



# ANNUAL *IMPACT* REPORT 2023

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# I. Introduction



# Introduction

The year 2023 marked the release of the final installment of the [Intergovernmental Panel on Climate Change's \(IPCC\) Sixth Assessment Report \(AR6\)](#), an eight-year-long undertaking from the world's most authoritative scientific body on climate change.

This report gave a stark final warning to the world: We have to limit global temperature increases in line with the 2015 Paris Agreement by transitioning to net zero by no later than 2050. If there is no immediate action, the consequences of rising greenhouse gas emissions around the world will be devastating – destroying homes, jeopardizing livelihoods, and fragmenting communities, among other impacts.

The global apparel sector contributed an estimated 897 million tonnes of carbon dioxide equivalent (CO<sub>2</sub>e) to the global carbon budget in 2021 – roughly 1.8 percent of global GHG emissions.<sup>1</sup> If we do not change at an unprecedented speed and scale, we will fall short of the necessary decarbonization targets to align with the 1.5°C pathway.

**The window to address the climate crisis is rapidly closing.**

**There is not one second to waste.**



<sup>1</sup> Source: [Aii\\_RoadmapReport-615-1.pdf \(apparelimpact.org\)](#)



# Letter from Lewis Perkins

**Dear Friends,**

As I reflect on Aii's strong growth over the last year, I am filled with pride and gratitude for the increasing industry-wide collaboration and commitment that continues to define our work.

When we launched Aii, we knew the impactful and proven mill improvement program, Clean by Design, would be the foundation on which we could build pivotal partnerships and design innovative solutions to expand our decarbonization efforts. Six years later, we have broadened our portfolio to include diverse programs across supply chain tiers and global regions, research and exploration around renewable and thermal energy, and innovative grant-making to scale decarbonization programs and solutions. To date, over 50 brands/retailers have partnered with Aii and we have reached over 1070 producers to address climate change globally. We are putting our vision into motion, and in 2023, our emphasis was squarely on execution and activation to move us closer to our ambitious goal to enable the reduction of 100 million tonnes of CO<sub>2</sub>e from the apparel supply chain by 2030.

After opening our first call for Climate Solutions Portfolio (CSP) applications in April, we granted \$1.7M to five solutions that we estimate will reach 70-90 facilities and 40,000 farms and achieve total potential emissions savings of almost 1.5 megatonnes CO<sub>2</sub>e. We also launched the CSP platform, which serves as a central hub for brands, retailers, industry stakeholders, and external commercial financing partners looking to accelerate decarbonization efforts. Finally, in the fall, we focused the second round of our CSP application process on finding partners to develop data-driven roadmaps on thermal energy and energy storage — critical solution areas that currently lack industry-wide knowledge and reliable data. We are partnering with two organizations that will develop roadmaps providing vital research to fill knowledge gaps hindering progress toward Net Zero.

In 2023, we made terrific strides in activating our blended capital strategy, bringing stakeholders together in New York during Climate Week and later in the year, with the support of the Rockefeller Foundation, at the

Bellagio Retreat Center in Lake Como. Fashion Climate Fund Lead Partners H&M Group, Lululemon, and PVH alongside HSBC, Standard Chartered, BNP-Paribas, Guidehouse, Brandix, MAS Holdings, and others convened in person for four days to activate blended finance toward decarbonization needs. As a result of these meetings, we have established working groups that will determine the best methods to connect producers with funding in key regions.

We were also thrilled to announce HSBC as our latest lead partner to the Fashion Climate Fund at COP28. We continue to raise the \$250M catalytic Fashion Climate Fund and seek additional lead partners to join us to unlock \$2B or more into the supply chain's decarbonization work.

However, while we celebrate our successes, we must acknowledge the challenges ahead. We can bring forth the most effective solutions and financial resources, but it will mean nothing if we can't demonstrate business value to producers and get their buy-in on this transformative work. We are ready to confront this challenge head-on and will spend 2024 deepening our engagement with producers, understanding their needs, and creating a conducive environment for adopting sustainable solutions. Producers must be at the table alongside brands, retailers, climate philanthropy, and financial institutions for the industry to meet its climate goals.

As we enter the new year, we embrace the challenges before us with bold determination and collective effort. Together, we can continue to drive positive change.



Warm regards,

*Lewis B. Perkins*

**Lewis Perkins**  
President, Apparel Impact Institute

# Our Impact in 2023 at a Glance

Overall Impact Achieved

**5.6%**  
OF GOAL  
ACHIEVED

2019: 1,735,971.23

2020: 1,616,173.01

2021: 126,337.07

2022: 475,279.50

2023: 1,676,078.77

GOAL:

**100 Mt CO<sub>2</sub>e**

saved over useful life by 2030

STATUS:

**5,629,839.58 tonnes CO<sub>2</sub>e**

saved over the useful life<sup>2</sup>

OR

**654,632.51 tonnes CO<sub>2</sub>e**

total annual reduction by producers that have completed Aii programs<sup>3</sup>

**Total annual actual GHG emission reductions (in tonne CO<sub>2</sub>e) per year over useful life by producers that have completed Aii programs**

2019	1,735,971.23
2020	1,616,173.01
2021	126,337.07
2022	475,279.50
2023	1,676,078.77

<sup>2</sup> Sum of total GHG emissions saved by producers participating in Aii's Climate Action Approach in each year from 2018 until the end of 2023 multiplied by the useful life factor of 8.6.

<sup>3</sup> Sum of total actual GHG emissions saved by producers participating in Aii's Climate Action Approach in each year from 2018 until the end of 2023.





SEE LEGEND  
ON PG. 64 FOR AN  
EXPLANATION OF ALL  
OUR PROGRAMS

**1070**  
Total producers reached through Aii's Climate Action Approach from 2018 until the end of 2023\*  
\* Producers can participate in one or several solutions and programs

**814**  
Producers which have completed or are active in a **CTA, CTS, & SCAP program** (Step 1 & 2 of Aii's Climate Action Approach) at the end of 2023

**340**  
Producers which have completed or are active in an **Aii impact program** (Step 3 of Aii's Climate Action Approach) at the end of 2023

**31**  
Producers which have completed or are active in a **CSP solution** (Step 3 of Aii's Climate Action Approach) at the end of 2023

**11**  
Producers which have completed or are active in a **CTM program** (Step 4 of Aii's Climate Action Approach) at the end of 2023

Aii's [Climate Action Approach](#), formerly known as the Carbon Leadership Program ([see 2022 impact report](#)), is a five-step methodology designed to lead producers on their journey toward decarbonization.

