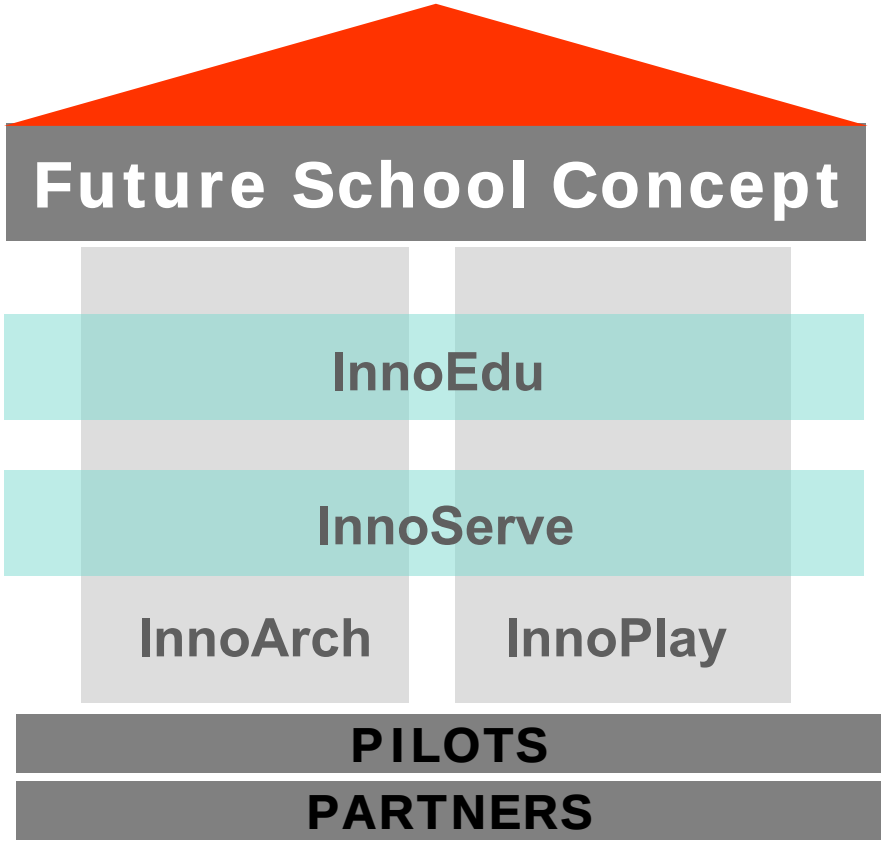
InnoSchool Consortium

Innovations in Architecture, Playful Learning, Education and Services for the Future School



InnoArch

Places and Spaces for Learning

Helsinki University of Technology, Department of Architecture, Laboratory of Urban Planning and Design

InnoEdu

Education with Innovation

University of Helsinki, Faculty of Behavioral Sciences, Center for Research on Teaching

InnoPlay

Innovative Playful Learning Environments

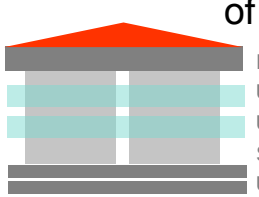
University of Lapland, Rovaniemi,
Faculty of Education, Centre for Media Pedagogy

InnoServe

Service Innovations for Future School

Helsinki University of Technology, Department of Computer Science and Engineering, SimLab

Transdisciplinary research project
PHASE I 1.1.2007 - 30.6.2008
PHASE II 1.7.2008 - 31.12.2009



Helsinki University of Technology
University of Helsinki
University of Lapland
Stanford University
University of California, Santa Barbara (UCSB)

InnoSchool Collaboration

- Research
  Helsinki University of Technology; University of Helsinki; University of Lapland; Stanford University; University of California, Santa Barbara (UCSB)
- Industrial Partners
  Elisa, Cramo Instant, Lappset Group Ltd., Martela, Microsoft,
- Municipalities
  City of Espoo; City of Helsinki; City of Rovaniemi
- partners Dissemination Partners: National Board of Education; Finnish Forest Industries Federation

- Funded by Tekes and the participating municipalities, companies, and dissemination

Concept Design of InnoSchool

InnoEdu

Education with Innovation

Formal and Informal Pedagogical Processes

Formal processes

- take place in institutionalized forms of activities
- are organized through the aims and ideas of th curriculum.

