

NIS in Poland

current situation and recommendations for the future

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Ph.D.-School on National Systems of Innovation and
Economic Development

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Outline



- ◆ Introduction
- ◆ Financial and structural barriers
- ◆ Changes in innovation policy
- ◆ Priorities and recommendations
- ◆ Research proposal

Introduction

Science in Central Planning Economy

- Bureaucratic system
- Little incentive for innovation
- Technology transfer based on:
 - a. copying of western products
 - b. purchase of foreign technologies
 - c. simplification of products

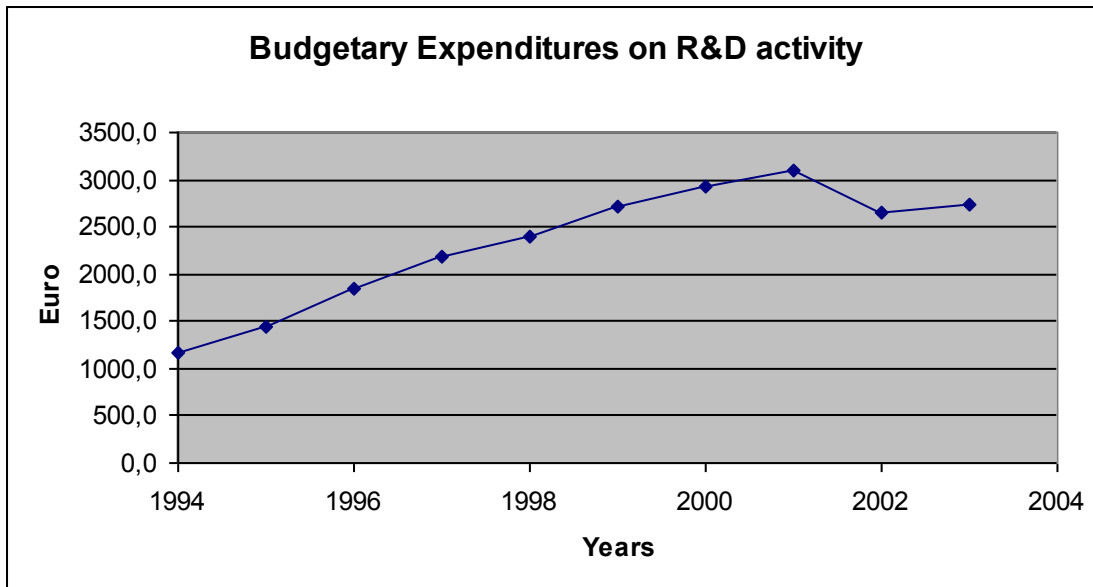
No rational development

Structure of the National Innovation Policy System in Poland

- ◆ Policy making governmental bodies that create main national strategies, together with recommendations for the science policy and creating budget
- ◆ Governmental and non-governmental institutions which play important role in the executive level of implementation of these strategies
- ◆ Organisations, enterprises and societies that take advantage of the innovation systems