## Capital Unlocked

GOAL:

# 2 Billion \$ capital unlocked by 2030

STATUS:

**US \$111,285,312**

Total Capital Unlocked

=

**US \$88,790,767**

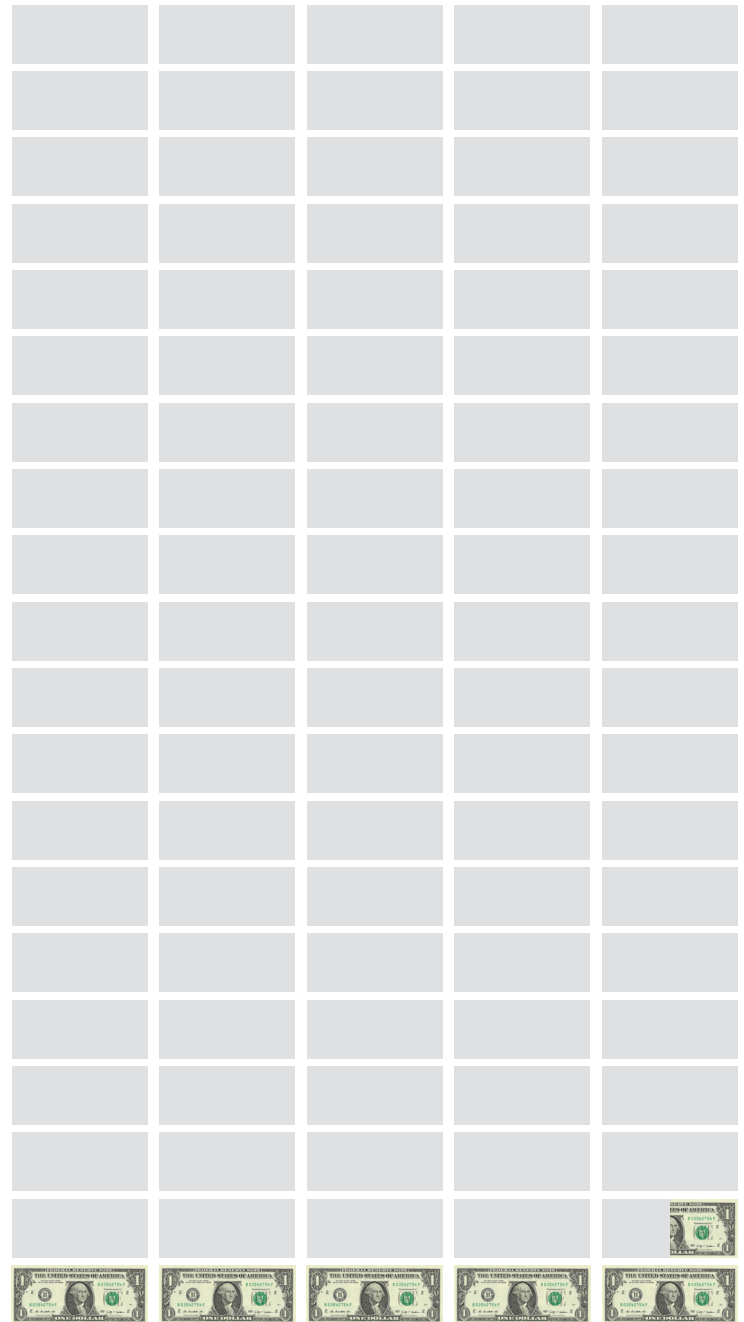
Total investments made by  
producers from 2018-2023

+

**US \$22,494,545**

Total Aii spending<sup>4</sup> from 2018-2023

**5.5%**  
OF GOAL  
ACHIEVED



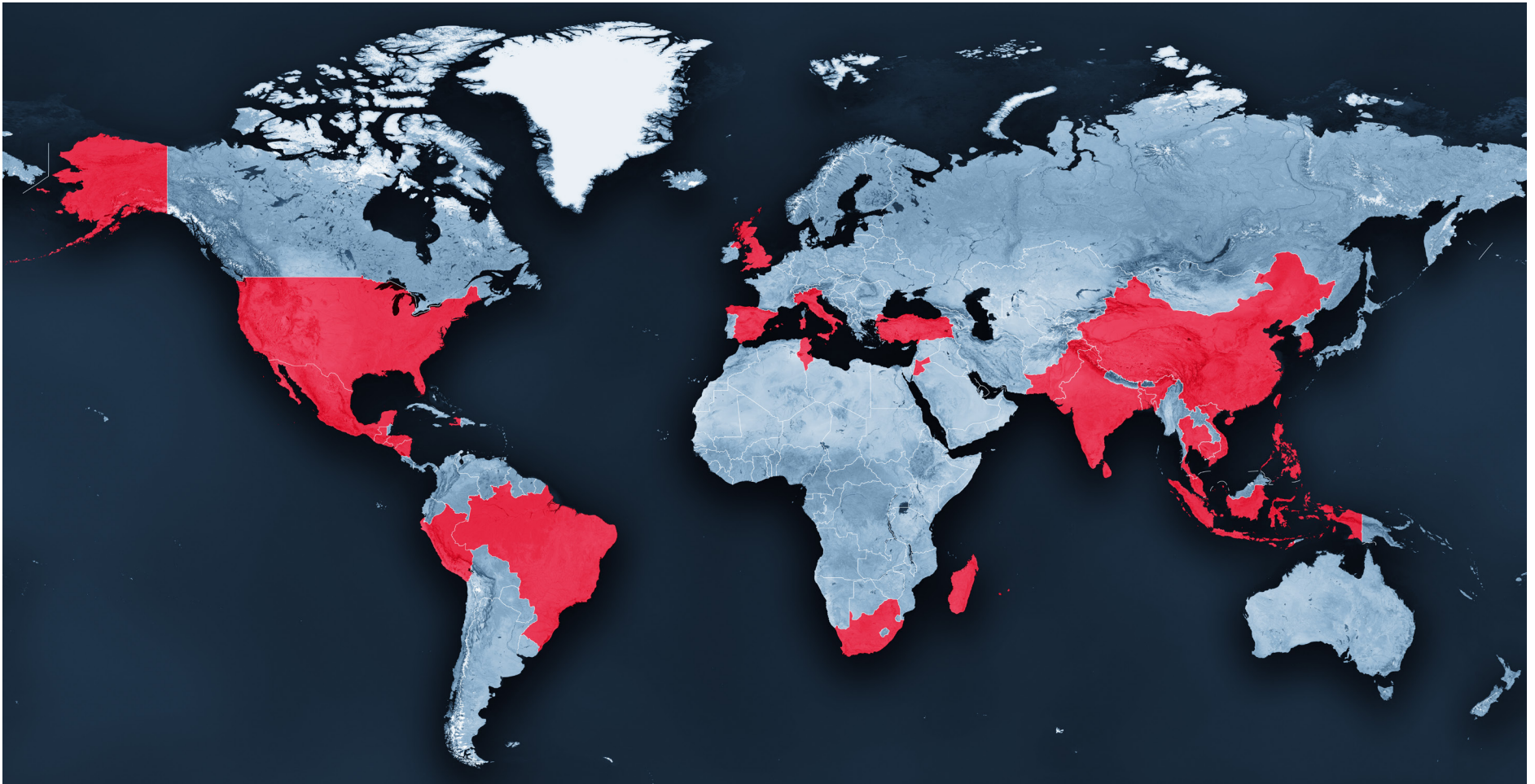
<sup>4</sup> This includes all expenses made by Aii, e.g. brand contributions, software development



