DG Information Society

Use of FS/OSS in Technology Enhanced Learning R&D

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Agenda

- The European Research Programme
- The Commission and FS/OSS
- FS/OSS in e-Learning
- The 6th Framework Programme

Societal Challenges

- Globalisation of the economy
- Job dynamics
- Social cohesion and social exclusion
- Skill gap

Europe's Responses

Political Response

→ **eEurope**

Technological Response

→ 

eEurope: objectives

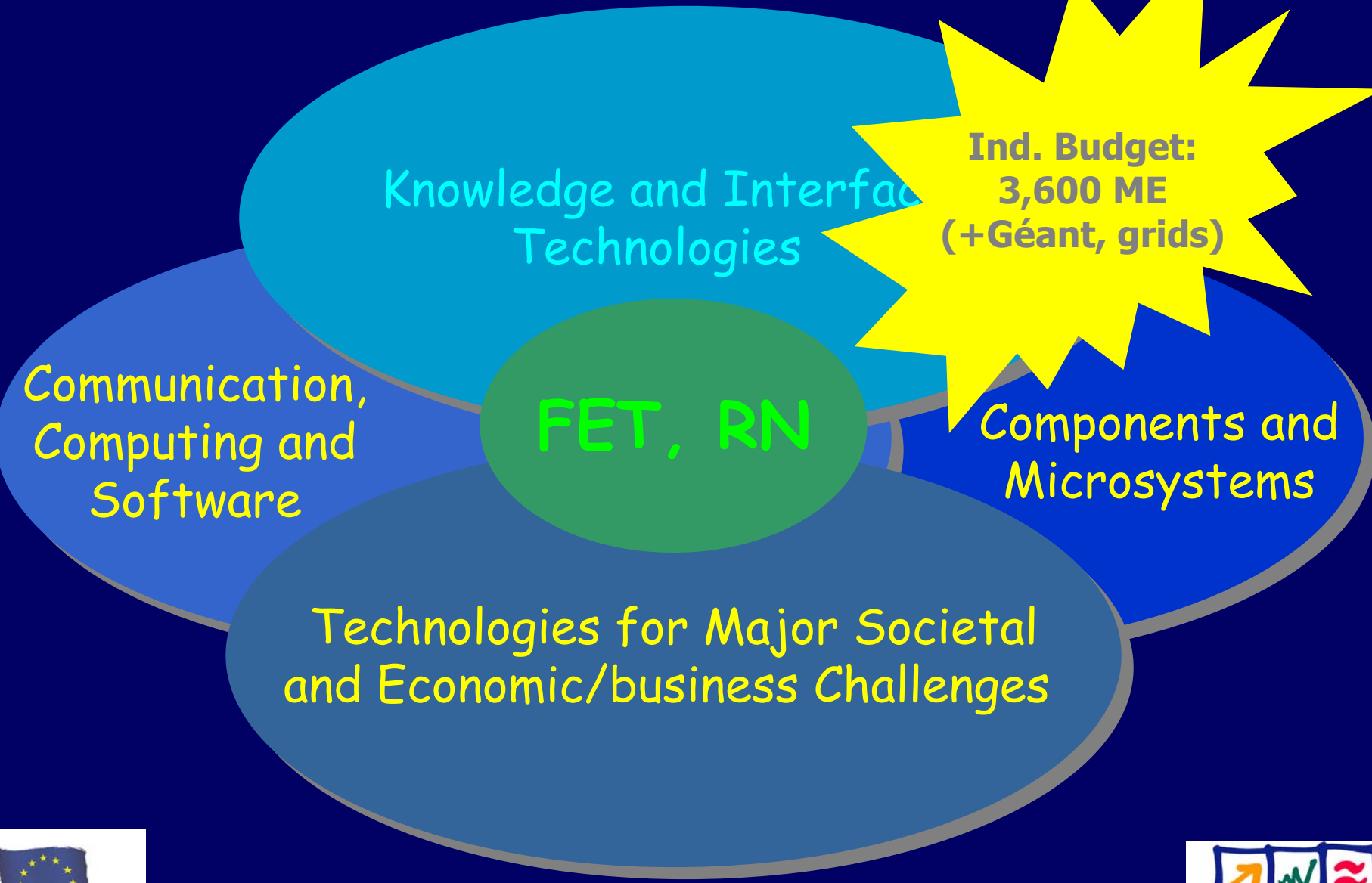
→ Bring every citizen, school, business and administration on-line

quickly

eEurope: objectives

→ Create a digitally literate and entrepreneurial Europe

IST Research Priority themes



Technology Enhanced Learning

History

Start as “Delta Programme” in 1988

Telematics of General Interest (FP3, ET)