Informal processes

- take place outside the curricular frame of a schooling institution.

Mediating elements

- integrate these forms of learning

Pedagogical Environments

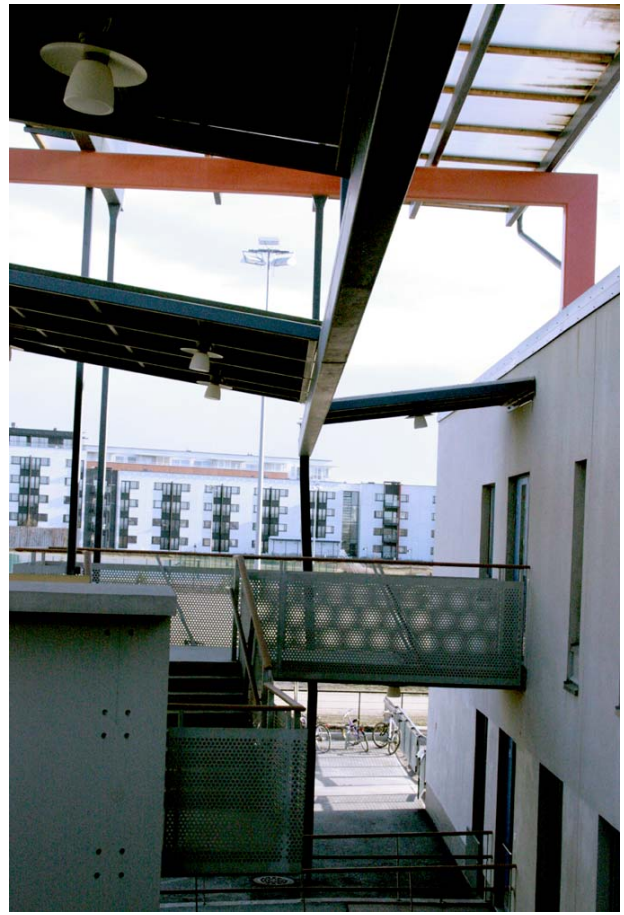
Pedagogical structure and organization of environments of learning

- physical, virtual
- formal, informal
- integrated, distributed
- local, global

InnoServe Service Innovations for the Future School

Goals of the Project

- To study collaborative public-private service innovations in the “extended teaching processes”
- To research and develop
  - new networked service concepts
  - new business models of the extended school in its learning community
- To contribute through service research to the development of the Future School Concept



