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Realising the European Research Area (ERA) Key challenges

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12/12/2008

European Research Area



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Outline

1. Our global position in numbers
2. Ljubljana Process and ERA vision
3. The five ERA initiatives



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1. Our global position in numbers

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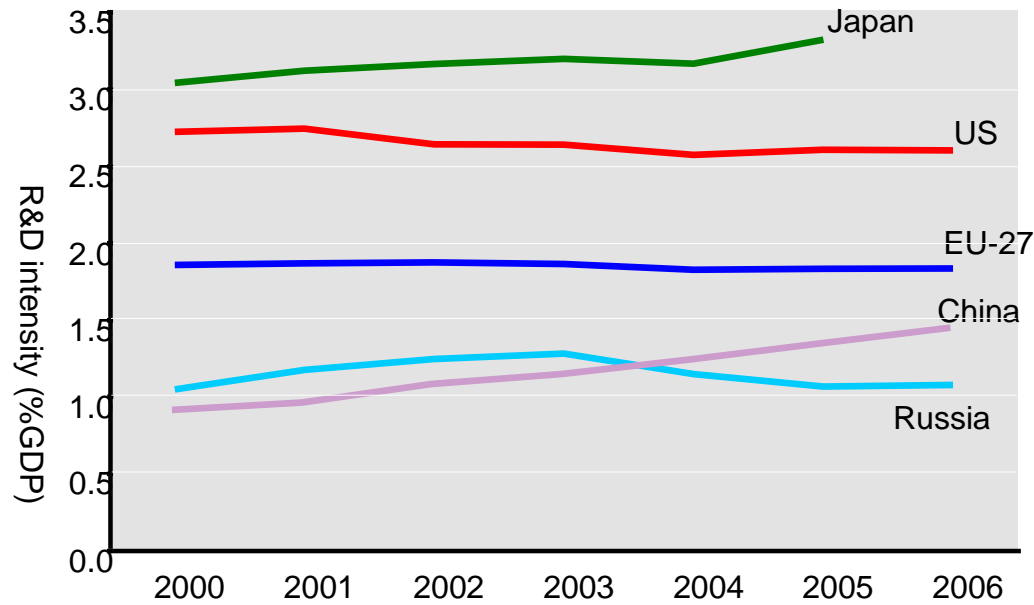
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Our global position in numbers

- Investment in R&D:

	R&D investment (%GDP)	R&D funded by private sector (%)
EU-27	1.8	59
US	2.6	64
Japan	3.3	75
China	1.4	65



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Our global position in numbers

- Researchers:

	Number of researchers (% of labour force)	Share of employed in the private sector (%)
EU-27	0.55	48
US	0.91	79
Japan	1.01	68

- Slow progress and too much fragmentation between the national and Community programmes and policies