## Aii's Climate Action Approach Regions

### Aii offered programs in a total of 31 regions<sup>5</sup> in 2023:

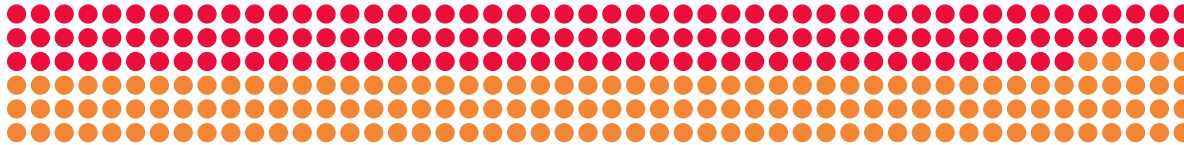
Bangladesh, Brazil, Cambodia, China, El Salvador, Guatemala, Haiti, Honduras, India, Indonesia, Italy, Jordan, Madagascar, Malaysia, Mauritius, Mexico, Nicaragua, Pakistan, Peru, Philippines, South Africa, South Korea, Spain, Sri Lanka, Taiwan, Thailand, Tunisia, Turkey, United Kingdom, United States of America, Vietnam



<sup>5</sup> A region has at least one producer that has started program work with Aii

# Key Impact Results of Producers That Completed a Solution of Aii's Climate Action Approach in 2023

TOTAL NO. OF PRODUCERS: **300**

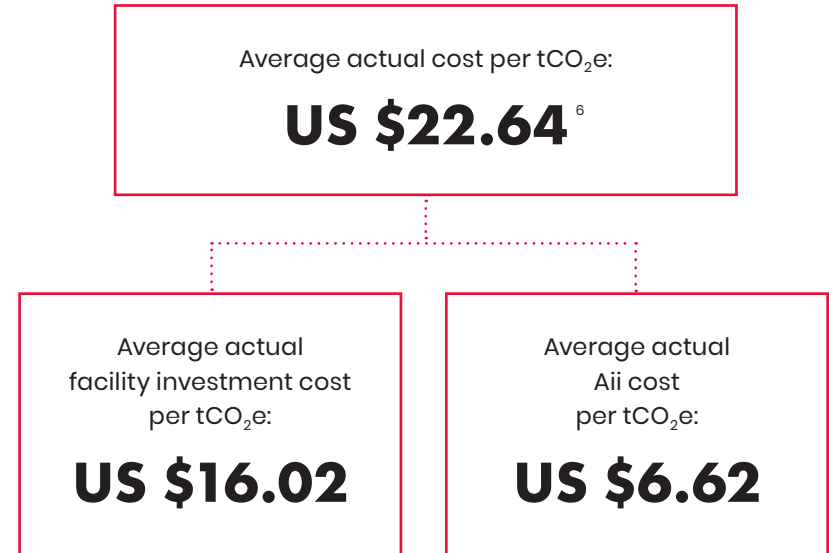
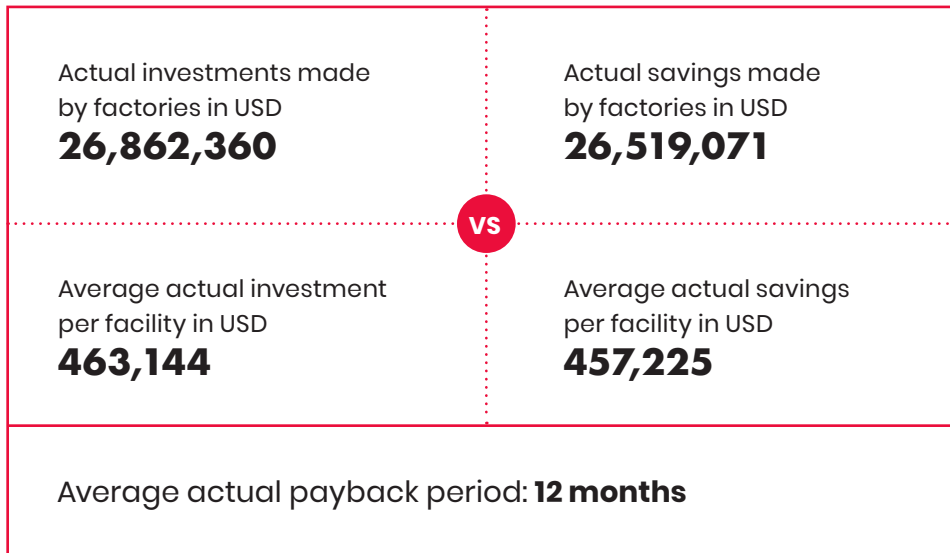


TIER 1: **145** TIER 2: **155**

TOTAL NO. OF BRANDS: **28**

TOTAL Aii SPENDING 2023:

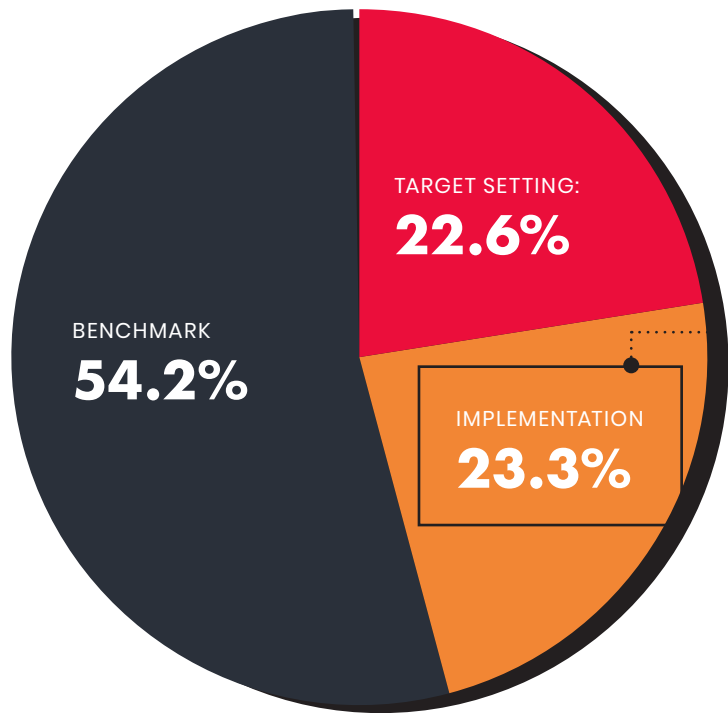
**US \$11,089,094**



<sup>6</sup> Average actual cost per tCO<sub>2</sub>e includes Aii's total spending (G&A and program-related costs) as well as capital invested by a producer to implement actions.