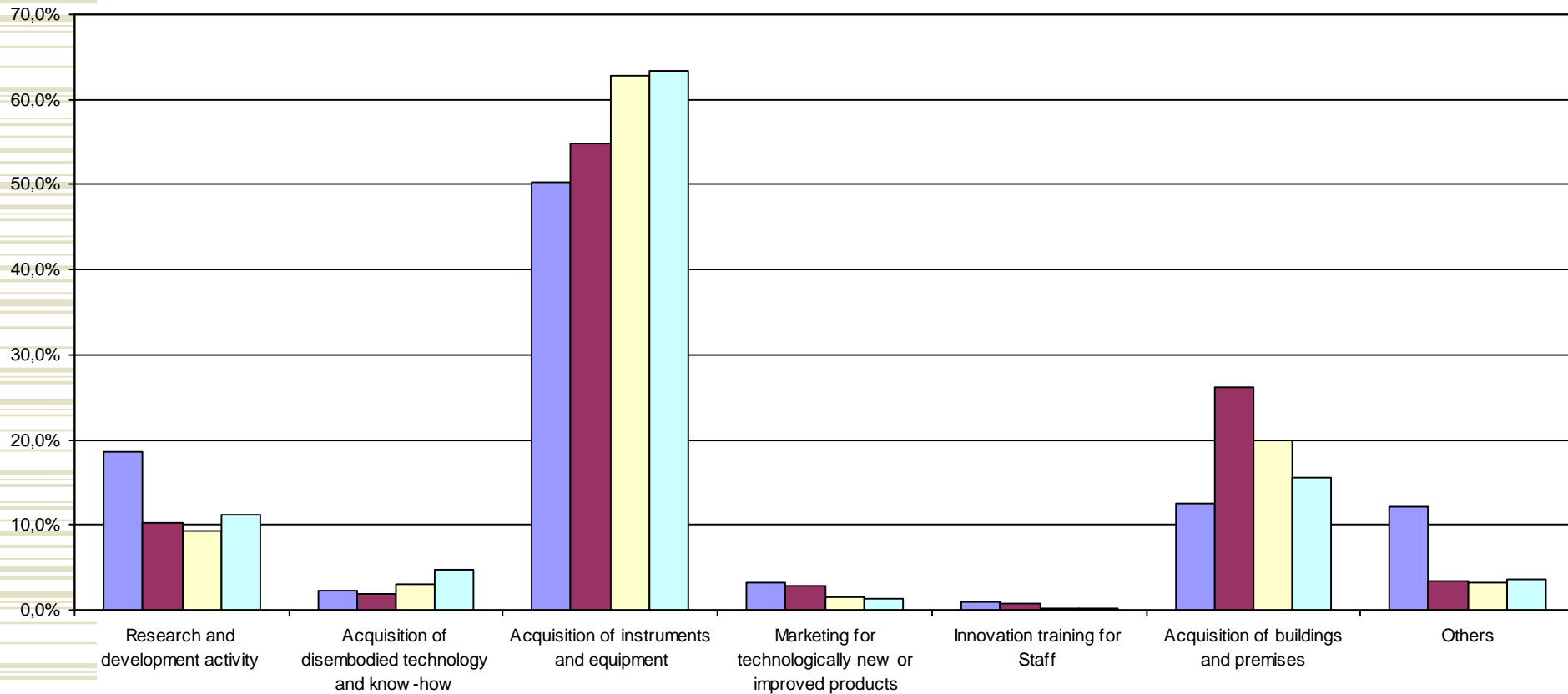
Financial Obstacles

Spending on R&D



Structure of innovation investments

■ 1999 ■ 2001 ■ 2002 ■ 2003



Structural Barriers

- ◆ Obsolete structure of R&D sector in Poland
- ◆ Little incentives for investment in R&D activities in enterprises
- ◆ Lack of stability of legal regulations
- ◆ Companies suffering from lack of financial resources also have difficulty in finding information on possibilities of financial aid from the structural funds of the European Union

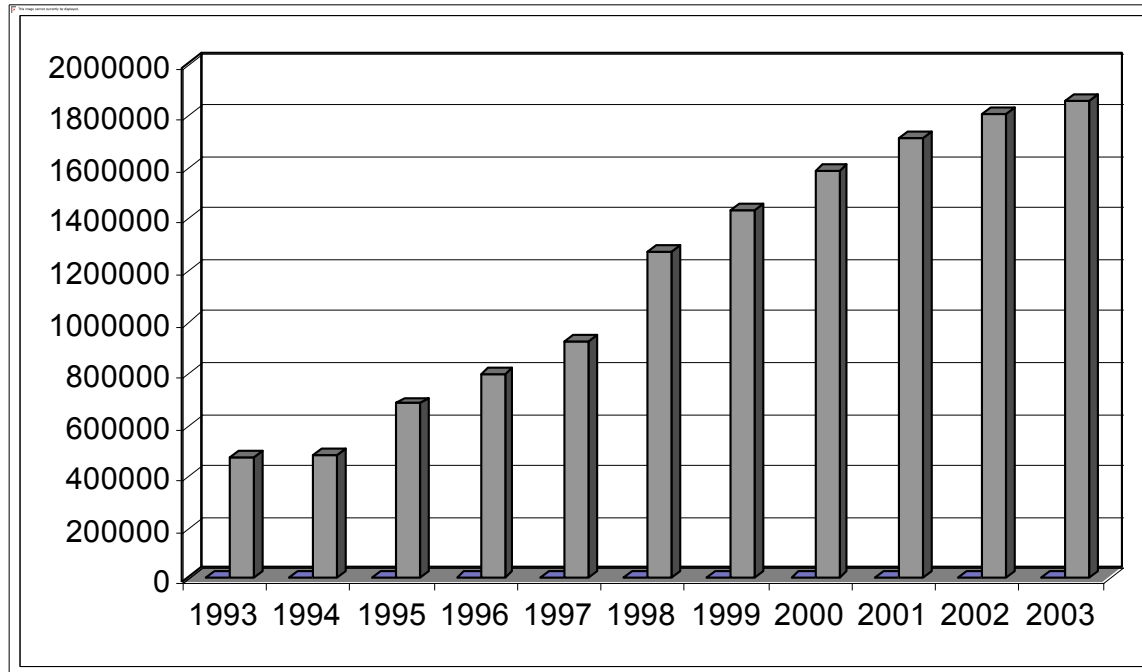
Changes in innovation policy(1)

