



**TÜBİTAK**

# **Towards More Attractive Research Careers in Europe Landscape and Horizons**

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# Some Statistics of ERA

- Total GDP of EU27 in 2008
  - **12 875 billion euro**
- 2010 target GERD %
  - **3 %**
- Expected total GERD of EU27
  - **390 billion euro in 2010**
  - **226 billion in 2007**

# One of the most important challenges of ERA

- Expected GERD 390 billion euro
- Absorption capacity per researcher
  - 167 000 euro/ FTE researcher

**EU needs 2.3 million FTE researchers**

**EU has 1.3 million FTE researchers in 2007**

**EU needs 1 million more FTE researchers**

# Researchers (1000 FTE)

Rank wrt 02-07 Increase	Country	2007 FTE	02-07 Increase (%)	2007 Rank
32	USA	1 484	11	1
6	China	1 373	69	2
33	Japan	713	10	3
24	Germany	286	8	1 EU
23	France	211	13	2 EU
26	UK	183	6	3 EU

02-07 increase for EU27 is 8%

# Researchers (1000 FTE)

Rank wrt 02-07 Increase	Country	2007 FTE	02-07 Increase (%)	2007 Rank
1	Meksico	63.9	119	15
2	Turkey	49.7	107	18
3	Czech Rep.	29.1	95	26
4	N. Zeeland	24.1	80	29
5	S. Africa	22.0	76	31

# What we get out of ESF MOForum?

## *Working Group on Conditions of a Research Career in Europe*

- provided us with a sound perspective on the research career structure.
- helped to identify:
  - the obstacles/bottlenecks at each career stage
  - factors hindering inter-sectoral mobility
- developed recommendations for improvement.

and hence provided a good basis for the actions in the EUROHORCs and ESF joint road-map.

# ESF MO Forum on Research Careers

- Based on the findings of the *Working Group on Conditions of a Research Career in Europe*, ESF established a common vision on research career structure:

**Stage I:** Doctoral training stage

**Stage II:** Postdoctoral stage

**Stage III:** Independent researcher stage

**Stage IV:** Established researchers (Professors, research professors, directors, senior scientists, etc)

**Complementary strategy needed  
for attracting young generations**

# Recommendations on Improving Research Careers

- Taxonomy of research career steps and degrees should be standardized throughout Europe.
- Increased awareness on alternative career tracks.
- Need for better knowledge base of research career development.
- Enhancing the networks of peers.
- Developing a web based tool to inform the young researchers on the career paths,



The main findings of the *Working Group on Conditions of a Research Career in Europe* will also provide a good background for the realization of related ERA Milestones.

# Linkage with Member Organizations

The main findings of the Working Group on Conditions of a Research Career in Europe will contribute to the national efforts carried out by Member Organisations.

# EUROHORCs and ESF Road Map

1. Developing a common vision on the research career structure for the ERA;
2. Ensuring ongoing career development for the individual researcher, including international or inter-sectoral mobility;
3. Creating attractive conditions for a research career;
4. Creating equal opportunities for male and female researchers from all backgrounds;
5. Ensuring that transferable skills are developed.

# Money Follows Researcher

- EUROHORCs have agreed on authorizing researchers moving into the other organisation's country to take with them the remainder of a current grant.
- The grant shall be continued at the new research institution within the original terms and objectives.
- The agreement includes individual grant schemes, as well as coordinated research programmes and individual grants that can be detached from them.
- A grant will typically include personnel costs, research equipment, apparatus and expendables as well as travel funds

**Consensus with all of the stakeholders including politicians, bureaucrats and auditors.**

The targets, findings and initiatives are all well framed and indicates a good progress, now we have ahead of us

**“the implementation challenge”.**

# Next Steps

- With link to MO Forum on Research Careers, a Forum to Promote European Research Careers and Mobility will be established within the scope of ESF-EUROHORCs joint road-map.

- Quick actions should be taken towards Europe being a more attractive destination for top-talent researchers.
  - Working permit / visa / citizenship
  - Academic promotion
  - Social security, pension and health services
  - Education of children and social life
- Not only the international sources of researchers but the European potential should be triggered.
- Consensus with all of the stakeholders including politicians, bureaucrats and auditors.

**Thank You...**



# HR aspect in Turkish STI Policy

- Developing science and technology human resources constitutes:
  - one of the major STI targets, i.e. 150 000 FTE R&D personnel by 2013.
  - one of the seven dimensions of the Turkish ST Strategy 2005-2010.
  - one of the areas under the Prime Minister's initiative
- To achieve the target, the Supreme Council for Science and Technology (SCST) mandated TUBITAK to coordinate the preparation of Turkish STI Human Resources Strategy in 2007.

- The strategy is decided to have two main purposes:
  - increasing the number of the R&D personnel.
  - improving the sectoral and occupational distribution of the R&D personnel.
- During 2008-2009, TUBITAK organized many workshops to incorporate the views of stakeholders and to identify the areas of improvement.

# Science and Technology Human Resources Strategy

12 workshops were carried out to draft the strategy:

- 2 Workshops with international researchers
- 7 workshops with researchers in academia, business and public institutions (having different career profiles)
- 3 workshops with research directors and university managers



## **For mid- to long-term actions:**

- Science and Technology Human Resources Strategy is being prepared.