# Key Impact Results of Producers That Completed a Solution of Aii's Climate Action Approach in 2023

## Solution Distribution



### In 2023, Aii Impact Programs\* achieved the following actual savings:

Total actual GHG emission savings in tCO <sub>2</sub> e	<b>194,892.88</b>
Average actual factory GHG emission savings in tCO <sub>2</sub> e	<b>2,952.92<sup>i</sup></b>
Average % of GHG emission savings	<b>8.16%<sup>ii</sup></b>
Total actual energy savings in GJ	<b>2,016,886.11</b>
Average actual factory energy savings in GJ	<b>34,773.90<sup>iii</sup></b>
Average % of energy savings	<b>8.10%<sup>iii</sup></b>
Total actual water savings in m <sup>3</sup>	<b>3,640,004.13</b>
Average actual water savings in m <sup>3</sup>	<b>66,181.89<sup>iv</sup></b>
Average % of water savings	<b>10.03%<sup>iv</sup></b>

- \* CbD, CbD+, CFO, and PWM
- i. Based on 66 producers
- ii. Based on 58 producers (excludes 8 producers in PWM because the experts did not undertake a baseline assessment)
- iii. Based on 58 producers (excludes 8 producers in PWM which does not create energy savings)
- iv. Based on 55 facilities (excludes 8 producers in PWM which does not create water savings +3 producers with no water baseline as it is irrelevant to that type of facility and program\*)



**X 41,949**

**Total GHG emissions savings** equal to **41,949 cars removed from the roads** in 2023

Based on the assumption that there is an emission of 4.646 metric ton CO<sub>2</sub>e per car per year with an average passenger vehicle driving an average of 11499.97 miles per year; Source: [EPA, Greenhouse Gas Emissions from a Typical Passenger Vehicle | US EPA](#)



**X 1,456**

**Total water savings** equal to almost **1,456 olympic sized swimming pools**

One Olympic-sized swimming pool contains 660,430 gallons of water; Source: FINA FACILITIES RULES 2015-2017, [Wayback Machine \(archive.org\)](#)



**X 11,920,130**

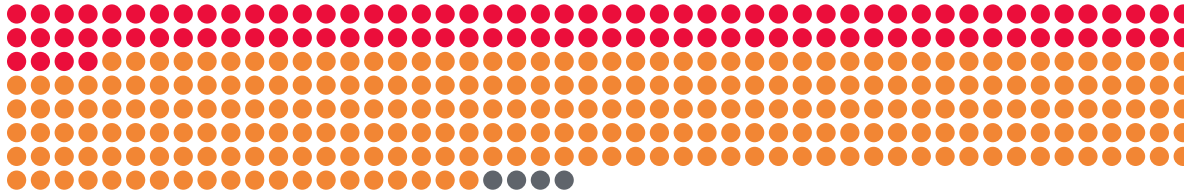
**Total energy savings** equal to **11,920,130 washing machines not used** in 2023

Washing machines not used is calculated using a 17.6 lbs capacity Miele WWD020 WCS machine and assuming it is used for 100 cycles per year. EU energy class: A; Source: [Washing machines and washer-dryers \(europa.eu\)](#)



## Key Impact Results of Producers That Are Currently Active<sup>7</sup> in a Solution of Aii's Climate Action Approach in 2023

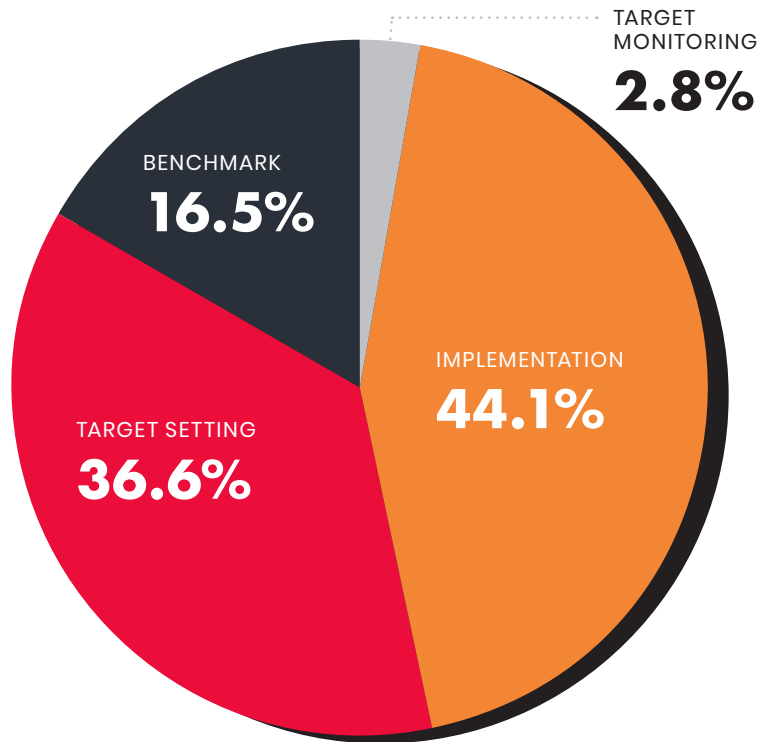
TOTAL NO. OF PRODUCERS: **374**



TOTAL NO. OF BRANDS: **28**

TOTAL NO. OF MANUFACTURERS:<sup>9</sup> **2**

TIER 1: **104** TIER 2: **266** VERTICALS: **4**



- <sup>7</sup> As Aii's Impact Programs typically last 12-18 months, not all producers completed their full program cycle during our reporting period (Jan to Dec 2023). Producers in progress are labeled as "active" and can only report potential savings rather than actual savings. It's important to note that not all "active" producers began the programs in 2023; some may have started as early as 2022.
- <sup>8</sup> Apparel, footwear, or textile manufacturing companies that provide funding to Aii to achieve environmental improvement programs and impact reductions.