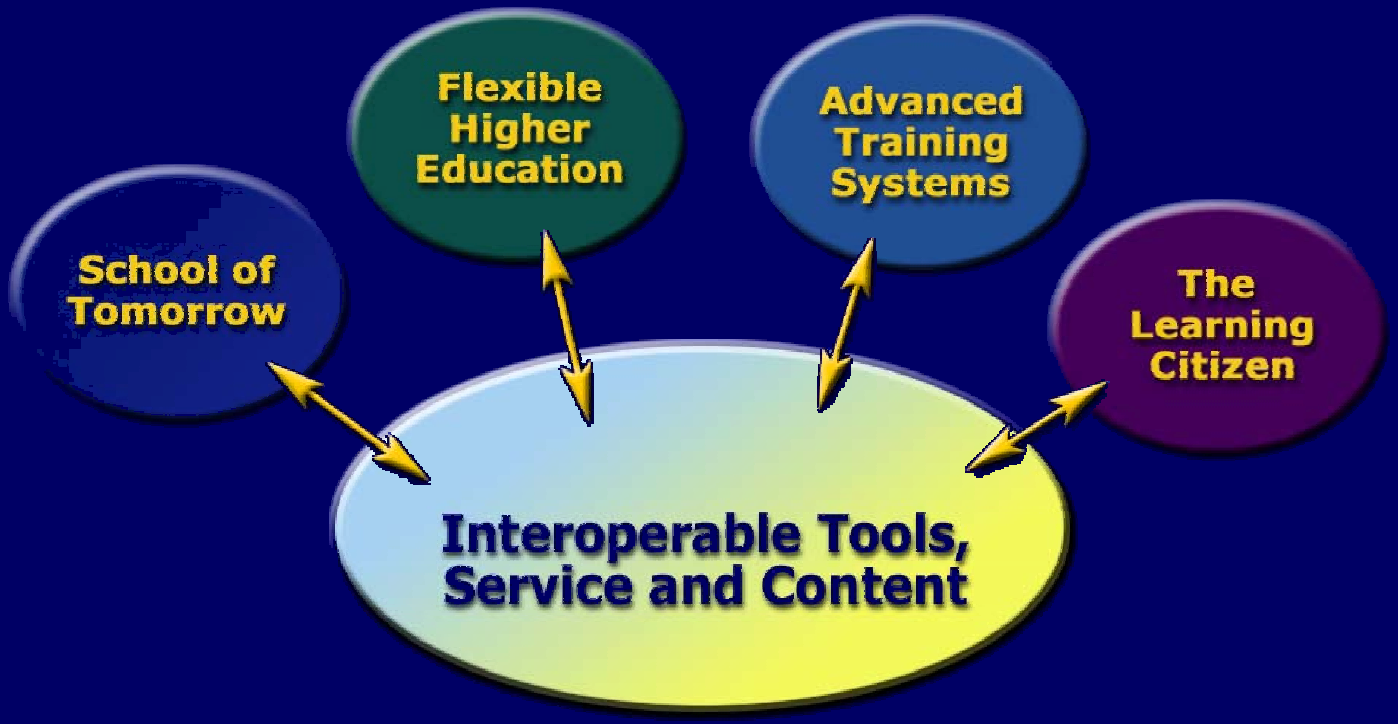
Telematics Application Programme (TAP-ET, FP4)(Edu-MM Taskforce)

IST - Multimedia Applications in Education and Training

DG INFSO/D3 in Luxembourg

Education and Training within IST Programme

DEVELOPING THE EUROPEAN LEARNING INFRASTRUCTURE



Future Research

The Pillars of the Knowledge Society and Economy: UBIQUITOUS ACCESS TO PERSONALISED LEARNING THROUGHOUT LIFE

Technology Enhanced Learning

Objective

To develop technologies to empower

individuals and organisations

to build competencies to exploit

the opportunities

of tomorrow's knowledge society

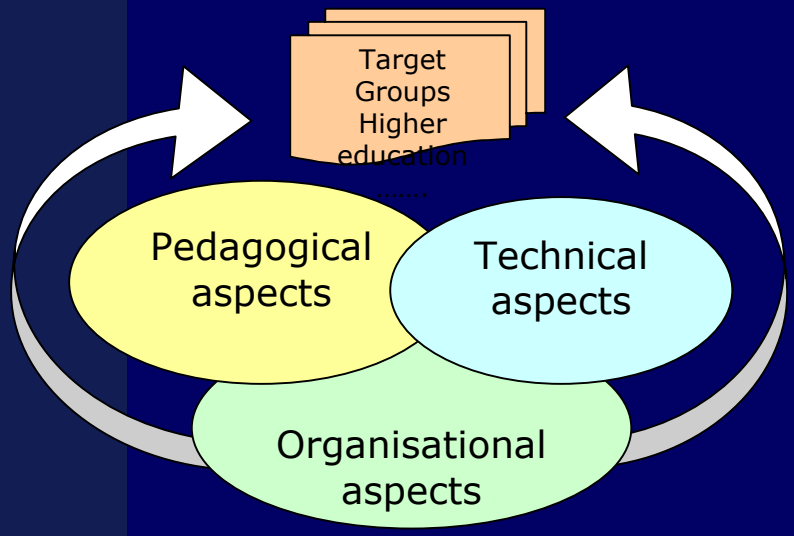
Technology Enhanced Learning

Principle

Inseparability of

- **pedagogy**, and
- **technical**, and
- **organisational**

aspects



Technology Enhanced Learning

Key requirements

Standards

Use of/contribution to standardisation of learning technologies

Exploitation of results

- → commercial exploitation
- → long term public funding
- → free and open software

