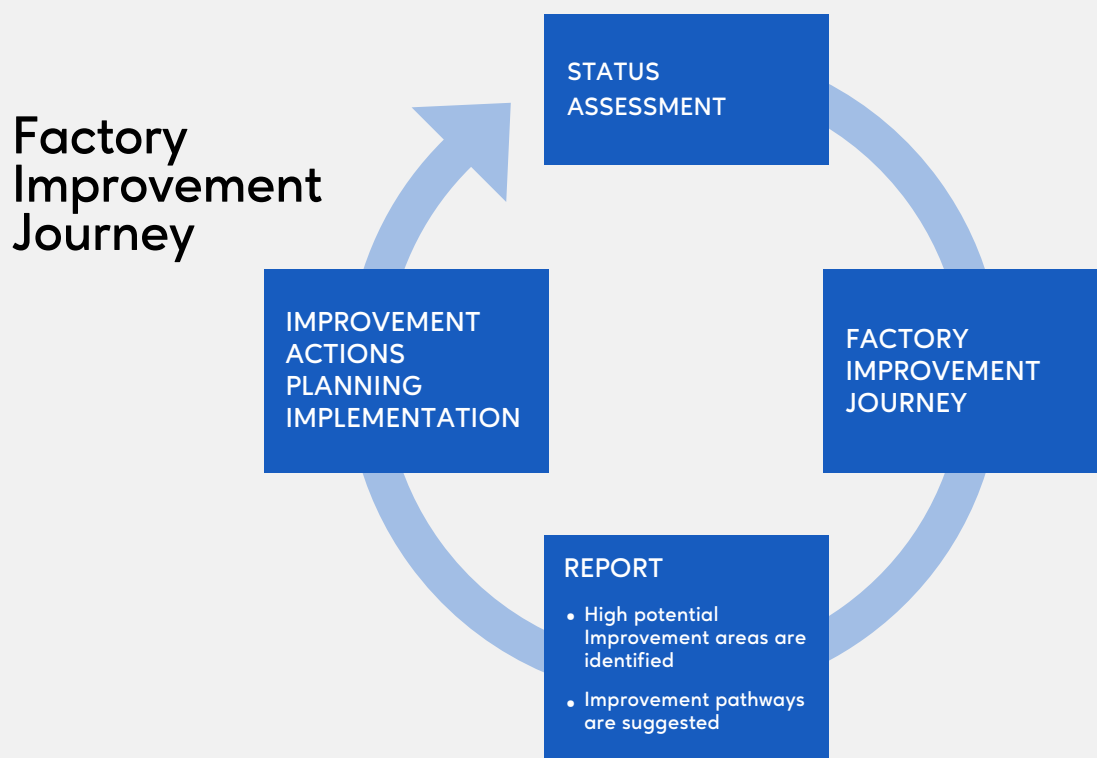


# Factory Improvement Journey: Designing One Path to Global Excellence

**Context** Globally, factories in the apparel, leather, textile and footwear industries have found sustainability progress fragmented, in part, due to audit fatigue based on a number of standards delivered by several key organizations. To unify continuous improvement in sustainable manufacturing, Cascale, Apparel Impact Institute and ZDHC are introducing the Factory Improvement Journey.

The Factory Improvement Journey aims to complement existing programs, establish one clear factory pathway and define a unified set of performance indicators, which results in a more bespoke roadmap for factories to follow, tailoring pathways depending on facility type and regional context\*.



## Building the Factory Journey

To lay the groundwork for this journey, a gap analysis determined the need for a Data Matrix, a united measure of performance areas that includes energy efficiency, wastewater management and chemical usage. A Factory Improvement Journey was created with the aim to simplify and consolidate data and streamline processes.

The guidance was designed to meet several needs identified from roundtable discussions:

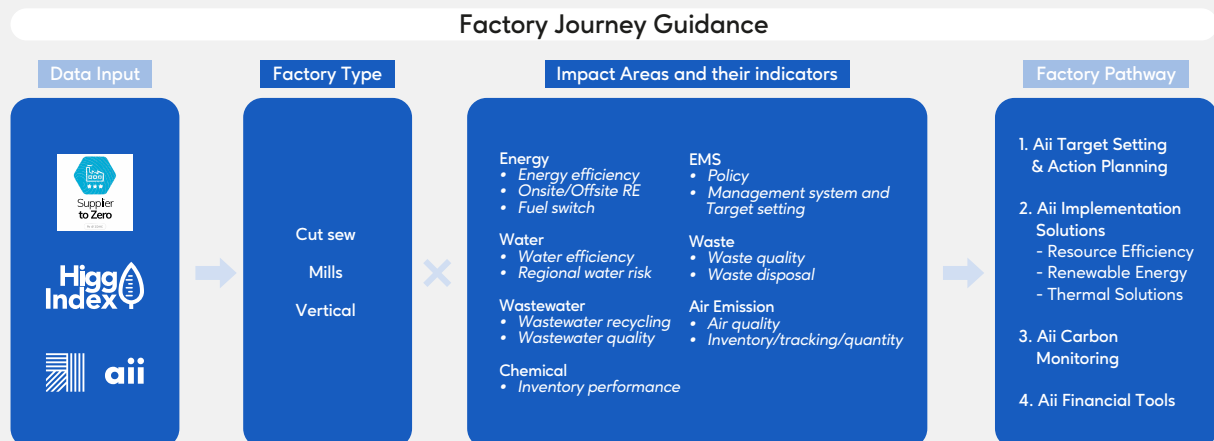
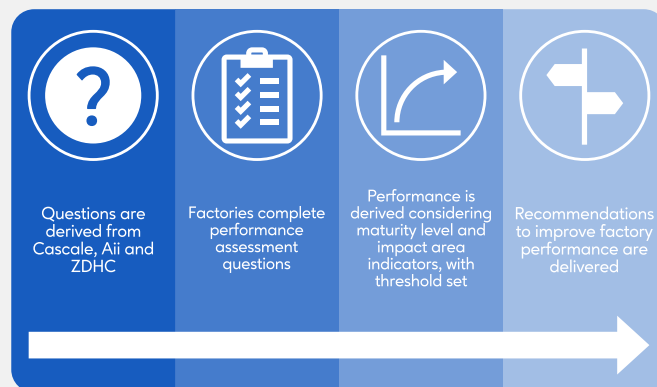
**Data Analysis and Harmonized Model:** Incorporated data from Higg FEM 4.0 (Cascadia), ZDHC Roadmap to Zero databases and Aii program records to ensure compatibility and coherence

**Impact Area Focus:** Through a gap analysis process, comparisons were made between programs Clean by Design, Carbon Leader Program, and the ZDHC Roadmap to Zero Leadership Program with Higg FEM 4.0. The focus was decided on energy, water, wastewater, chemicals, waste and air emissions due to the biggest overlap in gap analysis.

**Flexibility:** Allow factories to address high-priority areas without redundant efforts.

**Thresholds and Indicators:** Tailor recommendations to factory maturity levels and improvement potential.

## Factory Journey Methodology



The results are then provided in a report outlining:

- A summary of all impact areas' pathways
- Opportunities for improvement identified from each impact area in energy, water, wastewater, chemicals, waste and air emissions
- Improvement pathways based on the high/low opportunities
- Recommended pathway representing highest priority and an optional improvement pathway highlighting other improvement opportunities

A data pilot was conducted across over 100 factories in Vietnam, Cambodia, Bangladesh and other countries to validate the Factory Improvement Journey. This aimed to test tools, refine improvement pathways and demonstrate measurable results. These regions were part of the initial roundtable discussion and were prioritized due to the availability of GIZ projects and initiatives located within them\*.

*\*A regional adaptation element where pathways are tailored to reflect regional challenges and opportunities, ensuring context-sensitive guidance for diverse geographies is currently being integrated.*

“Improved communication and alignment with brands were highlighted as critical factors for success by the factories that participated. Stakeholders have emphasized the importance of having structured, actionable tools that align with industry standards and sustainability goals, which further reinforces the need for continuous adaptation and refinement of these tools.”

*Taken from a report externally created by an independent consultant, commissioned by ZDHC, Aii and Cascale*

## Proof of Concept - The Results

### 1. Energy and Water Performance:

- 61% of pilot factories improved energy efficiency.
- 77% showed significant improvements in water usage efficiency.

### 2. Wastewater and Chemical Management:

- Modest improvements in wastewater recycling rates were observed, reflecting data quality challenges.
- 20% of factories improved chemical management, highlighting the need for better-aligned indicators.