# Key Impact Results of Producers That Are Currently Active in a Solution of Aii's Climate Action Approach in 2023

## CSP Solutions

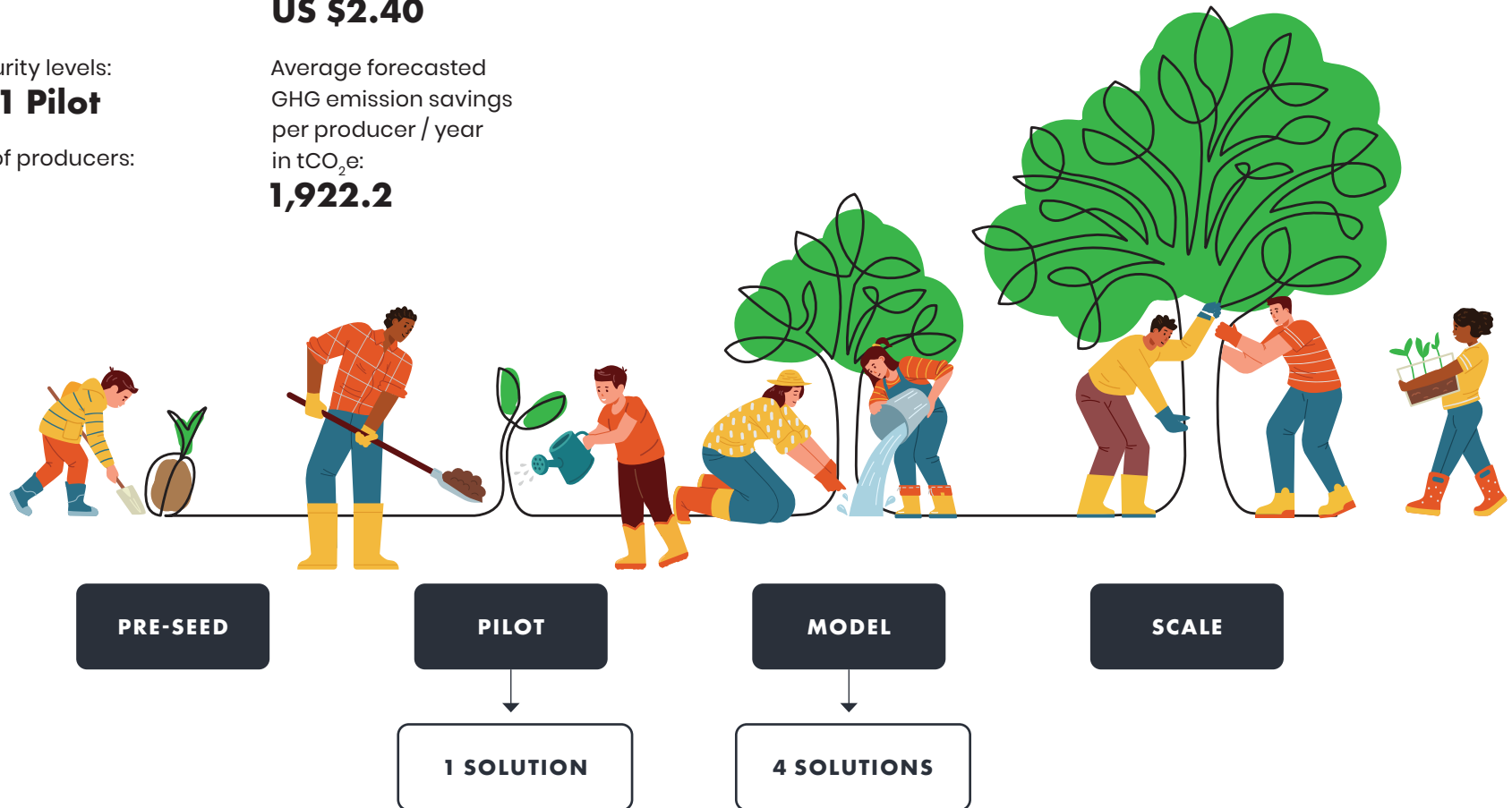
Number of grant-funded solutions:  
**5**

Average forecasted cost per tCO<sub>2</sub>e:<sup>9</sup>  
**US \$2.40**

Solutions maturity levels:  
**4 Model 1 Pilot**

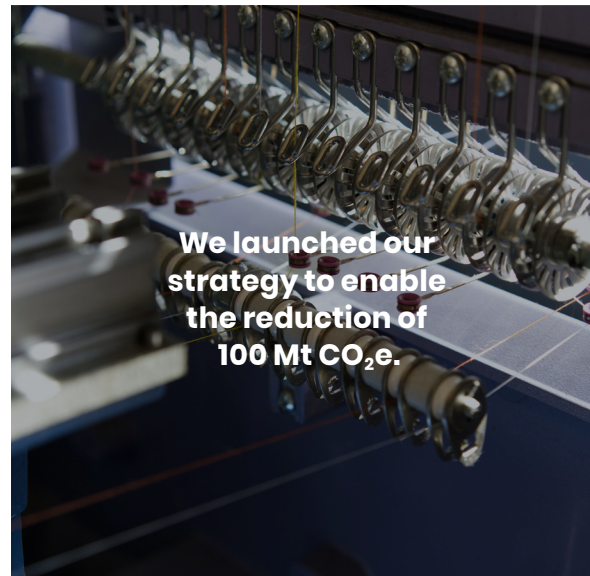
Average forecasted GHG emission savings per producer / year in tCO<sub>2</sub>e:  
**1,922.2**

Total number of producers:  
**31**



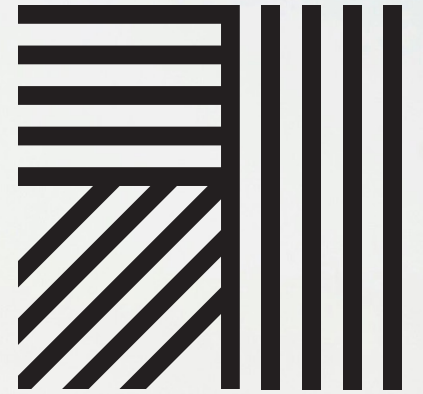
<sup>9</sup> Average forecasted \$/tCO<sub>2</sub>e is calculated by taking the average of all the grantee forecasted \$/tCO<sub>2</sub>e figures, which are calculated by dividing the sum of the grant by the forecasted lifetime tCO<sub>2</sub>e impact of the grant project.

# Executive Summary





# II. Our Roadmap To 2030



# Our Roadmap To 2030

## Aii's Strategy to Enable the Reduction of 100 Mt CO<sub>2</sub>e

We've set the ambitious goal to enable the reduction of 100 million tonnes of CO<sub>2</sub>e from the apparel and footwear supply chain by 2030.

To achieve this target, we catalyze collective action to remove barriers standing in the way of supply chain decarbonization. We activate programs, solutions, and finance to help producers decarbonize their operations in credible ways. Our key strategic pillars are:

**CROSS-CONNECT:** Aii is in a unique position to convene key stakeholders in the value chain and activate meaningful collaboration.

**CENTER PRODUCERS:** Engage producers as co-developers in this work with a focus on removing their barriers. Champion them as the hero.

**FOCUS IN REGIONS:** Develop regionalized nodes of impact, engagement, and implementation to build the networks to drive change.

**CHANNEL FUNDING:** Remove barriers to capital for producer decarbonization while also directing funding to vetted, viable solutions.

**FOLLOW THE CARBON:** Double down on enabling the removal of 100Mt of carbon and take a data-driven approach that targets the most effective carbon reduction opportunities.

**IMPLEMENT ON THE GROUND:** Continue to ensure that credible, quality decarbonization programs and solutions are implemented at targeted producers.

## Tactics

We recognized our strategic pillars are closely interrelated. To move from strategy to day-to-day integration, we have established a cross-functional taskforce. The taskforce works across three major pillars – supplier engagement, decarbonization solutions, and sustainable finance solutions – and will dedicate Q1 and Q2 of 2024 to developing tactics to operationalize our strategy. A central element to our work will be collaboration with producers and helping them develop a strategic plan to reduce their emissions through 2030 and beyond. We aim to provide practical assistance through our Climate Solutions Portfolio and sustainable finance solutions.