InnoArch Places and Spaces for Learning

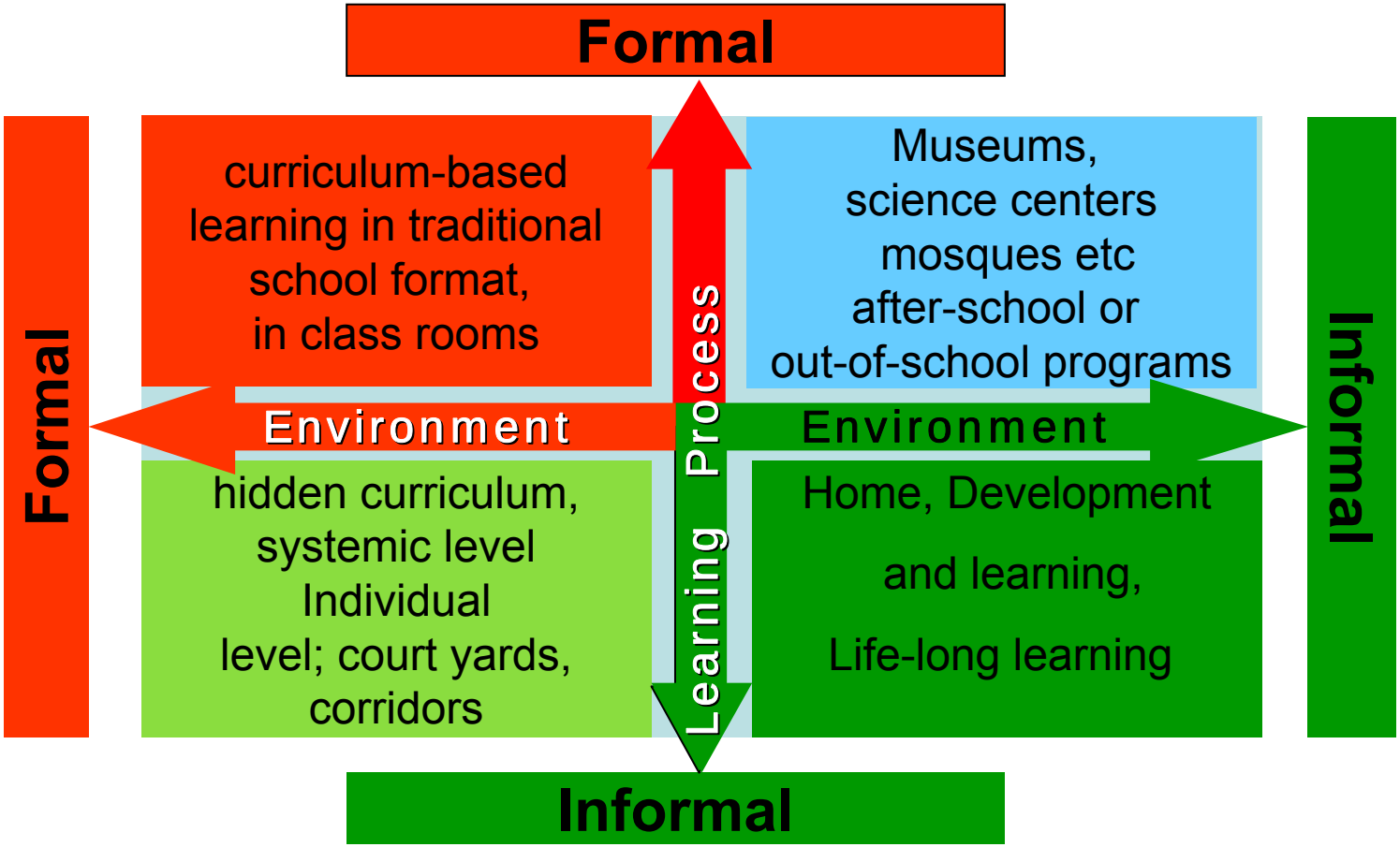
Primary Goal:

- to deepen the understanding of the interrelationship between the physical environment and the meaningful learning process (TSL) and to create new knowledge of this correlation

Secondary Goal:

- to develop collaborative inquiry-based planning and design process for future school

