European Funds
Knowledge Education Development

INSTITUTE OF METALLURGY AND MATERIALS SCIENCE POLISH ACADAMY OF SCIENCES

European Union
European Social Fund

Acquiring financial resources for conducting research

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Project WND-POWR.03.02.00-00-I043/16

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Course description:

1. Scientific research in EU policy.
2. National R&D support program.
3. National R&D Support Programs (National Science Center, National Center for Research and Development, National and Regional Operational Programs 2014-2020)
4. International R&D programs (HORIZON 2020)
5. Principles of preparation of application documentation.
6. R&D projects targeted for implementation
7. Institutions supporting the preparation of R&D projects

Scientific research in EU policy

- Innovation has been placed at the heart of the EU's strategy to create growth and jobs.

- EU countries are encouraged to invest 3% of their GDP in R&D by 2020 (1% public funding, 2% private-sector investment) - this is expected to create 3.7 million jobs and increase the EU's annual GDP by nearly €800 billion.

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Scientific research in EU policy

- The EU initiative Innovation Union focuses Europe's efforts – and its cooperation with non EU countries – on the big challenges of our time: energy, food security, climate change and our ageing population. It uses public sector intervention to stimulate the private sector and remove bottlenecks which prevent ideas from reaching the market – including lack of finance, fragmented research systems and markets, under-use of public procurement for innovation and slow standard-setting.
- The EU is also working to create a single European Research Area, where researchers will be able to work anywhere in the EU and cooperation across borders will be supported and encouraged.

European Funds in Poland 2014-2020

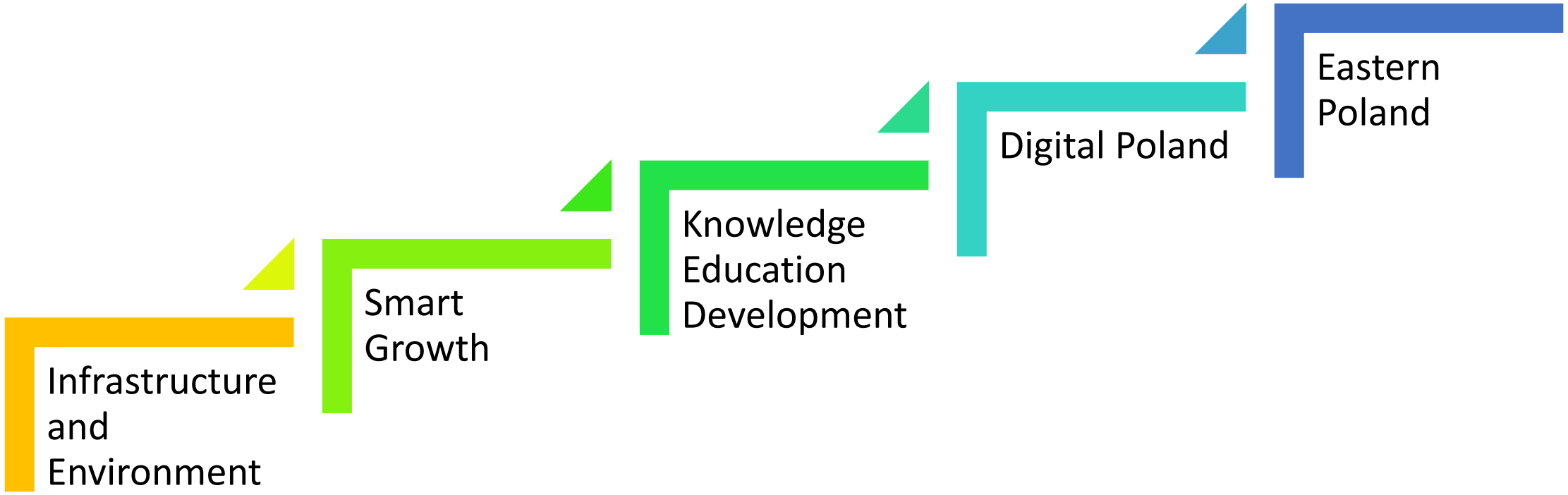
- Poland will invest the largest amounts in transport infrastructure (road and railway), though the highest growth is expected to occur in the area of innovativeness and support for entrepreneurs. We will continue to finance investments in environmental protection and energy production, as well as projects in the area of culture, employment, education or prevention of social exclusion.

