apparel impact institute

Draft Methodology of Apparel Impact Institute's Energy and Carbon Benchmark

Apparel Impact Institute's Energy and Carbon Benchmark: Methodology

Consultation Draft v0.9 - November 2025

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2. Context and Theory of Change

To date, over 600 apparel and footwear companies have approved science-based targets (SBTs) or made commitments to set them via the Science Based Targets initiative. This is driving companies to take concrete steps to reduce greenhouse gas (GHG) emissions across the value chain. As companies develop plans to deliver on their SBTs, they are looking for robust, independent benchmarks or guidelines on "good" energy and GHG emissions performance for manufacturing processes and materials. For example, companies want to know the energy and GHG emissions profile for "better" performing textile mills versus average ones. With this information, brands can elect to source from suppliers that meet higher performance requirements, manufacturers can make operational and investment decisions to improve performance, and stakeholders will have a consistent benchmark to judge performance. Most critically, textile mills with high performance can - and should - be recognized and rewarded with increased business and engagement suitable to their advanced state of production.

Apparel Impact Institute (Aii) has initiated an open and inclusive process to develop energy and carbon performance benchmarks for the apparel sector. From discussions with various industry stakeholders, Aii understands that several brands and organizations are exploring similar performance benchmarks or would like to see one developed for the industry. Aii believes it is critical to create one independent and widely agreed-upon benchmarking tool so that the sector can focus its attention on achieving better performance rather than developing and debating different performance schemes.

The theory of change that underpins the benchmark is that facilities can use the tool to appraise their own performance and highlight opportunities for improvement – and, in due course, brands can include energy use and GHG emissions performance (judged against objective benchmarks) within their basket of sourcing metrics. This will provide the business imperative for manufacturers to make investments to improve the energy efficiency and reduce GHG emissions in their facilities. By meeting objective, tailored energy use and emission targets, brands and manufacturers can focus on improving with the most appropriate interventions. This shifts the priority to performance and away from specific, mandated interventions that may have unintended consequences.

This document describes how the methodology of the benchmark was developed and its intended use. With the publication of this document, Aii is soliciting public feedback to refine and improve the methodology. Feedback can be shared through this survey or via email.

2.1. Scope & purpose

The Aii benchmarking tool provides a structured way to assess the energy use and GHG emissions performance of textile manufacturing facilities, with a current scope of spinning, weaving, knitting, wet-processing (including garment washing), and garment manufacturing. It delivers quantitative indicators that allow facilities and brands to understand how efficiently energy is being used and where improvement opportunities exist.

Unlike existing tools and methodologies (e.g., FEM, brand initiatives) that can provide figures for the total energy use and emissions for an entire factory, the Aii benchmarking tool allows the calculation of process-level performance, distinguishing between vertical facilities (those that perform more than one type of processing on site, such as spinning, knitting, weaving, or dyeing), and non-vertical facilities that focus on a single process. This approach builds on and complements other approaches to give a level of detail that can help both brands and facilities better understand and improve performance. The approach allows monitoring of year-on-year progress for individual facilities, and also allows objective facility-to-facility and regional comparisons.

The benchmark enables analysis at different operational levels and can provide:

- Total energy use and emissions for a facility
- Energy and emissions profiles for individual departments within a vertical facility
- Tailored benchmark figures for facilities, based on energy sources and the exact product and processes carried out, against which performance can be assessed
- An indication of performance against those benchmarks

This level of detail makes it possible to identify specific areas of strength or inefficiency and to assess performance against tailored benchmarks that reflect the facility's energy sources, production mix, and process configuration.

2.2. Contributors and development partners

The Aii Energy and Carbon Benchmark was developed through an open and collaborative process involving a diverse group of technical experts and industry representatives. The methodology and model processes were defined by specialists across textile manufacturing disciplines, including wet and dry processing.

Technical experts provided data, reviewed model assumptions, and advised on key parameters such as fiber type, yarn structure, process configuration, and machine utilization. The Technical Review Committee (TRC) collectively reviewed the model processes and baseline parameters to ensure they reflect typical industry practice and maintain consistency across processes and materials, aligning with Aii's broader energy and emissions datasets.

Aii continues to consult with stakeholders to refine the benchmark and welcomes further contributions to strengthen model processes, data sources, and performance indicators ahead of version one of the tool.

