



FINAL EVALUATION SE6 - CIRCULAR ECONOMY IN CHINA 2018-2022

08.11.22

1. INTRODUCTION

In 2016, recognising the importance of the Chinese economy in driving the transition to a circular economy, the Ellen MacArthur Foundation (EMF) together with the MAVA Foundation researched and published a report "The Circular Economy Opportunity for Urban and Industrial Innovation in China". This report, along with a further short feasibility study, shaped the approach for a five-year programme with the ambition to mobilise the broader momentum required to transition towards a circular economy (CE) in China. MAVA provided catalytic seed funding to establish this programme and encourage its long-term sustainability.

The Chinese government has committed to playing an increasingly important role in global sustainable development governance. In recent years, Chinese authorities have been focusing on key areas to advance CE in the country, however challenges such as a singular focus on reduction and mitigation strategies, relatively low awareness of CE, lack of understanding of the economic opportunity of CE, and an absence of demonstration models and policy contingency have hindered the adoption of circular economy at scale. The ambition of the MAVA-funded China programme has therefore been threefold: to broaden the scope, the understanding, and the adoption of the circular economy, with a view to enabling better forms of economic growth in harmony with the planet.

OBJECTIVES

- Engage and exchange expand and strengthen relationships with key institutions and senior contacts in China to mobilise the broader momentum and focus on circular economy so far achieved in Europe.
- Mobilise along value chains ensure key stakeholders engage in and understand EMF's work on circular economy for the plastics, fashion, and food sectors.
- Equip businesses, designers, academia create a well-informed community of CE innovators, designers, and academics that actively participates and collaborates in CE learning.
- Convene and shape pilots; implement in cities create a platform for local governments, industry associations, international brand owners and suppliers, and EMF initiatives to create collaborative city demonstration projects.







2. PROGRESS AND ACTIVITIES

Our approach relied on considering the local set-up and conditions, building partnerships with the most respected and influential stakeholders in China, and effectively leveraging existing EMF and other international knowledge resources, tools, networks, and relationships.

The programme worked to build momentum for circular economy innovations in the market generally, highlight effective implementation initiatives at city level, and increase adoption of circular economy principles and targets in national and regional policy.

Understanding the needs and interests of various stakeholders as well as cultural, political, and business differences, the Foundation drove a concerted effort combining:

- Insights generation and dissemination
- Capacity building through workshops and events
- Stakeholder activation and implementation support
- Demonstration projects

STRATEGY 1: ENGAGE AND EXCHANGE

We worked to bridge circular economy understanding between China and other countries by showcasing best practices, and establishing international exchanges between leading players. Our activities included:

- successfully building formal collaborations with more than 40 key CE actors in China, including government affiliated think tanks;
- translating and tailoring CE research findings to different audience groups in China;
- organising an EU-China dialogue as part of the China-EU MoU, bringing together 60 high-level Chinese and EU officials to exchange ideas;
- submitting policy recommendations to relevant government agencies providing CE solutions.

STRATEGY 2: MOBILISE ALONG VALUE CHAINS

We mobilised stakeholders around key value chains in plastics, fashion, and food, ensuring that activities were adapted for the local context. Our activities included:

- mapping out the missing building blocks (e.g., lack of upstream innovation; no united platform for stakeholders) and designing strategies around content development and value chain dialogues accordingly;
- convening 24 Chinese companies and over 65 influential public and private organisations to establish a unique cross-value chain dialogue around a circular economy for plastics;
- working with 9 Chinese fashion companies who joined the Jeans Redesign programme and committed to take action to make jeans in line with circular principles.

STRATEGY 3: EQUIP BUSINESSES, DESIGNERS, ACADEMIA

We developed targeted educational initiatives to embed systems thinking. We focused on engaging the design community, businesses, schools, and academia to impact the actions of current and future decision makers. Our activities included:

- creating a circular design community through participation at relevant conferences and organising our Design Circles workshop series for over 100 Chinese design professionals;
- building connections with educators from over 20 Chinese universities and top higher education institutes, and cultivating the inclusion of CE in higher education curricula;
- producing key insight reports, including The Circular Economy's Role in Helping Reach China's Carbon Neutrality Target, and Towards a Circular Economy for Plastics in China, to increase Chinese businesses' understanding of CE.

STRATEGY 4: CONVENE AND SHAPE PILOTS; IMPLEMENT IN CITIES

We used cities as a focal point to build multi-stakeholder coalitions, conduct pilots, and turn lessons learnt into shareable knowledge assets. Our activities included:

- engaging Chinese cities in international CE knowledge exchange and established collaborations with local governments, industry associations, and international brands;
- supporting the Chinese Academy of Sciences (CAS) in developing a roadmap for the Zero Waste Cities Initiative, and developing a dissemination plan to share the findings with several cities.

