

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

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**ETH Zurich**

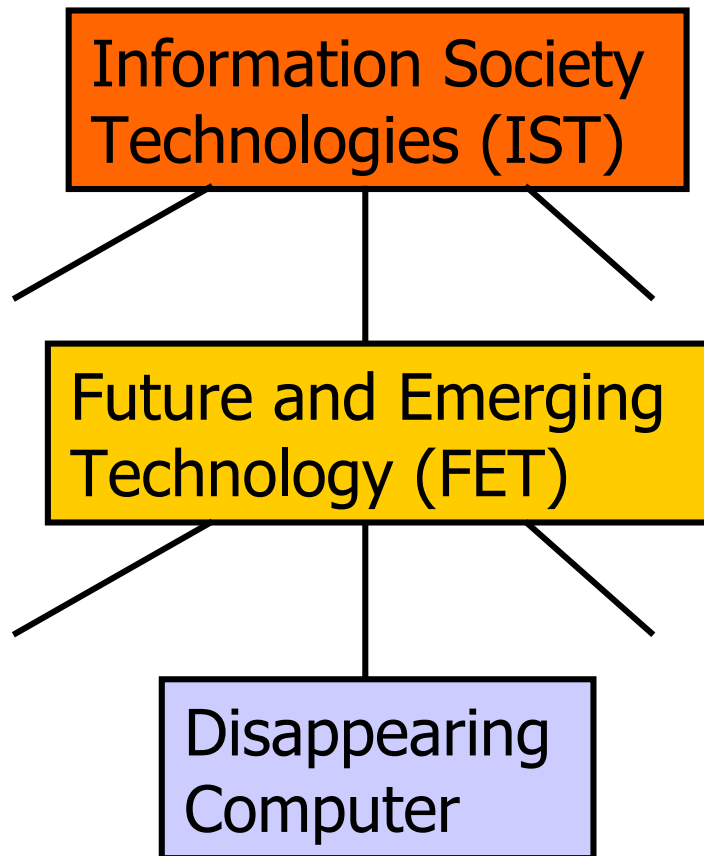
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# The European „Disappearing Computer“ Initiative



**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)



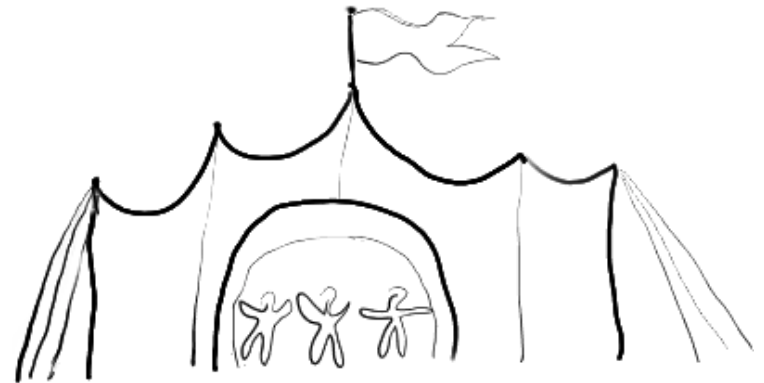
# Goals of „Disappearing Computer“



- 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

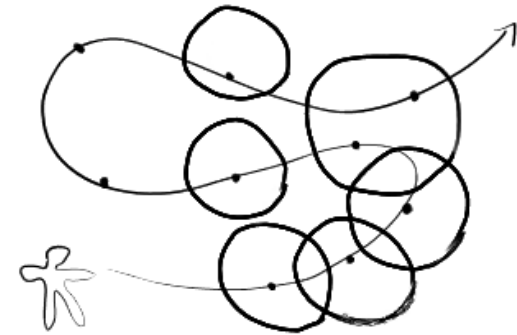
# Disappearing Computing Activities

- **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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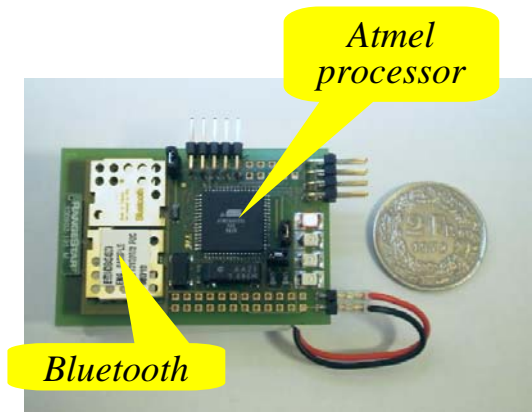
# Example: The „Smart-Its“ Project

## [www.smart-its.org](http://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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