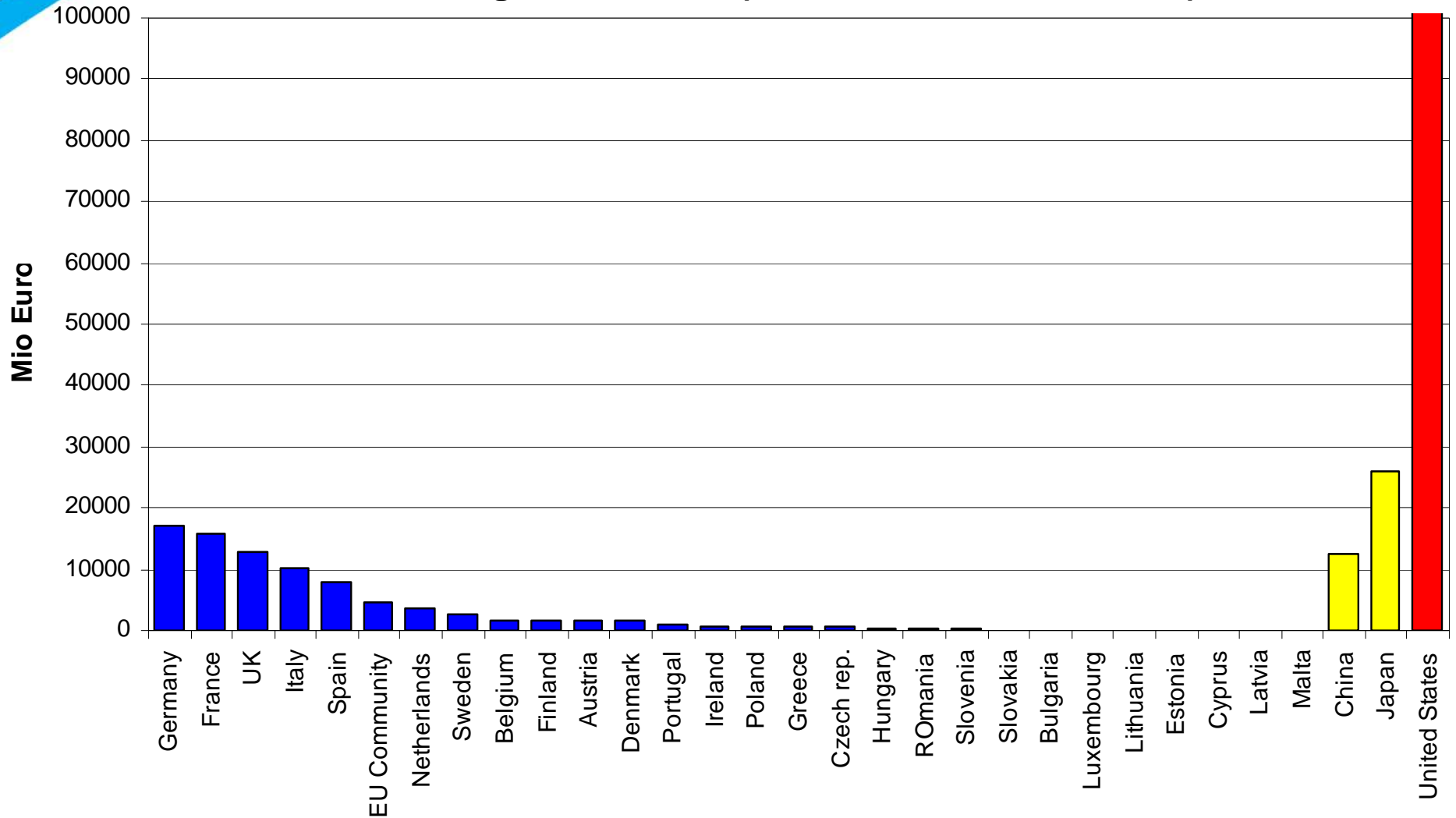


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A compartmentalised ERA

Public Funding for Research (Source : ERA Key Figures 2007, EC)



