

Clean by design : reduce the environmental footprint of textile manufacturers



Kering Group has joined forces with the Clean By Design project of the Natural Resources Defense Council to encourage its suppliers to reduce their CO₂ emissions through energy and water efficiency measures.

Starting date of the project	2014
Project Localisation Places of implementation of the project at this stage and targeted geography if replicable.	Implementation of the project with fabric suppliers in Italy initially, then with their raw material suppliers in China (silk, wool).
Project objectives Type of climate innovation of the project with a description of the problem/issue addressed	The Clean by Design program (of which Kering is a partner) consists of reducing the environmental footprint of textile manufacturers by carrying out energy-water-chemical audits with suppliers, who undertake to implement measures to improvement identified by these audits.
Detailed project description	<p>Fashion, broadly defined, is responsible for 20% of water pollution and 10% of global carbon emissions. To respond to this observation, the American NGO Natural Resources Defense Council (NRDC), designed the "Clean by Design" project proposing a clear and simple methodology to improve the efficiency of textile factories and save energy, water and chemical inputs.</p> <p>The Kering Group joined the project in 2015. 25 of its Italian suppliers (spinning, dyeing, etc.) therefore benefit from an energy and water efficiency audit, which cost is assumed by Kering, then a custom action is defined for each manufacture.</p> <p>At first reluctant to open their factories to outside auditors, suppliers quickly saw the interest in joining the program.</p> <p>Clean by Design has a very persuasive argument: a positive return on investment is recorded on average in two and a half years for measures that are otherwise easy to put in place. Optimizing lighting or ventilation, ensuring more efficient maintenance or even more finely-tuned management of electricity consumption are among the 150 improvement actions identified under the program.</p> <p>These actions mainly relate to:</p> <ul style="list-style-type: none"> - Improving water / energy management and monitoring - Optimization of steam, water and compressed air distribution systems - Work on lighting (LED, etc.), air conditioning, electric motors - Thermal energy recovery - Green energy production on site <p>The actions were followed in detail by Kering and the local technical partner to verify the implementation and the actual gains against the design gains.</p> <p>Participation in the Clean by Design program is offered to strategic suppliers of the Maisons de Kering, and influences their "seller rating".</p>

Main project's drivers for reducing the greenhouse gas emissions	Reduction levers		Details on the aspects of the project			
	<input checked="" type="checkbox"/> Energy and resource efficiency (including behaviour)		Better monitoring of energy expenditure, leading to better management, involvement of management and technicians in the process, discussion			
	<input checked="" type="checkbox"/> Energy Decarbonisation		Installation of photovoltaic panels			
	<input checked="" type="checkbox"/> Energy efficiency improvements		Installation of LEDs, high efficiency motor, optimization of ventilation / cooling systems, thermal recovery, etc.			
	<input checked="" type="checkbox"/> Improving efficiency in non-energy resources		Water resources, chemical inputs			
	<input type="checkbox"/> Emissions absorption: creation of carbon sinks, negative emissions (BECCS, CCU/S, ...)					
	<input type="checkbox"/> Financing low-carbon producers or disinvestment from carbon assets					
<input type="checkbox"/> Reduction of other greenhouse gases emission						
Emission scope(s) on which the project has a significant impact and quantification of GHG emission reductions per emission scope			Aspects of the project contributing to the reduction of emissions by emission category		Quantification of associated GHG emissions by emission category	
					Please follow the quantification methodology used in the Afep guidelines .	
	Reduction of the company's carbon dependency					
	Scope 1 <i>Direct emissions generated by the company's activity.</i>					
	Scope 2 <i>Indirect emissions associated with the company's electricity and heat consumption.</i>					
	Scope 3 <i>Emissions induced (upstream or downstream) by the company's activities, products and/or services in its value chain.</i>		Improvement of the manufacturing processes of Kering suppliers		13,600 TCO ₂ /year	
	Increase of carbon sinks					
	Emissions Absorption <i>Carbon sinks creation, (BECCS, CCU/S, ...)</i>					
	GHG emissions avoided by the company at third parties					
	Avoided Emissions <i>Emissions avoided by the activities, products and/or services in charge of the project, or by the financing of emission reduction projects.</i>					
	Clarification on the calculation or other remarks: Reduction in annual CO ₂ emissions by 19% on average per production site, following participation in the Clean by Design program.					
	Modality of verification of the quantification	Calculation standard used (ADEME base, GHG protocol, etc.): "Clean by Design" methodology developed by the Natural Resources Defense Council (NRDC)				
		Verification of the calculation (internal or external): Verification by post engagement audit by the local technical partner				
Other environmental and social benefits of the project	The Clean By Design project contributes to the following SDGs: <ul style="list-style-type: none">• SDG 6 Clean water and sanitation: reduction of water withdrawals, better management of chemicals• SDG 7 Clean and affordable energy: return on investment of less than three years on energy efficiency actions implemented• SDG 12 Responsible consumption and production: more efficient supply chain in terms of energy per unit produced• SDG 17 Partnerships: partnership with the NGO Natural Ressrouce Defense Council					

Project maturity level	<input type="checkbox"/> Prototype laboratory test (TRL 7) <input type="checkbox"/> Real life testing (TRL 7-8) <input type="checkbox"/> Pre-commercial prototype (TRL 9) <input type="checkbox"/> Small-scale implementation <input checked="" type="checkbox"/> Medium to large scale implementation Remarks: click here to enter the level of maturity of the project
Capacity and conditions of the project reproducibility, with associated climate impact mitigation potential	<p>Very important reproducibility potential, and moreover targeted by the program itself. The desire of Kering and its partners is to set up Clean by Design with other fashion brands in several regions of the world.</p> <p>This is what Kering has been working on in 2020, as in 2021 the Clean by Design program is extended to other fashion brands in Italy, this time under the aegis of the Apparel Impact Institute (All). https://apparelimpact.org/vogue-announces-aiis-new-project-with-luxury-italian-brands/</p> <p>The project has partnered with Legambiente, one of the most recognized Italian environmental associations, to ensure the smooth running of the project. A technical partner will support the project to perform audits and monitor actions.</p> <p>A multi-brand collaboration is particularly relevant because suppliers very often work for several brands, so a collaborative approach is more efficient.</p>
Amount of investment made (in €)	For suppliers in Italy: total investment of 2,200,000 €, for a total annual saving of 940,000 € in operating costs.
Economic profitability of the project (ROI)	<input checked="" type="checkbox"/> ST (0-3 years) <input type="checkbox"/> MT (4-10 years) <input type="checkbox"/> LT (> 10 years) Remarks: Obvious economic interest, because Clean by Design aims to identify and implement actions to reduce the energy / water / chemicals bill. The payback time for the efficiency and improvement actions implemented was on average 2.5 years in Italy, and less than 1 year in China.
Engaged partnerships	<ul style="list-style-type: none"> Initial partnership with NRDC, which is the origin of the Clean by Design methodology. Kering implemented it in Italy, then upstream of the textile supply chain in China. In recent years, the port of Clean by Design has been taken over by Apparel Impact Institute (All).
Open comments from the project owner	/
More about the project	
Contact the company carrying the project	sustainability.standards@kering.com
Project URL links	https://www.kering.com/en/news/with-clean-by-design-fashion-launches-a-backstage-green-revolution https://www.kering.com/en/news/clean-by-design-2017 https://www.youtube.com/watch?v=AsgagzKunn0&feature=emb_logo
Illustrations of the project	