

# **The European** ***Disappearing Computer*** **Initiative**

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**ETH Zurich**

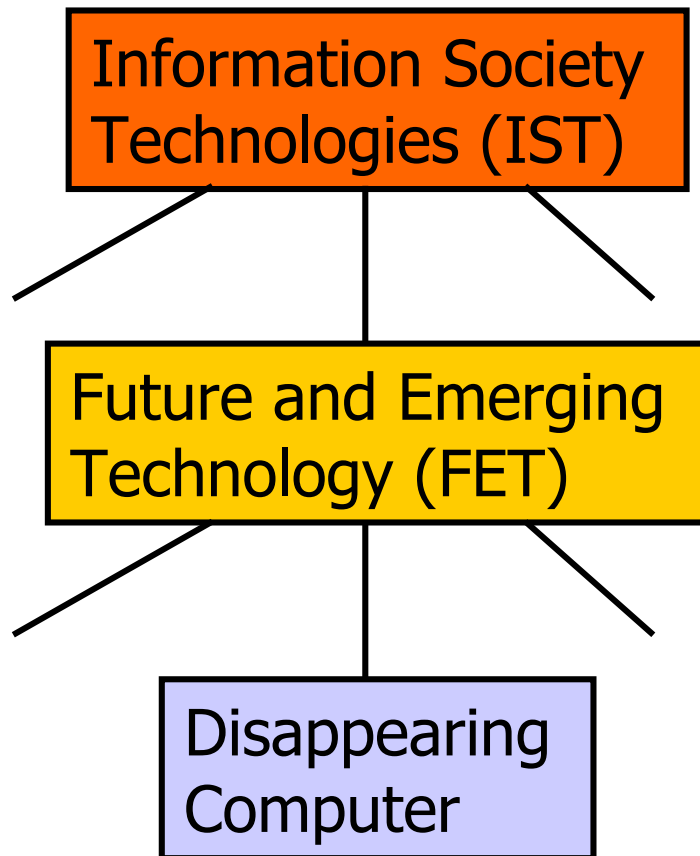
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# The European „Disappearing Computer“ Initiative



**IST** is an integrated EU research programme that builds on the convergence of *information processing, communications* and *media* technologies

**FET** promotes research that is of a *longer-term* nature or involves particularly *high risks*

- **16 projects** started on Jan. **2001**
  - durations **2 - 3 years**
  - several European countries each
  - more projects will follow
- **37 institutions** (academia and industry) in **13 countries**
- Total effort: **~300 person years**

# **A Vision of the Future** (Jakub Wejchert)



...**everyday objects** and places become 'infused' and 'augmented'...

...**computers disappear** into the background...

...artefacts with new and **emerging properties**,  
and **augmented places**, appear...

... enrich **everyday life** simply and naturally...

# Moving Towards the Vision

(Jakub Wejchert)



- Set the trends for future development
- Draw together various skills
- Critical mass

# The „Disappearing Computer“

- Diffuse information technology into future forms of **everyday objects**
- Create new **information artifacts**
  - possibly with sensors, micro mechanical systems, wireless connections,...
- **Emerging new functionality** from collections of interacting artifacts
  - **awareness** of other artifacts in the **environment**
- Emphasis: new **people-friendly** environments
  - e.g., design of new user interfaces
- **[www.disappearing-computer.net](http://www.disappearing-computer.net)**



# Goals of „Disappearing Computer“



- Explore how **everyday life** can be supported and **enhanced** through the use of **collections of interacting artifacts**
  - together, these artifacts will form new **people-friendly** environments in which the computer-as-we-know-it has no role
  - the aim is to arrive at **new concepts and techniques** out of which future applications can be developed
- The initiative focuses on three inter-linked **objectives**:
  - developing new tools and **methods for the embedding of computation** in everyday objects so as to create artifacts
  - research on how **new functionality** and new use can **emerge** from collections of interacting artifacts
  - ensuring that **people's experience** of these environments is both coherent and engaging in space and time