Contributors involved in the development of the Aii Energy and Carbon Benchmark

Role	Organization
Project Lead	Apparel Impact Institute (Aii)
Technical Review Committee (TRC)	Artistic Milliners: Saqib Sohail Aii: An Zhou, Kurt Kipka, Leonie Schmid Bluesign: Reinhard Umber BluWin: Dr. Siva Pariti Cascale: Joel Mertens, Jeremy Lardeau Colour Connections: Phil Patterson Elevate Textiles: Jimmy Summers H&M: Kim Hellstrom, Niklasx Johansson Inditex: Fernando Echevarria Camarero Made2Flow: Atnyel Guedj MAS Holdings: Rakith Alkegama RESET Carbon: Sophie You, Cyrus Lam, Liam Salter
Technical experts	BluWin: Dr. Siva Pariti Colour Connections: Phil Patterson Elevate Textiles: Jimmy Summers Made2Flow: Atnyel Guedj Niederrhein University: Prof. Dr. Marcus O. Weber RESET Carbon: Sophie You, Cyrus Lam, Liam Salter Rieter: Pankaj Dangra, Anna Diews & Robert Wieseckl The Idea Smith: Nimish Dave University of Leeds: Prof. Muhammad Tausif
Data sources	1) Research and pilot studies: Apparel Impact Institute, BluWin, Colour Connections, Elevate Textiles, RESET Carbon 2) Statistical analysis (based on a database of over 12,000 facilities in 53 countries for dry-processing operations: Made2Flow

	3) Proprietary datasets and model calculations: Colour Connections 4) Environmental factory data: Worldly 5) Anonymized model process calculator software 6) Anonymized process benchmark sources

Aii would like to thank all of the members of the Technical Review Committee and the technical experts for their input during the benchmark development.

2.3. Definitions and key terms

The following definitions are provided to clarify terminology used throughout the Aii Energy and Carbon Benchmark methodology.

Term	Definition
Benchmark	A reference point used to evaluate the energy use and greenhouse gas (GHG) emissions performance of textile manufacturing processes and facilities.
Model process	A representation of a typical industry process (not best or worst case) used to describe common operations within spinning, knitting, weaving, wet-processing, and garment manufacturing.
Energy intensity	The total energy required to complete a process or sub-process, expressed per kilogram of product (kWh/kg or MJ/kg), and accounting for fuel energy content and system inefficiencies (e.g., boilers, generators).
Emissions intensity	The GHG emissions associated with the energy used in a process or facility, expressed per kilogram of product (g CO_2e/kg). Calculated using average emission factors for thermal and electrical energy.
Thermal energy	Energy generated from fuel combustion (e.g., boilers) that is used for heating processes in textile manufacturing.
Electrical energy	Energy supplied from the grid or on-site generation (gensets or cogeneration) that is used to power machinery and utilities.
Vertical facility	A manufacturing site that performs more than one processing stage on-site (e.g., spinning, knitting, and dyeing).
Non-vertical facility	A manufacturing site dedicated to a single processing stage.

Utility map	A schematic overview of where utilities (e.g., electricity, steam, thermal energy) are used within a facility, often applied to vertical sites to assess departmental performance.
Weighted average	A calculation method used to aggregate performance indicators (e.g., energy or emissions) across multiple products or processes, proportionally to their production volumes.

3. Benchmark Methodology

This section describes the approach we took to develop the benchmark. A more detailed explanation of the underlying calculations - including the process-level assumptions, conversion factors, and data validation methods - can be shared upon request.

3.1. Identify the most common textile substrates and processes

To start, we identified the most common material types used across apparel and home textiles product categories (e.g., athletic, casual, linens). We did this by surveying a number of brands across product categories and leveraging Aii's own industry knowledge. We then identified the most common textile processes used to create those materials.

The prototype benchmark calculator contains the most common processes for fibers, yarns, and finished products (i.e., woven, knitted, knitwear) for the most common material types. The set of materials and processes in the benchmark is extensive, but not exhaustive. It contains the most common:

- Fiber types, including cotton, polyester, polyamide, acrylic, viscose, lyocell, wool, silk, and common blends
- Yarn types, including continuous filament, ring, open end, woollen, and worsted
- Knitted fabric, including weft knitted, warp knitted, and flat knitted
- Woven fabrics, including those produced on rapier, air jet, projectile, and water jet looms
- Wet processing techniques, including exhaust dyeing (of fibers, yarns, fabrics, and garments), continuous dyeing of fabrics, printing of fabrics and panels, and garment laundry
- Garment and product types

We constructed the benchmarking tool such that any new product or process can be included to ensure the tool remains comprehensive.

