

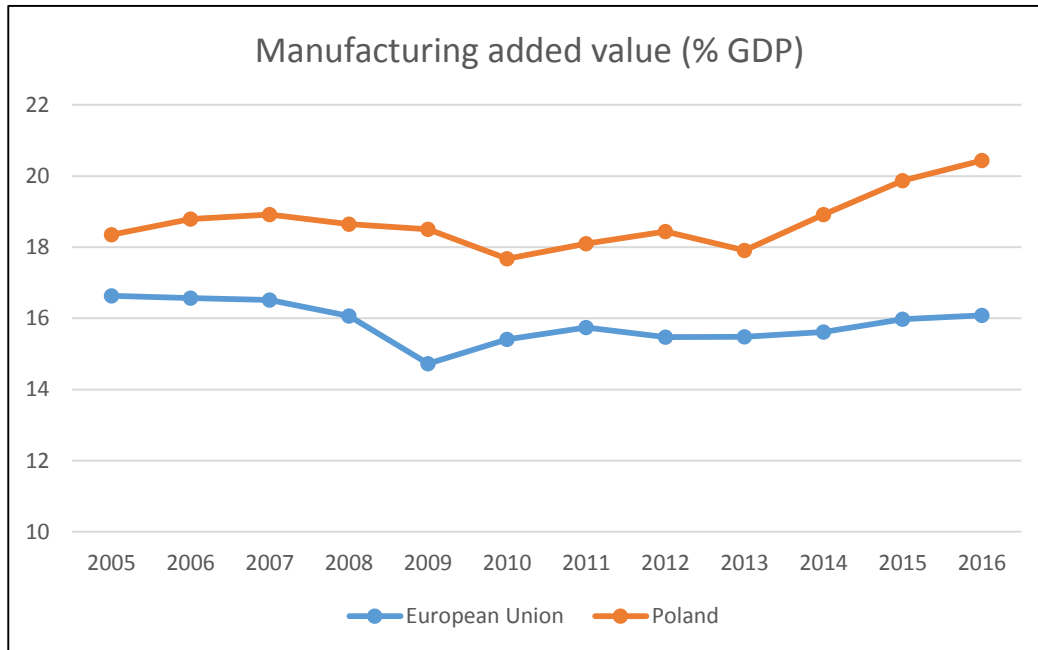
POLAND ON THE WAY TO INDUSTRY 4.0

EXISTING PRECONDITIONS AND UNDERTAKEN MEASURES

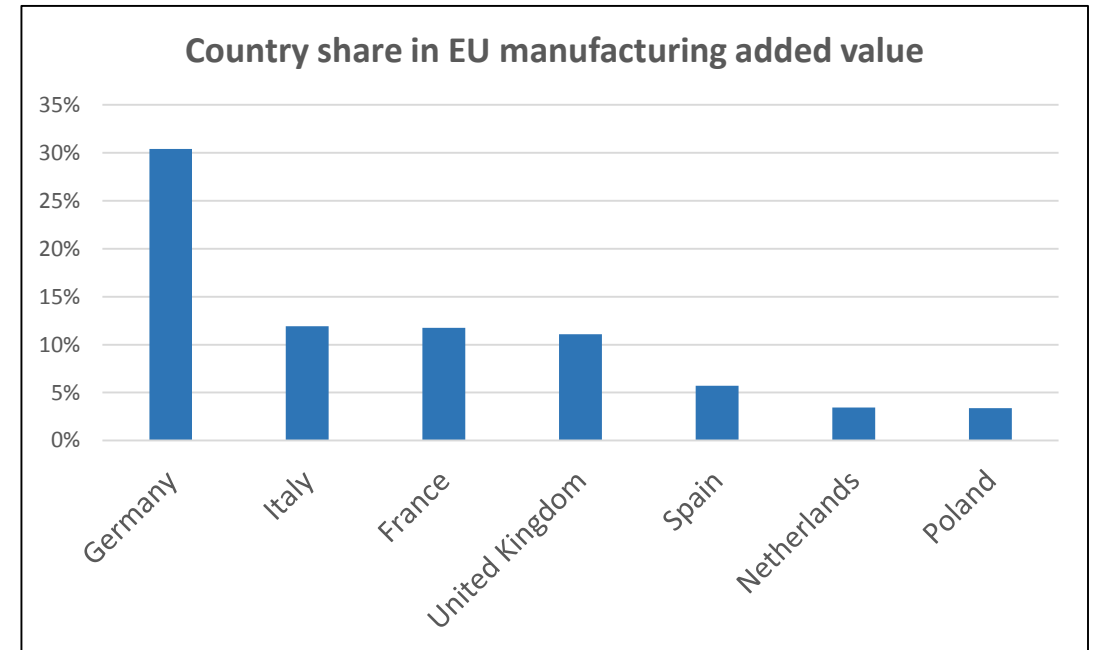
Andrzej Soldaty



Manufacturing value added (% of GDP)



Source : OECD Data

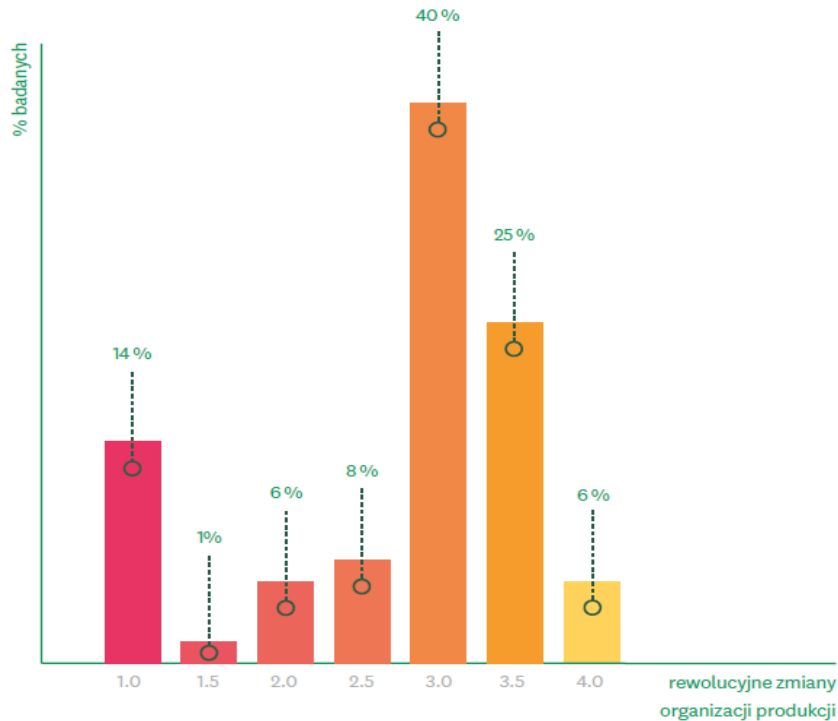


Source : Eurostat