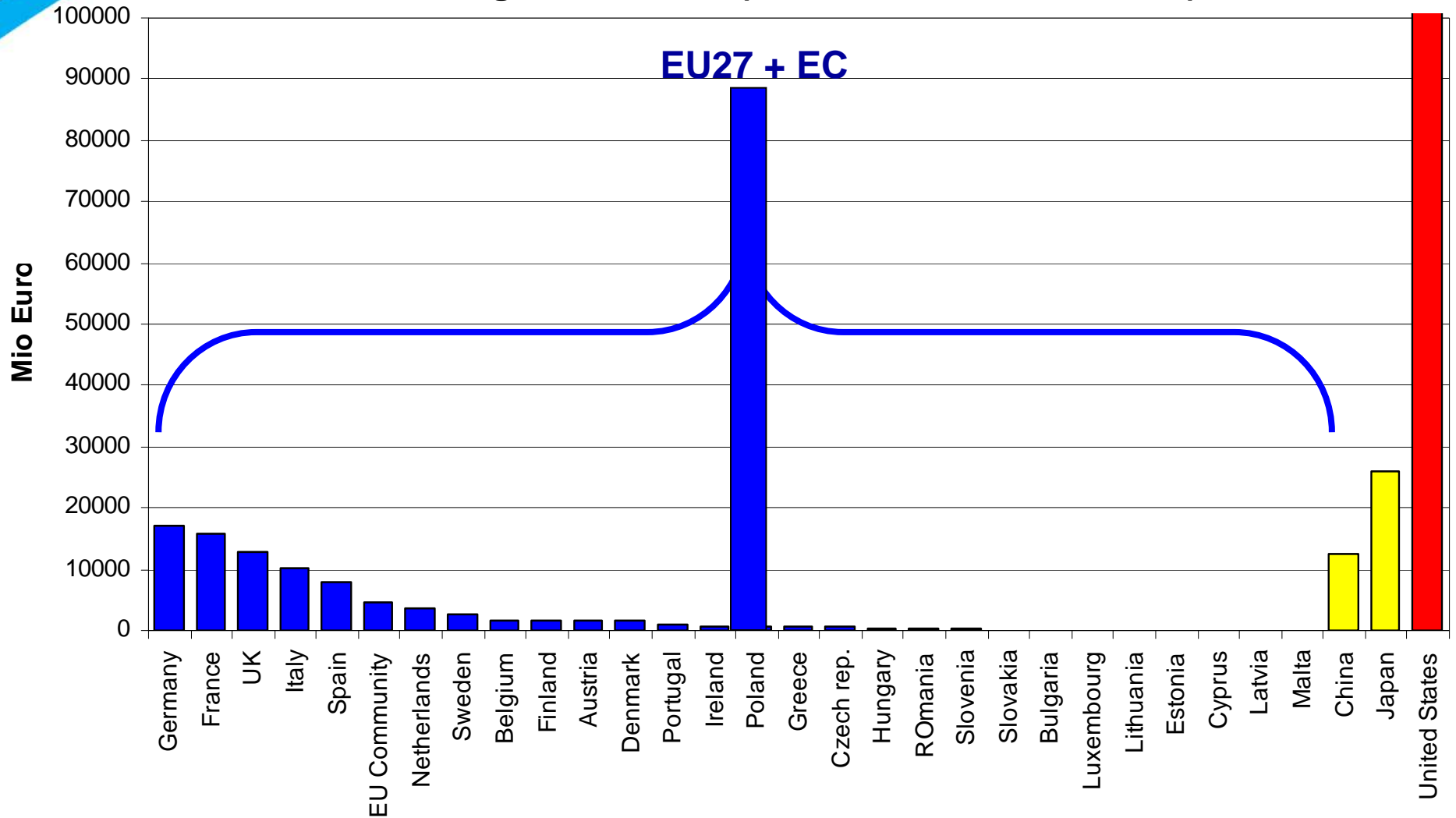


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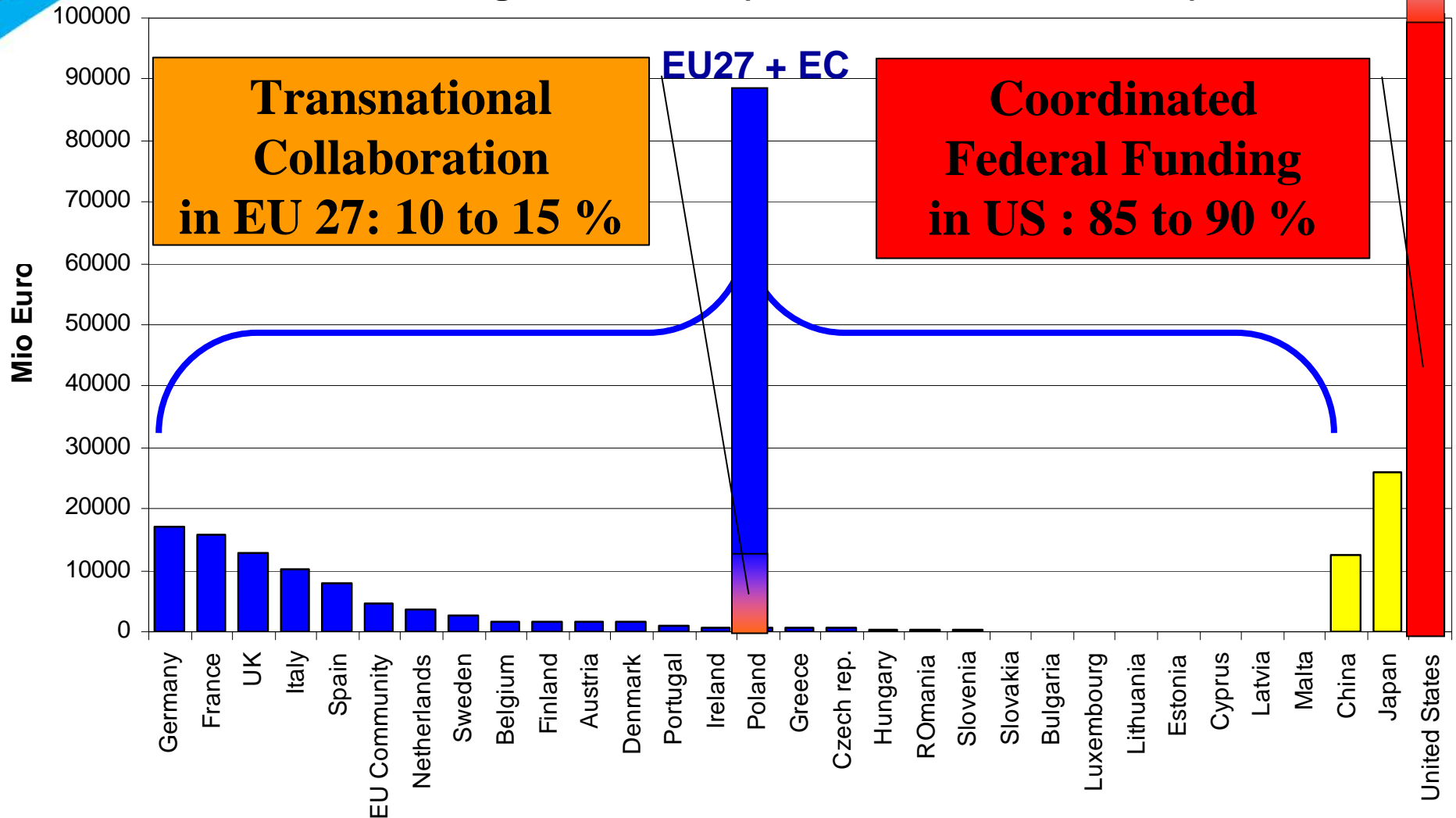
A compartmentalised ERA

Public Funding for Research (Source : ERA Key Figures 2007, EC)



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Public Funding for Research (Source : ERA Key Figures 2007, EC)





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2. Ljubljana Process & ERA vision

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Ljubljana Process

- We need to develop a well-organised partnership between the Member States, Associated States and the Commission to exchange information and to steer all initiatives in a coherent way.
 - First step is to agree on a common **long-term vision** for the future of ERA as the basis for our future actions and initiatives; and
 - In addition, better **governance**, notably with better political steering at the ministerial level, is needed.