KEY LESSONS

Implementing the action plan has offered us insights on all our focal points:

- 1. Local context is all-important. The economic and political landscape in China is unique and identifying the right approach took time and needed to be adaptive, particularly once the pandemic hit.
- 2. COVID presented significant challenges to the original programme for the last three years of the project. However, moving everything online did allow us to reach more people than face-to-face activities.
- International Non-governmental Organisation (INGO) registration was vital to justify our credibility to Chinese audiences but was more difficult to achieve than originally anticipated - ultimately finding the right partner was a determining factor in the successful registration process.
- 4. It is important not to underestimate the significance of government influence in China. Chinese businesses can only innovate and shift within the parameters set by the government, therefore a focus on policy and engaging with key political advisors and think tanks was crucial to the project's success.
- 5. Our work with cities had to evolve throughout the project. While engaging with individual cities was challenging, collaborating on a large government initiative focused on cities (the Zero Waste Cities initiative) provided a more impactful approach.
- 6. International knowledge exchange remains a critical driver of the programme's success. The EU-China MOU is an important high-level framework that enabled EMF to bring the agenda to the Chinese government, although in recent years a change of officers has made it more difficult to engage with the National Development and Reform Commission (NDRC) on this dialogue.
- **7.** EMF, as the only international organisation promoting CE in China, was able to facilitate more open discussions and provide a platform for stakeholders from industry to come together than was previously possible.
- 8. Getting access to the right people or teams within companies was not always easy, reaching all parts of the supply chain was challenging, and it was difficult to find champions or local frontrunners for on-the-ground demonstrations.
- 9. Adapting the CE narrative to existing agendas in China (e.g., climate change) was important to ensure uptake by the right individuals. Some EMF content didn't land as successfully in China as in Europe, while other topics that were more contextually relevant to China (e.g., electronics) could not be explored as they were outside of EMF's core workstreams and expertise.
- **10.** Chinese stakeholders are becoming increasingly pragmatic and solution-driven there is a stated need to move from concept to implementation.

3. ACHIEVEMENTS AND IMPACTS

The Foundation's China programme has made substantial progress over the past five years. In January 2022, the Foundation's China office received official registration - one of only two International NGOs to be registered in China since 2019.

ENGAGE AND EXCHANGE:

- Publication of regular insights and advisory documents, including a ground-breaking report in collaboration with Tsinghua University on the circular economy's role in climate change mitigation.
- Awareness is building of the CE agenda among policymakers, as evidenced by recent policy papers, such as the "Implementation Plan for Promoting Green Consumption" that highlighted the importance and power of circular design.
- International knowledge exchange is a critical driver of the programme's success at industrial and political level. We initiated high-level policy dialogues and nurtured the bilateral exchange of best practice.

MOBILISE ALONG VALUE CHAINS:

- A robust network of key stakeholders including policy makers, think tanks, leading business and academia has been established and consolidated.
- Business-level engagement in the circular economy has advanced notably in our core areas of plastics, fashion, and food and industrial sectors are developing implementation plans for CE.

CONVENE AND SHAPE PILOTS; IMPLEMENT IN CITIES:

- The Zero Waste Cities Initiative has been a critical area of focus for on-the-ground demonstration and scaling of CE action, enabled by our collaboration with China Solid Waste and Chemicals Management Centre (SCC) and Policy Research Centre for Environment and Economy (PRCEE).
- EMF reached 42 Chinese cities through workshops, webinars and dialogue on CE and worked closely with the cities of Ningbo (population 4 million) and Chongqing (population 16 million) to mobilise circular solutions in plastic and food.

EQUIP BUSINESSES, DESIGNERS, AND ACADEMIA:

- There has been remarkable progress in the breadth of circular economy teaching and learning, and the appetite for circular design learning is booming.
- In-person learning workshops, such as Design Circles and the China Association of Circular Economy (CACE) capacity building workshop, allowed us to reach industry practitioners in China and enhance understanding of China's CE development.

CASE STUDY 1: CIRCULAR ECONOMY IN CHINA'S 14TH FIVE-YEAR PLAN

In China, the weight of government influence and regulations means policy must be a significant focus. EMF China has maintained a close exchange with key advisors to the government and has successfully built formal collaboration with government-affiliated think tanks. These advisors hold all the cards when it comes to informing government policy. Work to embed circular economy in high-level policy has made notable progress, as evidenced most by the inclusion of the Foundation's insights and narrative in China's 14th Five-Year Plan (2021) - the first to include an explicit development plan for a circular economy.

Furthermore, in a policy interpretation article developed by one of the government's advisors and published on NDRC's website, EMF's publication and figures were referenced. China's narrative to address domestic plastic pollution has also shifted from a downstream recycling focus to a full-chain management approach with strong emphasis on design, which has been clearly elaborated in the 14th Action Plan on Plastic Pollution (2021).



