



Uniwersytet Łódźki
C e n t r u m
Transferu Technologii

S ET LIBERTAS



TECHNOLOGY TRANSFER

**AND NEW TECHNOLOGY BASED FIRMS
DEVELOPMENTS**

POLISH PERSPECTIVES

Dariusz Trzmielak PhD

Center for Technology Transfer, UŁ



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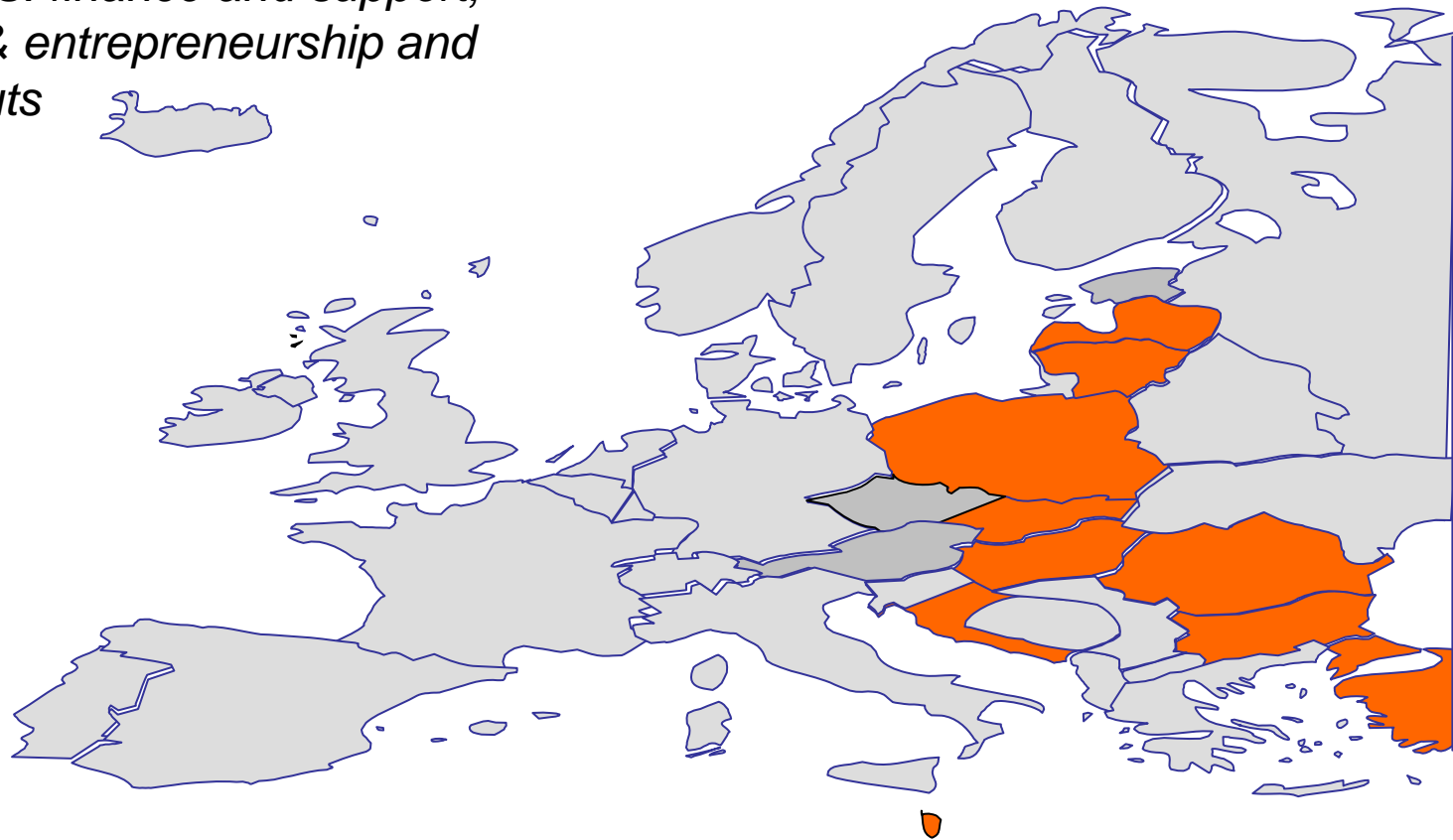
Periods of commercial innovation developments in Poland

1. The pioneers (1989-1993)
2. Solution of labor market problems (1993-1996)
3. Stabilization of the system and new ideas (1998-2000)
4. Pre-accession (1997-2004)
5. First experience (1st of May 2004-2007)
6. Dynamic development (2007-...)

