



Harnessing the benefits of digital transformation from the perspective of state

 DEPUTY PRIME MINISTER'S OFFICE
FOR INVESTMENTS
AND INFORMATIZATION
OF THE SLOVAK REPUBLIC

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Preparing for a Digital World

- Reflecting global megatrends and evolution
- Transformation towards an increasingly digital economy and society
- Digital technologies and data fundamentally change how people live and work
- Key digital trends: artificial intelligence, blockchain, internet of things, 5G connection, big data, high performance computing
- Great asset to increase growth for businesses and improve well-being for citizens
- New challenges and concerns including jobs and skills, privacy and security, social and economic interaction & social inequality
- Window for opportunity to rightly shape digitization of society and economy in order to fully grasp its potential: preparing strategies and regulations, direct investments, support of innovations and R&D

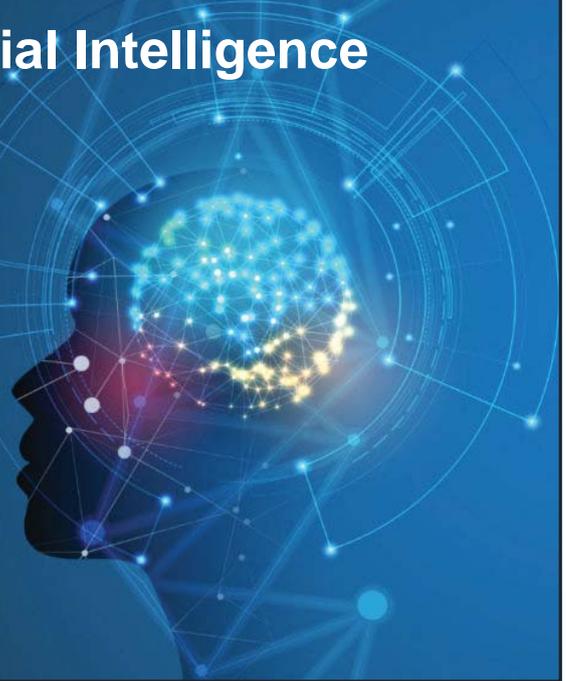
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Rising Power of Artificial Intelligence

- machines or algorithms that are capable of observing its environment, learning and based on the knowledge and experience gained, take intelligent actions or propose decisions
- AI can significantly improve people's life and bring major benefits to our society and economy: better healthcare, more efficient public administration, safer transport, more competitive industry, sustainable farming and so further
- However, there are also related challenges including cybersecurity, eprivacy, impact on jobs, mismatch of skills & education, human behaviour, core values, societal systems, etc.



Robots vs. humans: Who will win the fight for the jobs?

JOBS



The importance of soft skills: cooperation, communication, creativity and critical thinking

The EU Coordinated Plan on the development and use of Artificial Intelligence

➤ EUROPEAN APPROACH ON AI (April 2018):

1. **Boosting Europe's scientific base, technological know-how and industrial capacity**
2. **Preparing for socio-economic changes brought by AI**
3. **Ensuring an appropriate ethical and legal framework**

➤ COORDINATED PLAN ON AI (December 2018):

- the importance of **fostering the development and use of trustworthy Artificial Intelligence technologies and applications (ethical and secure by design)**
- developing and implementing **new research and innovation partnerships between industry and academia, adapting learning and skilling programmes and systems**
- **building up essential capacities in Europe underpinning AI such as data spaces and world-class reference sites for testing and experimentation**
- **promoting the use of AI in the public sector, reviewing the existing national and European legal framework to better adapt them to specific challenges**

OECD Artificial Intelligence Strawman Proposal

- Ambition to propose to OECD's member states policy declaration concerning the AI and its peaceful use within the society
- AI Strawman Proposal → setting-up general principles for AI in society & principles for AI policy making

➤ GENERAL PRINCIPLES:

- **Inclusive and sustainable growth and well-being**
- **Human-centered values**
- **Awareness, disclosure and understanding**
- **Robustness and safety**
- **Risk management**
- **Responsibility**

➤ PRINCIPLES FOR AI POLICY MAKING

- **Stewardship and whole of society dialogue**
- **Research and innovation**
- **Access to digital technologies and data**
- **Capacity building**
- **Governance and ethical oversight**
- **International Cooperation**

