

This webinar sought to share views, policy initiatives and best practices to achieve the transition to a sustainable, human-centric and resilient industry



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In the process of promoting **green industrial development** and integrating smart solutions into the digital economy, both Europe and China emphasize

- technological innovation
- humanized improvement
- green sustainability

China has launched the *14th Five-Year Plan*, which focuses on **R&D**, shortening the production cycle of products and promoting **pilot projects**. Other key topics include the stimulation of talent, building innovation centers and protecting **intellectual property**.

The policy *Made in China 2025* aims at creating a **smart manufacturing industry**.

Europe proposed the concept of "*Industry 5.0*". The goal is to reposition the role of workers, improve the utilization of industrial **energy resources**, strengthen the use of **green technology** and integrate manufacturing digitalization. Eventually, **resilient industrial chains** and supply chains need to be built.

Cooperation potentials exist on industrial parks, through university exchanges, between enterprises and on capital and funding.

What is Industry 5.0?

Industry 5.0 as a concept focuses on **comprehensive innovation** in deciding factors not only in economic or technological, but also environmental, social, and fundamental rights' dimensions.

A **sustainable, human-centric** and **resilient** industry places the production limits of the planet and the well-being of the worker at the center of the production process and uses new technologies to provide prosperity beyond jobs and growth while respecting the production limits of the planet.

Potential cooperation in R&D supporting the transition to a green and smart industry

- Internet of Things
- Industrial Software
- Robotics
- Additive Manufacturing (3D Print)
- Cloud Computing
- New Material
- Big Data Analysis
- Digital Twin
- Augmented Reality
- 5G
- Green Energy

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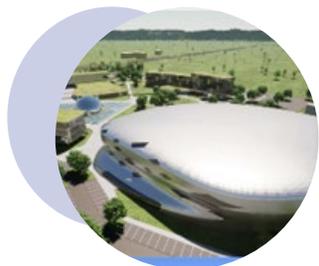
Best practices on sustainable technologies and industrial innovation

"Digitalization has greatly improved the efficiency of urban management and provided strong support for industrial development."

- Liuzhou

"Teaching is the foundation of future development."

- Bielsko Biala



Sisak Moslavina County

Sisak Moslavina County has strengthened its competitiveness in the fields of

1. Technology
2. Industry
3. Innovation

Cooperation areas within the strong gaming industry have been detected

- Systematic education and practice-oriented teaching
- Exchange of experience and best practices
- Use of **Artificial Intelligence** for game production
- Develop a safe and secure environment through **blockchain**



Guangzhou Development District

Several projects have been developed to promote industrial digital transformation. The promotion of **5G** technology, application, industry and platform in an all-round way is a key focus point.

Main goals

- Promoting high quality development of manufacturing industry
- Improving the service level of **industrial internet**
- Promoting digital application integration and innovation

Cooperation perspectives

- Strengthen intergovernmental exchanges
- Knowledge exchange on digital laws and regulations
- Exchange best practices on training talent



Sofia

Sofia shared its best practices on **energy efficiency**, digitalization, innovation and sustainability. Several pilot projects have been launched to test technological solutions related to urban challenges, which focus on environment, education, **e-government**, innovations and entrepreneurship.

Challenges

- Implementing smart urban solutions to promote a healthier future
- Utilizing **big data** to generate policies

Cooperation potential

- Strengthen capacities through sharing best practices
- Supporting smart solutions on digitalization



Wuhan

Wuhan has experience in

1. information infrastructure
2. industrial digitalization
3. software service industry

Continuous improvements on policies are carried out to advance the integration of **digital technology** in the real economy.

Focus areas in the service industry include smart logistics, **e-commerce** retail, online education, online medical care, smart tourism, online design and business exhibitions.

Cooperation areas

- Establish urban partnerships
- Policy exchange/dialogue
- Support university initiatives
- Deepen cooperation in **talent training**



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Mannheim

Mannheim is a city of inventions and innovations. Initiatives on mobility and energy have been developed, with the goal to create a **climate neutral future**.

