DEVELOPMENT OF THE EFFECTIVE ENVIRONMENT FOR THE INNOVATIVE BUSINESS



University-Industry Collaboration: from Past to Future
Konya, June 9-10, 2015

APPROACH CONDITIONS FOR INNOVATION

Structural factors

- Industrial sectors
- Science
- > Research & Development
- Business Innovation Support Programmes
- Financial instruments
- > Regional growth poles

System factors

- Legal regulations
- ➤ Intellectual Property Rights protection
- Science organisation, financing and career path
- University policies and procedures
- > Tax regulations

APPROACH CONDITIONS FOR INNOVATION

Mental and cultural factors

- > Social Capital
- Stereotypes
- Social awareness and acceptance for innovative approach
- Self-esteem of science-industry actors

Competencies

- Public administration
- Government and administration of universities and research institution
- > Entrepreneurs and management of companies
- Business Innovation Support Organisation staff

TECHNOLOGY TRANSFER AND KNOWLEDGE COMMERCIALIZATION

NATIONAL INNOVATION SYSTEM R&D policy Education Innovation Entrepreneurship **SMEs** policy policy policy policy Financial instruments **Innovation Centres INNOVATORS** Universities, Reserach Institutes, External sources of innovation **New technological firms** Academy of Sciences Spin off, spin out Market Corporate **Innovative companies** R+D **Development Units** all size Commmercial suppliers of innovative services Regional ecosystem, business and innovation environment

REGIONAL INNOVATION SYSTEM

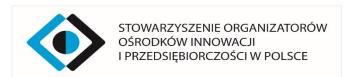
Source: Recommendation on changes in Polish technology transfer and knowledge commercializtion system, PAED, Warsaw 2010

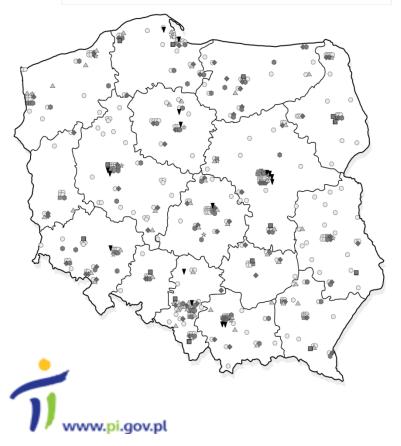
KEY INNOVATION ACTORS Poland

- Polish Government
- 16 Province Self-Governments
- European Union
- Agency for Industrial Development
- Polish Agency for Entrepreneurship Development
- The National Center for Research and Development
- The National Science Center
- National Contact Point for Research Programmes of EU HORIZON 2020
- Regional Contact Points for Research Programmes of EU HORIZON 2020
- National Contact Point for EU Programmes Financial Instruments
 - COSME 2020/HORIZON2020/EaSI/Creative Europe

BUSINESS INNOVATION CENTRES Poland

Science Technology Parks **Business and Technology Incubators Technology Transfer Centres** Polish Technology Platforms Centers fo Excellence Centers for Advanced Technologies Enterprise Europe Network Clusters National Innovation Network National Chamber of Commerce Polish Federation of Engineering Associations Polish Business Innovation Centres Association Academic Business Incubators Foundation Loan and Guarantee Funds Seed Capital **Business Angels** Venture Capital





COMPANIES TECHNOLOGY POTENTIAL

Type 4: Creative, gazelles High capability and absorptive capacity	3%
Type 3:Strategic, innovative Know what, but not always where and how	17%
Type 2: Reactive. Know they don't know , but don't know what	80%
Type 1: Passive. Don't know that they don't know	
Source: A.Watkins, World Bank, LIAA/LTC	

ACADEMIC AND ENTREPRENEURIAL ROLE

	Academic	Entrepreneurial
Norms	Universalism Communism Disinterestedness Skepticism	Uniqueness Private property Passion Optimism
Processes	Experimentation Long-term orientation Individualistic/Small group	Focus Short-term orientation Team management
Outputs	Papers Peer recognition/status	Products Profits