ERA Vision 2020

ERA Vision 2020 to be agreed at Competitiveness Council on
2 December 2008

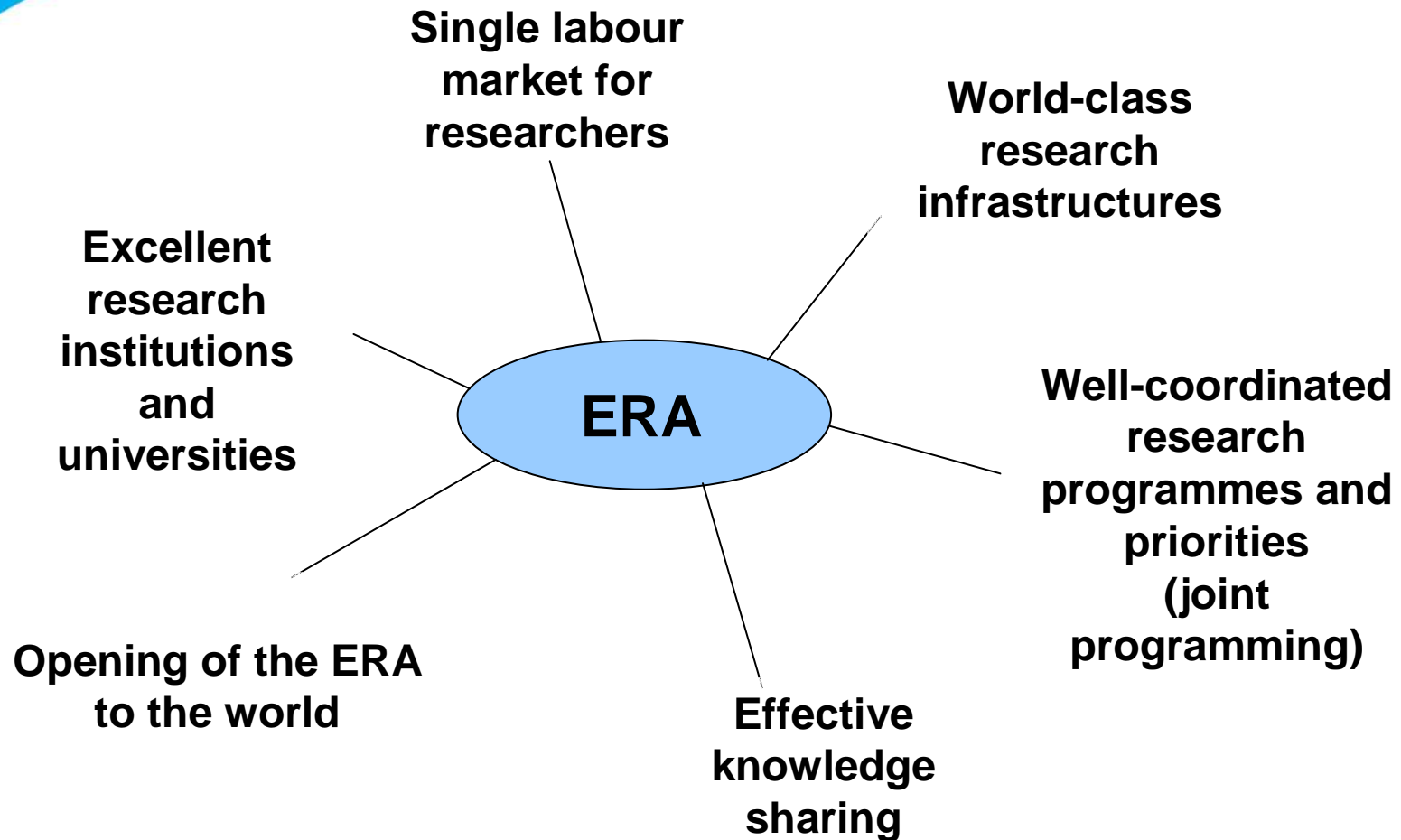
“By 2020, all actors fully benefit from the ‘Fifth Freedom’ across the ERA: free circulation of researchers, knowledge and technology. The ERA provides attractive conditions and effective and efficient governance for doing research and investing in R&D intensive sectors in Europe. It creates strong added value by fostering a healthy Europe-wide scientific competition whilst ensuring the appropriate level of cooperation and coordination. It is responsive to the needs and ambitions of citizens and effectively contributes to the sustainable development and competitiveness of Europe.”



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ERA building blocks





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3. The five ERA initiatives

European Partnership for Researchers

Key Challenges:

- Quality and number of researchers and attraction of best talents world-wide, driven by:
 - Strong and increasing competition, globally and with other economic sectors
 - Ageing and retirement of a growing part of Europe's research workforce
 - Europe's goal of increased public and private investments in R&D
- Mobility between institutions, between sectors and across borders

European Partnership for Researchers

Response to challenges:

- Commission Communication on partnership among Member States, Associated States and the Commission (May 2008):
 - To make rapid, measurable progress towards more and better trained researchers, towards more and balanced mobility
 - Specific areas to focus on:
 - Systematic opening of recruitment and portability of individual grants
 - Meeting social security and supplementary pension needs of mobile researchers
 - Providing attractive employment and working conditions
 - Enhancing researchers' training, ensuring diversified skills and increasing experience relevant to working life