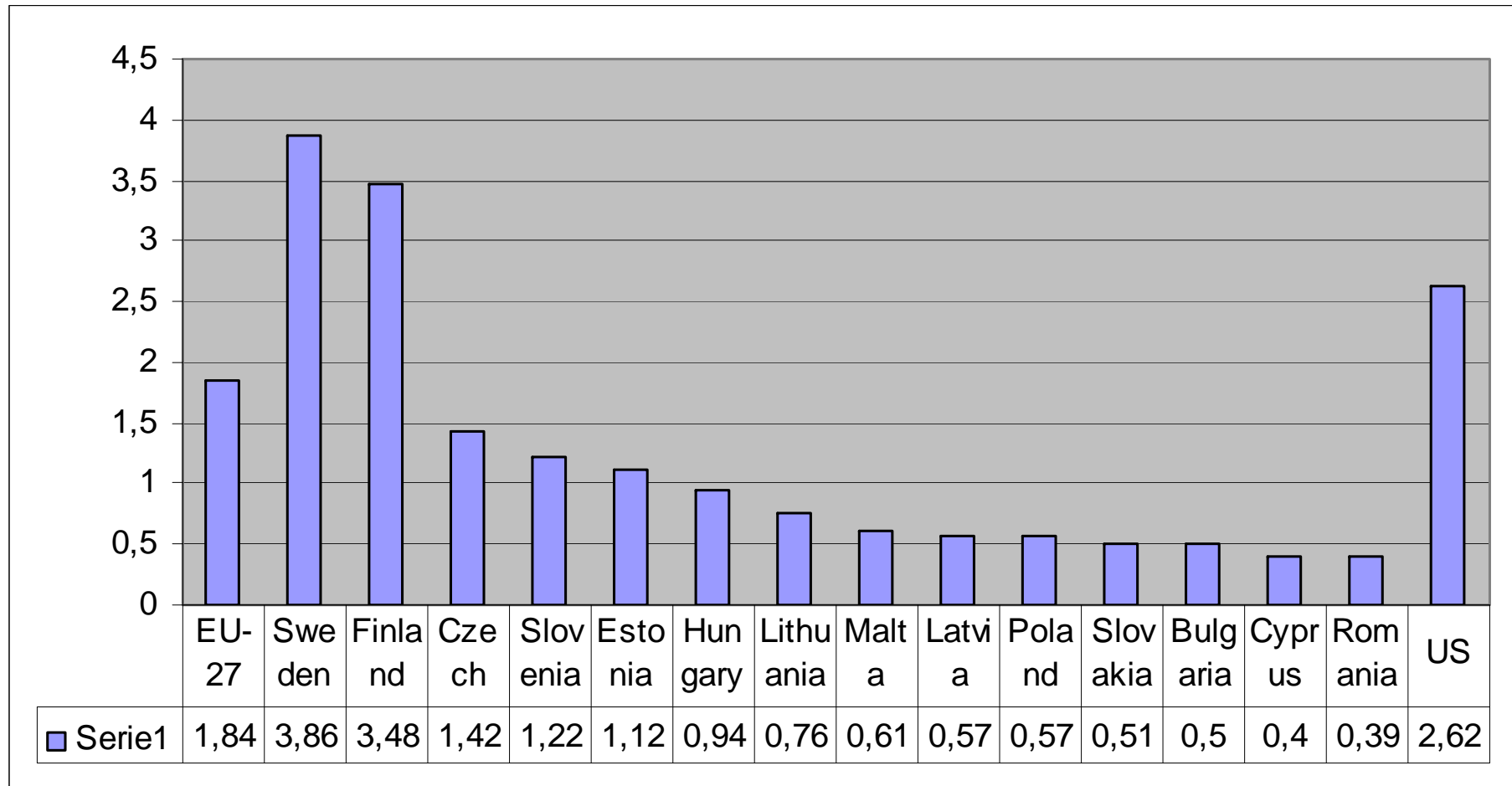
The group of catch-up countries

Strengths: *human resources, firm investments*

Weakness: *finance and support, linkages & entrepreneurship and throughputs*



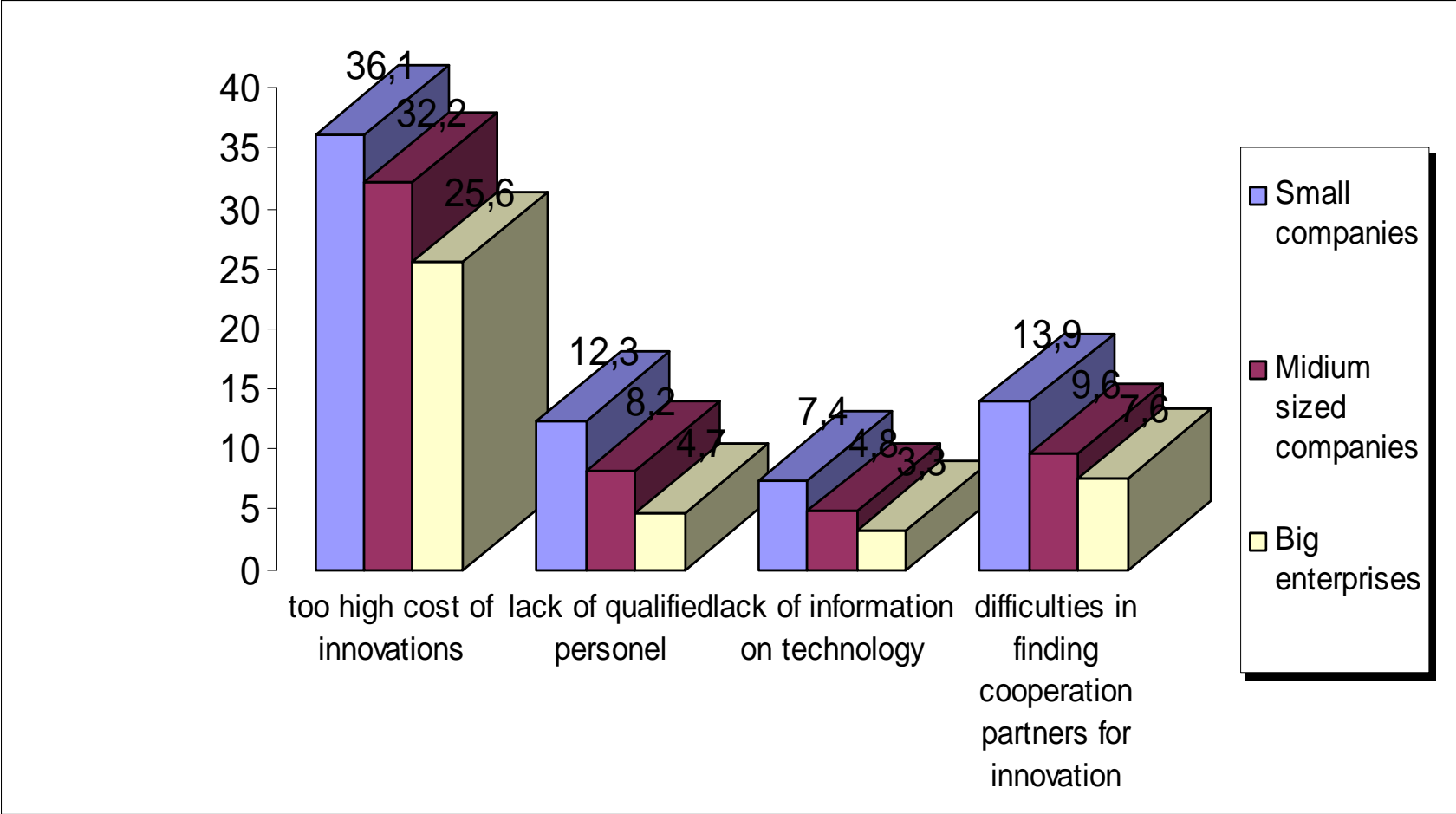
R&D intensity in EU-27 and US