- Voivodeship cities and neighbouring gminas will receive large support for the implementation of joint projects in the field of transport accessibility.

European Funds in Poland 2014-2020

- In addition, funds will be used to finance urban investments, in particular projects related to comprehensive revitalisation, clean urban transport and low carbon economy. The EU also requires Poland to ensure the development of the so-called smart specialisations, i.e. to guarantee that individual regions focus on selected priorities of the innovation policy.
- In addition to non-repayable grants the European Union provides also the so-called repayable instruments, i.e. loans and credits. These instruments are available to both entrepreneurs and local authorities. The 2014–2020 perspective will be implemented in Poland by means of 6 national operational programmes managed by the Ministry of Economic Development and 16 regional programmes managed by Marshal's Offices.

National programmes 2014-2020



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National programmes 2014-2020

- The largest amount of funding was allocated to the Operational Programme Infrastructure and Environment. The priorities of this programme include: low carbon economy, environmental protection, development of the national civil engineering infrastructure and energy security.
- The second largest amount of funding was allocated to the Operational Programme Smart Growth. This programme is also the largest programme financing research, development and innovation in the European Union.

National programmes 2014-2020

- Operational Programme Knowledge Education Development aims at activating young unemployed people under 30, supporting higher education, developing social innovations, mobility and cross-border cooperation, as well as carrying out a reform of public policies in the field of employment, social inclusion, education, health and good governance.
- Operational Programme Digital Poland aims at increasing the availability of the Internet, establishing a citizen-friendly e-administration which will make it possible to resolve various issues via a computer and disseminating the knowledge about computers and computer skills within the society.

National programmes 2014-2020

- Operational Programme Eastern Poland is a supraregional programme for Eastern Poland voivodeships aiming at increasing the competitiveness and innovativeness of the Eastern Poland macro-region by supporting innovativeness and research development and by improving the investment appeal of the macro-region, in particular by increasing its transport accessibility.
- **Operational Programme Technical Assistance** aims to ensure the efficient functioning of the institutions responsible for implementing the funds, as well as to contribute to the creation of an effective European funds information and promotion system.

Regional programmes 2014-2020

- Aside from national programmes, EU funds are allocated to 16 regional programmes.

- Their aim is to support the development of all the regions. In this case the funds are managed not by the central authorities, but by local government institutions – i.e. voivodeship boards.

Regional programmes 2014-2020

Dolnośląskie Voivodeship – EUR 2.25 billion

Kujawsko-Pomorskie Voivodeship – EUR 1.9 billion

Lubelskie Voivodeship – EUR 2.23 billion

Lubuskie Voivodeship – EUR 0.9 billion

Łódzkie Voivodeship – EUR 2.25 billion

Małopolskie Voivodeship – EUR 2.87 billion

Mazowieckie Voivodeship – EUR 2.08 billion

Opolskie Voivodeship – EUR 0.9 billion

Podkarpackie Voivodeship – EUR 2.1 billion

Podlaskie Voivodeship – EUR 1.21 billion

Pomorskie Voivodeship – EUR 1.86 billion

Śląskie Voivodeship – EUR 3.47 billion

Świętokrzyskie Voivodeship – EUR 1.36 billion

Warmińsko-Mazurskie Voivodeship – EUR 1.72 billion

Wielkopolskie Voivodeship – EUR 2.45 billion

Zachodniopomorskie Voivodeship – EUR 1.6 billion

European Territorial Cooperation Programmes

- European Territorial Cooperation Programmes (EUR 0.7 billion) are characterised by their international nature and their focus on cooperation between the Polish beneficiaries and their foreign partners. Typical projects carried out across the borders may focus on the protection of cultural heritage and the environment, development of infrastructure, development of entrepreneurship and education.

