



Netherlands Enterprise Agency

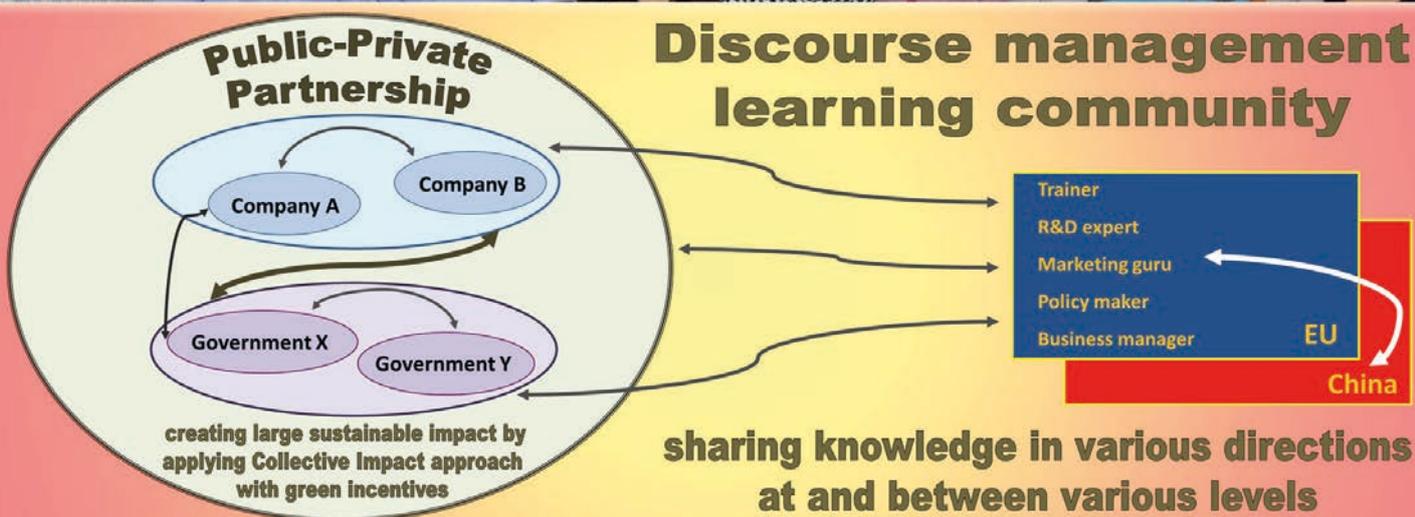
# *Accelerating green growth in China's laundry and textile industry through Collective Impact approach*

*Commissioned by the ministry of Economic Affairs and Climate Policy*

*>> Sustainable. Agricultural. Innovative.  
International.*

IMPACT SHEET • SWITCH-ASIA PROJECT  
IMPROVING INDUSTRIAL RESOURCE-EFFICIENCY IN CHINA  
BY PUBLIC-PRIVATE PARTNERSHIPS (VA3 CHINA)

Accelerating green growth in China's  
laundry and textile industry through  
Collective Impact approach



960 Chinese companies signed voluntary agreements  
leading to emission reduction of 17 million tonnes CO<sub>2</sub>  
in 2015



## The Challenge

In China, many SMEs operate inefficiently. In Nanjing, 1 000 SMEs within the laundry industry contribute to 25% of the industrial wastewater emissions and 5% of industrial energy consumption. Textile wastewater emissions are responsible for 46% of total industrial wastewater emissions in Jingzhou. These two resource-intensive SME sectors therefore have huge potential to improve their environmental performance. Conventional regulation does not address this potential for improvement, as most SMEs already comply with emission standards. Voluntary public-private partnerships (PPPs) accelerate SME's green growth, as this flexible policy instrument supports existing legislation and provides a bridge to new legislation. Therefore, SME-specific technical, organisational and financial PPP incentives need to be developed in order to reduce environmental impacts.

## Objective

This EU-China cooperation project has scaled up sustainable consumption and production (SCP) practice for Chinese industrial SMEs and large companies by:

- facilitating and implementing voluntary green PPPs throughout China;
- contributing significantly to the mitigation of climate change, energy saving and reduction of SO<sub>2</sub> and NO<sub>x</sub> emissions and wastewater by creating green business cases for participating companies;
- proving multiple SCP benefits of applied Collective Impact approach at low intervention costs by combing technical and social innovation steps.

