





## SOME BASIC IDEAS

**Knowledge in general and scientific knowledge in particular is the basis of competitive, modern economies.**

**\*Europe's ability to strengthen its competitiveness by knowledge creation and innovation is at the core of the **Lisbon Strategy****

**\*It is important to develop a **European research and innovation** framework, which can respond to existing and future challenges of the globalisation environment of research, technology and economy.**









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# ELEMENTS OF EUROPEAN SCIENCE POLICY

- **BASED ON THE KNOWLEDGE TRIANGLE**  
EDUCATION, RESEARCH, INNOVATION
  - **THE LISBON STRATEGY**  
Knowledge-based economy – competitiveness and jobs
  - **THE EUROPEAN RESEARCH AREA (ERA)**  
Harmonization, freedom of researchers, knowledge, technology. ERC!
  - **THE LJUBLJANA PROCESS**  
Joint programming; Fifth freedom; ERA governance
  - **THE BOLOGNA PROCESS**  
European Higher Education Area (EHEA) by 2010

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# POLICY OVERVIEW AND TRENDS AT EU LEVEL

- **EC Framework Programme:** up to now main financing instrument supporting networking and joint research activities of pan-European RIs ☞ focus on **trans-national access** of researchers to state-of-the-art facilities
- Major role of the European Strategy Forum for RI-s (**ESFRI**) and e-Infrastructure Reflection Group (**e-IRG**) in development of European RI-policy
- **ESFRI-roadmap:** significant step forward towards a coherent European policy approach for large RIs
- **‘Preparatory phase’ of FP7:** facilitating instrument for construction or upgrade of some of the ESFRI roadmap RIs



# TODAY'S CHALLENGES IN WORLD CLASS INFRASTRUCTURES

- NEED FOR A PROCESS THAT TURNS IDEAS (ESFRI, E-IRG, MEMBER STATE ROADMAPS, REGIONAL PLANS) INTO PRACTICE
- COMPLEMENT THE “WHAT” WITH THE “WHO+HOW”
- ISSUES TO BE DISCUSSED IN EUROPE:
  - PRIORITIZATION
  - MORE AND BETTER FUNDING
  - LEGAL FRAMEWORK
  - MANAGEMENT AND ACCESS
  - E-INFRASTRUCTURES (data and papers)
  - THE GLOBAL LEVEL (the largest facilities, data)



## **CONCLUSIONS ON RI**

**THINGS CAN BE DONE ONLY TOGETHER!**

**HIGHER FINANTIAL SHARE OF THE EU IN RI-S**

**STRONGER EU-COORDINATION AND SINGLE VOICE**

**A STRONG E-INFRASTRUCTURE (good for all)**

**MORE HOMOGENEOUS DISTRIBUTION OF RI-S**

**NETWORKING OF SMALLER RI-S**

**A SIGNIFICANT SHARE OF THE STRUCTURAL FUNDS**

**SOME JOINT ACTIONS IN CONNECTION WITH  
GOVERNANCE AND LEGAL ISSUES**



## 2. BASIC RESEARCH RELATED PROGRAMMES

- **Framework Programme 7:**
  - Participation issues – legal and financial regulations, etc.
  - European Research Council (ERC)
  - Mid-term reviews – 2009 (ERC) and 2010 (the whole FP7)
- **European Institute of Innovation and Technology (EIT)**
- **Lifelong Learning**
- **Competitiveness and Innovation (CIP)**



## BASIC INSTRUMENTS

### EUROPEAN LEVEL COMPETITION:

- ADDED VALUE: HIGHER QUALITY RESEARCH

### COOPERATION, NETWORKING:

- CRITICAL MASS (INTELLECTUAL AND FINANTIAL)
- LESS DUPLICATION, FRAGMENTATION

### SUPPORT OF EXCELLENCE:

- GOOD FOR ALL (inclusive the potential losers)

**BUT THE SAME APPLIES TO THE PROPER  
USE OF STRUCTURAL FUNDS!**





## STRATEGIC AIMS OF ERC

**Boost European excellence in "Frontier Research"**

- **by investing in the best researchers and ideas**
- **through competition at European level**
- **on the basis of scientific excellence as the sole criterion**
- **raising incentives towards quality and aspirations of individual researchers**
- **providing benchmarks and leverage towards broader (structural) improvements in European research**



## WHY „FRONTIER” RESEARCH?

Traditional terminology (“basic” / “applied” research “science” vs. “technology”) is no longer appropriate:

- Research at the frontiers is characterised by an absence of disciplinary boundaries
- New discoveries are often triggered by real world problems (and vice-versa)
- Progress in understanding phenomena and techniques for investigation go hand in hand