3.2. Create model processes for the most common processes

No two facilities carry out exactly the same process, so model processes are used to describe what is typical in the industry (meaning commonly applied, not the best or worst). Included in the benchmark calculator database are full details of the model processes and all sub-processes. For example, in the case of wet processing, it covers preparation, coloration (dyeing and printing), post-coloration wash off, and finishing – as well as key assumptions. For example, the model process detail includes the number of individual process baths and their temperatures for batch processing and temperature details for continuous and finishing processes.

The model processes have been agreed upon by the technical experts and reviewed by the Technical Review Committee (TRC). As described in section 6 below, we are soliciting input on these model processes, and we will revise them if better data is available.

3.3. Develop energy intensity[1] figures for model processes

Our aim was to create baseline energy intensity data for all listed processes and sub-processes that:

1. Reflect the energy required for each process and sub-process
2. Reflect the energy content of fuel required to provide useful energy to a typical, theoretical single-process facility (i.e., a facility that only dyes acrylic or a facility that only dyes cotton using reactive dyes on jets)
3. Are adjusted to make sense relative to each other

The energy intensity is based on the energy content of the fuels used to create useful heat and electricity for the processes in a real-world scenario, and not simply the energy demand of the process. The energy intensity figures include considerations for typical inefficiencies of boilers and generators, typical machine utilization (the amount of time machines are switched on but not processing textiles), re-process rates, and energy requirements for ancillary processes, such as labs.

The energy intensity of the products and processes in the benchmark calculators will be reviewed and adjusted based on data from the pilot phase, October 2025 through January 2026. Additional information regarding the trial can be found in section 6.

[1] Energy intensity covers the full energy content of the fuel, including inefficiencies in combustion (i.e., lost heat)

3.3.1 Develop energy intensity figures for wet processes

In an ideal world, we would exclusively use primary data from facilities to create benchmarks for different processes. This data would include the actual energy required for different processes and the energy content of the fuel used to deliver this energy, factoring in inefficiencies in energy generation, transmission, and usage. However, very few facilities currently have verified data accurately attributed on a process-by-process basis in the form required (i.e., the energy content of the fuel used to create useful heat and electricity for those processes).

Even if we were to obtain fuel-content energy intensity data for single process facilities, we would need to collect it from a large number of facilities encompassing a full range of abilities to avoid outliers and create a credible average. This is simply not practical if we want to achieve ambitious decarbonization targets by 2030.

The figures in the benchmark calculator database are therefore calculated using primary data where available, modeled data from proprietary software, and professional judgment. The result is a provisional database of calculated process and sub-process energy intensity figures in terms that we believe represent current practice in the industry. The database of sub-process energy intensity figures allows us to piece them together to create new processes.

To show how the data were sense-checked (and how primary data may refine them in the future), we used the following formula to compare process demand with the energy content of the fuel needed to supply useful energy to the process.

$$\begin{array}{c}\text{Energy}\\\text{Content}\\\text{of Fuel}\\\text{kWh/kg}\end{array} = \left[\begin{array}{c}\text{Process}\\\text{Demand}\\\text{kWh /kg}\end{array} \div \begin{array}{c}\text{Electricity \%}\\ \\ \text{Thermal \%}\end{array} \div \begin{array}{c}\text{Genset}\\\text{Efficiency \%}\\ \\ \text{Boiler}\\\text{Efficiency \%}\end{array} \div \begin{array}{c}\text{Machine}\\\text{Utilisation \%}\end{array} \div \begin{array}{c}\text{Process}\\\text{Efficiency (RFT,}\\\text{Machine}\\\text{loading) \%}\end{array} \right] + \begin{array}{c}\text{Ancillary}\\\text{processes}\end{array}$$

This explains why real-world figures for continuous processes are higher than process demand for batch processes - mainly because continuous machines typically have low utilization.

Typical boiler efficiency is roughly 65% and typical generator efficiency is roughly 33%, which largely explains why actual energy intensities are much higher than process demand.

The energy and emissions intensity figures from the provisional benchmark calculators are what is expected from a typical facility and do not represent a pass / fail target.

3.3.2. Develop energy intensity figures for dry processes

Technical experts in spinning, knitting, and weaving advised on the key parameters that affect the energy intensity of a particular process. For example:

- **Spinning**: Fiber type, spinning method, yarn count, post-spinning processes
- **Knitting**: Fiber type, gauge, (for weft knit) diameter of cylinder
- **Weaving**: Loom type, fabric construction, material type
- **Product assembly**: Product type, customer age/gender, material type

Due to the lack of single-process facility and sub-process primary data, it was not possible to create additive energy intensity figures for model processes, as was the case for wet processing.