### TARGET GROUPS

- 550 laundry & dyeing SMEs in Nanjing and 150 textile SMEs in Jingzhou
- Large energy-intensive companies in Nanjing, Jingzhou and other Chinese cities
- Financial institutions, NGOs and SME associations
- Municipal, provincial and national governments with focus on environmental, spatial planning, economic and trade departments

## Activities / Strategy



### Creating Green Business Case Conditions for SMEs

The European and Chinese project partners used proven voluntary PPPs on sustainable development from large companies and adapted them for SMEs in China, taking into account European SME best practice. Two municipality-level SME associations facilitated this outreach to a large number of their member SMEs with support from governmental partners. The sustainable impact and self-sustainability of this project has been realised by Collective Impact facilitation and management of three integrated SCP work packages creating green PPP business cases for SMEs: developing PPP replication strategy and demonstrating it towards SMEs; strengthening PPP financial enabling environment; and improving PPP policy framing related to 12<sup>th</sup> and 13<sup>th</sup> Five-Year-Plan cycles.



### Implementing Public-Private Partnerships

As a result of this, 918 PPPs were signed with individual SMEs in Nanjing and Jingzhou and 42 PPPs with large companies in Nanjing and Changchun. The main focus was on the laundry and textile SME sectors. All participating SME companies implemented their action plans by taking good housekeeping measures (e.g. reduction of rewashing and optimal internal logistics) and executing a wide range of green investment projects (e.g. tunnel washers and innovative dryers).



### Building Green Capacity

The project developed and published a China-specific manual on how to facilitate and implement voluntary PPPs for SMEs aimed at achieving ambitious SCP targets. The project has built green capacity with industrial and governmental trainers to reach out to SMEs. These trained PPP facilitators enabled the signing of voluntary agreements between SMEs and local governments. The China-specific combination of organisational PPP stimuli and green financial incentives has further contributed to successful implementation of this Collective Impact action.



# Scaling-up Strategy



## Scaling up SCP by Green PPPs

The project exceeded targets in terms of number of participating SMEs. Initially targeting 700 SMEs, 918 SMEs signed PPP agreements and achieved double the projected energy savings and emission reductions. As a result of green business case perspectives, scaling up of this green PPP approach has already taken place towards Changchun and Chinese Laundry Association (CLA). The action consortium signed two Memoranda of Understanding on cooperation with Changchun public and private stakeholders as well as national CLA representatives and their Ministry of Commerce.



## Applying Collective instead of Isolated Impact Approach

Training in trust management enabled communication between SMEs, SME associations and governmental organisations. This constructive dialogue largely contributed to the successful implementation of 918 PPPs in two SME sectors. The fourth Collective Impact success factor, that is continuous communication, has appeared to be crucial for building mutually beneficial partnerships and scaling up SCP impacts to other regions. The approach consists of five social interventions: a common agenda with shared vision for SCP improvement; shared measurement of progress and results; mutually reinforcing activities and expertise; continuous communication based on trust and common motivation; and continuous support and facilitation. For scaling up PPPs, these five conditions for success need to be established. Therefore, a 'compact organisation' is crucial that coordinates participating governmental partners and target companies, and helps them to progress within the shared SCP vision.



## Creating Green Incentives

The project developed new financial instruments, such as green loans, emission trading incentives and green PPP incentives. Governmental partners have partly used environmental funds to provide green incentives for companies signing voluntary agreements. EUR 13 million worth of green incentives have been mobilised by this project.



*Our project team has experienced that this 'Collective Impact' approach is very cost-effective. Discourse and trust management has created a learning PPP community, sharing relevant knowledge in various directions between EU and Chinese partners, Chinese governmental and industrial SME organisations and their members. Five Collective Impact interventions have resulted in large energy savings and emission reductions far beyond business as usual including green policy framing. Differences between SCP 'common sense' and 'common practice' have disappeared and congruent stimuli have significantly accelerated green growth. Tai bang le!*



Erik ter Avest,  
Project Coordinator,  
Netherlands Enterprise  
Agency RVO.nl



# Results



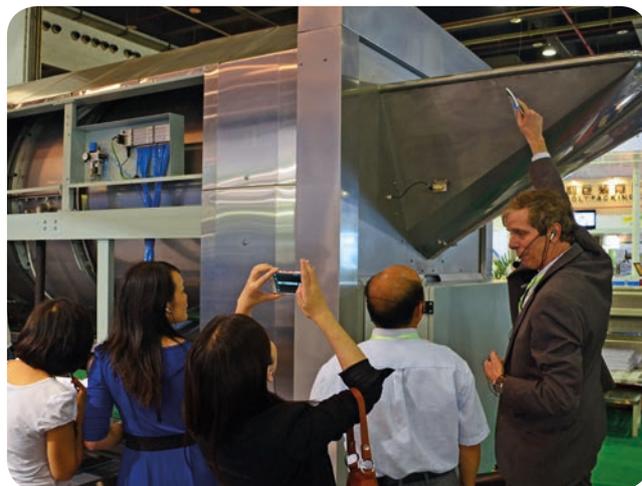
### Facilitated Signing of PPPs with 918 SMEs

In 2012, an EU-China train-the-trainer course for SMEs was organised and 30 Chinese PPP facilitators trained. The SME PPP toolkit of best practice has been applied to 918 pilot SMEs in Nanjing and Jingzhou. At the end of 2015, 1 421 Nanjing SME participants and 214 Jingzhou SME participants were trained by the Chinese facilitators to implement voluntary agreements.