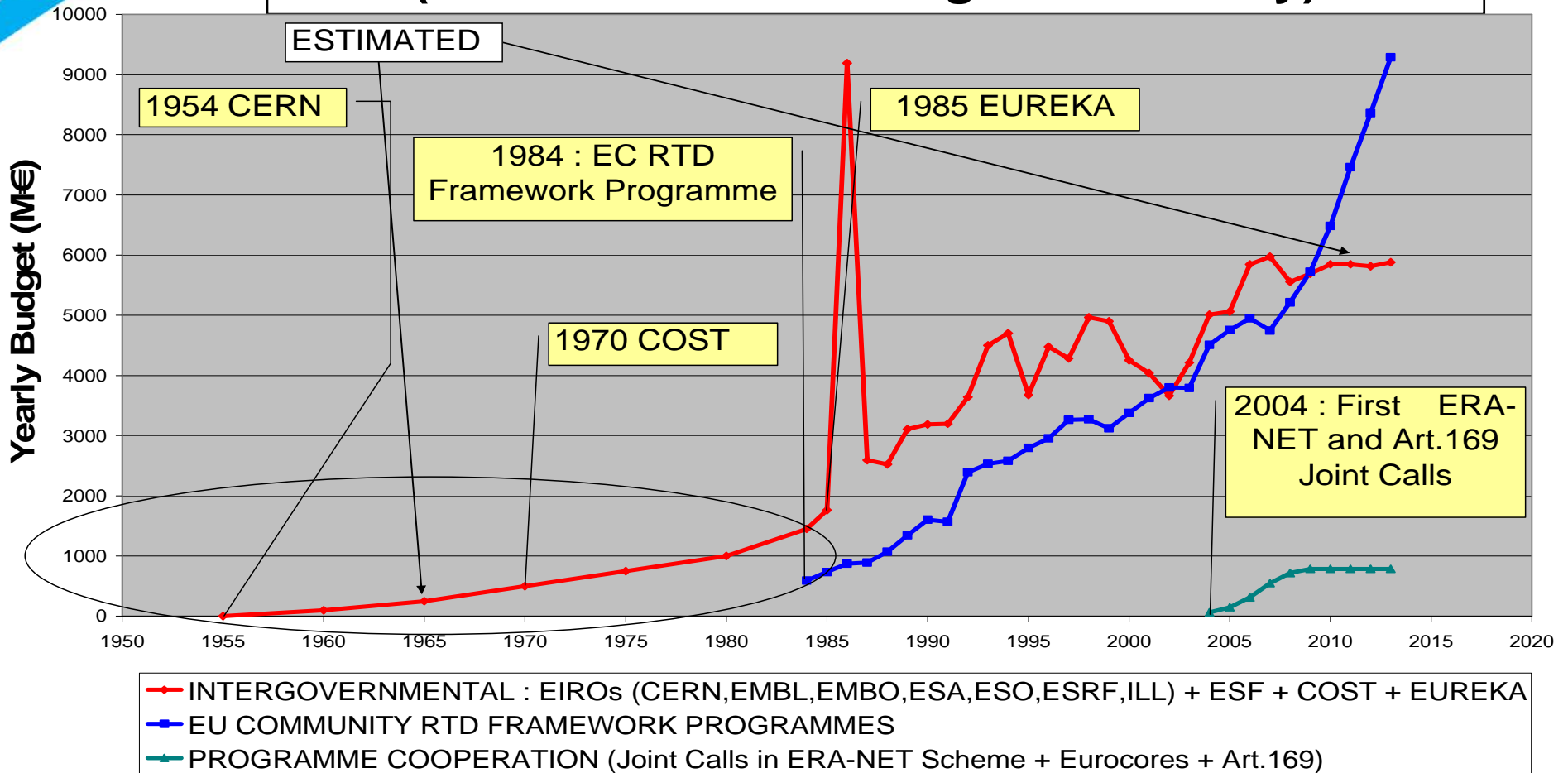
Joint Programming in Research

Key Challenges :

- Science and Technology must **contribute** to solving major societal challenges
- **Benefits not optimised** due to compartmentalisation of public research funding in the EU
- **National research programmes** have their place... but are **not equipped** to tackle major European societal problems by themselves