However, Made2Flow[2] has a database of complex facility data from over 12,000 facilities in 53 countries. Via statistical analysis, it was possible to extract relative energy intensity factors for the key parameters highlighted by the technical experts. For example, the relative energy intensity of fine yarns compared to coarse yarns using the same machine and fiber type, or the relative energy intensity of fine gauge knits relative to coarse gauge knits.

The relative energy intensity factors for the key parameters for spinning, knitting, weaving, and product assembly were extracted by Made2Flow and inserted into a calculation tool to create the prototype energy intensity figures for the listed yarns, fabrics, and final product types.

For the pilot phase, the energy intensity figures created by the Made2Flow statistical analysis were adjusted to align them with the relevant average kWh/kg figures for each tier, as indicated by the series of reports by Aii on the GHG emissions of the apparel sector (the most recent covers 2023). All results collected during the pilot phase will be analyzed, and the benchmark data figures will be refined accordingly to ensure alignment with validated facility data and observed performance trends.

3.4. Develop emissions intensity figures

To create emission intensity figures for each process and sub-process, we multiplied the energy intensity figures by average emissions factors for the fuels used in manufacturing regions.

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[2] Made2Flow is a data company based in Germany that specializes in collecting and validating environmental data across fashion supply chains.

As a result of the TRC consultation, we included both thermal and electrical emission factors to provide a full picture of performance.

To create emission intensity figures for each process and sub-process, we estimated the percentage split between the energy content of fuel required to provide thermal and electrical energy. We will review these splits after analyzing the data from the initial trial phase.

We calculated the emission factors for thermal energy using a weighted average based on the split of on-site fuels used for boilers and direct heating and the emissions factors of those fuels. Data on on-site fuel use (plus purchased steam) for seven major manufacturing nations - China, Taiwan, Vietnam, Bangladesh, India, Indonesia, Pakistan - was provided by Worldly, and emission factors for the fuel types (and purchased steam) were provided by Cascale. The thermal emission factor will be further refined after a review of the pilot phase.

We calculated electricity emission factors using weighted average grid emission factors for textile manufacturing regions - the seven nations mentioned above and a (lower) figure for the EU, which is assumed to account for 20% of textile manufacturing,- plus the emission factors for on-site electricity generation calculated using a weighted average based on a split of on-site fuels used for gensets.

Provisional figures for Grid Emission Factors were taken from IEGS,[3] and estimates for major global manufacturing nations were taken from a report by Fibre to Fashion[4].

The split between grid and on-site electricity generation is assumed to be 80% grid / 20% on-site, as advised by the TRC, and the conversion factor of 2.4 is assumed when converting emissions associated with burning fuel with an energy content of 1 kWh to the emissions associated with the creation of 1 kWh of useful electricity.

The electrical emission factor will be further refined during the pilot phase, using up-to-date information from IEA for more producing nations, and using up-to-date production volume information from Worldly.

The figure of an 80:20 split between grid and on-site generation and the conversion factor will be reviewed after the pilot phase.

[3] https://www.iges.or.jp/en/pub/list-grid-emission-factor/en

[4] https://www.fibre2fashion.com/industry-article/8471/top-10-exporting-countries-of-textile-and-apparel-industry

3.5. Create tailored benchmarks to evaluate performance

To develop tailored benchmarks, facilities will need to provide details of their products and processes, including production volumes (by weight) - ideally for the past 12 months.

After a facility provides details of the production volumes for each individual product and process type, a weighted average energy intensity value (in terms of kWh/kg) and emissions intensity value (in terms of g CO_2e / kg) are automatically calculated. The weighted average approach is used so that benchmarks are fair and appropriate for the facility, product, and process type. The Aii benchmark calculator provides target information in terms of:

- Weighted average emissions (gCO_2e/Kg)
- Weighted average energy (kWh/kg)
- Weighted average energy (MJ/kg)
- Thermal energy indicator (kWh/kg)
- Electrical energy indicator (kWh/kg)
- Electrical use indicator (kWh/kg)
- Thermal emissions indicator (gCO_2e/kg)
- Electrical emissions indicator (gCO_2e/kg)

The benchmark performance indicator targets are derived mathematically from these generated figures, with an entry-level target being higher than the calculated figure and excellent performance having a target that is lower than the calculated figure.