## **For quick actions, two ad-hoc committees:**

- International Researchers Coordination Committee
- Science and Technology Human Resources Coordination Committee

# International Researchers Coordination Committee

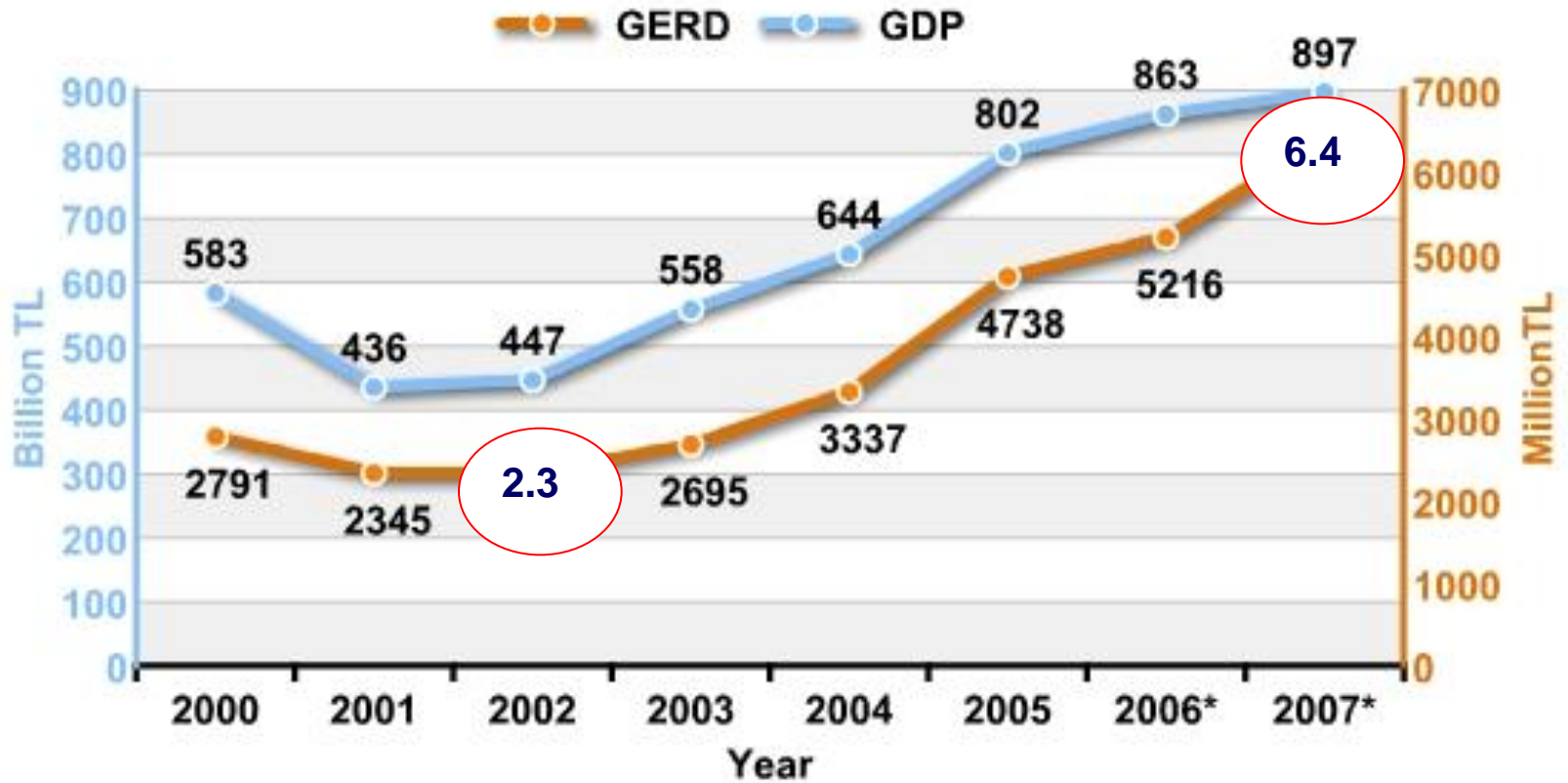
- Established by the end of 2008 by SCST.
- It aims to take quick actions towards being a country that is a more attractive destination for top-talent researchers.
- It has worked on the following areas:
  - Working permit / visa / citizenship
  - Academic promotion
  - Social security, pension and health services
  - Education of children and social life
- The proposals of the committee were approved by the SCST in June 2009.