Our commitment to supporting producers from their initial engagement and meeting them at their current stage in the decarbonization journey remains. By evolving Aii's Carbon Toolkit, we will be leveraging our ecosystem to assist producers in crafting their decarbonization blueprints, which go beyond traditional action plans or target setting.

Bryant LaPres, senior director of industry engagement, explains further:

**“A decarbonization blueprint is dynamic. It evolves with the factory, ensuring emerging technologies and continuous improvement are core to decarbonization strategies. The decarbonization blueprint is a strategic plan specific to a factory that outlines the steps necessary to significantly reduce [the producer's] carbon emissions, both leading up to 2030 and beyond. It offers a detailed view of the current carbon footprint while finding areas with the highest potential for emissions reduction and provides a roadmap for interventions, considering various time horizons and financial considerations.”**





# III. What We Do





# Our Programs and Processes

## Climate Action Approach

### Evolving our Methodology

In our [2022 Impact Report](#), we introduced Aii's Climate Action Approach,<sup>10</sup> a five-step methodology designed to lead producers on their journey towards decarbonization. Since the Approach's inception, we've continued to refine and evolve our methodology to achieve even greater GHG emission savings in the industry.

In 2023, we enrolled 221 factories in CTA (Step 1) which enables producers to assess their maturity and estimate their carbon reduction potential.

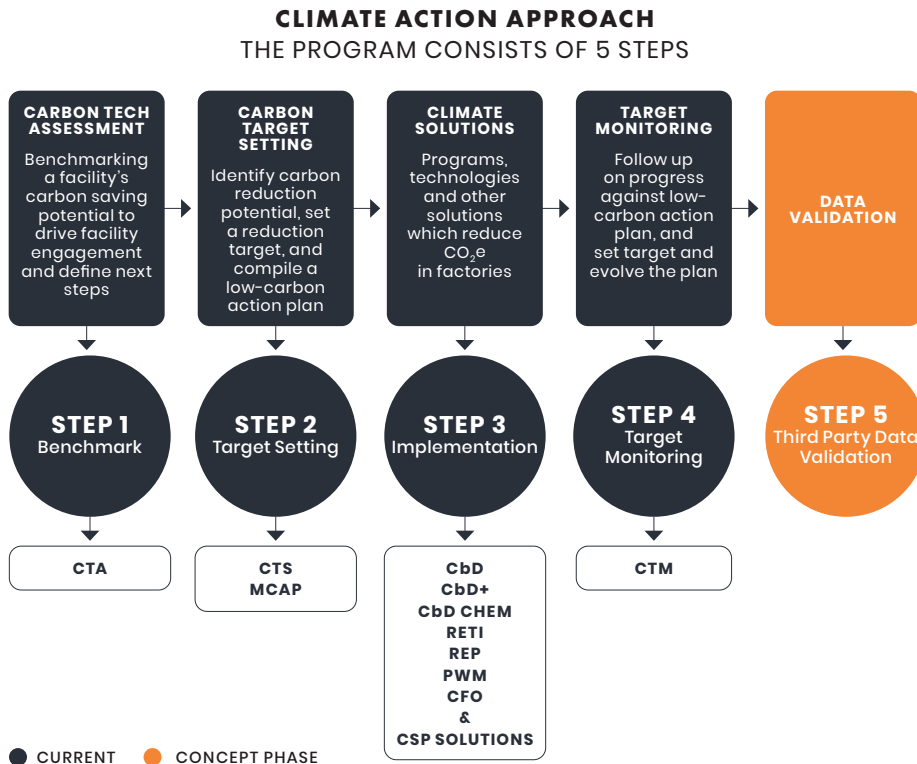
We expanded our target-setting efforts (Step 2) to include Cascale's Manufacturer Climate Action Program (MCAP). This program, designed to accelerate a manufacturer's decarbonization journey, includes four steps, with action planning being optional.

Recognizing the critical role of action plans in demonstrating target viability and potential, Gap approached us to help their producers establish them. In collaboration with our partner, RESET Carbon, we supported three Gap suppliers, each with multiple facilities globally, in developing these essential plans. This collaboration not only met Gap's needs, but also extended our scope from our facility-level Carbon Target Setting (CTS) program to the broader producer level, which often involves multiple facilities worldwide.

We extended our implementation efforts (Step 3) by establishing the Climate Solutions Portfolio (CSP), which has a [dedicated section](#) in this report due to its significance in achieving our vision and mission. We also launched Carbon Target Monitoring (CTM) (Step 4), a program that aims to drive factory commitment and action toward their climate objectives.

Third-party data validation (Step 5), aimed at supporting carbon accounting requirements, is still in the conceptual phase. Aii is collaborating with various industry stakeholders to align on carbon accounting principles.

To highlight the comprehensive nature of Aii's Climate Action Approach, we've compiled an overview of the tiers and impact areas addressed by each solution. This overview also incorporates our Climate Solutions, which are an integral part of Implementation (Step 3), providing you with a holistic understanding of the full scope of our initiatives.



<sup>10</sup> Carbon Leadership Program (see 2022 Impact Report) has been renamed Climate Action Approach

# Overview of Our Programs

● EARLY-STAGE ● MODEL ● AVAILABLE AT SCALE

PROGRAMS & SOLUTIONS	APPLICABILITY BY TIER LEVEL				IMPACT AREAS							
	1	2	3	4	GHG REDUCTION	ENERGY EFFICIENCY	WATER REDUCTION	CLEANER CHEMICALS	WASTE WATER	RENEWABLES	COAL PHASE-OUT	MATERIAL EFFICIENCY
Carbon Technology Assessment (CTA)	X	X			X	X	X			X	X	
Carbon Target Setting (CTS)	X	X			X	X	X			X	X	
Manufacturer Climate Action Program (MCAP)	X	X			X	X	X			X	X	
Clean By Design Energy & Water Efficiency (CbD)	X	X			X	X	X					
Clean By Design Plus (CbD+)		X			X	X	X			X		
Clean By Design Chemistry & Wastewater Management (CbD Chem)		X					X	X	X			
Clean by Design Bangladesh	X	X			X	X						
Solar PV Installation Bangladesh	X	X	X		X					X		
Cleaner Production Systems	X	X	X		X	X						
Electrification of Water Heating		X			X						X	
Leaf Color Charts				X	X							
Renewable Energy Transition Initiative (RETI)	X	X			X					X		
Renewable Energy Procurement (REP)	X	X			X					X		
Production Waste Management (PWM)	X				X							X
New Construction Factory Optimization (CFO)		X			X	X	X	X	X	X	X	
Facility Impact Measurement Software	X	X	X		X	X	X					
Carbon Target Monitoring (CTM)	X	X			X	X	X			X	X	

## How We Create Impact

Our 2023 Impact Report goes beyond methodologies to offer tangible examples of our robust approach to meeting 2030 targets.