### Created Large Sustainable Impact

The 918 trained SMEs completed their Energy-Efficiency and Emission Reduction Potential Scan reports. Aggregated data from these confidential reports have been used for negotiating targets and signing PPPs. Each report has received approval from the SME's general management. Besides the SMEs, 42 large energy-intensive companies have signed PPPs with ambitious targets on improving resource-efficiency (2-3 times higher than "business as usual"). These 960 companies have developed and executed action plans resulting in implementation of a wide range of good housekeeping measures, energy saving projects and strategic investment projects. As a result of annual energy saving of more than 200 peta joule (PJ), an annual reduction of GHG emissions has been realised of more than 17 million tonnes at CO<sub>2</sub> reduction costs of about 1 EUR/tonne. The large sustainable impact generated by Collective Impact PPPs has also been ascertained by Chinese partners through cross-checking SCP data of pilot sectors to comparable reference groups not participating in PPPs.



*The key success factor for implementation of voluntary agreements with ambitious SCP targets was to increase mutual trust between local governmental organisations, SME associations and their members. This enabled the creation of constructive partnerships with local authorities. By this win-win situation, we save money, increase our profit and at the same time achieve higher targets on energy saving and emission reductions.*

*Mr. Liu Zhaoyuan,  
Manager, Nanjing Junyou  
Laundry Ltd (textile care SME)*



### Realised a High Multiplier of SCP Benefits against Intervention Costs

Annual cost reduction and margin increase by implementing SCP practices in all 960 companies amount to EUR 2 billion. At annual project intervention costs of EUR 0.5 million, the multiplier of 4 000 shows the high cost-effectiveness of this Collective Impact PPP approach.



### Established Bilingual Online Platform

A bilingual website [www.VA3China.com](http://www.VA3China.com) has been developed in English and Chinese. It serves as a platform for member as well as non-member companies, and provides tools such as SME manual guidelines on how to start and implement voluntary PPPs, presentations, trainings and evaluation reports. For example, the published external NRCE (EU-China New Resource Centre for Environmental Science and Technology) final evaluation has also clarified the added value of this Collective Impact PPP approach as experienced by Chinese public and private stakeholders.