Smart Growth Programme - “FROM IDEA TO MARKET”

Businesses that grow by development and improvement do not die. But when a business ceases to be creative, when it believes it has reached perfection and needs to do nothing but produce – it is done.

Henry Ford

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Smart Growth Programme - “FROM IDEA TO MARKET”

- The objective of the Smart Growth programme is to change this situation by encouraging companies to spend more on R&D and implementations. This will result in creating new job and in placing of innovative products and services on the market. They will contribute to an increase in innovation and competitiveness of the Polish economy.
- 12,000 – the minimum number of companies which will receive support for conducting research and implementing innovation,
- 20,500 – the minimum number of jobs to be created thanks to support under SG OP EUR,
- EUR 4.4 billion – the amount that the companies will additionally allocate for research and innovation from their own resources.

Smart Growth Programme - “FROM IDEA TO MARKET”

INNOVATIVE ECONOMY 2007–2013	SMART GROWTH 2014–2020
Supporting the innovativeness of enterprises to a large extent in the form of purchase of ready technologies	Investments of companies in R&D and creation of innovations
Numerous support instruments for infrastructure investments in the area of research	New infrastructure is financed to a lesser extent
Low share of instruments directly supporting the cooperation between science and business	Priority of cooperation between science and business – significantly greater focus of research projects on the needs of the economy
Limited use of financial instruments	Wider use of financial instruments (capital entries, loans, guarantees)
Support for development of BEI (business environment institutions) potential (infrastructure, services, networking, cluster development) Concentration of support on professionalisation of innovation-oriented services provided by BEI	Concentration of support on professionalisation of innovation-oriented services provided by BEI
Low level of concentration of support on priority areas	Focus on smart specialisations
Instruments for digitisation of administration, society and economy	Support for digitisation under a separate programme (Digital Poland OP)
Support for tourist projects	Lack of support dedicated to tourist industry

Which SG OP measures provide support for research and development?

Name of measure/sub-measure	Who is it for?
Sub-measure 1.1.1 **Industrial research and development work implemented by enterprises** (competition projects)	Enterprises
Sub-measure 1.1.2 **R&D work related to manufacturing a pilot/demonstration installation** (competition projects)	Enterprises
Measure 1.2 **Sectoral R&D programmes** (competition projects)	Enterprises, consortia of enterprises

Which SG OP measures provide support for implementing the results of R&D work?

Name of measure/sub-measure	Who is it for?
Sub-measure 3.2.1 **Research for the market** (competition projects	Micro, small and medium-sized enterprises
Sub-measure 3.2.2 **Technology innovation credit** (competition projects)	Micro, small and medium-sized enterprises
Sub-measure 3.2.3 **Guarantee fund to support innovative enterprises** (financial instrument)	Micro, small and medium-sized enterprises

Which SG OP measures provide support for purchase of research infrastructure?

Name of measure/sub-measure	Who is it for?
Measure 2.1 **Support for investments in R&D infrastructure of enterprises** (competition projects)	Enterprises
Measure 4.2 **Development of modern research infrastructure of the science sector** (competition projects)	Scientific entities, consortia of scientific entities, consortia of scientific entities and enterprises

Which SG OP measures support the provision of pro-innovation services?

Name of measure/sub-measure	Who is it for?
Sub-measure 2.3.1 **Pro-innovation BEI services for SMEs** (competition projects)	Micro, small and medium-sized enterprises
Sub-measure 2.3.2 **Innovation vouchers for SMEs** (competition projects)	Micro, small and medium-sized enterprises
Sub-measure 2.3.3 **Internationalisation of Key National Clusters** (competition projects)	Coordinators of Key National Clusters, Members of Key National Clusters
Sub-measure 2.3.4 **Protection of industrial property** (competition projects)	Micro, small and medium-sized enterprises

Which SG OP measures provide support for technology transfer?

