio
- 05. Aallon asuin- ja työympäristön tutkimushankkeita
- 06. Espoo T3 showroom, Aallon kampuskehityksen tila
- 07. RYM organisaatio, RYM Business Lab , RYM-hankkeet (tbc)
- 08. EIT ICT Labsin Smart Space ja Social Network Apps hankkeita (tbc)
- 09. Yritys/yliopisto temaattiset studiot (sponsoroinnin kautta)

Urban Lab's role in the global/regional Innovation Ecosystem

- Urban Lab helps cities and regions to become more **easy to perceive and grasp**, more **open to access and enter into**, more desirable and enjoyable to **visit, work and live in**, more **responsive and trusty** to the desires of its **guests, workers and inhabitants**, and **more out-giving** of their creative and innovative effects.
- Urban Lab brings a **human-centred perspective** to the research and design of artefacts, activities, products, services, platforms and spatial interventions **wherever human activities, built environment and ubiquitous information technology intersects the urban spaces**, for the benefit of everybody who lives, works, strains, and fantasizes in the world's cities.
- Urban Lab works **with citizens, municipals, public-sector and private organizations in long-term collaboration processes**, on one-off projects or ventures, and as well as developing its own services and solutions.
- Urban Lab offers **multi-disciplinary and multi-skilled expertise** e.g. in urban studies, ethnography, social interaction and interface design, physical and digital service design, collaborative knowledge work, built environments, city planning, land use and surveying, and creative urban ecosystems.

Urban Lab "Space as Service" concept

- Urban Lab Service connects contents, communities, services and physical spaces as a **holistic offering**.
- Urban Lab is EUE's **SpaaS platform pilot** which all consortia members can use for e.g. Co-working and testing purposes
- Urban Lab Service **combines 5 business models**:
 - Thematic **Inter-disciplinary** and –skills **Collaboration model**
 - Open Innovation **Co-working Platform** for Companies
 - **Spatial Knowledge Triangle concept** for the University
 - **Triple+ Helix environment** for the Cities
 - **Co-working Space as Service** for AYK/Aalto/Espoo and other property owners and developers