Time is ripe for a step change - 1

COLLABORATION & COOPERATION in the EU (Public Research Programmes only)*

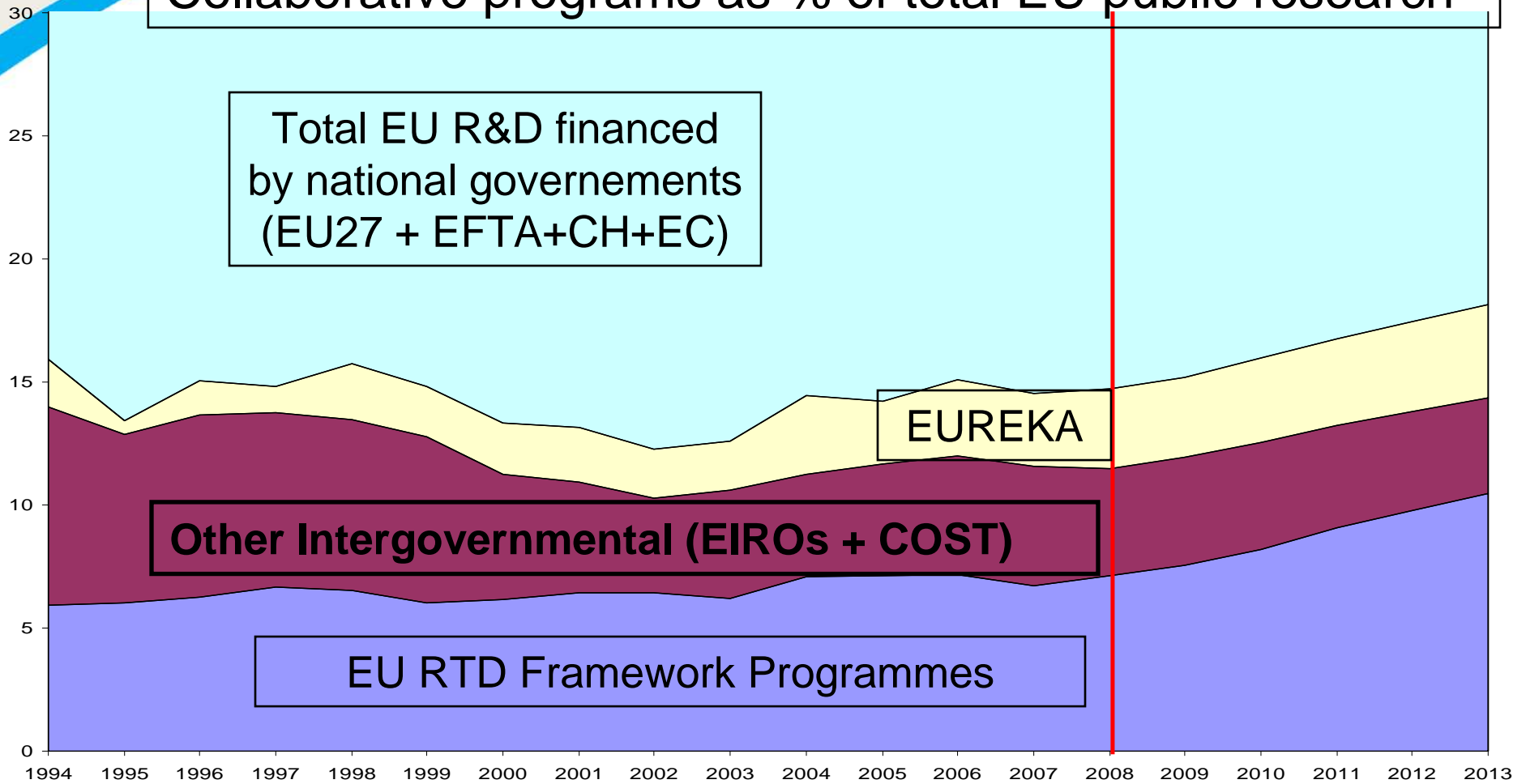


* **Sources** : FP7 & Joint Programming Impact Assessments

Time is ripe for a step change - 2

COLLABORATION and COOPERATION in the EU

Collaborative programs as % of total EU public research*



* Sources : FP7 & Joint Programming Impact Assessments

Time is ripe for a step change - 3

- 1950 : Increasing partnership between countries... :
 - '50s : Intergovernmental research organisations (CERN, ESA, ESO, EMBL...)
 - '70s - '80s : Intergovernmental schemes (COST, EUREKA, and European Community Framework Programme)
 - 2000 : Coordination of national research (ERA-NET, Eurocores, Art.169 initiatives)