Learning Processes in Different Environments



InnoPlay Innovative playful learning environments

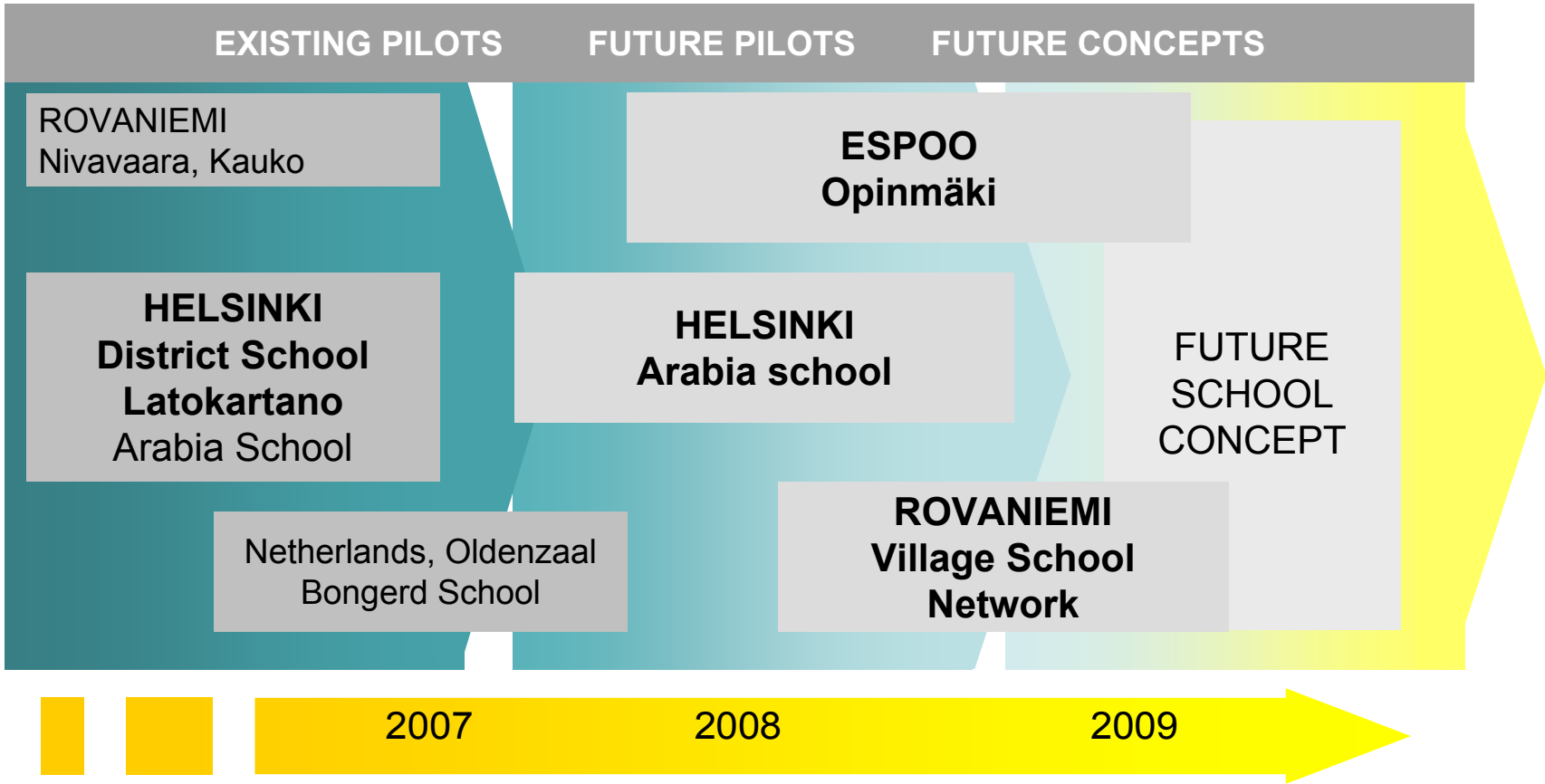
Research context Playful Learning Environment (PLE) (Hyvönen, Kangas, Kultima & Latva 2006)

- **is new kind of outdoor playground where curriculum-based learning takes place through physical activities, play and games**

- **relates closely to *SmartUs* playground concept by Lappset Group Ltd.**
- **consist of playground equipment and technological tools:**
  - computer software and digital ready-made game applications,
  - identification technology (*Radio Frequency Identification Device*, *RFID*),
  - the Central Unit, *iStation* and
  - info poles *iPosts* (see: www.smartus.fi)

Playful learning environment at Kauko School

InnoSchool The Pilot Schools



InnoSchool Data collection and analysis methods

- Two joint data collection and analysis methods will be used in the InnoSchool Consortium:
  1) the digital video data analysis DIVER and
  2) the SimLab™ process simulations.