CASE STUDY 2: INFLUENCING THE PLASTIC PACKAG-ING STRATEGY OF A MAJOR CHINESE BUSINESS

The EMF China Plastic project has made substantial progress in increasing industry understanding and uptake of a circular economy for plastics. EMF convened over 65 influential public and private organisations from across the plastics value chain to discuss and increase industrial uptake on innovation and reuse, including in flexible packaging. As a result of these dialogues, China's biggest drinking water company revised its corporate strategy on packaging material management: Inspired by EMF's New Plastics Economy Vision and Global Commitment targets, Nongfu Spring plans to achieve 100% recyclable, reusable, or compostable packaging to replace plastic water and beverage packaging by 2025.

The impact of this would be significant, as Nongfu Spring is China's largest bottled water supplier, number one for market share of bottled water and one of the top three in the market for tea, functional, and juice beverages. Since the adoption of this strategy, Nongfu has established a pilot project to make pivotal changes to its business systems, including its labelling process and bottle weight. This will aid in increasing recycling rates and help the company meet its circular plastic targets.



KEY IMPACTS

- 1. CE is now higher up the national agenda than ever before, and government organisations are looking to EMF insights to inform policy and action.
- 2. The close partnership established with CACE has been highly influential as it is directly linked to NDRC. We have been able to track changes in its understanding of CE over the last 3 years from downstream to more upstream considerations; this increased under-standing has now been reflected in China's 14th Five-Year Plan.
- 3. EMF CE case studies are being included in research reports by Chinese partners and shared on official channels, for example on the MEE website.
- 4. EMF China's education work is creating a 'ripple effect'. Collaborations are being created among the participants of our learning workshops; Tsinghua University published a fist-of-its-kind textbook named Sustainable Design and featuring EMF's circular design narrative; and Shanghai Jiaotong University created a Massive Open Online Course (MOOC) on circular design.
- 5. CE concepts are being practised or implemented within businesses because of our work. For example, a tea company in Shenzhen connected with a local design studio that uses pre-consumption leftover tea to create packaging; Jeans Redesign has become a key industry player in a short space of time and is generally inspiring ways forward in the fashion industry.
- 6. Global organisations engaged in EMF's plastic work are beginning to recognise the need for to shape specific China-focused activities to increase mobilisation of a New Plastics Economy.
- 7. For the first time, Chinese cities are starting to reach out for circular solutions. For example, EMF supported the Chinese Academy of Sciences (CAS) in developing a roadmap for the Zero Waste Cities Initiative, and now Yiwu city has requested help to develop a circular packaging strategy.

4. WHAT WILL HAPPEN NEXT

MAVA's backing of this project has enabled EMF to expand our work in China and double-down on strategic efforts. Building on this momentum, we will continue to scale up our efforts to assist China in realising its circular economy potential.

Implementing the action plan has offered us important insights for our efforts in the programme's next phase. For example:

- Chinese cities are cautious about working with INGOs, therefore increased engagement with national-level authorities and policy makers will remain a core focus for EMF China moving forwards.
- There is a need to stimulate market demand for circular products in China to drive growth. As change in the country is frequently driven from the top-down, we will work to raise awareness of effective policy tools that can make products more circular.
- A new Councillor for EU-China dialogue in China began work in October 2022. Engagement is critical to revamp the CE dialogue and will centre on the potential of CE in contribution to the climate agenda in China.
- Since China is at a different stage of development, and supply chain and consumer dynamics differ compared to Europe, EMF approaches that have been successful in Europe do not necessarily translate to work in China. Taking this into account, we will conduct deep research into the local context and work closely with our Chinese partners in policy and academia as we develop our ongoing approach.
- We will also increase our engagement with leading Chinese businesses, aiming to equip them with CE strategies and localised initiatives. Plastics will remain the primary material flow for CE demonstration. The UN negotiations for a global plastics treaty will be an important focus for EMF work in China. For this, we have already initiated a collaboration with the Foreign Environmental Cooperation Office (FECO) so we may contribute to the local treaty discussion and ensure our insights are central to the discussion.

Generative I've developed a more comprehensive and multi-dimensional understanding of circular design. What I value the most was the mindset - zooming in on a specific environmental problem and zooming out on addressing the root cause of it with better models and designs, to prevent the problem from being created in the first place."

Design Circles participant

Circular Economy for plastics *in China: Opportunities and Recommendations] puts forward a key path and recommendations for the development of CE in plastic packaging, which provides support for the CE transition in China.*"

Wang Yi, Deputy Director at the Chinese Academy of Sciences (an important governmental think tank, notably responsible for the revision of the CE promotion law)

