BACKGROUND TO THE CHINESE TEXTILE INDUSTRY

China leads the world in apparel manufacturing, but the industry’s rapid growth has come at a price. In 2013 China’s textile industry was reportedly responsible for 2.15 billion tonnes of wastewater a year, with the dyeing and printing processes accounting for up to 85% of the total. The rate of energy consumption in these processes is three to five times as high as that of mills in more developed countries. China’s apparel industry is also a major contributor to industrial air pollution nationwide.

In recent years there has been increasing demand to address these issues. Public demand and government action have generated a sense of urgency among all parties in the supply chain. Campaign organizations are continuing to highlight the environmental and social impact of water consumption, air emissions, use of hazardous chemicals and unsafe working conditions. The Chinese government has begun taking aggressive steps to curb both water and air emissions from the textile industry, and many small to medium-sized businesses are struggling to stay on top of the new legal requirements.

Pioneering brands are aware of the role they can play in improving these figures and are on the lookout for ways to support their supply chain partners in addressing these concerns, while maintaining China’s global competitiveness. However, they have difficulty identifying and influencing partners further down the supply chain, where there is often a much greater need for intervention.

THE BETTER MILL INITIATIVE IN CHINA

Against this backdrop, Solidaridad developed the Better Mill Initiative (BMI) in partnership with H&M. It was conceived as a results-oriented programme that aimed to improve the sustainability performance of textile wet processing in the fashion supply chain in China. Other brands have since become associated with the scheme, including C&A, Primark, New Look, Bestseller and Tommy Hilfiger.

The programme’s main focus was to make improvements in the textile wet processing industry in China, and to enable mills to achieve measurable improvements from a sustainability perspective while analysing their return on investment. Using the technical knowledge of experts such as Huntsman, Sustainable Textile Solutions (STS) and Zhejiang University, the programme spanned seven impact areas: water and wastewater, energy, air emissions, solid waste, chemical management and working conditions. It also aimed to strengthen the enabling environment and share experiences and best practice in order to promote sustainable production methods throughout the Chinese textile industry.

Launched in 2013, the Better Mill Initiative has supported 43 wet processing factories and 675 improvement measures have been implemented. This has resulted in a total saving of 6.6 million tonnes of water, 7,200 tonnes of chemicals and 15.2 million kWh of electricity.
EVALUATION DESIGN

Solidaridad and C&A Foundation commissioned an independent external evaluation to assess the first three years of the BMI in China and contribute to the process of designing the potential next phase. The objectives of the external evaluation were to:

1. Take stock of the impact of BMI by verifying reported achievements on a spot-check basis;
2. Learn what was effective and what was ineffective about the approach for the various partners involved, and provide insights that need to be taken into account when making future adaptations and improvements;
3. Contribute to the knowledge base of innovation programmes and the business case for improvements in order to promote continuous improvement;
4. Share lessons learned and experiences between different stakeholders and programmes currently being implemented in the sector;
5. Provide input and identify key findings in order to provide an objective evidence base for internal and external communication.

The evaluation was conducted from October to December 2016 by a team of experts from China and the Netherlands. The methodology included desk research, stakeholder interviews and an e-survey among participating mills. The evaluation addressed the programme’s design, relevance, effectiveness, efficiency and impact (see table 1).

Table 1 – Focus of the evaluation

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<th>Focus of the evaluation</th>
<th>Description</th>
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<tr>
<td>Relevance</td>
<td>To what extent was the BMI programme relevant to the priorities and policies of its target groups, with specific focus on brands and retailers and textile mills in China?</td>
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<tr>
<td>Effectiveness</td>
<td>To what extent has the BMI programme attained, or is likely to attain, its objectives (results), whether directly or indirectly, intentionally or unintentionally?</td>
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<td>Efficiency</td>
<td>To what extent did the BMI programme provide value for money?</td>
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<td>Impact and scaling up</td>
<td>What opportunities are there to strengthen the BMI approach in order to scale up the programme?</td>
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KEY CONCLUSIONS AND RECOMMENDATIONS

The following scale was used to evaluate the programme:

<table>
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<th>Rating</th>
<th>Definition</th>
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| Good   | Evidence of achievement of outputs/outcomes  
Presence of conditions/actions that support progress towards impact and/or sustainability in which major threats or barriers have been mitigated |
| Moderate | Some evidence of achievement of outputs/outcomes  
Presence of conditions/action that support progress toward impact and/or sustainability but threats and barriers may not have been mitigated |
Poor | Little evidence of achievement of outputs/outcomes
No significant presence of conditions/actions that support progress toward impact and/or sustainability; threats or barriers remain in place

The evaluation produced the following conclusions and recommendations:

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<th>Focus area</th>
<th>Rating</th>
<th>Conclusions</th>
<th>Recommendations</th>
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<tr>
<td>Relevance</td>
<td>Good</td>
<td>All stakeholders participating in the evaluation judged the programme to have relevant objectives and targets. The two most important reasons for mills to participate in the programme are: (1) the upcoming introduction of more stringent environmental legislation in China, and (2) the continued operational importance of addressing environmental risks from the perspective of the brands. The programme has adopted a holistic approach across seven thematic areas. Although this broad approach was supported by participating brands and mills, it has not always been aligned with more specific strategies that prioritize particular themes in individual brands and mills. A broad focus can also mean the resources are spread too thinly.</td>
<td>• Stronger alignment with similar initiatives in the Chinese textile industry in order to reduce the number of parallel initiatives and optimise the use of resources • Develop and adopt a modular approach, linked to the segmentation of participating wet processing mills based on their needs and priorities (e.g. water, chemicals or energy)</td>
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<tr>
<td>Effectiveness</td>
<td>Varying from good to poor</td>
<td>The effectiveness of the programme varied depending on the objectives of BMI. The promotion of sustainable production practices among participating textile wet processing mills was judged to be good. A total of 43 mills took part in the programme and achieved tangible results. However, there are question marks over the quantity of improvements adopted by mills, as the amount of resource savings resulting from these improvements is based on estimates rather than actual measurements. The effectiveness of outreach and communication was assessed as moderate. Efforts were made to create visibility for BMI, but best practices and lessons learned were not well documented or disseminated throughout the sector. No conclusive evidence was found to show</td>
<td>• Develop and employ a dual-track approach, with separate training programmes and customized support to reflect the different performance levels of new and mature wet processing mills; • Enlarge the group of stakeholders involved in the Better Mill Initiative such as sector associations and local authorities, so that their networks can be used to engage textile mills and strengthen the enabling environment (e.g. diffusion of best practices, utilization of policy instruments).</td>
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that BMI had strengthened the enabling environment, and this was therefore assessed as poor.

| Efficiency | Poor | High programme management costs and mill intervention costs limited the efficiency of the BMI programme. Programme management, including strategic guidance, coordination and monitoring, accounted for 40 percent of the total programme budget. The intensive and time-consuming control and supervision of field experts by Solidaridad affected the efficiency of the approach and will have consequences for upscaling. The remaining 60 percent of the budget was spent on direct mill interventions such as assessments, training and on-site support. This is considered a high proportion as it reflects an investment of EUR 12,500 per mill. Most brands still perceive BMI to offer ‘value for money’, but say cost reductions are needed when scaling up BMI and engaging more mills. Value for money was assessed as high for participating mills, as their fees and investment levels compared favourably with annual savings and potential grants from Chinese local authorities for participation in the programme. |
| Impact | Good | Potential for, and interest in, upscaling the selected approach is assessed as good. All brands continue to support the relevance of the BMI’s objectives and are interested in participating in future activities, on condition that the structure of BMI will change to increase the effectiveness and efficiency of the programme. |

- Optimize implementation by combining a dual-track approach, separating newcomers from more mature mills, with a modular fee system;
- Separate the implementation of support activities from programme management and coordination in order to avoid duplication of roles and responsibilities and reduce costs.
- Enlarge the pool of field experts in order to offer better value and more flexible support to mills in different regions of the country.
- Develop innovative training methods that are more cost-effective and efficient to implement, such as e-learning for those modules and target groups that have shown themselves to be sufficiently matured to be trained virtually.

**Other findings from the external evaluation:**

- **Programme design** was much broader and more holistic than what was actually implemented. In particular, interventions beyond the direct scope of mills’ support have been downscaled for numerous reasons, resulting in poor effectiveness, especially in respect of strengthening the enabling environment. The efficient implementation of the programme was compromised by deficiencies in the design, including: lack of communications structures and procedures, and lack of clear performance measures and indicators to enable effective monitoring and evaluation. This resulted in insufficient opportunities to adjust the approach during the implementation period;
Mill selection: brands identified mills for participation. Mills, however, were not assessed for their existing levels of Cleaner Production (CP) awareness or implementation, with the result that training and other forms of support were not specifically targeted;

Breadth of approach: there is general agreement that change comes from addressing all aspects of the sector and a holistic approach is required. However, a broad focus carries the risk that it lacks depth and resources are spread too thinly, which affects the overall effectiveness and impact of the programme;

Capacity building: mills appreciated the specialist support in implementing changes, but capacity building within their businesses was regarded as insufficient to enable them to continue improvements on their own (i.e. beyond the lifespan of the programme);

Results: improvements were achieved by implementing technical and non-technical measures. However, quantitative validation was not possible because of a lack of accurate data collection;

Continuous improvement: despite the results, limited evidence was found to indicate that improvements will continue in areas such as embedding improvements into management systems and building capacity of staff;

Stakeholder dialogue: involvement of local authorities and sector associations, with their technical knowledge, contact networks and carry leverage, was limited, especially towards smaller, tier 2 mills;

Outreach: activities were ad hoc and the launched web portal has not been used to its full capacity;

Knowledge capture: taking stock of lessons learned and undertaking internal evaluations has been scarcely applied;

Data collection and analysis: lack of baseline data and targets. Data collection in the mills was adequate but analysis was weak and the ratio of estimates to actual measurements was high;

Budget (programme management): 40% of the programme budget was used for programme management, coordination and generic activities, which is regarded as high;

Budget (mills): the cost of services to mills was approximately 12,500 euro per mill, including training, network meetings and activities to aggregate best practices. This is regarded as high in the context of the price of CP assessment (without training) on the commercial market of 4,000 to 7,500 euro;

Value for money (mills): the 3,000 euro participation fee and investment in the mills compared favourably with annual savings. This was even more attractive given the availability of grants of up to 15,000 euro from Chinese local authorities.

Value for money (brands): brands see their allocation of 10,000 euro per mill as representing good value for money at this stage of BMI, but expect the amount to be lower for any scaling-up activities.