# EUROPE'S EXPECTED BENEFITS

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## FROM THE ERC

**ENCOURAGING AND SUPPORTING THE BEST TALENTS  
SUPPORT THE BEST IDEAS IN FRONTIER RESEARCH  
STATUS AND VISIBILITY OF RESEARCH LEADERS  
DYNAMIC STRUCTURAL EFFECTS ON THE EUROPEAN  
RESEARCH SYSTEM. COOPERATION IN COMPETITION  
MAY NORTURE EUROPEAN SCIENCE BASED INDUSTRY  
INVEST QUICKLY INTO THE KNOWLEDGE BASE  
PARALLEL NEED TO INVEST INTO THE  
RESEARCH INFRASTRUCTURE (ROADMAP) and  
COOPERATIVE ARRANGEMENTS (ERA-NET)  
SYNERGY WITH THE OTHER PARTS OF FP7**

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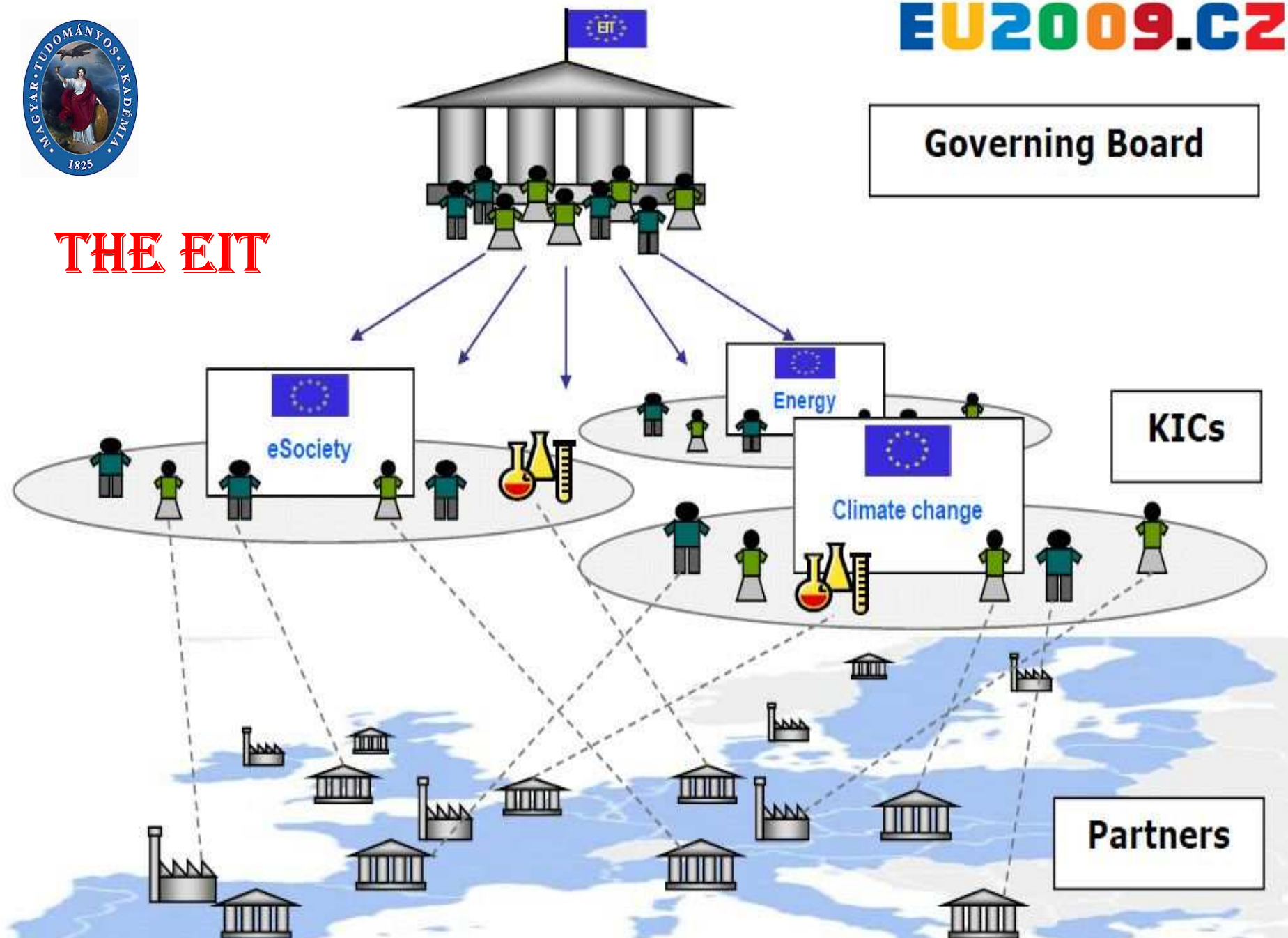






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# THE EIT



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## SOME HOPES AND EXPECTATIONS

The EIT should :

- **Have an impact across the whole of the EU**
- **Be financially viable**
- **Be attractive to potential partners**

**The role of the business sector (SMEs & Large firms) :**

Private companies should be involved not only as funding (contracting) sources but also **as full partners**.