We recognize that the actual emissions in terms of gCO_2e/kg relative to energy use in kWh/kg will be higher for facilities in geographical regions that are more reliant on high-emission fuels such as coal. Thus, to permit appraisal of emissions performance against regional peers, we will create regional emissions targets to operate alongside the main global targets, using internationally recognized grid emission factors and on-site fuel use data provided by Worldly.

4. Assessment of Facilities Against the Benchmark

Step 1: A facility develops or provides three key pieces of information, plus some basic factory details:

- Fuel use and grid electricity
- Production volumes for each product/process type

- This provides an overview of all the products and processes, including those over the assessment period
- A utility map[5] (For vertical facilities)
    - This explains where utilities, including electricity and thermal energy, are used in a vertical facility, and allows energy and emissions to be calculated for different parts of a vertical facility
    - It also provides details of energy use in sub-departments (e.g., dyeing and finishing) that can be used for improvement programs

While full sub-metering is not common, the knowledge of on-site engineers is almost always sufficient to provide a utility map that is accurate enough to give reliable indications of performance, particularly for the target audience of strategic suppliers identified by Cascale and Aii based on their size and reported emissions. Over time, sub-metering will improve, but if we wait for industry-wide sub-metering to become the norm, we will likely have to wait an additional 10 to 15 years.

Step 2: A tailored energy and emissions benchmark is calculated using the Aii Benchmark Calculator.

Described in section 3.5 of this document.

Step 3: The facility is assessed

It is intended that the benchmarking will be a two-step process. The benchmark calculators are a tool for the industry, and objective self-appraisal will be the first step to determine performance against benchmarks and identify improvement opportunities.

A second step of independent verification may then be employed where appropriate:

- First, the submitted documents and preliminary benchmarks are reviewed, and the performance level is calculated via a digital platform.
- An on-site review, if requested, will verify the information provided in the utility and production map. The fuel and electricity information will be reviewed, and the benchmarks and performance indicators for both energy and emissions will be verified.

[5] It is strongly recommended that facilities complete a utility map. Although it is not necessary to create one to appraise the overall facility performance (a 'black box' approach can be applied), it provides important insights into where improvement opportunities lie. For example, a vertical spinning and dyeing factory may appear to have 'average' performance using a black box approach, but a utility map may show the spinning performance is excellent and the dyeing performance is poor.

- Aii is conducting a pilot of this process from October 2025 - January 2026 to determine the details of the on-site assessment. Aii and Made2flow will gather data for the pilot using an online platform. This will be fully funded by Aii to incentivize participation and early adoption. Made2Flow is a data company based in Germany that specializes in collecting and validating environmental data across fashion supply chains. The outcomes of the pilot will inform a formal rollout plan that will be made available in January 2026.

The weighted average approach ensures that the benchmark for a facility is appropriate to the mix of processes it carries out. To smooth out seasonal variations, we will ask for information on fuel, electricity, and production over a 12-month period. If information is only available for a shorter period of time, this is still likely to give a very good indication of performance, but it may be considered somewhat provisional.

Policing of kg of product delivered is by no means 100% accurate, and there is an argument to say that the levels of confidence in departmental energy and emissions measures will be in the same ballpark as production volumes.

Both energy use (independent of fuel type used for on-site heat/electricity and grid electricity) and emissions (contingent on fuel type used for on-site heat/electricity and grid electricity) will be appraised.

The performance indicator targets from the Benchmark Calculator are based on industry averages, but the facility will be evaluated against the emissions benchmark using the energy content of its actual fuel use and its specific grid electricity consumption, and calculating a kg CO_2e / kg figure for the facility's production.

Whilst the g CO_2e/kg is the key indicator from this benchmarking process, a facility will assess its actual performance (and where appropriate, the performance of tiers within a vertical facility) against the following more detailed metrics.

- Weighted average emissions (gCO_2e/Kg)
- Weighted average energy (kWh/kg)
- Weighted average energy (MJ/kg)
- Thermal energy indicator (kWh/kg)
- Electrical energy indicator (kWh/kg)
- Electrical use indicator (kWh/kg)
- Thermal emissions indicator (gCO_2e/kg)
- Electrical emissions indicator (gCO_2e/kg)

In due course, it is intended that the facility performance for the above metrics will be compared to the aforementioned mathematically derived performance indicator targets. They will then have two broad options in terms of improvement:

- Changes to on-site processing, which can affect fuel and grid electricity use in the short term, leading to reduced emissions
    - Reducing process demand via process modifications, new machinery, reduced re-processing, etc., or
    - Improving utilities such as boiler/genset efficiencies or heat recovery
- Changes in fuel type and reductions in grid emissions (which may be more challenging in the short term)

We understand that emissions are dependent on the type of fuel used on-site and for the generation of grid electricity, so it is conceivable that we will see facilities judged to be very good in terms of energy use but poor in terms of emissions due to their reliance on high-emission factor fuels – and vice versa.

