The SLING Project

Background

Our Objectives Today

Budapest, November 30, 2010

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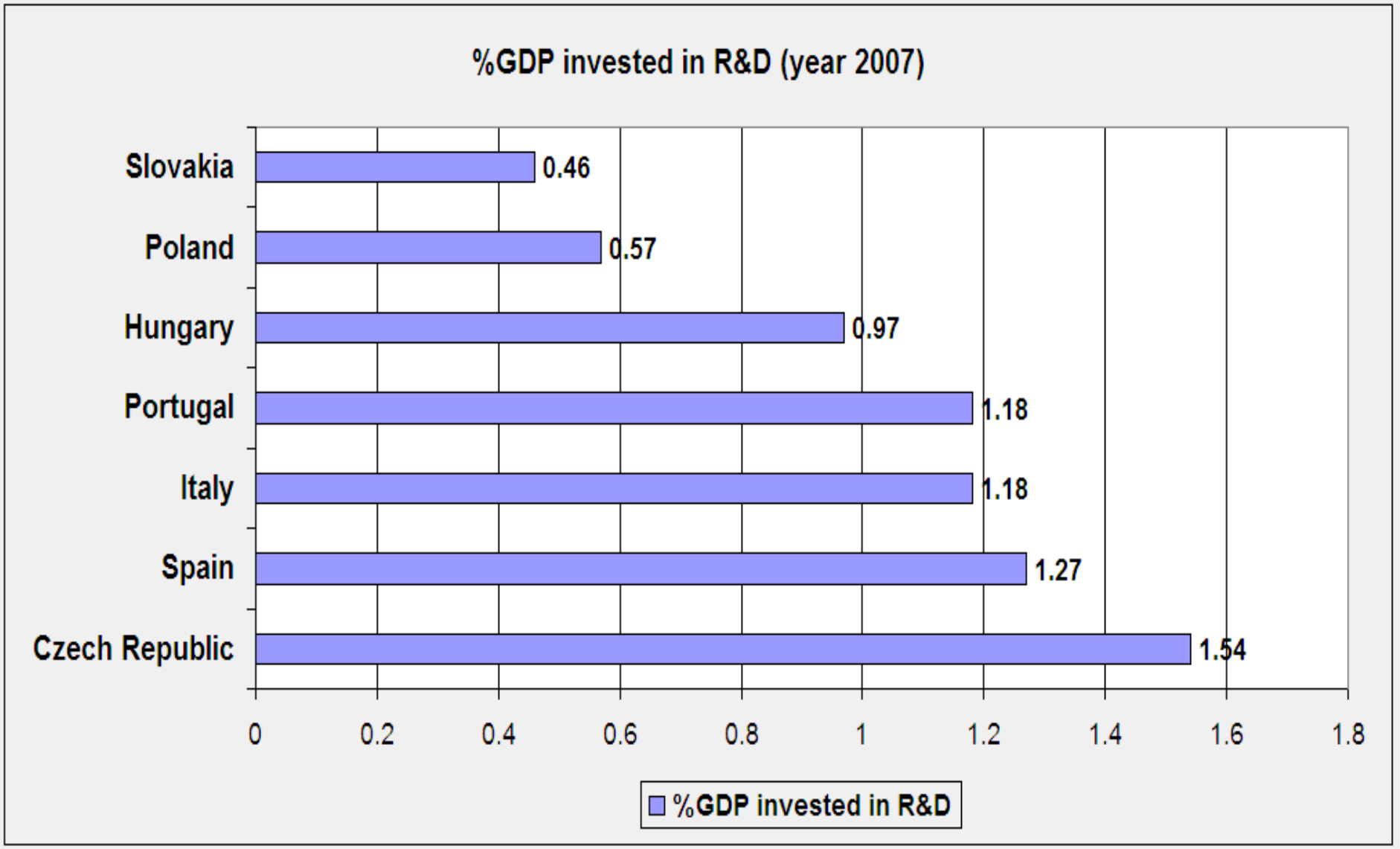
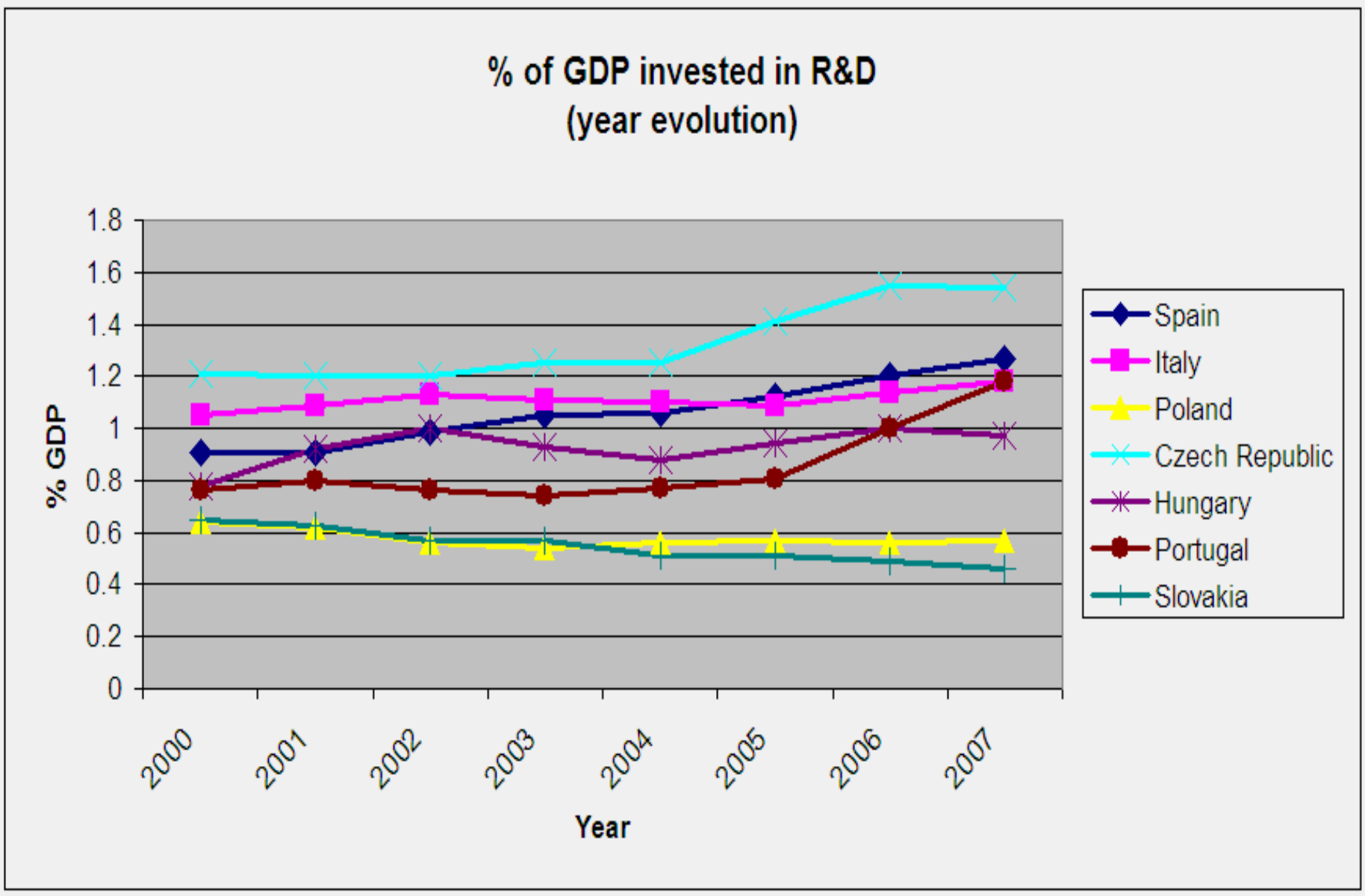
European Union Policy