The Polish innovation enterprises – basic data

- Survival rate in the first year of operation – 63%
- Innovation operations financing
 - 94% - own resources
 - 40% - with external funding
- Cooperation on the basis of R&D agreements with universities and R&D institutes – 3%
- Main investment expenditure: software and production lines
- Innovations in the industrial enterprises
 - 90 % - product innovations
 - 75 % - new technologies based on their own resources

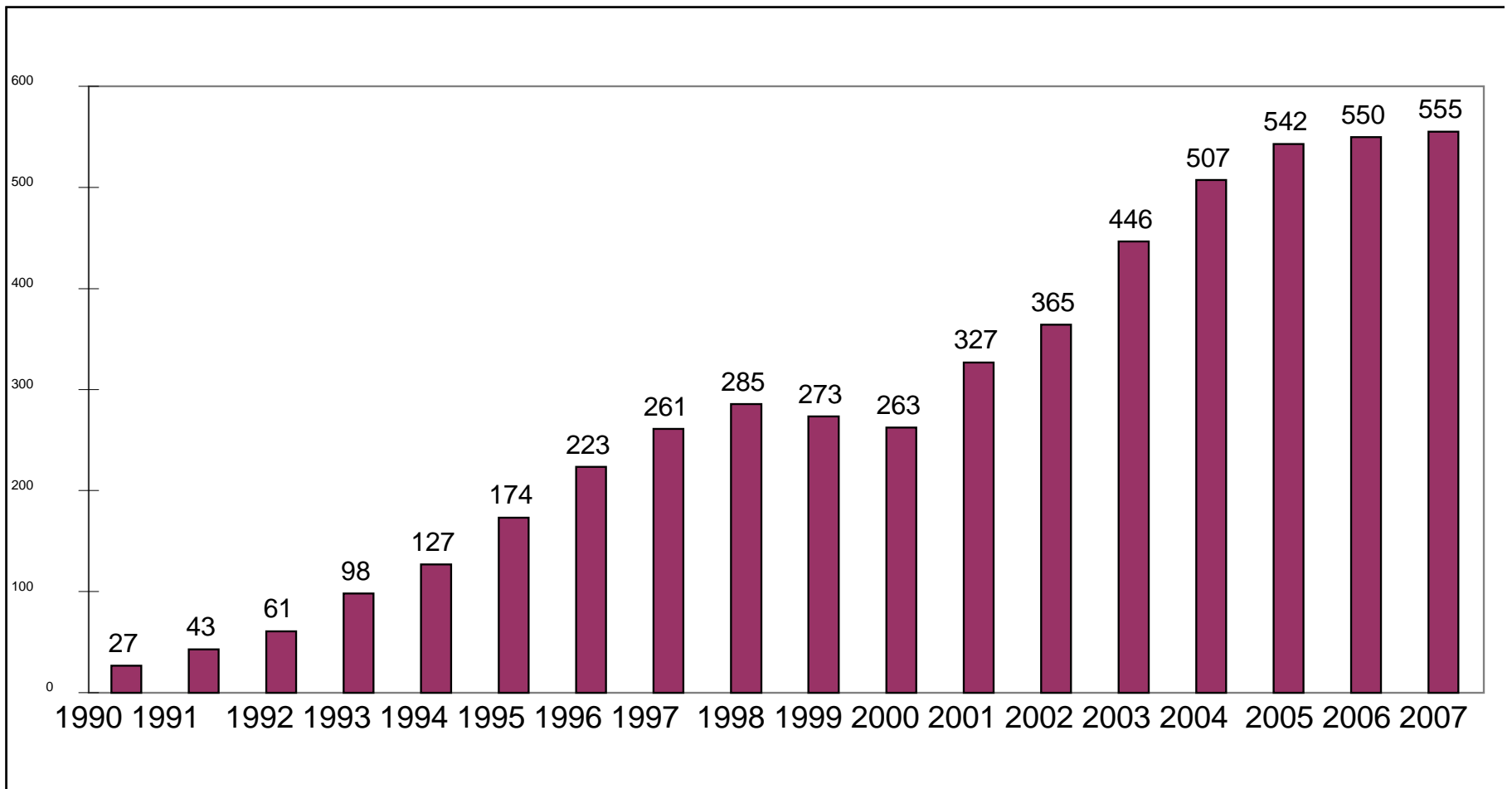
Main barriers in industrial enterprises activities during 2004-2006