In 2023, we positioned ourselves for significant, strategic growth by refining our processes and expanding our team in production regions. As a result, producers have started 60% more Climate Action Approach programs in 2023 compared to 2022.

Our dedication to actively reducing carbon emissions in the textile and apparel industries is embodied in our Impact Programs and Climate Portfolio Solutions. From a programmatic perspective, our goal is to transition our early-stage initiatives (view the current stage of each program and solution in the previous chart) from pilot status to broad scalability, as exemplified by our [Clean by Design Energy and Water Efficiency Program](#), which initially launched in 2018 with select producers and has since expanded to 301 producers across various regions, saving each producer, on average, per program participation an 8.98% of GHG emissions (including CbD & CbD+ overall).

Recognizing the inherent diversity among producers — varying setups, locations, skills, clients, and finances — a fundamental aspect of our strategy is meeting producers where they are to ensure our impact is relevant and sustainable. Over the last years, we have experienced that true transformation happens through collaboration, local adaptation, and empowering producers with the tools and knowledge to safeguard our planet.





## Case Study / J.Crew: Benchmarking and Target Setting with a Focus on Collaboration

### Impact Metrics

70 facilities completed  
Carbon Tech Assessments

5 facilities running Carbon  
& Water Target Setting

3 co-nominated facilities running  
Carbon & Water Target Setting

**“At J.Crew, our collaboration with Aii has helped facilitate crucial internal dialogues. Recognizing sustainability as a critical factor in sourcing, we are strategically integrating these insights into our risk assessments and supply chain management, ensuring the resilience and stability of our operations alongside the beneficial environmental impact of our sourcing communities for the long term.”**

SAMANTHA SHIFFMAN,  
manager CSR & sustainability

### INTRODUCTION

In 2022, J.Crew developed a strategic roadmap to reduce emissions throughout its supply chain to align with global sustainability targets. J.Crew understood that the most efficient way to meet their goals would be to collaborate with other brands for maximum impact on their shared supply chains, and they engaged Aii both to establish action plans for carbon and water reduction and to bring together brand partners for cost-sharing and collaboration. Given the broad and sometimes overwhelming range of ESG initiatives, J.Crew was interested in prioritizing their facilities based on data and focusing their efforts where they would have the most impact.

### THE APPROACH

Together, Aii and J.Crew took the following steps:

- **Carbon Tech Assessments:** In collaboration with Aii and BluWin, J.Crew initiated a series of 70 Carbon Tech Assessments. These assessments provided critical insights into the reduction potentials of various facilities within their supplier network. Through this analysis, J.Crew identified high-impact facilities and prioritized them for further action.
- **Carbon Target Setting (CTS):** Leveraging the results of the assessments, J.Crew enrolled five facilities into the Carbon Target Setting program. This initiative aimed to establish actionable plans and reduction targets for both carbon emissions and water usage, with a specific focus on water for J.Crew’s denim mills.
- **Collaborative Sponsorship:** J.Crew and Aii worked together to arrange for other brands to co-sponsor three shared facilities, fostering a sense of collective responsibility towards sustainability goals.

### WHAT’S NEXT

As of the end of 2023, five facilities remain actively engaged in the CTS program, with the first group expected to complete their action plans by April 2024. Following this, the focus will shift toward swift implementation, ensuring that targeted reductions in carbon emissions and water usage are achieved. They will also begin the next round of strategic supplier nominations for the Carbon Leadership Program. J.Crew’s approach of collaboration and focused action is a model for industry peers seeking to drive meaningful change across their supply chains.

## Case Study / Marks & Spencer: A Strategic Approach to Target Setting in Tier 2

### Impact Metrics

44 Facilities completed  
Carbon Tech Assessments

37 Facilities running Carbon Target  
Setting with an average goal of  
31.4% reduction per facility

**“Beyond measuring and tracking emissions in our supply chain, at M&S we want to drive impact on efficiency and decarbonisation in line with our Plan A roadmap to Net Zero. Aii’s Carbon Leadership Program offers structure and support for facilities to understand where and how they can become more efficient; save energy; and as a result, implement a reduction target towards 2030.”**

CERIAN ATWELL,  
senior sustainability manager  
at Marks & Spencer

### INTRODUCTION

As part of their singular focus on becoming a net zero business by 2040, Marks & Spencer (M&S) sought to implement carbon-reducing interventions in their supply chain that could be replicated industry-wide. With a commitment to reducing greenhouse gas emissions (GHG), conserving energy and water resources, M&S embarked on a strategic approach to target setting in their Tier 2 supplier facilities. It was particularly important to them that their suppliers have support through a trusted partner throughout the process, which led them to partner with Aii.

### THE APPROACH

Together, M&S and Aii took the following steps:

- In collaboration with Aii and RESET Carbon, M&S initiated a series of Carbon Tech Assessments. These assessments provided critical insights into the reduction potentials of various facilities within their Tier 2 supplier network. Through this analysis, M&S identified high-impact facilities and prioritized them for further action.
- After the assessments, 44 facilities were moved into Carbon Target Setting initiatives in 44 facilities, with the facilities setting an average goal of achieving a 31.4% reduction per facility.

### WHAT’S NEXT

By leveraging the insights from Carbon Tech Assessments, M&S gained a deeper understanding of the opportunities for emission reductions across their supply chain, as well as the crucial next step of setting targets for high-impact facilities. Looking ahead, M&S is evaluating the potential of expanding these efforts into their Tier 1 facilities; their journey sets a strong example for starting with a focused decarbonization approach and using those learnings to increase impact.

## Commitment to Measurable Outcomes and High-Quality Data

Our commitment to measurable outcomes and high-quality data allows producers to assess solutions with varying payback periods, ranging from exceptionally swift turnarounds, like our Clean by Design program where the average payback period is 14 months; to medium-term options like rooftop solar; and longer-term options, such as transitioning from coal to cleaner energy sources which takes approximately three to seven years. For producers, it's essential to understand the business case and align decarbonization planning with financial planning. We've seen firsthand how data empowers decision-making, enabling technical staff to gain leadership support for implementing measures.

Our brand partners are pivotal collaborators in our mission, playing a crucial role in engaging producers in our impact programs and (co-) sponsoring program fees. Our brand partners' trust in Aii is grounded in our rigorous quality assurance process and anchored by measurable outcomes, particularly in CO<sub>2</sub>e reductions. All expert contributions undergo peer review by Aii's technical team, ensuring consistency in methodology, accurate technical application, and that proposed solutions are feasible. The final quantification of emission savings achieved in a factory is subject to verification by Aii staff, and reporting to brands only occurs once this thorough review is completed. For our brand partners, this data serves as a foundation for internal decision-making, strategy development, and monitoring progress against emission targets.