In comparison to other EU countries, industry has strategic significance for Poland's development. High share of manufacturing in total added value proves its substantial role in the Polish economy.

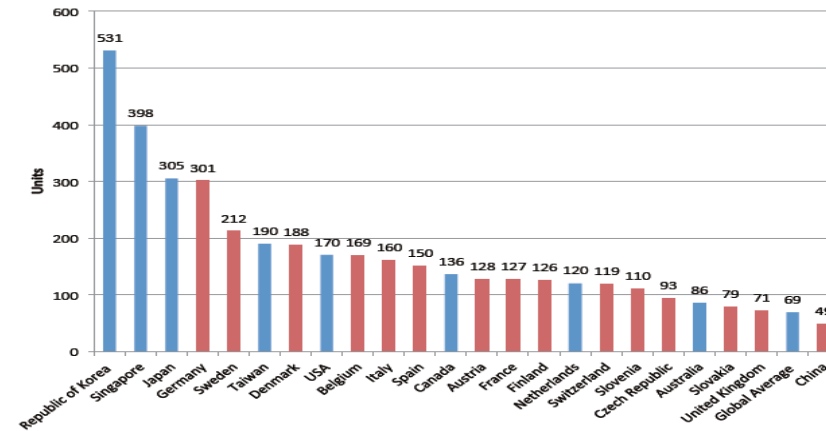
Technological advancement of Polish manufacturing sector

Q: „Which industrial revolution would best describe solutions used in your organisation?”