The science and technology commercialization problems

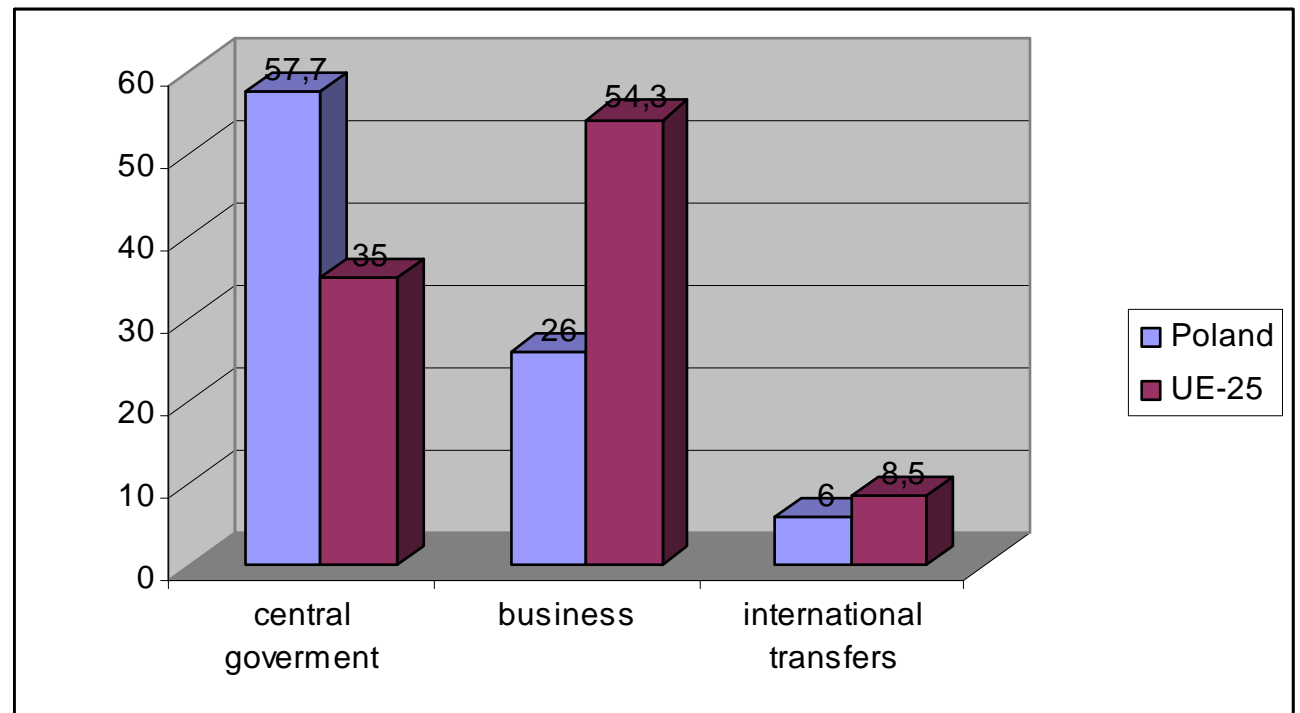
- Minimal cooperation between SMEs and research sector
- Low awareness of the opportunities to make use of academic resources and research results for company development
- The domination of the purchase of new machines and equipment
- Low effectiveness of patents
- Little interest in technology transfer
- Small scale of diffusion process for technology