### 3. Regional Insights:

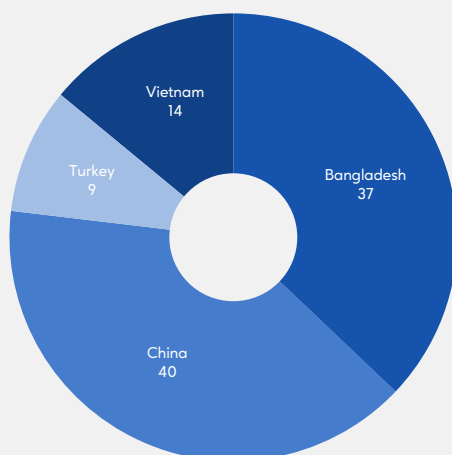
- Bangladesh and China exhibited the highest improvements, particularly in energy and water metrics.
- Regional variations underscored the importance of localized pathways and program focus.

# Evaluating the Impact through Proof of Concept

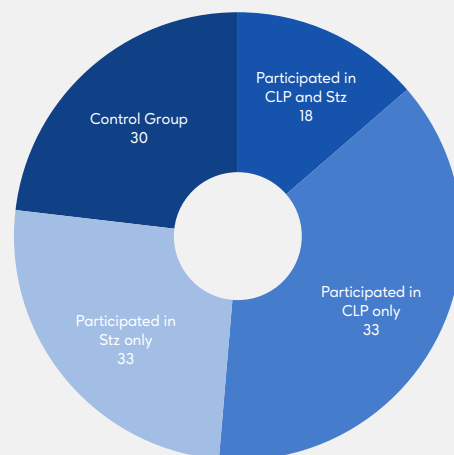
Adopting and creating industry-wide programs is not possible without continuous feedback, testing and use by the industry itself. Without factories implementing the Factory Improvement Journey, how are we going to understand the best ways to improve it?

An assessment undertaken by Cascale, Apparel Impact Institute (Aii), and ZDHC highlights the transformative potential of industry-wide accepted assessment and improvement programs to improve sustainability performance within the apparel, leather, textile and footwear industries. Examining factories' performance through the lens of the Factory Improvement Journey baseline data from 2021 was utilized in tracking supplier participation in programs. Improvement program participation was followed in 2022 while their progress was evaluated in 2023 further exploring the Factory Improvement Journey's effectiveness. Through feedback collected from factories and stakeholders, this project sheds light on the critical role of tailored improvement cycles in achieving meaningful and lasting change.

Pilot Factories Country Distribution



Participation Record of Pilot Factories



Factories were encouraged to adopt a one-year improvement cycle for quick assessments and adjustments. While stakeholders advocated for longer cycles of two to three years, results demonstrated significant improvements in energy consumption, water efficiency and wastewater recycling.

## Working from the Inside

By connecting factories to capacity-building programs aligned with industry-wide accepted assessment frameworks and tailoring improvement cycles to their unique needs, the Factory Improvement Journey offers a scalable model for fostering meaningful impact. As the journey evolves, deeper collaboration with stakeholders and alignment with global initiatives will be essential in accelerating environmental improvements through responsible business conduct and reducing inefficiencies across global supply chains. Creating one path to success comes with constant use and cooperation on a

global scale. It's a mammoth undertaking designed to create efficiency, trust and transparency in an industry that calls for this kind of initiative. Together, we can build a more sustainable, transparent and efficient industry for all stakeholders.

The Factory Improvement Journey, will be available  
**on demand** for all interested users via the  
**apparel alliance website**.

*The Data Matrix is part of The Data for Due Diligence Project. This project is funded by financial means of the German Federal Ministry for Economic Cooperation and Development (BMZ) and supported by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH.*

## Join the Journey

We invite industry stakeholders, sustainability experts and multi-stakeholder initiatives to share their knowledge and contribute to our collective capacity building efforts. Your insights can drive meaningful change and expand our collective understanding of sustainable practices.

- 1. Initial Submission:** Submit a detailed proposal outlining your capacity-building pathway through our online submission portal at [designated website/email].
- 2. Review Process:** Our collaborative review committee, comprising representatives from Cascale, Apparel Impact Institute, and ZDHC, will:
  - Evaluate the proposed pathway's alignment with industry standards
  - Assess potential impact and scalability
  - Verify methodological rigor and practical applicability

By using this guidance, you acknowledge and agree that Cascale, Apparel Impact Institute, and ZDHC shall not be held responsible for any direct, indirect, or consequential damages arising from its use.