About 1/3 of Polish firms do not use solutions of the Third Industrial Revolution..

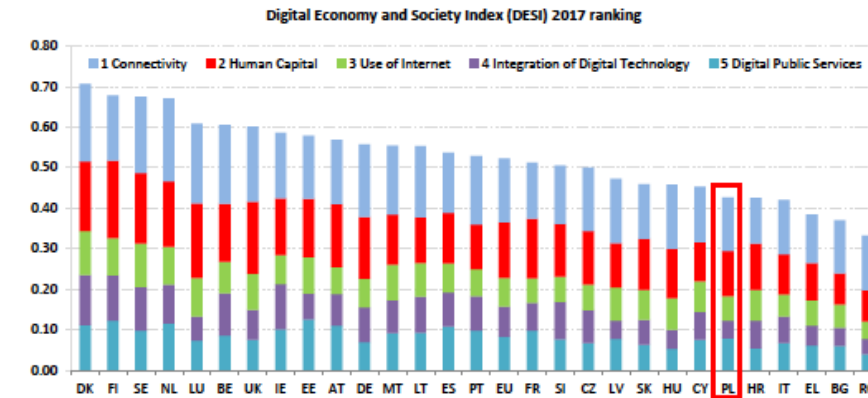
LEVEL OF ROBOTISATION



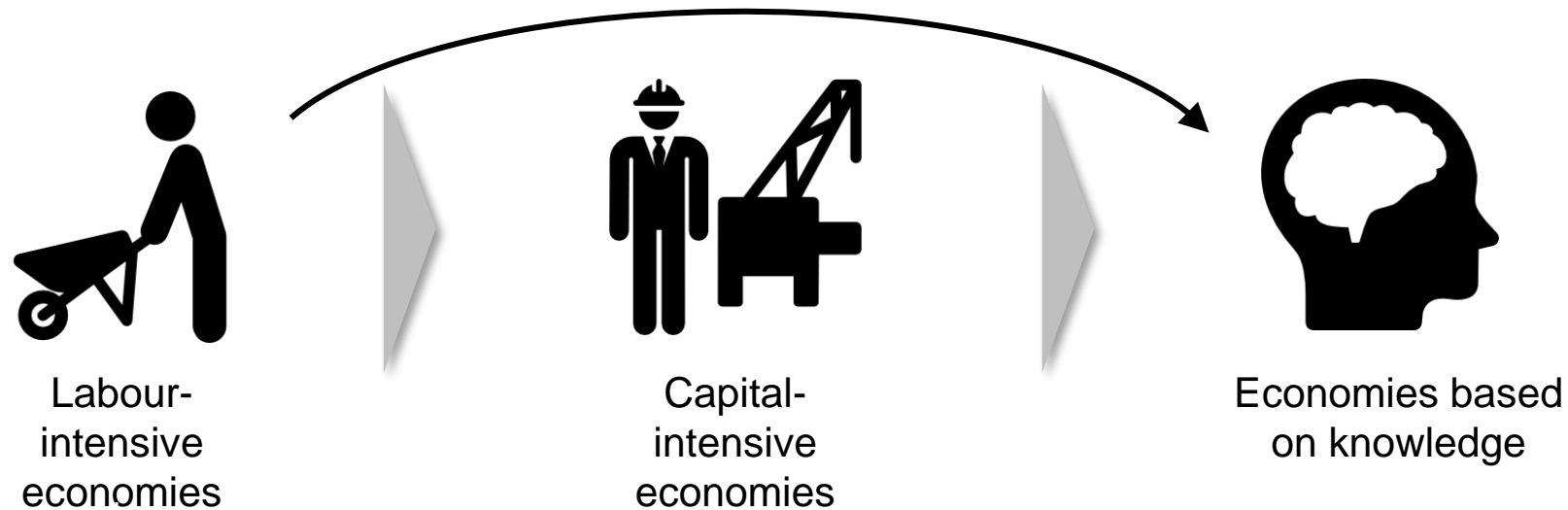
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Source: World Robotics Report 2016, International Federation of Robots