Name of measure/sub-measure	Who is it for?
Measure 2.2 **Open innovation – support for technology transfer** (non-competition project; financial instrument)	Micro, small and medium-sized enterprises

Which SG OP measures provide support for export and international promotion?

Name of measure/sub-measure	Who is it for?
Sub-measure 3.3.1 **Polish tech-bridges** (non-competition projects)	Micro, small and medium-sized enterprises
Sub-measure 3.3.3 **Support for SMEs in the promotion of Polish product brands – Go to Brand** (competition projects)	Micro, small and medium-sized enterprises

Which SG OP measure supports personnel development?

Name of measure/sub-measure	Who is it for?
Measure 4.4 **Increasing the human potential in R&D sector** (non-competition project)	scientific entities, entrepreneurs, scientists, students, PhD students, special purpose entities, academic technology transfer centres

Which SG OP measures will finance the International Research Agendas?

Name of measure/sub-measure	Who is it for?
Measure 4.3 **International Research Agendas** (non-competition project)	Scientific entities, scientists

FINANCING INNOVATION UNDER SG OP

“From idea to market” financing innovation under the Smart Growth programme

- PURCHASE OF EQUIPMENT
- PRO-INNOVATION SERVICES
- PERSONNEL DEVELOPMENT
- CREATION OF SPIN-OFF COMPANIES AND FINANCING OF START-UPS BASED ON INNOVATIVE PROJECTS/IDEAS
- COOPERATION BETWEEN BUSINESS AND SCIENCE

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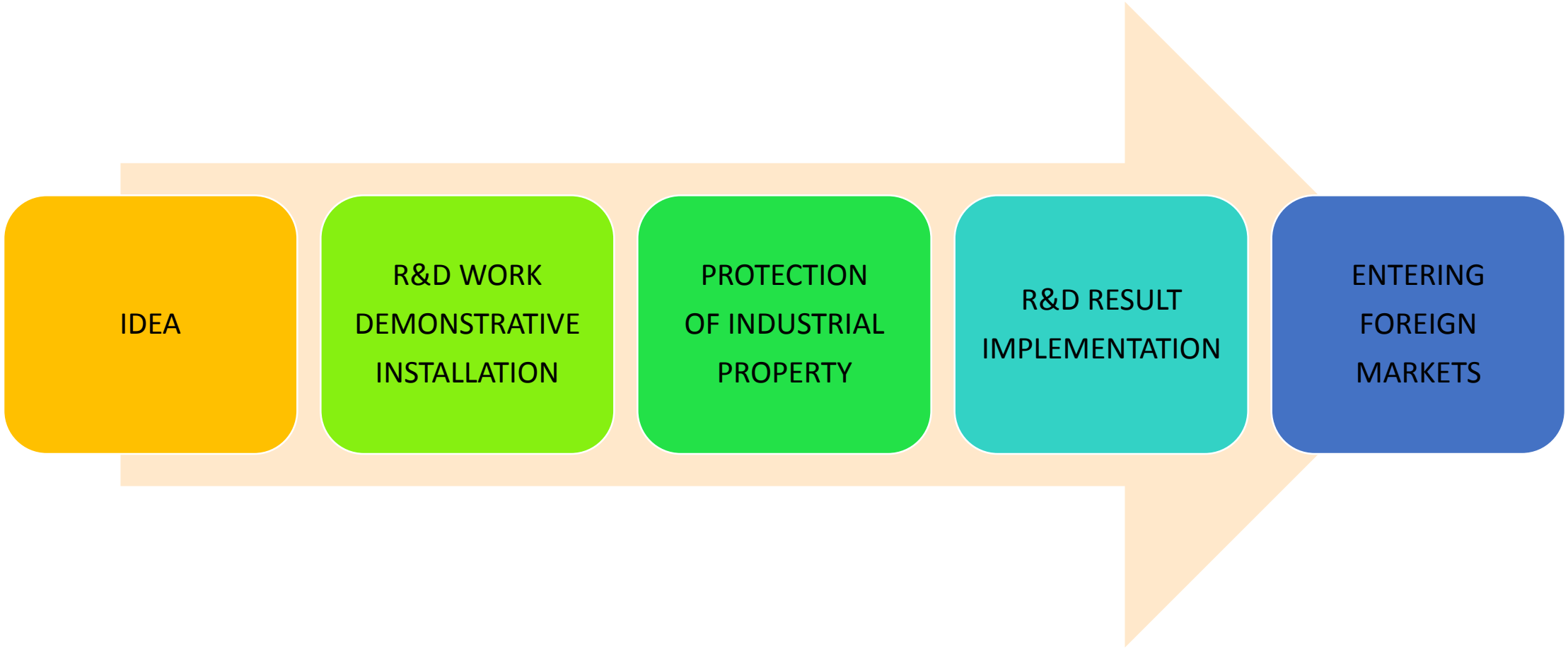
FINANCING INNOVATION UNDER SG OP

