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# Mobile and Ubiquitous Systems: What are the open issues?

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#### Background – Two Projects







### Oxygen – Ubiquitous Business

#### Vision

- Stay in touch with everyone and everything, from wherever you are
- Information access will be available everywhere will be ubiquitous

#### Why?

- Immediate access to ideas, goods and services will be of greater value than permanent and ponderous possession
- The formular of the coming age:

#### ACCESS, ACCESS

(J. Rifkin – The Age of Access, 2001)



### Oxygen Results – Building Blocks of Ubiquitous Business

Natural Interfaces

Ubiquitous Intelligent Extended Functionality

Networked Infrastructure

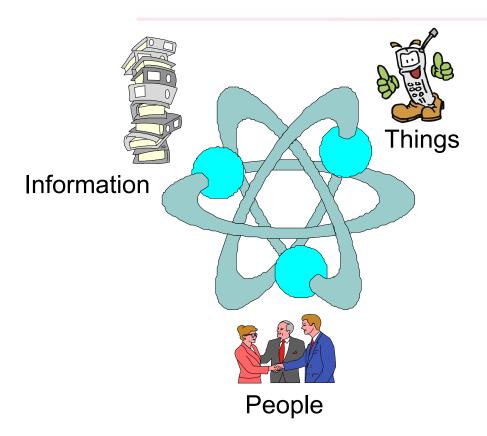
Natural Usability

Extended Functionality

Basic Functionality



## Hydrogen – Project Vision



Bringing together People, Information and Things



### Goals & Approach

- Investigation and evaluation of middleware for:
  - Supporting social interaction among people
  - Mobile ad hoc cooperation among team members
  - Taking into account the very dynamic execution context of applications running on mobile devices
- Development of experimental prototypes
  - Mobile meeting agenda
  - Location aware reminder



## Mobile Meeting Agenda Components: iPAQs and Laptop

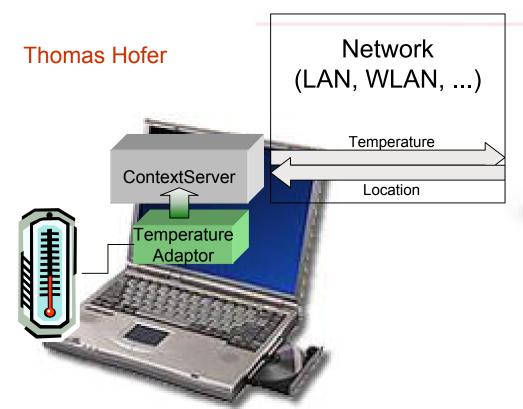








### Context Framework Context Sharing

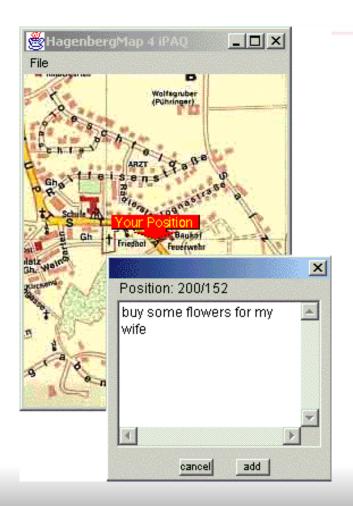


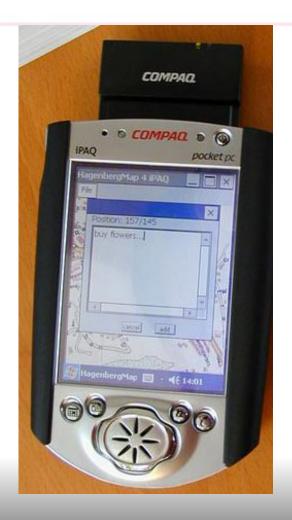
 Re-Use of context information on more than one device





### Hagenberg Location Aware Reminder









- Planning PhD thesis
  - Question: What are the open issues?
    - Spontaneous interaction and interoperation in mobile and ubiquitous systems
    - Mobile peer-to-peer systems
    - Mobile ad hoc collaboration
- I hope that this Summer School will help me defining my research topic



#### Thanks for your attention!

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