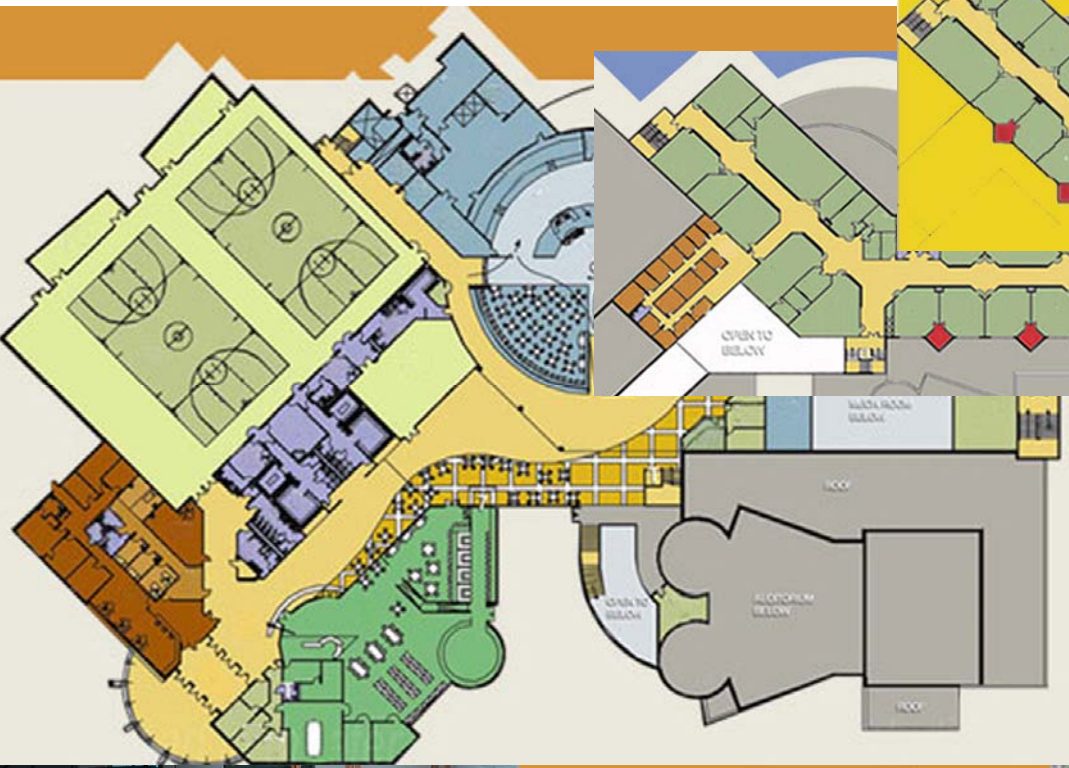
- InnoPlay will apply the DIVER™ technology to analyze learning in schools and PLE environments.
- InnoArch is using Interactive maps (softGIS) + mobile positioning and
- Walking through -method combined to Brieftec Binder –application

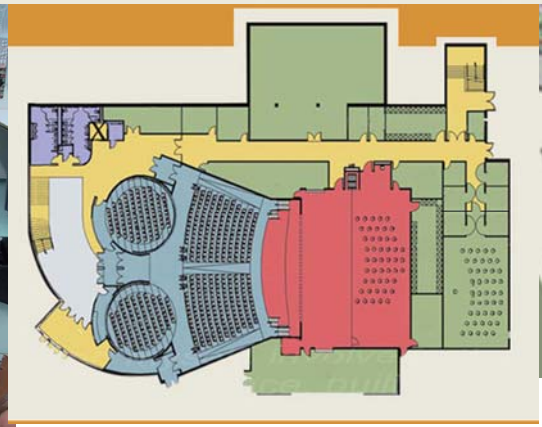
- In InnoSchool Consortium DIVER will be used to analyze the data collaboratively and contrastively from different scientific perspectives – in collaboration of InnoSchool researchers and their international colleagues

Outcomes of InnoSchool

- Scientific results
  - doctoral dissertations
  - articles in refereed journals and books, conference papers
  - international scientific collaboration in researcher training
- New methods and contents for university education in teacher training, architecture, management and ICT-enabled services
- Business results: the Future School concept in the learning community
  - Innovative ideas for the development of public-private Processes, Products, Services, Business models
- Social results: contribution to the national and international development of schools, and the educational systems

InnoSchool Pilots now





InnoArch: Reflecting

the research results to the existing future school concepts

Microsoft

InnoSchool

Helsinki University of Technology
University of Helsinki
University of Lapland
Stanford University
University of California, Santa Barbara (UCSB)

InnoArch

Sub Study 1: Outdoor Field Research in Arabia School

- Interactive maps (softGIS) + mobile positioning
- Walking through -method combined to Brieftec Binder – application
- Which affordances are perceived promoting learning?