Strengths lie in the fields of **green tech**, medical technology and a favorable **start-up ecosystem**.

Cooperation perspectives

- Support expanding tech companies
- Share **R&D** experience
- Create technological solutions to achieve climate goals
- Integrate scientific research in **new business models**



Valencia Region

Valencia Region presented strengths in **digitalization**, their start-up ecosystem, dynamic innovation and research ecosystem. Many startups specialize in AI, Big Data, **IoT** and Cloud Computing.

Keys to success include

- Educational system
- Support of the public administration
- International events

Cooperation areas

- Collaboration between innovative companies and professionals
- Support entrepreneurs and **innovative SMEs**



Chongqing Liangjiang New District

Liangjiang New District has three **innovation platforms**

1. Digital economy industrial park
 2. Collaborative innovation zone
 3. Lijia Yuelai smart park
- Focus lies on big data, industrial internet, **AI**, block chain and scientific research cooperation.

Challenges

- Strengthening **production chains**

Cooperation areas

- Building research institute platforms
- Exchange talent and knowledge



Zhengzhou

Broad experience has been gained in creating smart factories and developing digital solutions to establish a healthy **industrial ecology**.

5G plays a key role in quality checks, data collection and increasing productivity.

Strong capabilities

- Cloud computing
- Big Data
- Information system integration

Perspectives for cooperation

- Jointly enhance industry 5.0 development
- Share best practices on **governance tools**



Ljubljana Urban Region

Ljubljana shared best practices on **smart factories**, digital innovation hubs, green transformation and artificial intelligence.

Challenges

- Utilizing systems innovation to generate radical transformations in order to fight **climate change**
- Raise competitive advantages in the industry based on digitalization

Cooperation potential

- Create synergies between academia and companies
- Share systemic and strategic **AI solutions**



Liuzhou

Three key strategic sectors have been identified

1. Industrial internet
2. Smart manufacturing
3. Smart city

Several projects have been launched, such as tests on remote driving and remote operation and the promotion of unmanned logistics.

Digitalization has supported the resumption of work and production during the pandemic.

Potential for cooperation

- Exchanges on **intelligent technologies**
- Joint research on cross cutting themes
- Enhance the implementation of **carbon neutrality**



Western Greece Region

This Western Greece Region holds a leading position in advanced materials, nano-technology, microelectronics and bio-products and focuses on design, simulation, software and integrated circuits.

Challenges

Accelerate **blue economy** development to achieve smart, sustainable and inclusive growth.

Cooperation potential

- Create linkages to exchange innovation concepts
- Support relevant initiatives towards a more **sustainable industry**
- Promote exploration of Blue Growth opportunities



Beijing

Beijing **E-town** has been created to build a visionary and happy city. The *Economic-Technological Development Area* aims to enhance core technology **competitiveness** and develop a leading ecosystem of technology and innovation with focus on

1. new generation information technology
2. new energy **smart car**
3. biotechnology & big health
4. robotics & smart manufacturing

Future perspectives

- Create a "global talent attraction field"
- Link the **innovation chain**, industrial chain and supply chain system
- Improve overall capacity for the **commercialization** of scientific research



Bielsko-Biala

As a **digital innovation hub**, Bielsko-Biala has launched several projects to promote **industry 4.0** related activities. These include

- o 3D technologies
- o Artificial Intelligence
- o Augmented Reality
- o Blockchain and cyber security

Key focus lies on **education** to develop new skills and innovative ideas. Additionally, **start-ups** are being heavily supported.

Cooperation potential

- Set up common projects based on competencies
- Share best practices on **talent recognition**
- Cooperate in design, testing and production

Suggested Cooperation Directions

- Joint industrial technology activities
- Industrial policy exchange
- Technology 4.0 or Industry 5.0 or digital application case study
- Cross-border training, workshops
- Joint R&D
- Industry Park co-construction
- Technology transfer
- Industrial upgrading experience sharing
- Talent training and mentorship
- Open innovation platform cooperation
- SME joint incubation
- Joint exhibition and conference