- Lisbon Agenda /Europe 2020
- European Research Area
- Consolidation Research Infrastructures in Europe
- Biotechnology program
- Databases and search tools


%GDP invested in R&D (year 2007)
Slovakia
0.46
Poland
0.57
Hungary
0.97
Portugal
1.18
Italy
1.18
Spain
1.27
Czech Republic
1.54
0
0.2
0.4
0.6
0.8
1
1.2
1.4
1.6
1.8
%GDP invested in R&D


% of GDP invested in R&D
(year evolution)
% GDP
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
2000
2001
2002
2003
2004
2005
2006
2007
Year
Spain
Italy
Poland
Czech Republic
Hungary
Portugal
Slovakia

Biotechnology Infrastructure

- In 2006 the EU awarded 16.7 million Euros
- ensure long-term support of several European bioinformatics databases and developments.
- The funding was the largest bioinformatics infrastructure award ever granted in Europe.

Project 1: FELICS

- FELICS (Free European Life-science Information and Computational Services)
- FELICS aimed to maintain a number of key resources in biological databases and bioinformatics tools
- EPO ensures that the bio-molecular information from patents is covered in all databases

FELICS

- EPO three main tasks:
  1. *XML standard for biological sequence presentation including a software*
  2. *Non redundant Patent sequence database*
  3. *Initiating a collection of chemical entities disclosed in patents*

FELICS delivered by the end of 2009.

Project 2: SLING

(Serving the Life sciences for the Next Generation)

- Same strategy as FELICS
  - To develop a European Biotechnology Infrastructure to support European Research
- Project duration: 36 months
- Budget: 8 million Euros

http://www.sling-fp7.org/

SLING

Serving Life-science Information for the Next Generation

EMBL-EBI SIB Europäisches Patentamt European Patent Office Office européen des brevets enzymeta GmbH

User login

Username: *

Password: *

Log in

Request new password

SLING

SLING is a three-year project - **S**erving **L**ife-science **I**nformation for the **N**ext **G**eneration. Its goal is to make sure that advances in European Science are supported by the best possible biomolecular information, and that European scientists are optimally equipped to exploit it. To do this, SLING makes available a comprehensive range of databases and services from its five Partners: the European Molecular Biology Laboratory European Bioinformatics Institute (EMBL-EBI), the Swiss Institute of Bioinformatics (SIB), the BRENDA database at the Technische Universität Braunschweig (TUBS), the European Patent Office (EPO), and Enzymeta GmbH.

Under the SLING project, the EBI provides:

- Databases
- Bioinformatics Tools
- Web Services
- Training including Courses, Conferences, Workshops and the EBI User Training Programme

Under the SLING project, the SIB provides:

- Core & Computing facilities
- Databases
- Software Tools
- Web Servers
- Education including Training Courses and Bioinformatics Workshops

Both the EBI and the SIB provide extensive, high-quality training in the use of the databases and services, and carry out R&D necessary to enable the data and services to keep pace with changing science. The activities are designed to support both commercial and academic research throughout Europe, and its training will be delivered in numerous European locations.

To ensure the quality of the data, the work will include efforts targeted at information in patent literature through the EPO, along with Patent Data Resources at the EBI. New high-throughout methods (such as next-generation DNA sequencing) will provide major stimuli for the R&D work of the project. At TUBS and Enzymeta GmbH, the BRENDA enzyme database will be enhanced in the areas of systems biology, integration of BRENDA data into metabolic network models and network simulation programs, enzyme data visualisation, the BRENDA tissue ontology and new enzyme classes.