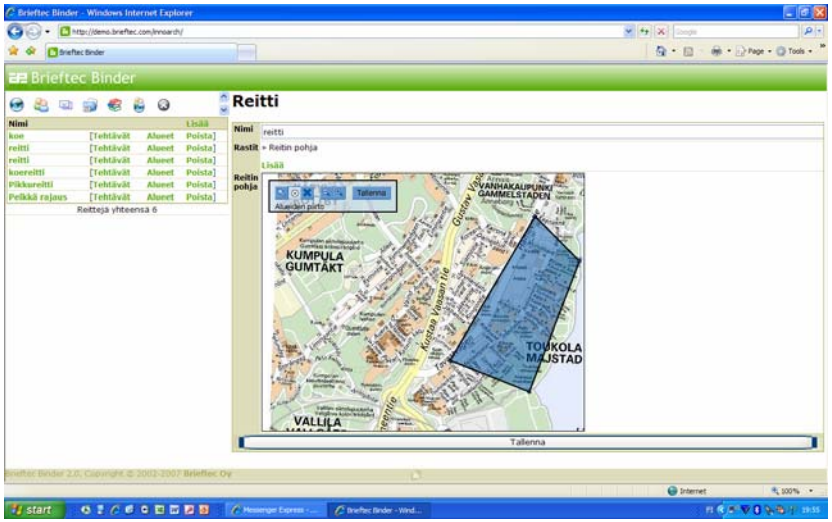
TOOLS

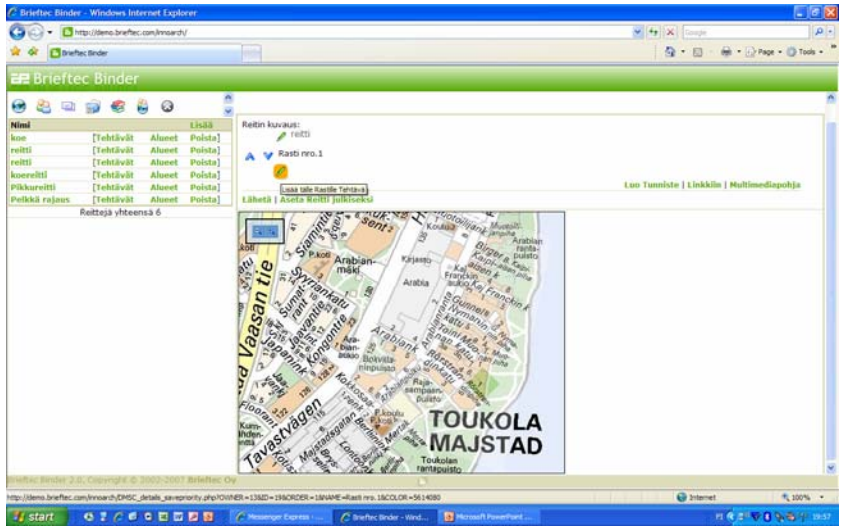
- **Mobile application (Brieftec Binder)**
  - **Internet platform, mobile phone and positioning device (GPS/logger)**
    - **Positioning social, emotional and operational places (affordances)**
    - **Tracking routes**
    - **Analyzing in GIS application (Mapinfo)**

- **SoftGIS neighborhood forums**
    - **Exploring possibilities to gather local knowledge to neighborhood forums by using mobile positioning**
    - **Can playgrounds be centers for learning neighborhood?**
      - Lappset playgrounds

BRIEFTEC BINDER

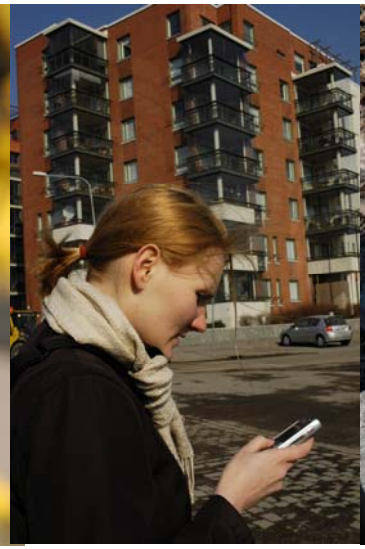
1. Creating safe area, route and tasks (if needeed)





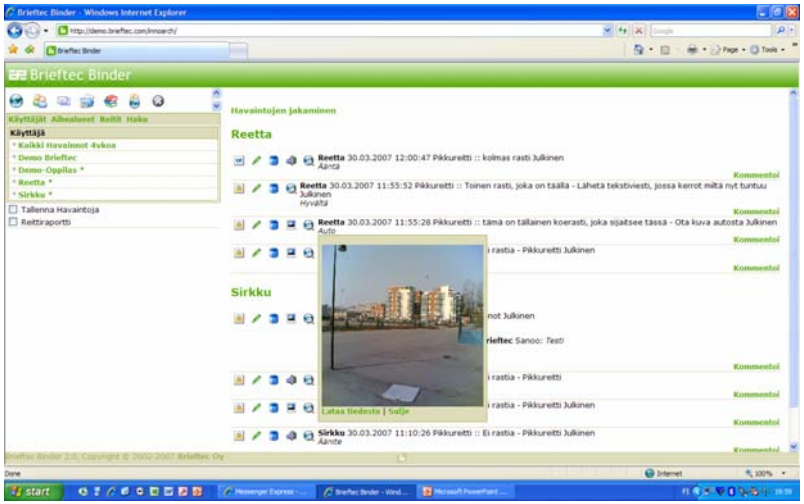
BRIEFTEC BINDER

2. Going to the site, start the walk and to locate perceptions



BRIEFTEC BINDER

3. Data is gathered into Internet (picture, video, voice and text recordings) and logger (route) database.
   From where it can be:
   - used as basis for interviews,
   - transferred to GIS applications