LEVEL OF DIGITALISATION

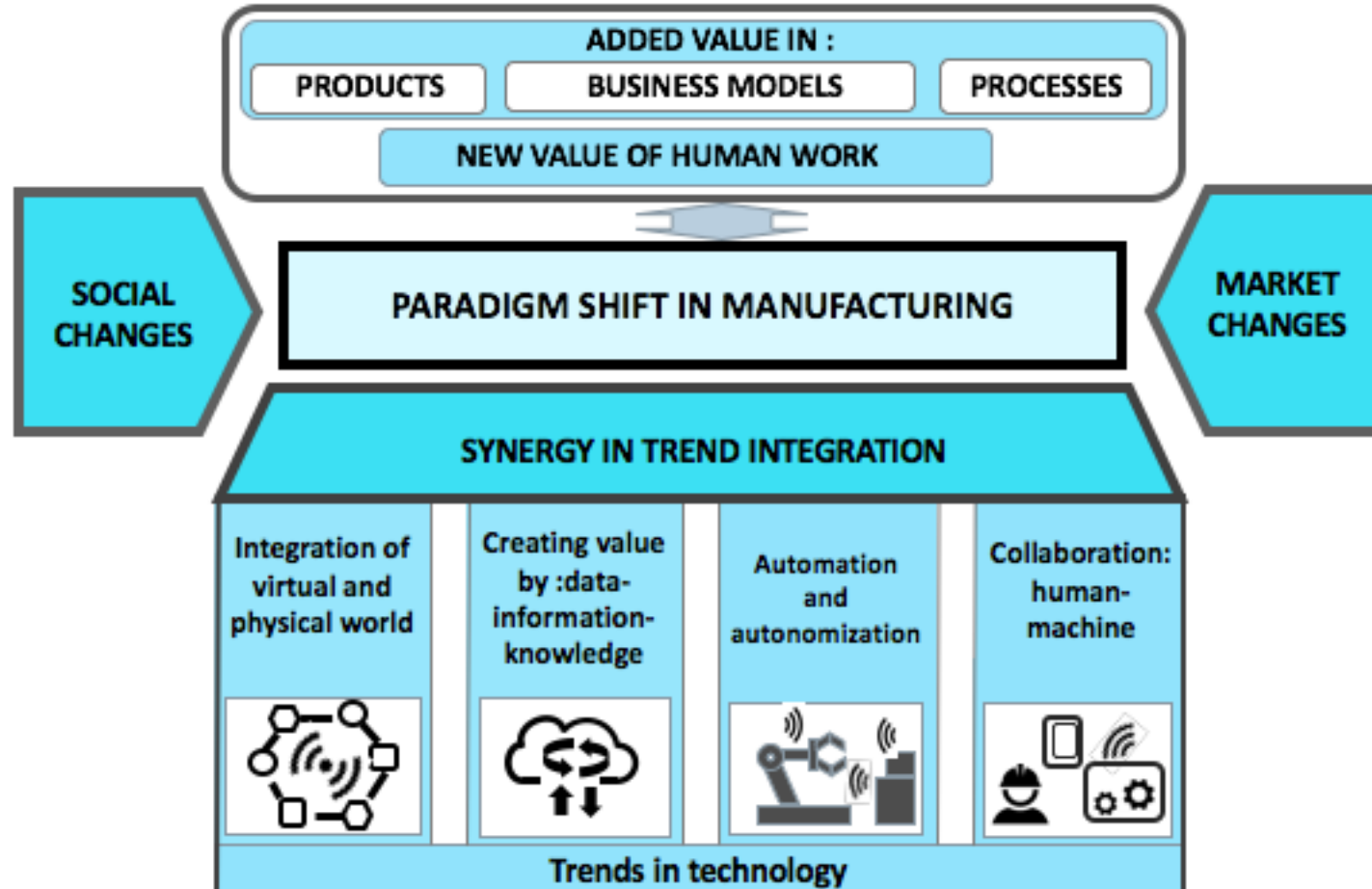


Reindustrialization \Leftrightarrow transformation



- For many years Polish economy has been based on abundant and low cost labour.
- Most advanced economies went through the industrial transition process gradually.
- **How catching-up economy omitted by the wave of automation can leap forward?**