1. Transfer of knowledge conducted via university graduates (increase of the number of students)
2. Passive approach of business community to innovations
3. Relative decrease of expenditure on R&D
4. Changes in the R&D sector have not been influenced enough by the market forces

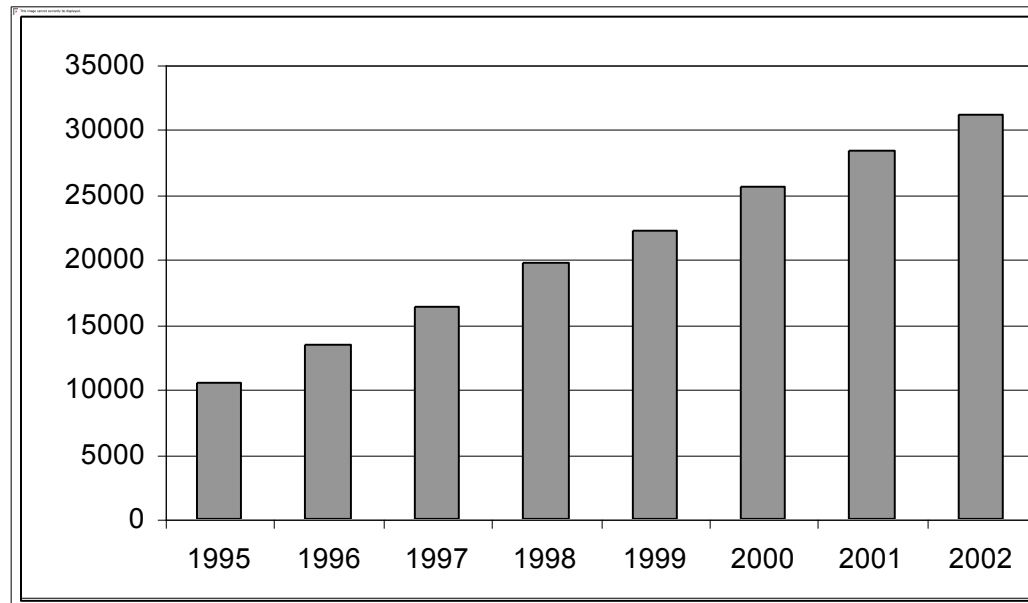
Changes in innovation policy(2)

5. Changes in the R&D sector have not been influenced enough by the market forces
6. Changes of the employment structure
7. Improvement of protection of intellectual properties in Poland
8. Positive tendencies in Polish foreign trade of high-tech