InnoArch

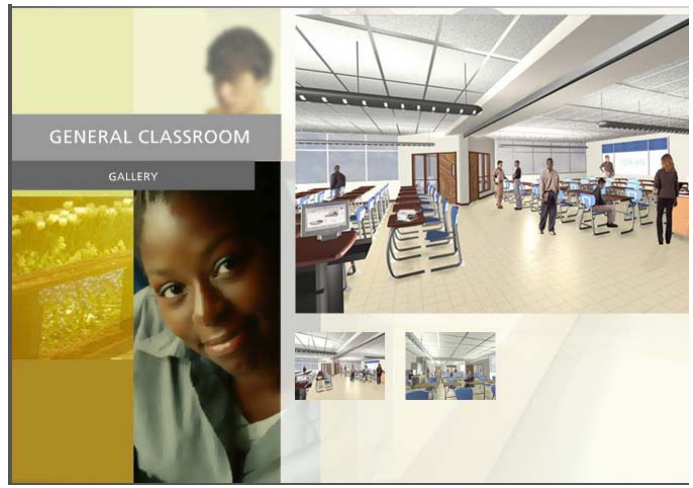
Sub Study 2: Indoor Field Research in Arabia School

- Space analysis in the building
- Diver™ analysis of gathered video material

- 24 usability analysis
- Comparative study Stanford ´Loft´, CDR

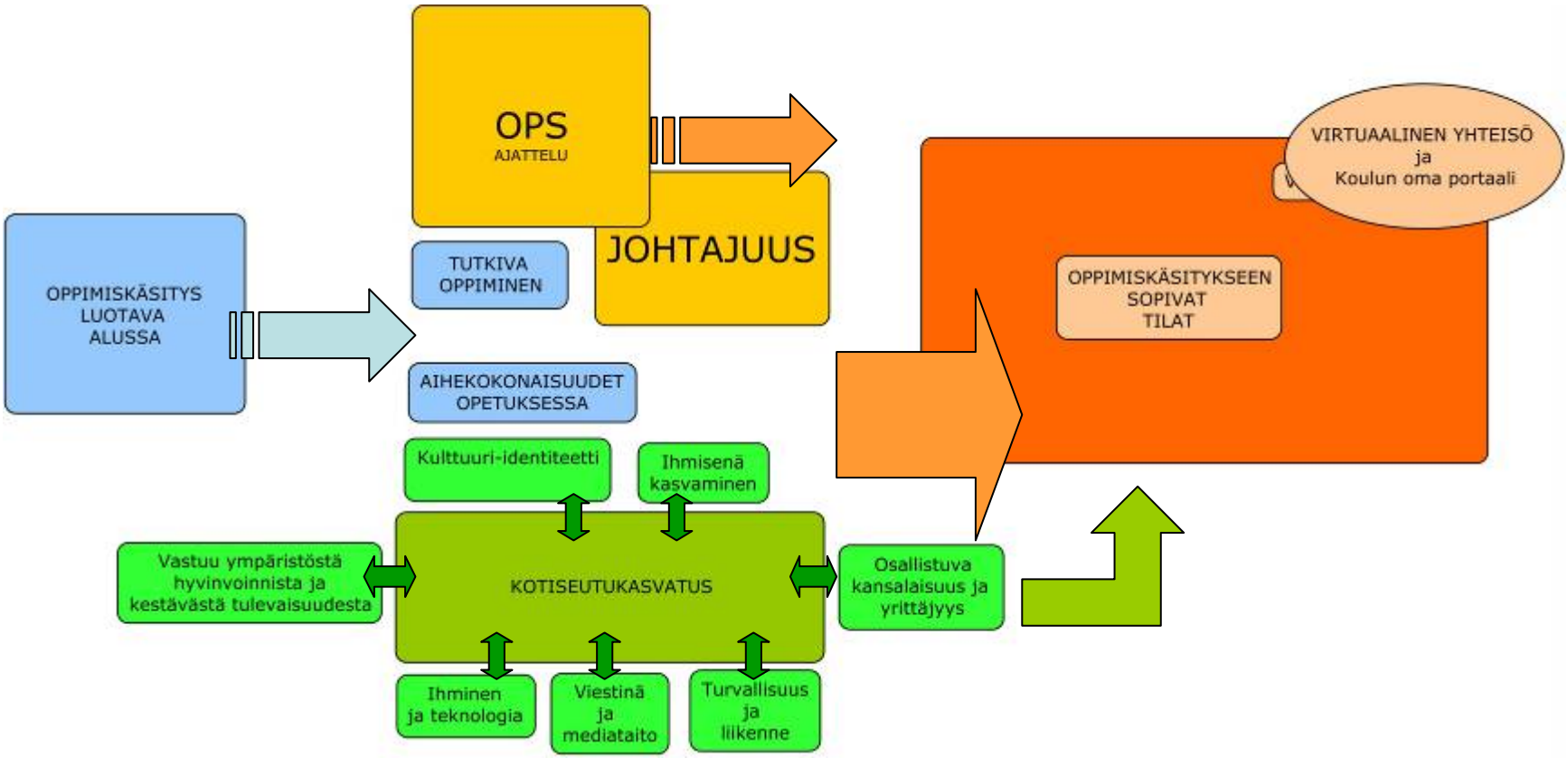
InnoArch Sub Study 3: Opinmäki School functional and planning process