Opportunity for tech transfers - the growth of innovation and business development organizations



Strategic aim of Polish innovation policy

1. Efficient institutional system
2. Development of mechanisms to coordinate innovation activity
3. Increase financing of R&D results by business



Factors stimulating innovation policy in industrial enterprises (Poland)

- *Science and technology parks and high-tech incubators* - intensively seek international partners for their clients (spin-offs, spin-outs and other innovative firms)
- *Innovation policy and international cooperation* - have been one of the goals of science and technology parks managers
- *Organization intellectual assets* - which creates innovation and makes commercialization of innovation possible

The growth of new technologies and new products market value

significantly concentrates in Poland on:

- intellectual capital components as people capital (as a combination of knowledge, skills and experience of scientist, firm managers and employees),
- structural capital (as an organization ability for transferring of know-how, know-why outside organization),
- partner capital (as the relations between partners used for exchanging the knowledge and improving their qualifications),
- innovation capital (which refers to creation and implementation of new technologies and products to the markets)

Polish organization activities - property transactions value

Passive transactions – Present activities

- patent rights, know-how
- technology transfer - know-why – documentation associated with technology (process descriptions, research results) access to academic research institution experts, who can advise in the implementation of technology or work for the buyer

Active transactions – Future aim

- rights to equipment used in the R&D phase
- guarantee that the patent or other intellectual property exists and is not in breach of the rights of a third party
- the right to represent the research body where the research results or patent are associated with another academic activity or other technologies
- the right to information or first option to purchase future research results associated with the transaction subject, which the research body may generate in other research work
- the right to sublicense

Case study - Amepox Ltd

- Formed by academic institution employed on the base of his extensive academic experience,
- The company diagnosed the market and focused its activity on manufacturing special chemical resistance materials and applications for the construction industry.