Innovation creation process



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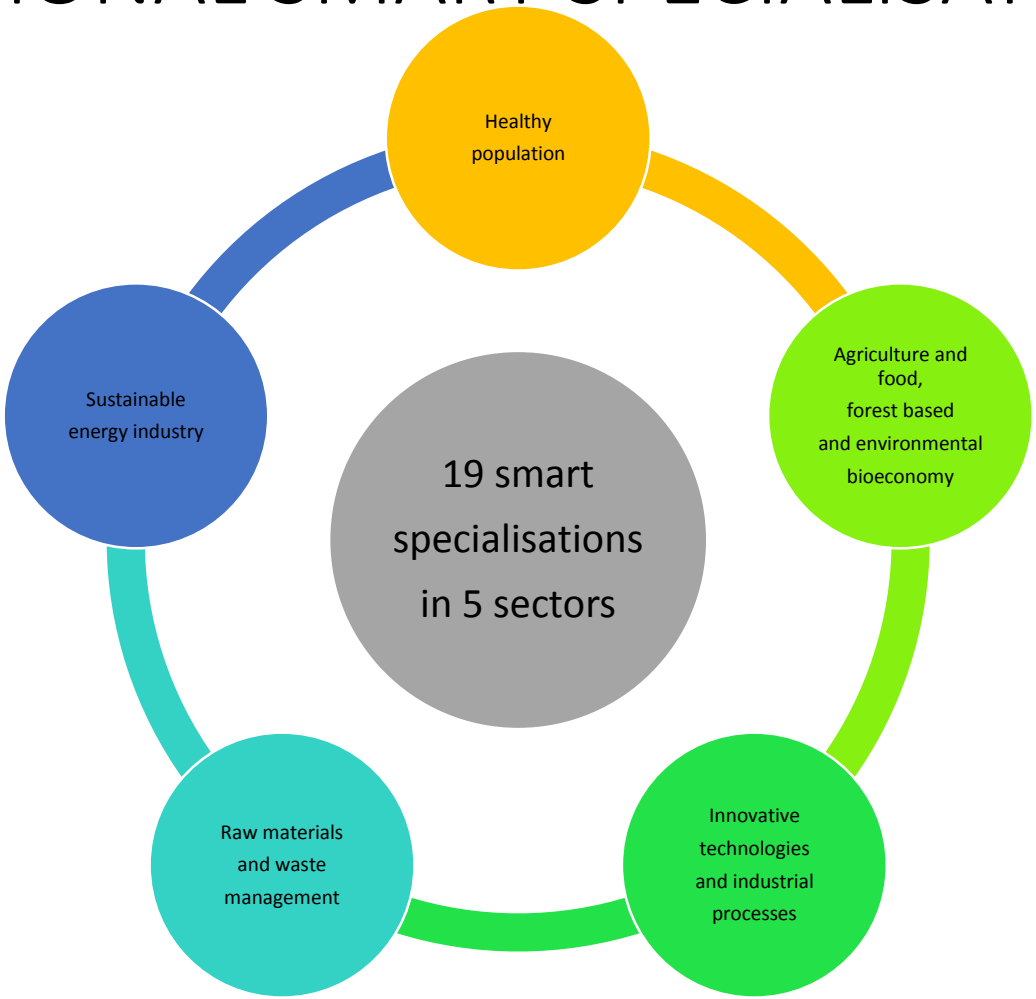
NATIONAL SMART SPECIALISATION

The smart specialisation strategy identifies the areas where the state or a given region may gain a competitive advantage in research and development and innovation.