- "Space group" in Espoo
- Involved with the simulation with InnoServe
- Collaborative Planning Workshops May 2007



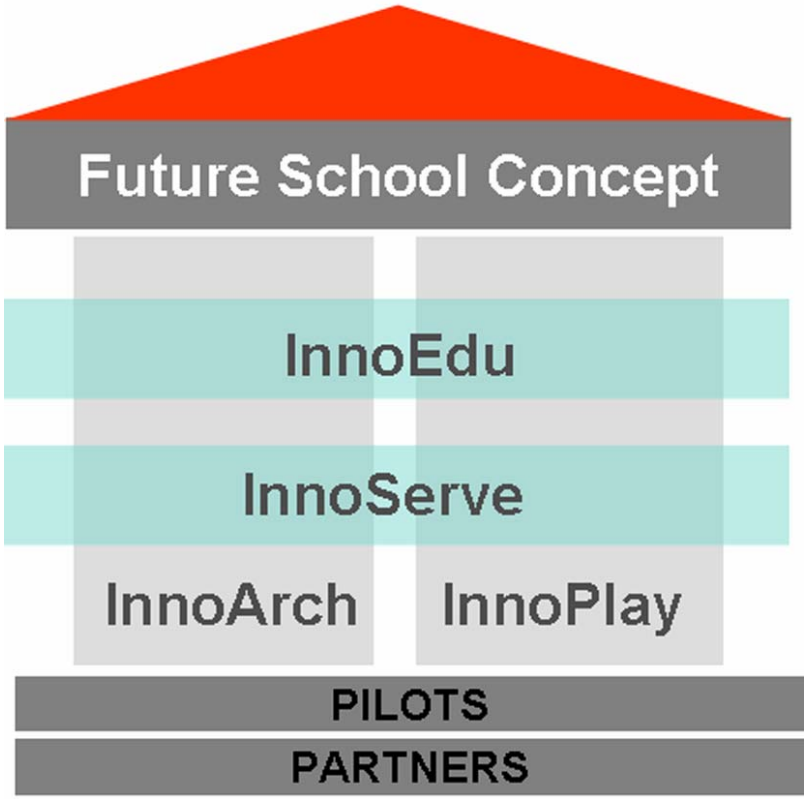
Future TSL in Opinmäki School

Seminar 25.04.2007



5. brev
6. breven
8. kusiner
9. kusinerna
11. bältet
12. bältena
14. sångar
15. sångarna
17. halsband
18. halsbanden
Varifrån
De kommer
skor
Stola

InnoSchool Brochure May 2007



Acrobat Document

InnoSchool Brochure