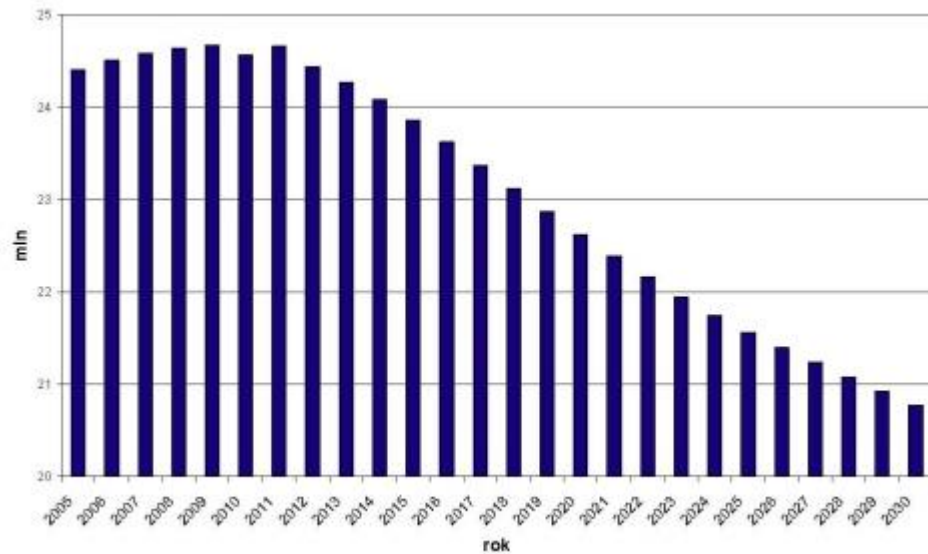
Drivers of transformation in manufacturing



Source: Andrzej Soldaty

Social and market trends- examples

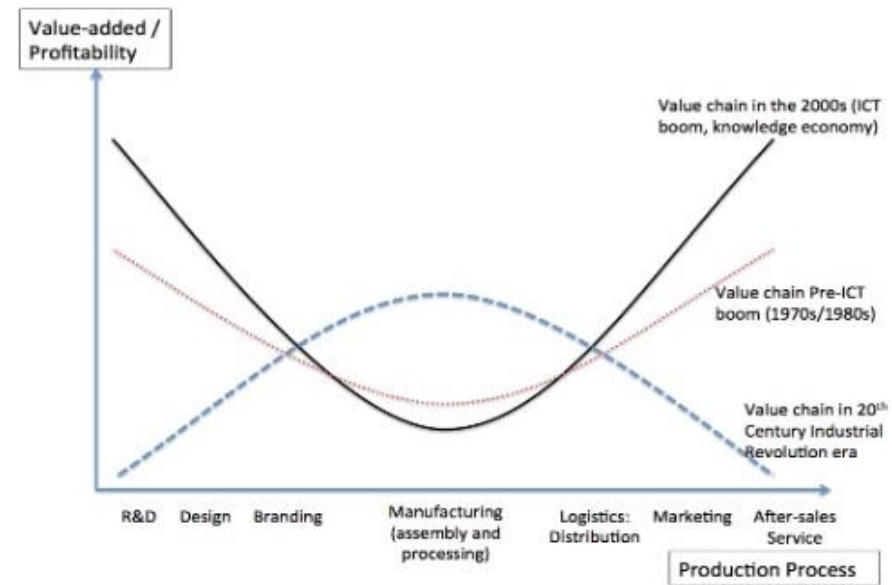
Changes in demography



Working age population projection until 2030

Source: Central Statistical Office of Poland

Changes in profitability in value chain



Source: G.Gereffii Duke University

Awareness of benefits related to Industry 4.0

Q: What benefits can be linked with implementation of Industry 4.0 concept?