Open Source Software: Commission initiatives

From early 1999:

- **Creation and animation of the Working group on libre software**
- **Free and open source software in research programmes**
- **Interface with regulatory policies**
- **Exchange of information with member states**
- **Internal usage issues**

European Working Group on *Libre* Software (eu.conecta.it)

- 1st stage:
  - 6 experts from 6 countries, diverse profiles
  - no funding, 2 meetings, lots of email work
  - 1st draft of the report
  - presented at the IST'99 Conference in Helsinki
- 2nd stage:
  - open email discussion list
  - conclusion workshop 23 March 2000 (80 people)
  - "final" version of the report

Free and open software in research programmes

- Also recommended by the IST advisory group
- Limited experimental support in 2000
- “Free software development: towards critical mass” 2001 action line (IV.3.3)
- Main-streaming open source software in research programmes. Ex: health, 2001 cross-programme action on learning. Cf also US example.

www.cordis.lu/ist/ka4/tesss/impl_free.htm

ARIADNE : Promoting the Sharing and Reuse of ES

A unified, multilingual, cataloguing system (LOM based)

A distributed, 'localizable' , EU Knowledge Pool (may cross the oceans...)

A set of simple rules to encourage sharing by authors of ES

A simple but robust E-Learning environment, accepting ALL contents

A social-minded fee structure, afordable to all Institutions & Corporations - whatever their size and financial status

A small but growing group of dedicated people

CanpusSource: an example of a national initiative (http://www.campussource.de/)

CampusSource

Aim of this initiative, which is funded by the Ministry of Schools, Science and Research of the Federal State of North Rhine-Westphalia (**Germany**), is to set up **cooperative processes** for the development of software systems and modules as well as the creation and operation of an infrastructure for computer and network based teaching and learning at universities. The efforts of single **university projects will be brought together** and the **open source platforms** as technical requirement of a virtual university will be provided for use and further development to everyone interested.

OSS for e-learning

Which *source* could be open in e-learning?

- software code for e-learning tools/services
- manuals for these tools and services
- e-learning applications (courseware; 'content')

In short the model could be:
everything you can **copy** is free; everything else (man hours/services, hardware, …) is paid for.

Advantages of OSS for e-learning

Lots of **potential developers** (in universities, schools, industry) for collaboration on product development and product renewal

Educators/trainers have easy and cheap **access** to high quality tools and courseware

Tools and courseware may be **adapted** to the specific needs

The OSS model fits to **public financed initiatives** for the development of an e-learning infrastructure. It benefits both the public and private sector.

Problems

There is already a history in open courseware (1980's: free courseware, etc.). Not very successful

Who is paying for development costs?

What are development costs? Is building 'distributions' and 'interfaces to proprietary platforms' part of service or development?

What is the position of educational publishers and commercial IT parties in the OSS model?

OSS may raise the quality of code, but does it also raise the quality of education? Technical solutions for learning problems. Programmers design?

Problems (continued)

How to really assure interoperability among courseware, content, tools and services?

Tension

- it is in our common interest within Europe to accept all the different needs, tools, and not to try to impose one architecture or platform for e-learning, but:
- OSS works only within a framework of **strong guidelines**

The sixth framework programme

An opportunity for funding OSS project

The timetable for FP6

October 2001 ……Parliament ’s first reading of FP6

10/12/2001 ……Council agreement on FP

January 2002…… Council formal common position

10/01/02…… Modified proposal on Rules for participation

31/01/02…… Modified proposal on Specific programmes

Feb - May 2002……..Parliament second reading of FP

Sept-Oct 2002……Conciliation procedure on FP (if necessary)

October/Nov 2002……. Final adoption of FP, SP and rules for participation

~December 2002 ……..First FP6 call

FP6: 6 instruments for "priority areas"

- Integrated Projects
  - Objective driven
- Networks of Excellence
  - Exploratory research
- Article 169
  - Member states initiative
- Targeted research projects
  - (address specific issues)
- Co-ordination actions
- Support Actions

Integrated Projects: Purpose

Designed to support research that is objective and result driven

- clearly defined objectives and results

- Each IP should
  - integrate the types of activities needed to obtain the goals
  - integrate the critical mass of resources needed to obtain the goals
  - integrate all elements of technology chain to attain high-impact goals
  - support industry-academia collaboration including SMEs

NoEs: main features

"Virtual" centre of excellence

- a clearly identified **"joint programme of activity" (JPA)**
  - RTD, training, transfer, mobility...
- established or emerging field

Size

- Several MEuro per year
- Participants
  - minimum 3: Universities, Research Labs, Industrial Labs
  - bring together a "critical mass" of key actors
  - universities, research centres, enterprises (SMEs as well as large companies)...

For further information

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