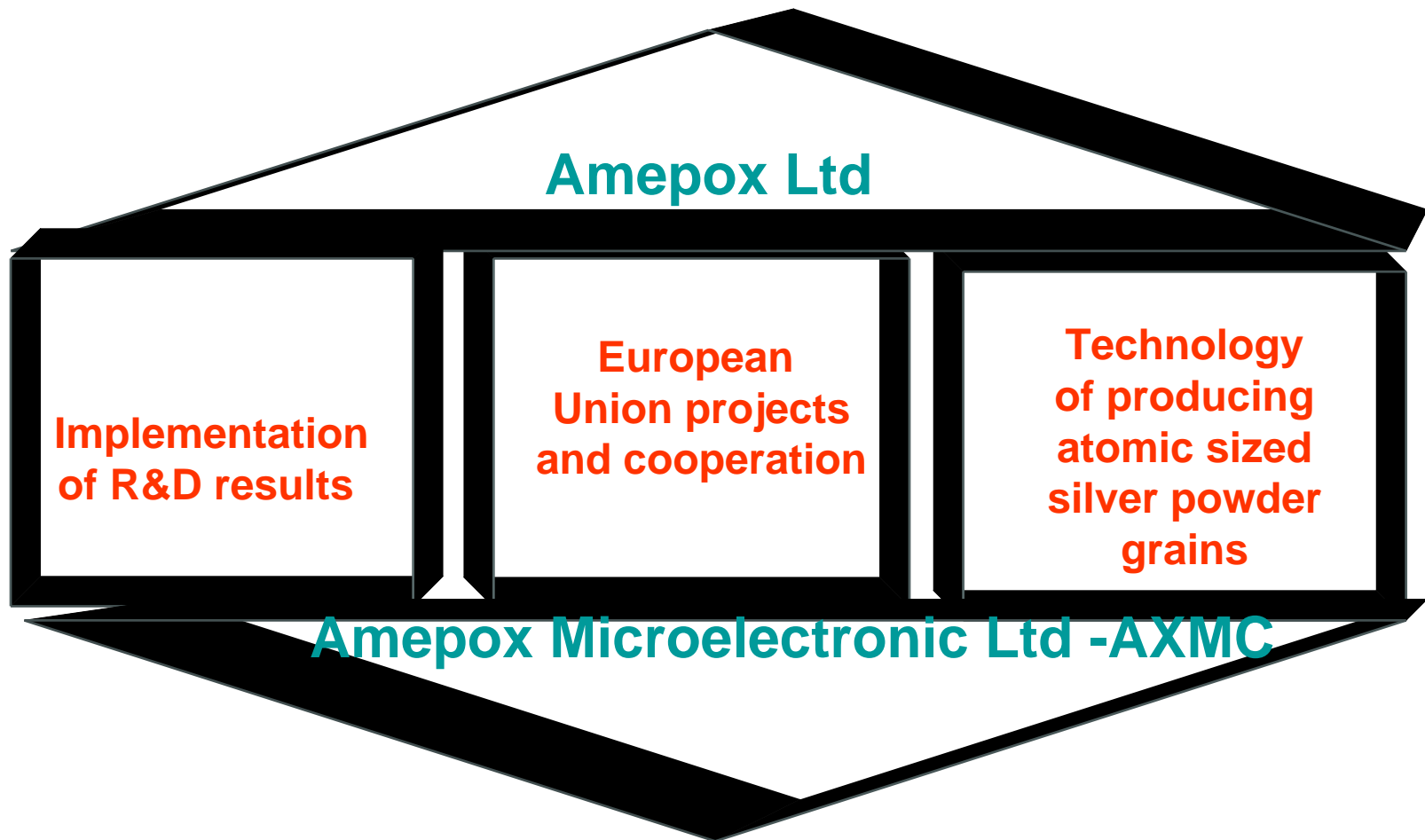
Market definition – Amepox Ltd

Customer function - the needs of the market were recognized at the beginning as: safe exploitation of plastic floors, floors and antistatic usable area due to tightened safety and fire requirements

The technology dimension recognized physicochemical parameters of prime coat materials

Customer segments identified as new industry branches which demand surface charge free environments – e.g. for production of electronic elements, computers or in computer control rooms.

