POLAND ON THE WAY TO INDUSTRY 4.0

EXISTING PRECONDITIONS AND UNDERTAKEN MEASURES

Andrzej Soldaty
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


LEVEL OF DIGITALISATION

Digital Economy and Society Index (DES) 2017 ranking
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

Changes in profitability in value chain

Working age population projection until 2030

Source: Central Statistical Office of Poland

Source: G. Gereffi, Duke University
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
TRANSFORMATION OF POLISH MANUFACTURING SECTOR

Responsible Development Plan
- Strategic Area: Reindustrialization
- Strategic project: Development of infrastructure and competency for 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

Phase I
- Identification of stakeholders & market recognition
- Concept of transformation

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

06.2016
07.2016 – 05.2017
06.2017 - ongoing
Analysis of transformation circumstances

Source: Andrzej Soldaty
## From diagnosis to recommendation - examples

<table>
<thead>
<tr>
<th>Area of analysis</th>
<th>Where we are</th>
<th>Why are we there</th>
<th>What should be done to change it</th>
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| **TECHNOLOGY**     | Poland ranks 64 (out of 137)* in terms of the availability of the latest technologies. | • 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? | The need for creation of instruments facilitating the access and understanding the new technologies                                                                                                                   |
| Technological advancement of the industry |                                                                                                                                      |                                                                                                                                                                                                               |                                                                                                                                                                                                                             |
| **LEGAL ENVIRONMENT** | Poland ranks 118 (out of 137)* in terms of efficiency of legal framework in challenging regulations | • How does information flow between business and decision-makers?  
• How efficient is the dialogue between the industry and the government? | We should make sure that the regulatory environment support the industry in its transformation and the business voice is heard by the decision-makers                                                                 |
|                     |                                                                                                                                      |                                                                                                                                                                                                               |                                                                                                                                                                                                                             |
## From diagnosis to recommendation - examples

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<td>COMPETENCE</td>
<td>Poland ranks 66 (out of 137)* when it comes to the efficiency in use of talents</td>
<td>•What is the reason of brain drain in Poland? •What motivates / demotivates talents in present work organisation</td>
<td>There is a strong need to promote and implement new models of work organisation</td>
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<tr>
<td>Work organization</td>
<td></td>
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<tr>
<td>MARKET</td>
<td>In 2016 only 42% customers did online shopping in the 12 months prior to the survey compared to 55% in the EU</td>
<td>•What are the factors affecting online activity of consumers in Poland (skills, trust, internet access?)</td>
<td>The need to promote new customer-oriented business models</td>
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<td>Models of customers behaviour</td>
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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

<table>
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<tr>
<th>INFORMATION</th>
<th>DEMONSTRATION</th>
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<tbody>
<tr>
<td>Sharing knowledge about most advanced technologies, standards, regulations and use cases</td>
<td>Virtual and physical presentation of the Industry 4.0 technologies</td>
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<th>CONSULTING</th>
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<td>Combining the interests of different stakeholders in the field of industrial transformation, mediating in cooperation</td>
<td>Individual consulting including business models and technology application</td>
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<th>OPINION</th>
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<td>Delivering services increasing productivity and innovativeness of the companies (Virtual Competence Center, Engineer Tool Platform)</td>
<td>Trainings for companies and vocational education teachers</td>
<td>Giving opinions on legislation, proposing R&amp;D directions, designing changes in education programmes</td>
</tr>
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</table>
Timetable for Future Industry Platform

- Legislation Procedure
- Preparation of Human Resources
- Working Out Operating Model
- Concept of Communication/Integration Tools

Establishing Future Industry Platform & Organizational Issue

Start of Activities on the Market by Future Industry Platform
Thank you for your attention

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