Avoid downtime with predictive maintenance

Improve quality of products

Better assets utilization

Additional revenue with new business model

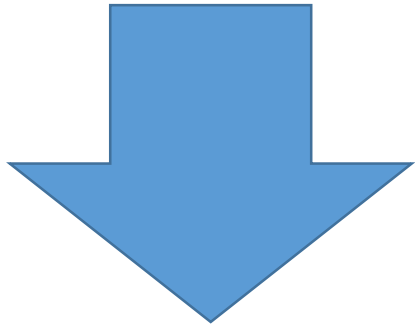
Higher profitability with customized products

Growth of sales with niche products

Transparency of market needs

Source: Survey of managers and engineers in manufacturing sector made by Initiative for Polish Industry 4.0

Initiatives for stimulation of transformation

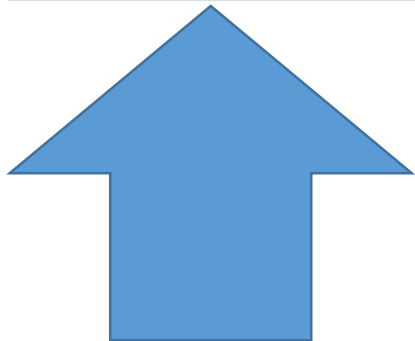


MINISTRY
OF ECONOMIC
DEVELOPMENT

Responsible Development Plan

- **Strategic Area: Reindustrialization**
- **Strategic project: Development of infrastructure and competency for Industry 4.0**

TRANSFORMATION OF POLISH MANUFACTURING SECTOR



Inicjatywa dla polskiego
przemysłu 4.0
Initiative for Polish Industry 4.0

Open panel for people who would like to get involved in the topic of Industry 4.0 in Poland by:

- **Sharing experience**
- **Recommendations**
- **Integration**

Activities on the way to transformation

INDUSTRIAL TRANSFORMATION TEAM and 6 working groups within the team established by the Minister of Economic Development

06.2016

Phase I

- Identification of stakeholders & market recognition
- Concept of transformation