# Science and Technology Human Resources Coordination Committee

- Established in June 2009 by the SCST.
- It aims to take quick actions towards removing the barriers for research.
- It is working on the following areas:
  - Improving the governance in research institutions
  - Increasing the funds for research
  - Improving the career conditions of researchers
  - Improving the research infrastructure
  - Fostering a culture that promotes research
  - Industry-university collaboration

# BACK-UP SLIDES

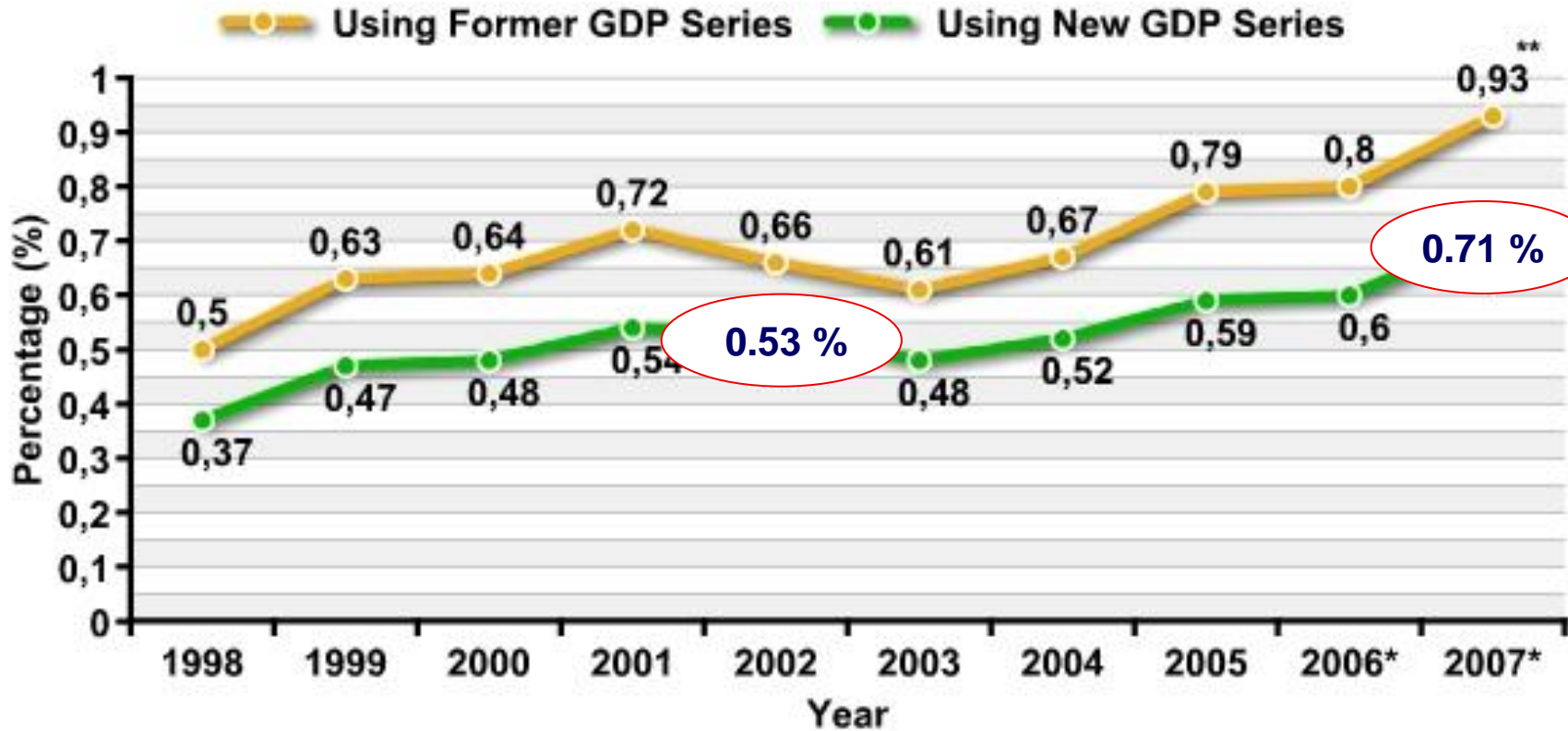
# R&D Expenditures\*



**Increased to 2.7 fold during 2002-2007**



# GERD as % of GDP



2007, EU-27: % 1.85

**TR Target 2% by 2013**

\* Revision in the methodology.

\*\*Estimation by TUBITAK. Source: TURKSTAT and EUROSTAT

# National Young Researchers Career Development Program

Career Program is designed to support young scientists at the start of their scientific career after receiving a PhD diploma. This program:

- Encourages young scientists by supplying project funds for their studies.
- Helps young scientists maintain their careers as a researcher and lecturer in a best possible way.
- Provides young scientists the experience to manage scientific research projects.
- Increases the role of science in the national development.

# Global Researcher Program (EVRENA)

If the support of the global researcher in a specific research area is critical for the success of the project and there are not qualified researchers in Turkey in the respective research area, EVRENA program is the solution. This program:

- Supports the collaboration of our researchers with their foreign colleagues
- Enables the involvement of foreign researchers in TUBİTAK projects.
  - Foreign researchers are required to stay in Turkey at least one full month during the project execution.
  - Foreign researchers are paid at a rate that is at least half of their official salary in their own institutions.
- Meet the demand for special research expertise that is not available in Turkey.

# 2002-2007 Increase (%)

Indicator	EU-27	Turkey
GDP*	24	63
GERD*	24	121
R&D Personnel**	8	119
Researcher**	15	107
Scientific Publications	32	111