Source: Sanjay J., Gerard G., Mark Maltarich., Research Policy 38 (2009) 922–935

FIVE PILLARS OF ENTREPRENEURIAL UNIVERSITY

I. University integrated within the regional business and social environment.

Professionally managed

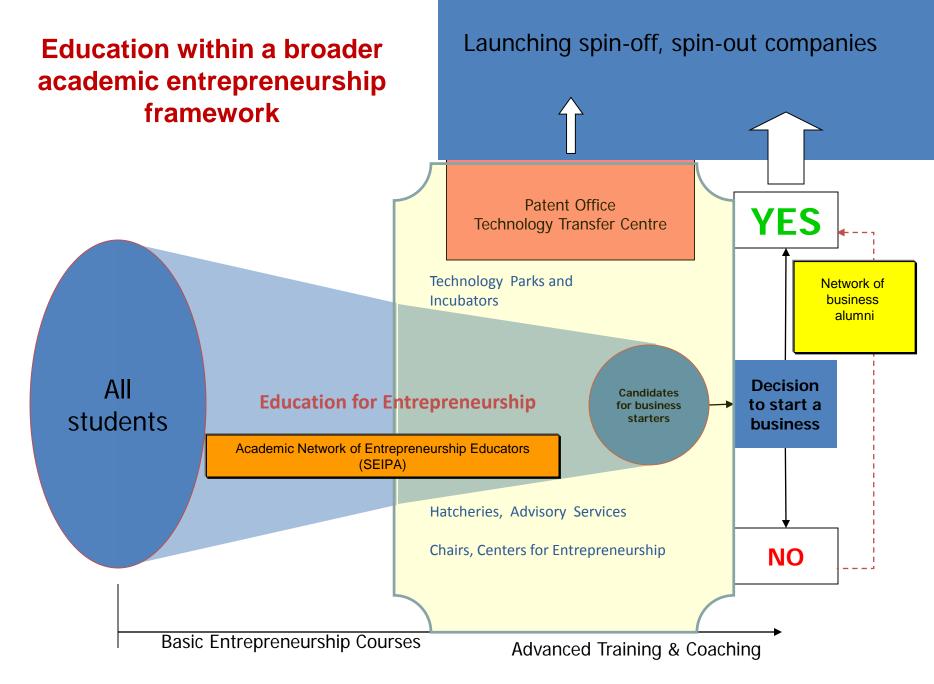
II. Educational programs geared up to the current and future needs of the (regional) economy and business community

IV. Co-operative technology transfer

III - V. Academic

entrepreneurship

V. Education FOR entrepreneurship



Source: www.seipa.edu.pl

BAYH – DOYLE ACT

- Patent and Trademark Law Amendments Act of 1980, U.S.A.
- Enabling small businesses and non-profit organizations, including universities, to retain title to inventions made under federally-funded research programs
- Encouraging universities to participate in technology transfer activities
- Universities are expected to file patents on inventions they elect to own
- Universities are expected to give licensing preference to small businesses
- The government retains a non-exclusive license to practice the patent throughout the world
- The government retains march-in rights
- Countries with similar legislation:
 - Brazil, China ,Denmark, Finland, Germany, Italy, Japan, Malaysia, Norway, Philippines, Russia, Singapore, South Africa, South Korea, United Kingdom, Poland

Source: http://www.gpo.gov/fdsys/pkg/CFR-2002-title37-vol1/content-detail.html

LAMBERT AGREEMENTS United Kingdom

- 5 model agreements for one-to-one collaborations
- 4 consortium agreements for multiple parties
- Help facilitate contract negotiations involving publicly-funded research organisations (eg. universities) and companies
- The Lambert Working Group on Intellectual Property since 2004
- Members:
 - The Association of University Research & Industry Links
 - The Confederation of British Industry
 - Regional Development Agencies
 - PraxisUnico
 - > A number of UK companies and universities
 - Several government departments

Source: https://www.gov.uk/model-agreements-for-collaborative-research



INTELLECTUAL PROPERTY OFFICE United Kingdom



Intellectual Property for business

The IPO's IP for business tools and guidance can help create value from ideas, turning inspiration into sustainable business success

Intellectual Property for universities

Helps University students and academics understand IP Helps universities and businesses to work together

Source: https://www.gov.uk/government/organisations/intellectual-property-office

PROFESSOR PRIVILEGE

- Gives university researchers right to own inventions from publicly funded research
- Under professor privilege the inventor has no obligation to share income
- Contrary, with university ownership, income from commercialization is shared between the university and the inventor
- Countries with professor privilege:
 - Switzerland, Great Britain, Sweden,
- Countries without professor privilege:
 - USA, Denmark, Belgium, Slovenia, Hungary, Norway, Austria, Germany, Finland, Japan, Poland

OBSTACLES

- Bureaucratic and administrative procedures related to knowledge commercialization and technology transfer support system
- Low level of consolidation of Technology Transfer and Knowledge Commercialization System
- Lack of policies and procedures regarding knowledge commercialization and technology transfer within universities and research institutes
- Low social trust and lack of real partnership
- Lack of business experience within Business Innovation Centres/Technology Transfer Offices staff
- Priority for commercial education within universities
- Slow system changes regarding science, research and development
- Lack of comprehensive innovation policy consistent with sectoral policy: industrial, agricultural, employment, science, research and developemnt
- Ownership of intellectual property created in research institutions
- Distribution of benefits resulting from successful commercialization between university and inventor
- Potential conflict of interest resulting from a dual role: scientist and entrepreneur

INNOVATION POLICY

ENTREPRENEURSHIP

MARKET FOR INNOVATION

EDUCATION

FINANCIAL INSTRUMENTS

KEY SUCCESS FACTORS

SCIENCE

BUSINESS INNOVATION SUPPORT

RESEARCH & DEVELOPMENT

INTELLECTUAL PROPERTY RIGHTS

UNIC ADVANTAGES



Thank you for your attention

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