Thanks to cooperation between companies, scientists and institutions involved in supporting the R&D, the document entitled “National Smart Specialisation” (NSS) identifies 19 areas in which Poland could specialise.

NATIONAL SMART SPECIALISATION



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International R&D programs (HORIZON 2020)

Key challenge: to stabilise to the financial and economic system while taking measures to create economic opportunities

1. Smart & inclusive growth (€451 billion)
2. Sustainable growth, natural resources (€373 billion)
3. Security and citizenship (€16 billion)
4. Global Europe (€58 billion)
5. Administration (€61.6 billion)

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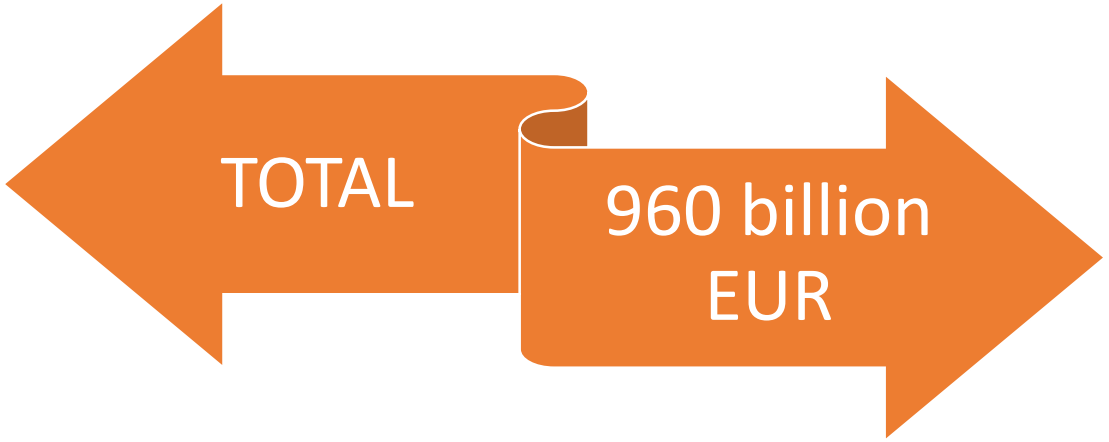
HORIZON 2020



