



*This webinar explored different perspectives and methods of planning, designing and implementing a circular economy at the local level*



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## The Circular Economy in the 14th Five-year Plan of China

The plan focuses on industry, social life and agriculture.

- 1 Build a **resource recycling industrial system** and improve resource utilization efficiency by promoting green design of key products, strengthening cleaner production in key industries.
- 2 Build a **recycling system of waste materials** and build a resource recycling society by improving the recycling network of waste materials.
- 3 Deepen the development of **agricultural circular economy** and establish a circular agricultural production mode.

## The EU's new circular action plan

The action plan established concrete and ambitious actions, with measures covering the **whole life cycle**: from production and consumption to waste management and the market for secondary raw materials and a revised legislative proposal on waste.

- 1 make **sustainable products** the norm in the EU
- 2 empower **consumers** and public **buyers**
- 3 focus on the sectors that use most resources and where the potential for circularity is high such as: **electronics and ICT, batteries and vehicles, packaging, plastics, textiles, construction and buildings, food, water and nutrients**
- 4 ensure less **waste**
- 5 make circularity work for people, regions and cities
- 6 lead global efforts on circular economy

**Circular economy** can be defined as an economic system of exchange and production which aims at increasing the **efficiency of resource use** and decreasing the impact on the environment, while developing the **well-being of individuals**.

China has integrated the circular economy in the *14<sup>th</sup> five-year plan*. Opportunities for developing a circular economy in Chinese cities have been identified in five focus areas:

- Built environment
- Mobility
- Nutrition
- Textiles
- Electronics

The EU introduced the *new circular action plan* and emphasizes that a circular policy is beneficial for the economy, the environment, and the citizens and will additionally reduce the need for resources.

# IURC-CHINA WEBINAR | Circular Cities and Regions Initiative

Case studies for planning, designing and implementing circular economy at the local level



## Fuenlabrada

**Participation** of all stakeholders is of key importance for this city, which focuses on four areas in circular economic strategy

1. Urban development
2. Circular economy
3. Natural environment
4. Energy efficiency

Several *action plans* have been developed on **urban regeneration**, reducing emissions, recycling waste and creating greener space to support future development of a sustainable city.

### Key actions

- improve **energy efficiency** awareness through education
- engage communities for resilient urban development



## Lazio Region

Lazio region has experience in advanced technologies. The region launched a *pilot project* on **digital and precision farming** to increase sustainability and competitiveness in the agri-food sector.

**Agri-food waste** is being used to produce **bioplastic** for innovative packaging solutions, create a natural sun filter and develop bio-ink.

### Opportunities

- Using **big data** and artificial intelligence
- Developing theoretical frameworks
- Integrating the academic system with production and policy makers



## Suzhou

Suzhou presented its best practice on the **circular development model** of modern agriculture and animal husbandry.

### Challenges

- striking a balance between urbanization and agricultural production
- waste recycle management and ecological performance control

Potential for *cooperation* lies in

- Creating synergies to share knowledge
- Developing tools and guidelines for action plans
- Supporting innovative initiatives



## Liuzhou

Liuzhou shared its best practices on **green industrial transformation**, with increased resource reutilization and minimized waste and emissions.

Efforts have been made in

- Energy efficiency
- Low carbon energy mobility and construction
- Development of city parks

Further steps can be made in promoting **new energy vehicles**, carrying out projects of forest city, **sponge city** and recycled water utilization and establishing a pollution weather monitoring system.

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Murcia

Murcia implemented a **smart city** strategy and shared best practices on their value waste project, which turns urban biowaste in either food, feed or bio-based fertilizer.

#### Challenges

- lack of awareness
- municipal ordinance

Future focus lies on the sustainability of urban spaces, which includes

- Increasing energy efficiency
- Optimizing the urban system
- Improving resilient, self-sufficient and connected **green spaces**



Valencia Region

Valencia region shared best practices in **industrial symbiosis**. An industrial observatory has been created to promote the concept of circular economy, support **synergies** and understand barriers and problems.

The main goal is to make industrial symbiosis feasible and a large pillar of the circular economy.

#### Cooperation potential

- Exchange good practices
- Promote innovative projects
- Collaborate on research and development



Zhengzhou

Zhengzhou has broad experience in dealing with urban trash and **green utilization**. They built an integrated network of urban trash disposal as a holistic environmental service provider.

#### Challenges

- increasing education on environmental protection
- Implementing comprehensive **environmental governance**

#### Future steps

- Strengthening cooperation
- Focus on **waste energy power generation**
- Recycling and reuse in the solid waste industry
- Comprehensive ecological restoration

## Suggestions for Circular Economy Cooperation Areas

Some circular economy **cooperation areas** are given higher priority including:

- Waste prevention and reduction
- Waste management, increasing recycling and upcycling (household waste, plastic, e-waste etc.)
- Sustainable product design (e.g. eco-design)
- Energy efficiency in urban districts
- Industrial symbiosis