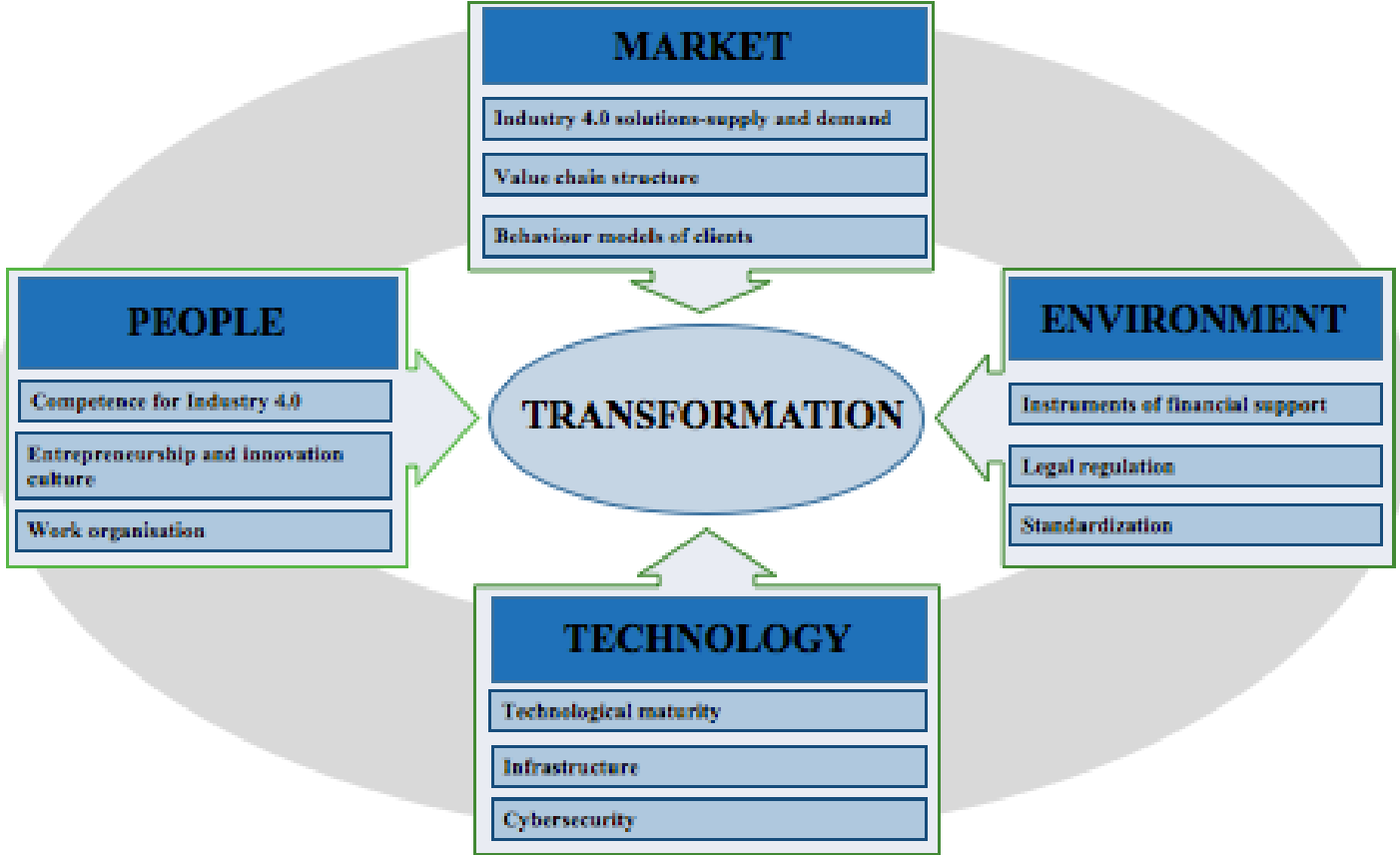
07.2016 – 05.2017

Phase II - Future Industry Platform project

- Identification of the transformation circumstances & recommendations for action
- Preparation for starting Future Industry Platform

06.2017- ongoing

Analysis of transformation circumstances



Source: Andrzej Soldaty

From diagnosis to recommendation - examples



<p>TECHNOLOGY Technological advancement of the industry</p>	<p>Poland ranks 64 (out of 137)* in terms of the availability of the latest technologies.</p>	<p>.To what extent price is the barrier and what are other factors that reduce this availability? .What is the ratio of imported technologies to the ones produced domestically?</p>	<p>The need for creation of instruments facilitating the access and understanding the new technologies</p>
<p>LEGAL ENVIRONMENT</p>	<p>Poland ranks 118 (out of 137)* in terms of efficiency of legal framework in challenging regulations</p>	<p>.How does information flow between business and decision-makers? .How efficient is the dialogue between the industry and the government?</p>	<p>We should make sure that the regulatory environment support the industry in its transformation and the business voice is heard by the decision -makers</p>

From diagnosis to recommendation - examples



COMPETENCE Work organization	Poland ranks 66 (out of 137)* when it comes to the efficiency in use of talents	<ul style="list-style-type: none"> •What is the reason of brain drain in Poland? •What motivates / demotivates talents in present work organisation 	There is a strong need to promote and implement new models of work organisation
MARKET Models of customers behaviour	In 2016 only 42% customers did online shopping in the 12 months prior to the survey compared to 55% in the EU	•What are the factors affecting online activity of consumers in Poland (skills, trust, internet access?)	The need to promote new customer- oriented business models

Future Industry Platform

- **A successful industrial transition demands a team that serves as a body of varied coordinating functions .**
- **This role will take new public institution : Future Industry Platform –which will be establish as a Government sponsored foundation**
- **The Platform will undertake a number of activities supporting industrial transformation**
- **Starting from public funding, the Platform will aim at commercialise its services, switching to private funding.**
- **The autonomous organisation will be able to create its own image, make fast decisions and combine activities at the verge of public and private sector.**

Future Industry Platform - Market values

INFORMATION

Sharing knowledge about most advanced technologies, standards, regulations and use cases

INTEGRATION

Combining the interests of different stakeholders in the field of industrial transformation; mediating in cooperation