- ✓ **How to benefit from the Digital Single Market & Innovative Technologies in order to boost regional competitiveness**
- ✓ **Slovakia's ambition to become a regional leader in data economy**
- ✓ **Slovakia as a testbed country for the application of innovative & disruptive business solutions**
- ✓ **Accelerating digitization and convergence towards a tech-driven economy can unlock growth potential of EUR 16,1 billion additional GDP, equivalent to 19% of Slovak GDP in 2016**
- ✓ **Core goal to accelerate ongoing processes within the EU's Digital Single Market and to focus on new priorities including disruptive technologies**
- ✓ **Action Plan contains the particular tasks and activities related to digital agenda**



MAIN PRIORITIES:

- *improving of education with a **special focus on digital skills and competences***
- *implementing of **Data-driven state with a smart labs for testing innovations and new regulatory approaches***
- *enabling of the **European Digital Innovation Hubs** to become a central instrument of digital transformation of the regions*
- *supporting the creation of national **AI ecosystem**, working towards **innovative public private partnerships** and **innovative public procurement***
- *supporting **SMEs** in a process of digital transformation & **applying AI solutions to their business models***
- *fostering **Fintech** solutions having a special focus on **blockchain** technology*

Action Plan of the Digital Transformation Strategy in Slovakia (2019 - 2022)



Visegrad4 approach towards the digital transformation

SK

HU

PL

CZ

Strategy of Digital Transformation of the SR

Strategy of the Smart Industry

In preparation:

Labour 4.0

Informatization of Education Programme 2030

Digital Success Programme
Hungarian Digital Education Strategy

Hungarian Digital Export Development Strategy

Hungarian Digital Start Up Strategy

INDUSTRY 4.0 Platform

Digital Labour Force Programme

Responsible Development Plan ('Morawiecki Plan')

Strategic Action Priorities of the Minister of Digital Affairs in Computerization of Public Services

Strategic European Action Priorities of the Minister of Digital Affairs

Digital Czechia

Czechia in Digital Europe

Digital Economy and Society

Information Concept of the Czech Republic

DIGITAL ECONOMY AS A DRIVER FOR PROMOTING CO-OPERATION, SECURITY AND GROWTH (OSCE Declaration signed)

- ✓ Promoting an enabling environment for digital innovation in the business sector;
- ✓ Fostering competition in the digital economy;
- ✓ Bridging the digital divides, including through collaboration between higher education institutions;
- ✓ Promoting international labour standards;
- ✓ Promoting better social policies;
- ✓ Strengthening good governance and promoting connectivity;
- ✓ Upholding the rule of law and protecting human rights;
- ✓ Broadening access to digital technologies and services in all sectors of the economy;
- ✓ Exchanging experiences on digital transformation, digitalisation of government and innovative models.

- ✓ **Policy Labs**
- ✓ **Regulatory sandboxes**
- ✓ **Increasing agility through the use of technology**
- ✓ **Promoting governance innovation**
- ✓ **Crowdsourced policy-making**
- ✓ **Promoting collaboration between regulators and innovators**
- ✓ **Public-private data sharing**
- ✓ **Direct representation in governance**

EXPANDING GOVERNANCE BEYOND THE GOVERNMENT

Industry self-regulation; Super regulators; Setting ethical standards; Creating collaborative governance ecosystems; Creating transparency and trust in technology innovation

Tools for agile governance
in order to make efficient, trustworthy and future proof policies



*Source: Agile Governance Reimagining Policy-making in the Fourth Industrial Revolution , WEF, White Paper, January 2018

**OSCE Economic and Environmental Committee in 2019
- Digital Transformation perspective**

Slovakia is firmly committed to keeping the dialogue and co-operation between the participating Countries high on the OSCE agenda. We will continue the discussions on the impact of digital transformation on our economies and societies affecting the common security aspects.

We fully take note of the **Decision of OSCE on Human Capital Development in the Digital Era and the respective Declaration of OSCE on the Digital Economy.**

Participating States within the context of **digital transformation** and advances in digital economy are mostly encouraged to a number **inevitable goals, if they want to succeed**, including to supporting and development of human capital, to promoting lifelong learning, to accessing to quality education and skills upgrade, to facilitating innovative business models and investments, to examining opportunities and challenges of the new forms of employments, to improving public decision-making, and to promoting capacity-building initiatives.

Changes in the labor markets caused by digital transformation are about to widen social and economic disparities, however at the **same time they may give opportunities for the rise of digital economy**. These changes are accompanied by many security concerns and digital divide.

Slovakia will do utmost to enhance co-operation among the Participating States within the economic and environmental dimension of OSCE with a view to **fostering sustainable and inclusive economic growth and development for our societies**, including connectivity, transparency and accountability along the lines of the UN's 2030 Agenda for Sustainable Development.

Thank You

Questions?

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