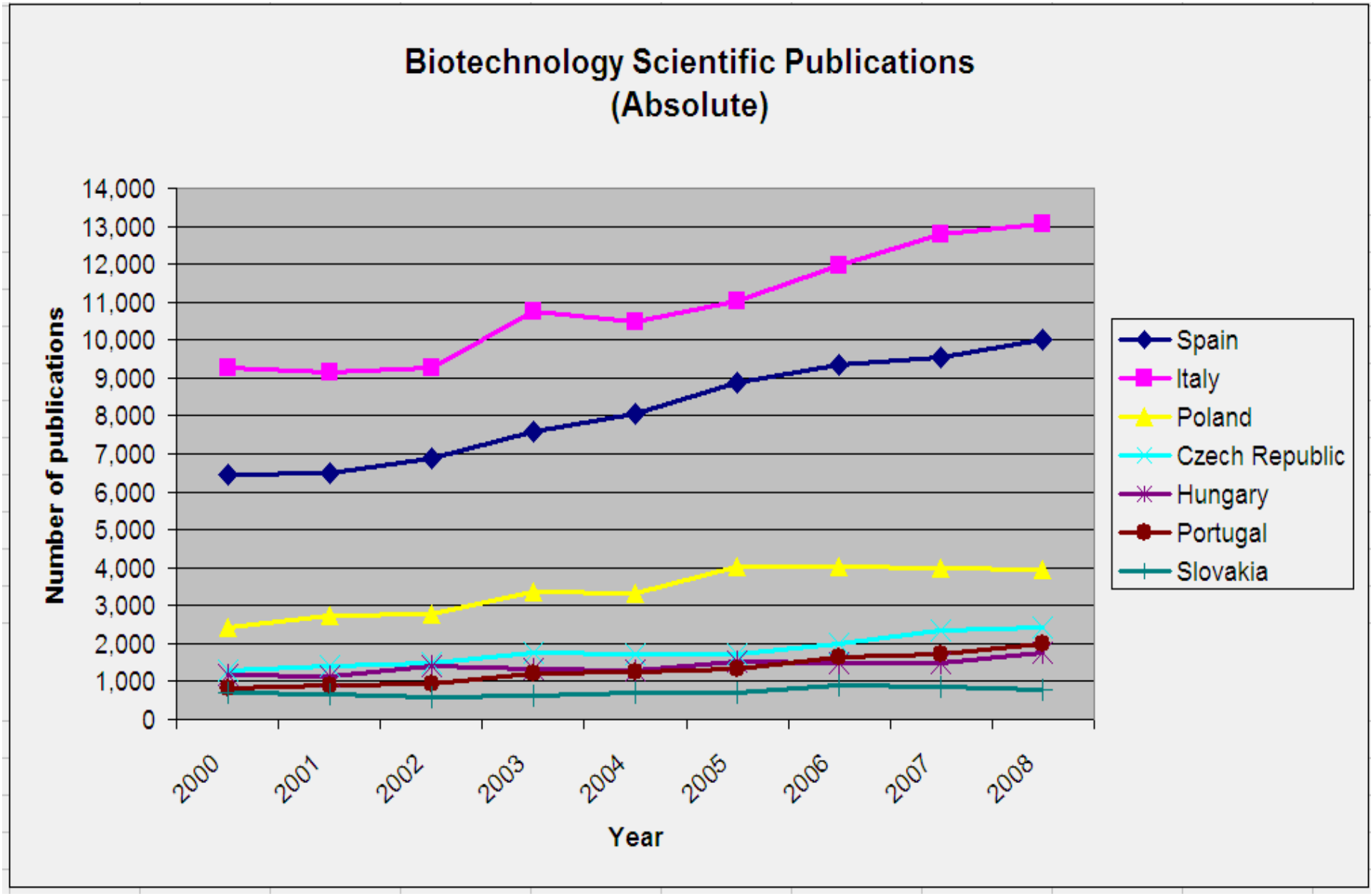
Dissemination of knowledge

1. Comprehensive Databases in Biotechnology

2. Broad Use of the Databases and the Search Tools

3. New submission tool for biological sequences

4. IP awareness in Biotechnology,


Biotechnology Scientific Publications
(Absolute)
Number of publications
14,000
13,000
12,000
11,000
10,000
9,000
8,000
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
2000
2001
2002
2003
2004
2005
2006
2007
2008
Year
Spain
Italy
Poland
Czech Republic
Hungary
Portugal
Slovakia

CC	Year	TOTAL Biotechnology papers
Hungary	2000	1.180
	2001	1.120
	2002	1.407
	2003	1.342
	2004	1.307
	2005	1.527
	2006	1.474
	2007	1.473
	2008	1.774

CC	Year	TOTAL Biotechnology papers	Resident	Non-Resident	TOTAL Biotechnology patent publications
Hungary	**2000**	**1.180**	**20**	**883**	**903**
	2001	**1.120**	**20**	**1114**	**1134**
	2002	**1.407**	**21**	**1084**	**1105**
	2003	**1.342**	**33**	**991**	**1024**
	2004	**1.307**	**22**	**640**	**662**
	2005	**1.527**	**14**	**522**	**536**
	2006	**1.474**	**20**	**265**	**285**
	2007	**1.473**	**19**	**163**	**182**
	2008	**1.774**	**24**	**147**	**171**

CONCLUSIONS

- Comprehensive Databases in Biotechnology

  Your contribution: Patent Offices, Universities, Industry

- Broad Use of the Databases and the Search Tools

  Learn about the tools available to you: free!

- New submission tool for biological sequences

  BISSAP will be presented to you; try it!

- IP awareness in Biotechnology

  Valorize your research?

  Use the Patent Documentation in DBs!

Thank You!

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