Research programs at Amepox Ltd



Cooperation with High-tech Incubator, University of Łódź

Needs: Nano sector developments forecast

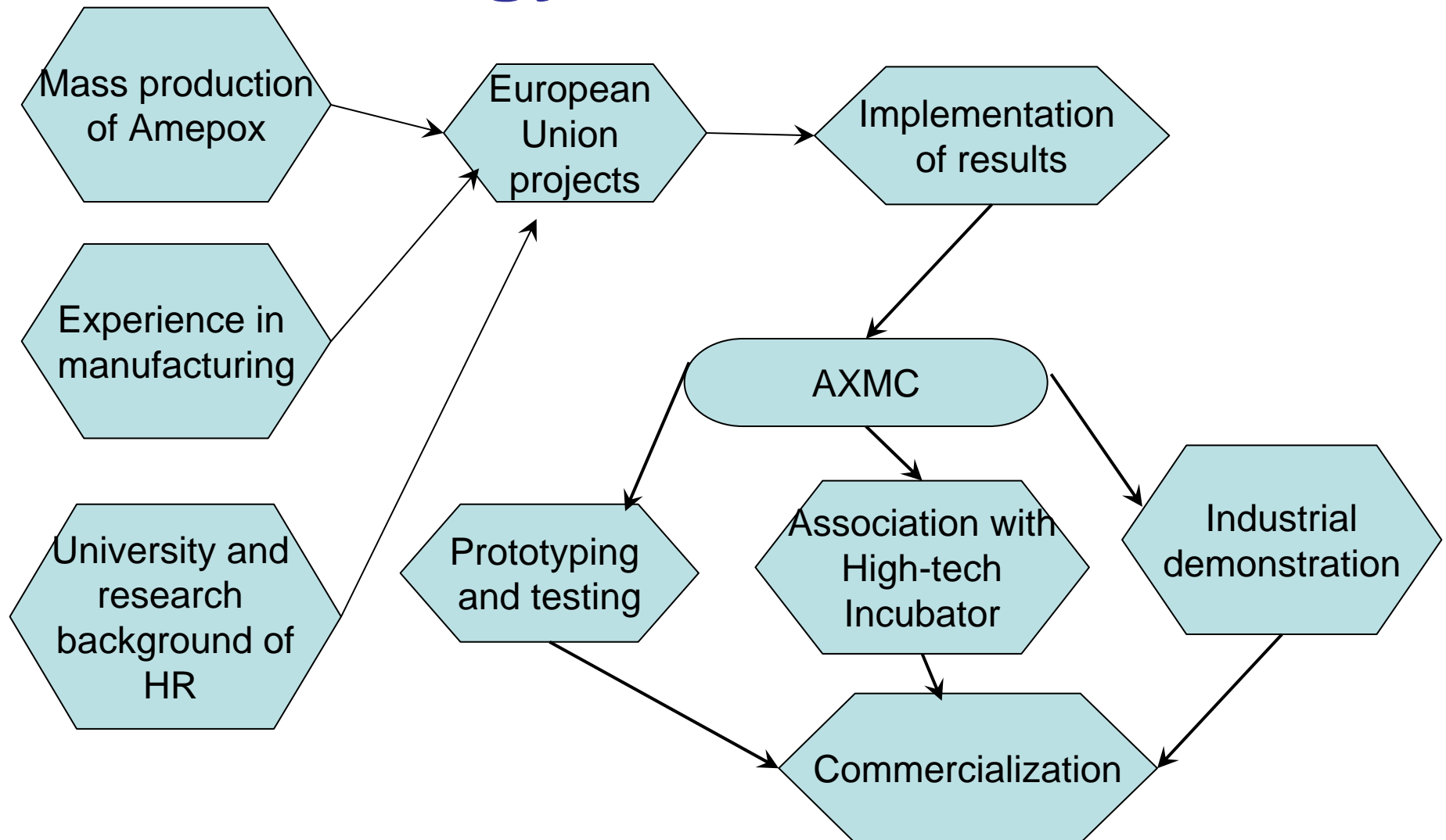
Assessment of market potential for future AXMC products

Technology roadmap for AXMC

Implementation of “ideas under construction”



AXCM development and technology commercialization



The future for science and technology transfers in Poland

National and international stimulators

- The national strategy created by Polish government - improving organizational structures focusing on firms new technologies developments
- The universities and R&D institutes development - defined as the creation of research value for the markets, competitive advantage for the company, increased wealth for the company owners and investors
- New perspectives on competitive global markets by introducing new product on the knowledge base
- SMEs and universities collaboration - especially in exchanging of organizations experiences - gives the future perspectives for sales growth and revenue

The future for science and technology transfers in Poland

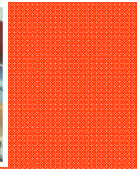
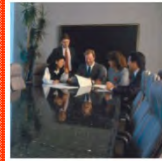
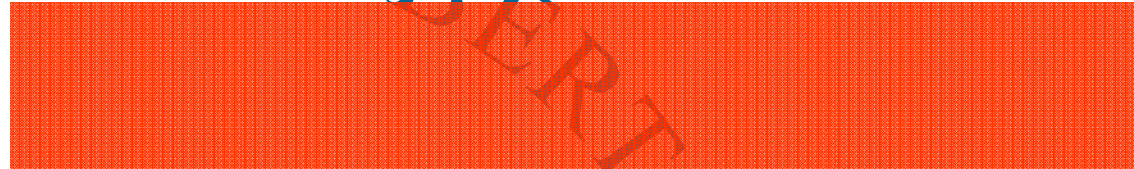
Local stimulators

- New IP protection system at Polish universities – encouraging scientist to cooperation with innovation industry enterprises, assisting in creation of the market potential of their high-tech product
- Access to information
- Changes in attitudes among researchers at universities - determining the success of technology transfer to the business sector
- New offers of universities concentrated on the technology development market value



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Thank you for your attention

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ITAS LODZIENSIS

Dariusz Trzmielak PhD

darekt@uni.lodz.pl

www.ctt.uni.lodz.pl

Technology Transfer Center,

University of Łódź

Director