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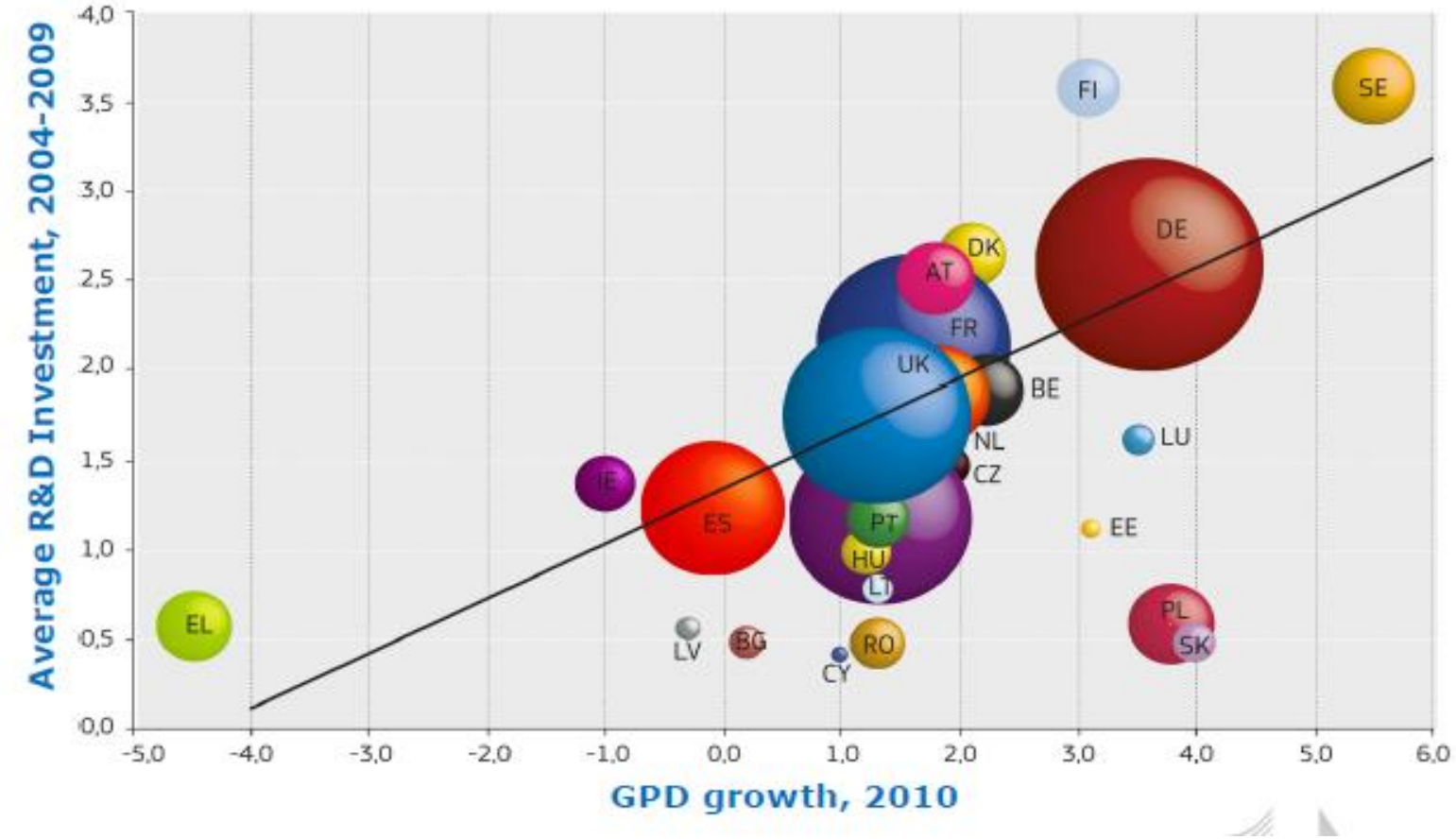
Investment in R&D is part of the solution to exit from the economic crisis



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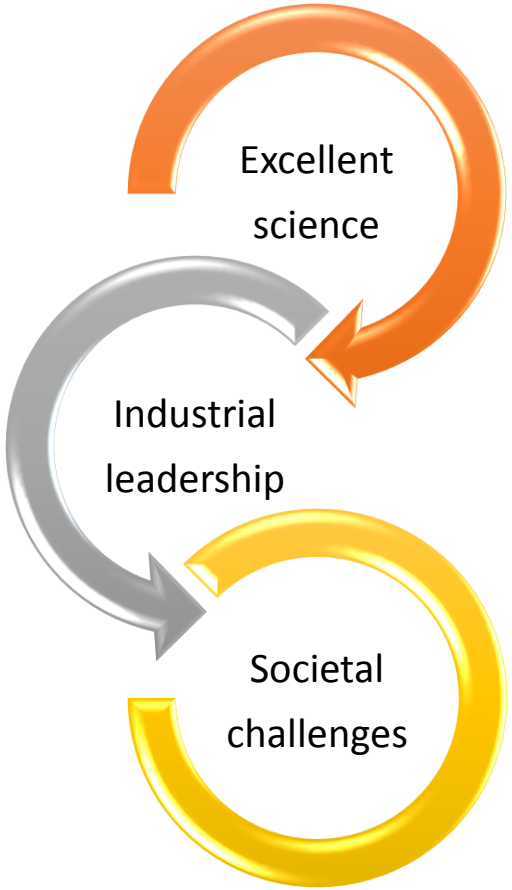
What is HORIZON 2020?