# Impact in Numbers

<p><b>Economic Impact</b></p> 	<ul style="list-style-type: none"> <li>Achieved annual cost reduction leading to an increased profit of CNY 15 billion (EUR 2 billion) by 960 companies, out of which 918 SMEs contributed CNY 900 million (EUR 120 million).</li> <li>Created new business opportunities for higher efficient machineries, such as tunnel washers and introduced new green SME textile care Product-Technology-Market-Customer rental service combinations.</li> </ul>	<p><b>Green Finance</b></p> 	<ul style="list-style-type: none"> <li>Increased access to finance through reallocation of government's existing funds of EUR 13 million, benefitting 918 SMEs.</li> <li>Initiated interaction between SMEs and investors through constructive dialogue and building mutual trust which reduces risks and transaction costs.</li> </ul>
<p><b>Environmental Impact</b></p> 	<ul style="list-style-type: none"> <li>Achieved energy saving of 200 PJ per year;</li> <li>Reduced water consumption by 180 million m<sup>3</sup>/year and wastewater discharge by 140 million m<sup>3</sup>/year.</li> <li>Reduced SO<sub>2</sub> emissions by 26 000 tonnes/year and NO<sub>x</sub> emissions by 16 000 tonnes/year.</li> <li>Implemented SCP measures:             <ul style="list-style-type: none"> <li>Good housekeeping measures, such as reduction of rewashing and optimal internal logistics;</li> <li>Energy saving projects, such as low-temperature washing, heat exchangers and reuse of water and steam;</li> <li>Strategic investment projects, such as tunnel washers and innovative dryers;</li> <li>Emission reduction by specific SME measures: improved air quality and less soil contamination by elimination of volatile organic compound (VOC) emission from closed dry cleaning equipment.</li> </ul> </li> </ul>	<p><b>Target Group Engagement</b></p> 	<ul style="list-style-type: none"> <li>Facilitated 918 SMEs and 42 large companies to sign voluntary public-private partnerships.</li> <li>Conducted capacity building on Collective Impact approach for municipal government officials, SME associations and 918 SMEs.</li> <li>Involved 300 public entities and 2 000 private entities such as national, provincial and local governments; industrial business sectors, large companies and SMEs; R&amp;D and scientific bodies in project activities.</li> <li>Published SME manual with guidelines on how to set up and implement voluntary PPP agreements on SCP.</li> <li>Disseminated the Collective Impact benefits to 22 Chinese megacities and various Asian countries at conferences and other events.</li> <li>Implemented a participatory approach in SCP on-the-job training based on a mix of personal, governmental policy and business motivation factors.</li> </ul>
<p><b>Social Impact</b></p> 	<ul style="list-style-type: none"> <li>Facilitated an increase in workers' income by 15% and reduction of work-related accidents by 15%.</li> <li>Introduced health and safety risk reduction measures in SMEs and improved working conditions (e.g. lower temperature in production halls).</li> <li>Increased awareness of SME staff of SCP concept and targets.</li> <li>Provided access to proven SME-specific know-how on how to facilitate and implement voluntary public-private partnership to achieve SCP targets.</li> </ul>	<p><b>Policy Development</b></p> 	<ul style="list-style-type: none"> <li>Organised about 100 policy dialogues and engaged in local and national policy formulation on SCP implementation.</li> <li>Facilitated the uptake of voluntary PPP agreement and the Collective Impact approach by local governments to realise cities' SCP targets, resulting in 960 public-private partnership agreements.</li> <li>Submitted policy recommendations on 'think globally, act locally', green incentives, the use of SCP policy instrument planner; built up mutual trust towards common agenda with shared vision for SCP change.</li> <li>Developed new SCP standards, best practice and e-learning modules.</li> </ul>
<p><b>Climate Benefits</b></p>	<ul style="list-style-type: none"> <li>Achieved GHG emissions reduction by 17 million tonnes/year at CO<sub>2</sub> reduction costs of less than EUR 1/tonne.</li> <li>Enhanced SMEs' awareness on climate change risks through training and public awareness campaigns.</li> </ul>	<p><b>Europe-Asia Cooperation</b></p> 	<ul style="list-style-type: none"> <li>Organised 30 events (face-to-face advisory and supervision visits, training, workshops, conferences, networking / brainstorming events and annual progress meetings) involving European and Asian participants.</li> <li>Introduced discourse and trust management among European and Chinese SCP stakeholders enabling formal and informal knowledge transfer at and between various levels.</li> </ul>



**Legend**

- Eligible countries for the SWITCH-Asia Programme
- Non-eligible Asian countries for the SWITCH-Asia Programme

**Project implementation area**

- City
- Region
- Country

*The boundaries shown on this map do not imply on the part of the European Union any judgment on the legal status of any territory or the endorsement or acceptance of such boundaries.*

**OBJECTIVES**

The project aimed to scale up SCP practice by facilitating and implementing voluntary public-private partnerships throughout China and thereby contributing significantly to the mitigation of climate change, energy saving and reduction of SO<sub>2</sub> and NO<sub>x</sub> emissions and wastewater. Multiple SCP benefits of the applied Collective Impact approach have been demonstrated by combining technical and social innovation steps.

**DURATION**



**PROJECT TOTAL BUDGET**

EUR 1 942 333  
(EU contribution: 80%)

**PROJECT CONTACT**

Netherlands Enterprise Agency RVO.nl  
P.O. Box 8242, 3503 RE Utrecht, The Netherlands

Mr. Erik ter Avest  
Email: Erik.terAvest@rvo.nl  
Telephone: +31-88-6022475

**CONSORTIUM**

 Netherlands Enterprise Agency RVO.nl	 Energy Research Institute (ERI) of National Development and Reform Commission (NDRC) of China	 Beijing University of Civil Engineering and Architecture (BJUCEA)
 Nanjing Commerce and Trade Bureau (NJCTB)	 Nanjing Environmental Protection Bureau (NJEPB)	 Nanjing Laundry and Dyeing Industrial Association (NJLDIA)
 Jingzhou Environmental Protection Bureau (JZEPB)	 Jingzhou Textile Association (JZTA)	 International Committee on Textile Care (CINET)



This is a publication of  
Netherlands Enterprise Agency  
Croeselaan 15  
PO Box 8242 | 3503 RE Utrecht  
T +31 (0) 88 042 42 42  
E klantcontact@rvo.nl  
www.rvo.nl

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