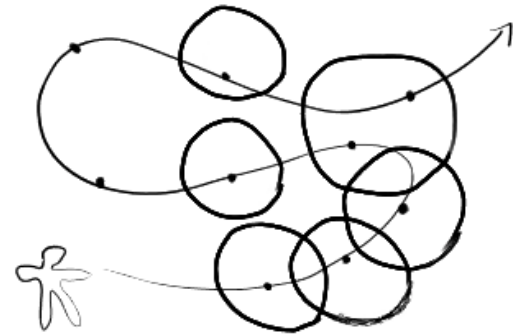
# Disappearing Computing Activities

- **Jamborees**: As a focus for the Disappearing Computing community, two major conference-like events will be organized every year where all 16 projects will present and demonstrate their work – the first of these will be organized in **October 18-19, 2001** at **ETH Zurich**



# Disappearing Computing Activities

- **1-day workshops** that identify themes of broad interest to the community
- **Troubadour traveling grants** to enable researchers to travel between a number of sites
- **Research ateliers**: Small budget and short time scale projects (<3 months, typically 7 to 10 days) which merge ideas from different projects, help build new consortia, or encourage new developments





# The 16 Projects

- **2WEAR** A Runtime for Adaptive and Extensible Wireless Wearables
- **ACCORD** Administering Connected Co-Operative Residential Domains
- **AMBIENT AGORAS** Dynamic Information Clouds in a Hybrid World
- **E-GADGETS** Extrovert Gadgets
- **FEEL** Non-intrusive services to support focussed, efficient and enjoyable local activities
- **FICOM** Fiber Computing
- **GLOSS** Global smart spaces
- **GROCER** Grocery Store Commerce Electronic Resource
- **INTERLIVING** InterLiving - Designing Interactive, Intergenerational Interfaces for Living Together
- **MIME** Multiple Intimate Media Environments
- **ORESTEIA** Modular Hybrid Artefacts with Adaptive Functionality
- **PAPER++** Paper++
- **SMART-ITS** **Interconnected Embedded Technology for Smart Artefacts with Collective Awareness**
- **SHAPE** Situating Hybrid Assemblies in Public Environments
- **SOB** the Sounding Object
- **WORKSPACE** Distributed Work Support Through Component-based Spatial Computing Environments

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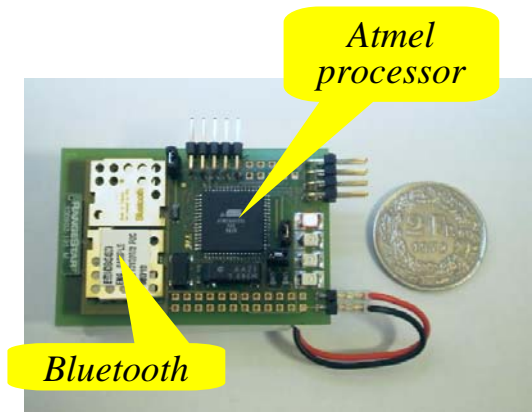
# Example: The „Smart-Its“ Project

## www.smart-its.org

- **Vision:** enable everyday objects as smart interconnected information artifacts
  - by **attaching** „Smart-Its“ to them
  - makes objects self aware



- Next generation of **smart labels**
  - processor & memory
  - wireless **communication** (e.g. Bluetooth)
  - various **sensors** perceive the environment
    - customizable behavior
    - remote update
  - cheap, small, compact, autonomous



Prototype from ETH Zurich

- **Project partners** in Switzerland, Germany, Sweden, Finland, Great Britain

# Ubicomp Summerschool



- Planning a [Summerschool](#) on Ubiquitous and Pervasive Computing
- [August 7-17, 2002](#) Schloss [Dagstuhl](#), Germany
- Needed:
  - 7-10 [lecturers](#)
  - ideas
  - help
  - sponsors
- Contact me: [mattern@inf.ethz.ch](mailto:mattern@inf.ethz.ch)

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