INNOVATION

Delivering services increasing productivity and innovativeness of the companies (Virtual Competence Center, Engineer Tool Platform)

DEMONSTRATION

Virtual and physical presentation of the Industry 4.0 technologies

CONSULTING

Individual consulting including business models and technology application

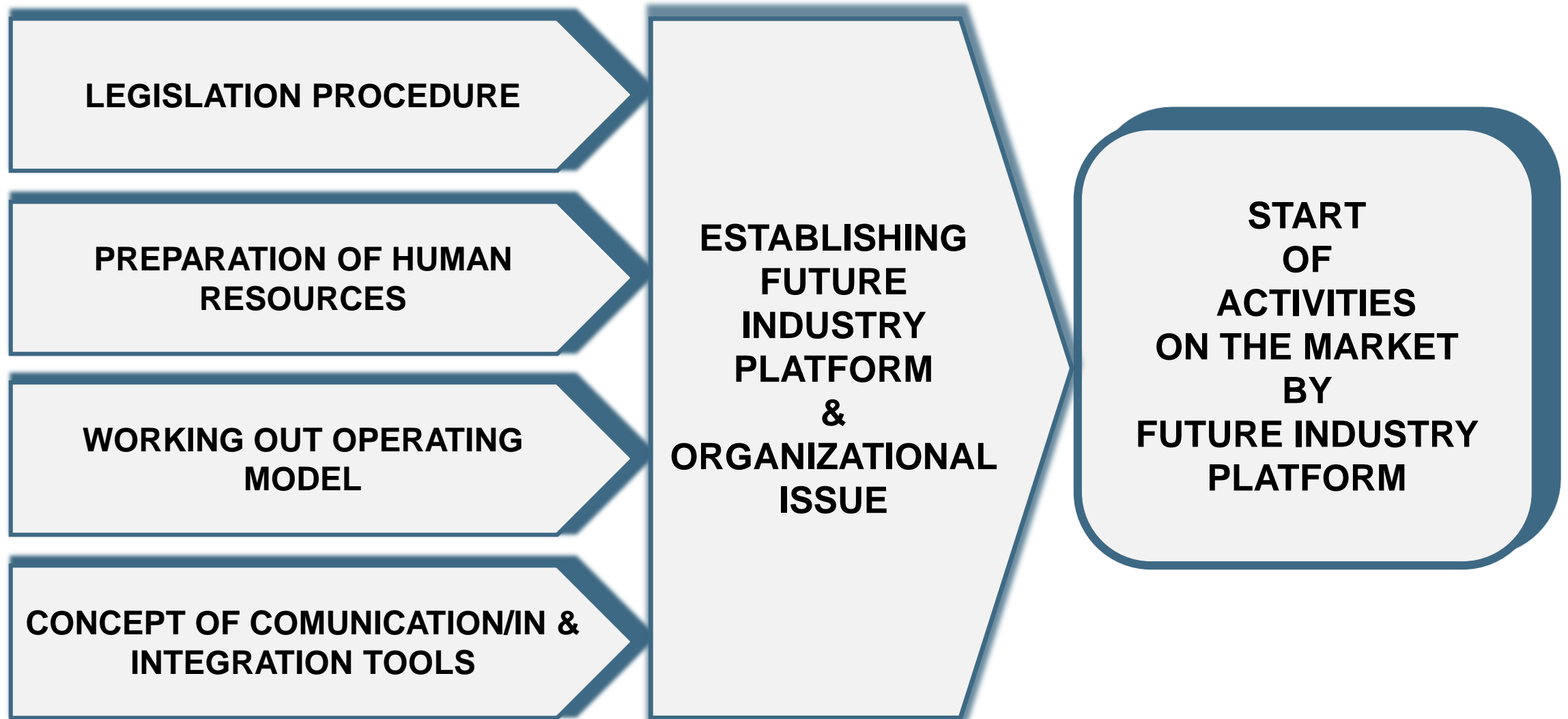
EDUCATION

Trainings for companies and vocational education teachers

OPINION

Giving opinions on legislation, proposing R&D directions, designing changes in education programmes

Timetable for Future Industry Platform



Thank you for your attention

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