We recognize that the reduction of emissions potentially provides a much greater challenge for facilities in geographical regions that are more reliant on high-emission fuels such as coal. However, some pressure to switch fuels at the factory and grid level will need to be applied to decarbonize the industry.

4.1. Understanding benchmark outcomes

Benchmark outcomes provide an indicative evaluation of each facility's energy and emissions performance relative to modeled industry averages. Results are expressed as weighted average values for energy use and emissions, tailored to the specific mix of processes, products, and energy sources reported by the facility. Performance is categorized into three levels.

- **Above benchmark:** indicates performance better than the modeled average, suggesting high operational efficiency and low relative emissions. Facilities in this category are encouraged to recognize and communicate the actions that enabled such results and to collaborate with brand partners on longer-term climate goals, including increased business allocations or context-based target setting to sustain and scale improvements.
- **Meets benchmark:** indicates performance consistent with the modeled average for comparable process and material configurations. These facilities are advised to review both the actions taken and those not taken to achieve performance, maintaining

transparency around operational practices. Joint action planning or targeted activities may be developed to sustain or further improve performance in alignment with business objectives and climate strategies.

- **Below benchmark:** indicates performance lower than the modeled average, highlighting opportunities for efficiency improvement or emissions reduction. Facilities in this category are encouraged to analyze structural or regional factors influencing results, and to develop an action plan, potentially in collaboration with brand partners, to address performance gaps and progress toward benchmark levels. Where relevant, facilities are also invited to share feedback and recommendations with Aii to inform future methodological refinements.

For vertical facilities, sub-department results can be reviewed to identify process stages performing above or below the benchmark, helping to prioritize targeted efficiency measures. Benchmark outcomes are designed to support internal management, encourage continuous improvement, and prompt strategic discussion between brands and suppliers. At this stage, they represent indicative results, not certification or formal public disclosure.

5. Intended Use

Due to the limitations outlined in sections 3 and 4 of this document, the current version of the Aii Energy and Carbon Benchmark should be considered preliminary and subject to further validation. The methodology and figures presented are being tested during the pilot phase (October 2025 – January 2026), which will allow Aii and its contributors to refine the energy and emissions calculations, verify underlying assumptions, and strengthen data accuracy.

During this pilot period, benchmark results are intended solely for testing, feedback, and learning purposes. They should not be used for public disclosure, external reporting (e.g., impact reports or sustainability communications), or comparative claims between facilities or brands. Final benchmark figures and performance indicators will be published after the pilot phase and following the public consultation and review process scheduled for early 2026.

6. Consultation Period and Next Steps

The long-term vision for the Aii Benchmark is to create a unified, credible, and widely adopted standard that enables consistent measurement of energy use and GHG emissions across the apparel and footwear industry. To achieve this, Aii is working with industry partners to integrate the benchmark into existing data collection and verification systems, allowing facilities and brands to access a single, interoperable platform for performance assessment. As part of this vision, Aii intends to include regional emissions benchmarks alongside the global figures in

Version 1.0, to support fair comparisons and more accurate identification of improvement opportunities across different geographies.

Through January 2026, Aii will be testing the benchmark with facilities and brands. We are seeking facilities to pilot the benchmark by replying to a questionnaire and providing qualitative feedback on the applicability and ease of use of the tool. We are enlisting brand support to nominate facilities to participate in the pilot.

We are also soliciting feedback from interested parties on the methodology and the benchmark. Written feedback can be submitted through this survey or emailed to benchmark@apparelimpact.org. During the consultation period, Aii will host informational webinars to share progress and learnings, and to solicit feedback.

Aii plans to publish version 1.0 of the benchmark tool in January 2026.

Aii anticipates that as the benchmark becomes widely adopted, we will gain visibility into information and performance data that may create the need to adjust the figures and assumptions in the calculation methodology. Thus, following the publication of version 1.0 of the tool, Aii will host two consultation periods each year to identify necessary updates to the tool. A review committee will inform this process and support decision-making for the release of future versions of the methodology and tool on a semi-annual basis.

7. Change Log & Version History

Version	Date	Description of changes
v0.9	November 2025	Initial draft of the methodology framework and structure, shared for public consultation to gather feedback and inform the release of version 1.0.