Initial Commission proposal for a €80 billion research and innovation funding programme (2014-2020); now just over €70 billion

A core part of Europe 2020, Innovation Union & European Research Area:

- Responding to the economic crisis to invest in future jobs and growth
- Addressing people's concerns about their livelihoods, safety and environment
- Strengthening the EU's global position in research, innovation and technology

Three priorities



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Priority 1. Excellent science

Why??:

- World class science is the foundation of tomorrow's technologies, jobs and wellbeing
- Europe needs to develop, attract and retain research talent
- Researchers need access to the best infrastructure

Priority 1. Excellent science - funding

European Research Council (ERC) - Frontier research by the best individual teams

Future and Emerging Technologies - Collaborative research to open new fields of innovation

Marie Skłodowska-Curie actions (MSCA) - Opportunities for training and career development

Research infrastructure (including e-infrastructure) Ensuring access to world-class facilities

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Priority 2. Industrial leadership

Why??:

- Strategic investments in key technologies (e.g. advanced manufacturing, micro-electronics) underpin innovation across existing and emerging sectors
- Europe needs to attract more private investment in research and innovation
- Europe needs more innovative small and medium-sized enterprises (SMEs) to create growth and jobs

Priority 2. Industrial leadership - founding

Leadership in enabling and industrial technologies (LEITs)

(ICT, nanotechnologies, materials, biotechnology, manufacturing, space)

Access to risk finance

Leveraging private finance and venture capital for research and innovation

Innovation in SMEs

Fostering all forms of innovation in all types of SMEs

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Priority 3. Societal challenges

Why??:

- Concerns of citizens and society/EU policy objectives (climate, environment, energy, transport, etc) cannot be achieved without innovation
- Breakthrough solutions come from multi-disciplinary collaborations, including social sciences & humanities
- Promising solutions need to be tested, demonstrated and scaled up

Priority 3. Societal challenges - founding

Health, demographic change and wellbeing

Food security, sustainable agriculture, marine and maritime research & the Bioeconomy

Secure, clean and efficient energy; Smart, green and integrated transport

Climate action, resource efficiency and raw materials

Inclusive and reflective societies; Secure societies

Science with and for society; Spreading excellence and widening participation

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Horizon 2020 and partnering

Public private partnerships:

- Through Joint Technology Initiatives or other formal structures (Art. 187)
- Through contractual agreements, which provide inputs for work programmes
- Only when criteria met, e.g. clear commitments from private partners

Public public partnerships:

- Through « ERA-Nets » for topping up individual calls/actions (replacing current ERA-Net, ERA-Net Plus, Inco-Net, Inno-net)
- Through participation in joint programmes between Member States (Art. 185)
- Supporting agendas of Joint Programming Initiatives when in line with Horizon 2020
- Only when criteria met, e.g. financial commitments of participating countries

- **European Innovation Partnerships:**
- Not funding instruments, but for coordination with broader policies and programmes

HORIZON 2020 – Information

- **Horizon 2020 website**

http://ec.europa.eu/programmes/horizon2020/en

- **Participant Portal**

http://ec.europa.eu/research/participants/portal/desktop/en/home.html

Enterprise Europe Network (EEN)

The Enterprise Europe Network helps businesses innovate and grow on an international scale. It is the world's largest support network for small and medium-sized enterprises (SMEs) with international ambitions.

The Network is active in more than 60 countries worldwide. It brings together 3,000 experts from more than 600 member organisations – all renowned for their excellence in business support.

Member organisations include:

- technology poles
- innovation support organisations
- universities and research institutes
- regional development organisations
- chambers of commerce and industry
- Individual businesses can't become Network members, but they can enjoy the many services offered.

https://www.youtube.com/user/enterpriseeurope