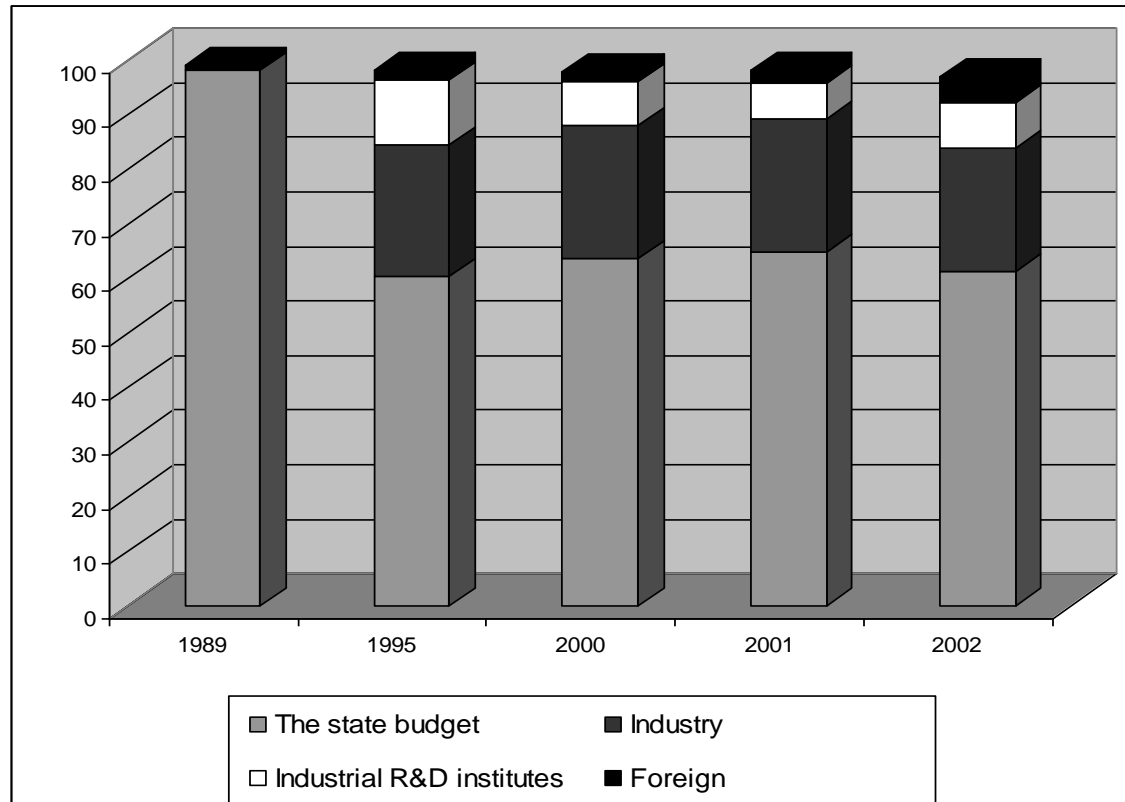
Number of Students in Poland



Number of Ph.D. Students in Poland



Structure of Gross Domestic Expenditures on R&D by Source of Funds



Lisbon Strategy and its influence on Innovation Policy in Poland

- ◆ Foundations for science, technology and innovation state policies up to 2020
- ◆ Thematic priorities:
 - Info
 - Techno
 - Bio
 - Basics

Strengths and weaknesses of Polish innovation systems

Strengths	Weaknesses
Absorptive capacity:	Diffusion of technology
•new science and engineering graduates	•cooperation between entrepreneurs
•high percentage of population with high education degree	•science and industry relations
•employment in high-tech manufacturing	•horizontal interaction and cooperation in policy
•innovation expenditures in manufacturing	
R&D capacity	R&D capacity
•public R&D	•business R&D expenditures, trend
•SME share in business R&D expenditures	



Priorities and recommendations

- ◆ Strengthen technology transfer between public sector institutions and private sector
- ◆ Promote research in the private sector
- ◆ Restructure the fragmented public scientific and technological infrastructure



Priorities and Recommendations

- ◆ Stimulate the creation of new economic activities
- ◆ Derive strong coordination mechanism between national and regional innovation policies
- ◆ Improve governance of national innovation policy toward horizontal policy

Research Proposal

- ◆ Measuring barriers of technology transfer (university-industry relations)
- ◆ Literature research
- ◆ Research survey and interviews - Polish industrial sector
- ◆ Quantitative vs. qualitative analysis
- ◆ **Suggestions??**

Thank you for attention

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