**New approaches to science and innovation :**

- Interdisciplinarity, a new way of working and pulling diverse resources.. (the **focus should be more on the borders**, rather than the core of existing disciplines).
- A **wide range of topics** need to be covered
- Within this context **social and human studies** have a place in the EIT.



## 4. JOINT PROGRAMMING IN RESEARCH

### Key Challenges :

- to **contribute** to solving major **societal problems**
- to decrease the **fragmentation** of EU public research
- to **harmonize** the **national research programmes** with the pan-European ones

### Response to challenges :

- Commission Communication on Joint Programming in research (July 2008), Council Conclusions: 2008. Dec.
- Member States engaging
  - **Voluntary** participation, with „**variable geometry**”
  - **common vision** on research priorities and major societal challenges
  - in the definition, development and implementation of **common strategic research agendas**



## 5. ABOUT BOLOGNA

### STRONGLY CORRELATED WITH ERA AND THE ERC

- Through high level education
- Training in research  
(first of all in doctoral programmes)

### INTERGOVERNMENTAL PROCESS

- 1998 Sorbonne, 1999 Bologna, 2001 Prague
- 2003 Berlin (third cycle)
- 2005 Salzburg (seminar 10 principles), Bergen (EHEA)
- 2007 Nizza (seminar), London
- 2009 Leuven, 2010 Vienna

### BASIC IDEAS:

- The process should remain voluntary
- A legal framework for the EHEA
- Harmonization with national traditions



## THE 10 SALZBURG PRINCIPLES OF DOCTORAL TRAINING

- The core component of doctoral training is the advancement of knowledge through original research.
- Doctoral programmes should be embedded in institutional strategies and policies,
- they should be diverse including joint doctorates in Europe.
- Doctoral candidates should be early stage researchers,
- with strong and high level transparent supervision and assessment.
- Doctoral programmes should have a critical mass,
- their duration should be 3-4 years full time.
- Innovative structures should be promoted (i.e.transferable skills).
- Increased geographical, interdisciplinary and intersectoral mobility is vital and
- Appropriate and sustainable funding has to be secured.



## 6. THE FUTURE OF ERA

**EC Green Paper and consultation in 2007**

**Already five concrete outcomes:**

- ‘Researchers Partnership’
- Joint Programming
- European Research Infrastructures (ERI) Regulation
- IPR: Code of Practice
- Strategic Framework for International Co-operation



## **MY VISION OF EUROPEAN SCIENCE**

**DEMAND AND HOPE TO SHAPE, STRUCTURE AND FUND BETTER**

**SCIENCE IN EUROPE (on all - EU, national and regional - levels)**

**-structures and institutions evolve rapidly (ERC, EIT,...). „ESFRI-s”**

**-the success of the newly founded ERC (StG, AdG, evaluation, etc.),**

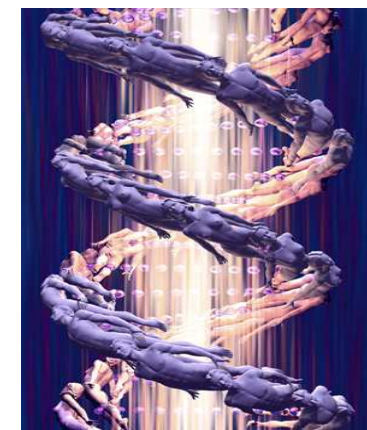
**-the re-launching of the ERA concept (Green Paper)**

**-there is hopefully a chance to re-visit the EU budget for R&D and the treaty,**

**-the hope that the Structural Funds can be better used for R&D.**

**BY PROPERLY ADDRESSING WEAKNESSES AND**

**EXPLORING STRENGTHS. SUPPORT THE BEST!**





## TO CONCLUDE

EUROPE HAS TO SPEED UP IT'S EFFORTS TO STRENGTHEN

THE **KNOWLEDGE BASE**, TO BE MORE **COMPETITIVE ON**

GLOBAL SCALE: BY SUPPORTING **EXCELLENCE**, INVESTING MORE.

BY ACCELERATING THE DISSEMINATION OF SCIENTIFIC FINDINGS

(**OPEN ACCESS!**). JTI!, EIT (KIC-s)

**COOPERATION IN COMPETITION; INFRASTRUCTURE** (ESFRI+ national)

PLENTY OF ROOM TO IMPROVE EFFICIENCY (European added values)

THE CHANCE TO BE SUCCESSFUL IS THERE:

EDUCATION AND TRAINING IN RESEARCH (ERC!, M.C., MOBILITY)

THIS CAN BE DONE IF THE NEW INSTRUMENTS (TP-s, ERC, J.P., etc.)

ARE OPTIMALLY EXPLORED AND THE IDEAS FORMULATED

WITHIN THE **ERA** VISION ARE TAKEN SERIOUSLY.



THANK YOU  
FOR YOUR  
ATTENTION