- ... simple expansion of current activities is insufficient !
 - 👉 **Need for a combination of schemes, in partnership between Member States and the Community**

Joint Programming in Research

Response to challenges:

- Commission Communication on Joint Programming in research (July 2008)
- Definition : Member States engaging
 - **Voluntary** and on the basis of **variable geometry**
 - ...in the definition, development and implementation of common strategic research agendas
 - ...based on a common vision on how to address major societal challenges

Joint Programming in Research

Response to challenges (2):

- What Joint Programming is not
 - it is not about asking for more power to the Commission
 - it is not a new instrument for Community research
 - It will not involve Community funding a priori
- It is a concept which
 - involves collaboration between existing national programmes or the setting up of entirely new ones.
 - aims at putting together resources, selecting or developing the most appropriate instruments (including eventually Community ones), and collectively monitoring and reviewing progress.
 - is a partnership between Member States, Associated States and the Commission; the Commission acts as a facilitator.

Response to challenges (3):

A Strategic process

- Ambition
- Clearly defined strategy
- Scope, critical mass, long term horizon

A Structured process

- Sound methodology, appropriate governance structure
- Clear rules of the game
- Subsidiarity (EU and MS), Openness, transparency, Accountability

A Structuring Process

- Lasting impact on European research landscape
- Creating a new reference frame for public research
- Lasting, deep commitment from MS

World-class research infrastructures

- Essential for Europe's researchers to stay at the forefront of research development
- Key component of Europe's competitiveness in both basic and applied research

Key Challenges:

- to overcome fragmentation in Europe in the field of Research Infrastructures (RI)
- to improve the efficiency of services and access to European Research Infrastructures (ERI)
- to cope with the increasing cost and complexity of ERIs
- to further develop and better exploit the potential of e-infrastructures

World-class research infrastructures

Response to challenges:

- ESFRI roadmap
- Commission's proposal for a new Community legal framework for European Research Infrastructures (July 2008)

Aim: making it easier to set up European research infrastructures (ERI), following a request from Member States

Main features of an ERI:

- Legal personality recognized in all MS
- A spirit of truly European venture
- Flexible enough to adapt to the requirements of specific infrastructures

Opening of ERA to the world

Key Challenges:

- Globalisation and global challenges (e.g. climate change, energy security)
- Rise of "non-traditional" research partner countries and research locations ("new global S&T players")
- Facilitation of knowledge transfer at global level
- Equitable and fair access to IP generated in international R&D collaborations



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Opening of ERA to the world

Response to challenges:

- Commission Communication proposing a strategic framework (planned autumn 2008), based on:
 - Widening and further opening of the ERA
 - Coherence of policies and complementarity of programmes
 - Strategic partnerships with key third countries
 - Attractiveness of Europe as a research partner and location
 - Promoting researcher mobility
 - Member States and European Community working together

Knowledge transfer and IP management

The aim is to ensure effective knowledge-sharing.

Key Challenges:

- Public research organisations (PROs), including universities, should better exploit and valorise publicly-funded R&D results through:
 - Stronger R&D collaborations with enterprises
 - Licensing (in particular to SMEs)
 - Creation of spin-off companies
- Intellectual property generated by PROs should be managed more effectively

Knowledge transfer and IP management

Response to challenges:

- Commission Recommendation adopted in April 2008
- Improving (transnational) knowledge transfer between PROs and the private sector by promoting coherence between national knowledge transfer systems
- Promoting key principles for improving national IP and knowledge transfer policies
- Offering guidance for PROs to set up institutional policies and knowledge transfer systems

Competitiveness Council on 1-2 December 2008:

- Adoption of conclusions on the Communication on Joint Programming
- Adoption of conclusions on the Framework for International Science and Technology Cooperation
- Adoption of conclusions on ERA Vision 2020
- General approach on Regulation on ERIs

Beyond the five initiatives

- The five initiatives and their future implementation mark important milestones in the further development of ERA but there are many other issues to be addressed
- Member States and stakeholders encouraged to identify other challenges and initiatives
- Other current initiatives contributing to advancement of the ERA:
 - European Strategic Energy Technology Plan (SET)
 - Maritime research strategy
 - European Institute of Technology
 - Member States' initiatives



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<http://ec.europa.eu/research/era>