### Case Study

In the beginning, a Chinese dyeing factory, viewing significant investments as the sole solution for reducing CO<sub>2</sub> emissions, experienced a shift in perspective with our CbD Energy and Water Efficiency program. Employing the CbD Scan tool—specifically designed to identify low-hanging fruits—experts from our partner IEM conducted an on-site assessment, revealing steam-saving opportunities valued at approximately \$1,200,000, contrary to the factory's initial doubt. Through strategic restructuring of steam pipes and the repair of valves and meters, these savings were achieved with an investment of less than \$500,000. The success spurred the appointment of a dedicated manager to delve deeper into the CbD methodology and independently uncover additional opportunities.

This success story is just one illustration of how Aii's programs enable factories to uncover untapped energy-saving potential and achieve cost reductions that often surpass their initial expectations.



We interviewed Bruno, our quality assurance manager, about our QA process:

**How has the quality assurance process evolved in 2023, and what adaptations have been made to enhance its effectiveness?**

We have built out our quality assurance team to include colleagues in the region. To calibrate quality and ensure consistency of outcomes globally, we have trained all team members and follow the same processes globally.

**In your experience, what have been some key insights or learnings gained through overseeing the quality assurance process?**

Most importantly, we are all humans. We are based across the globe, and it is very important that every expert and every team member has the same understanding of methodologies, calculations, and ways of working. It is important to stay in dialogue with the experts and ask questions to make sure that we are all aligned. Another key insight was the constant need for database development and updates, including metrics, calculations, and solution-specific methodologies.

**Why is it crucial for Aii staff to verify the final quantification of emission savings before reporting to brands, and what specific steps are taken during this verification?**

In our industry, there are many different approaches to quantification of emission savings. Through our review, we make sure that we report emission savings in a consistent way to the brand to ensure they compare apples to apples.

Additionally, it is important to us at Aii to verify that the emission savings have really been achieved by the factory and no one is over- or underreporting on savings.

**How does the technical team at Aii collaborate with external experts during the peer review process, and what level of involvement do they have in refining methodologies?**

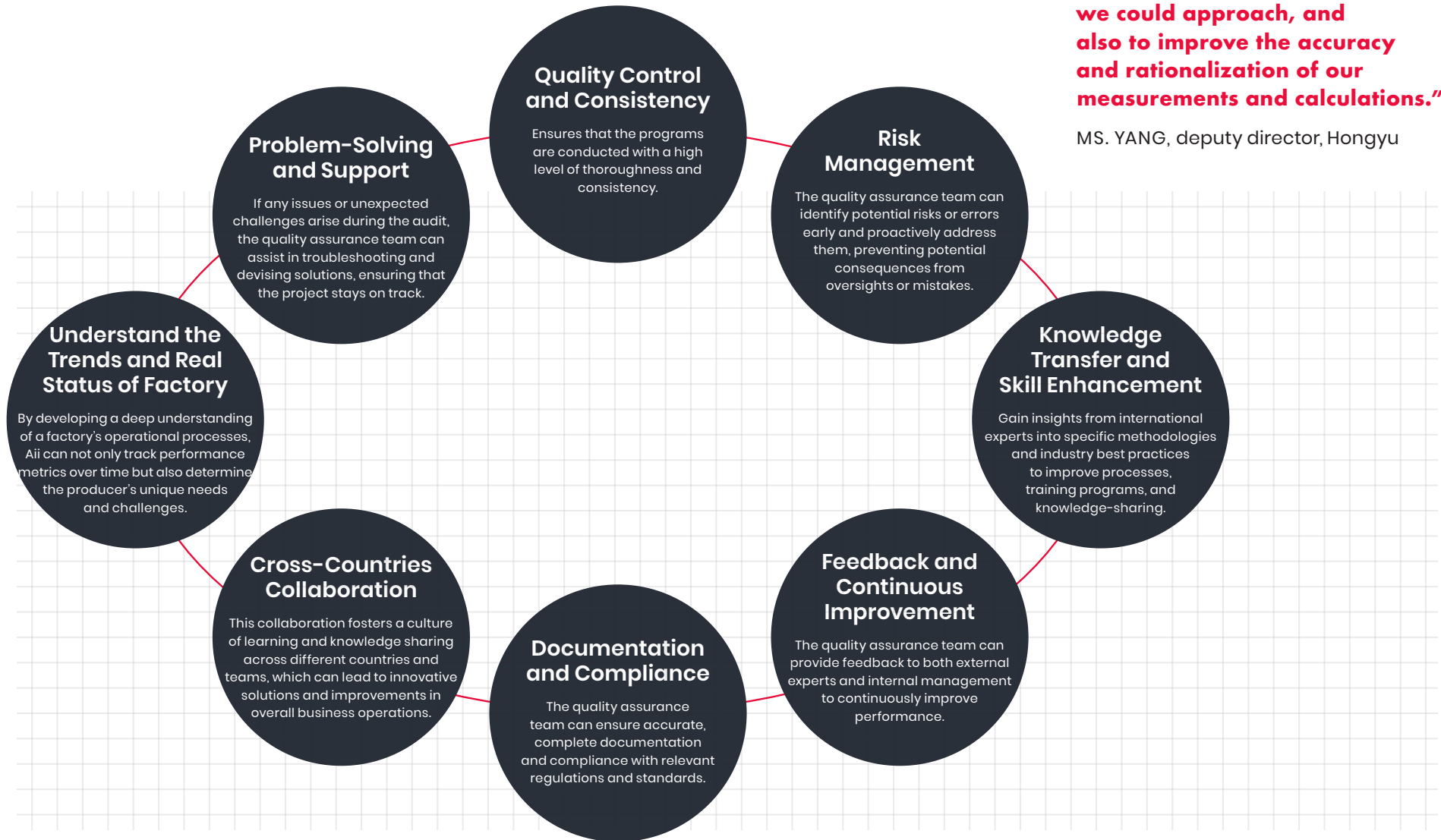
We have several touchpoints with our experts. It starts with a rigorous selection process where we get to know them and their skills for the first time. Once an expert is approved to work with us, we train them on our methodology and way of working. Afterward, we facilitate regular and open dialogue, which we deepen during shadow visits or when following up on an action plan. Additionally, we connect with our experts regularly and incorporate their learnings through our continuous improvement efforts.



Beyond an improved QA process, Aii has also executed various quality assurance trips to train experts in-person and on-the-ground. We also ensure excellence by having our quality assurance team join experts for onsite factory visits. This collaborative approach serves several crucial purposes:

**“Aii’s quality assurance team has helped our expert team to further refine the types of factories and processes we could approach, and also to improve the accuracy and rationalization of our measurements and calculations.”**

MS. YANG, deputy director, Hongyu



In short, having our quality assurance team shadow external energy audits increases the assessments' quality, effectiveness, and credibility. In turn, Aii captures learnings and gains a deeper understanding of our partners and the challenges on-site.

## Vietnam Quality Assurance and Learning Trip

Vietnam, with its dynamic and rapidly expanding manufacturing sector, has one of the highest carbon footprints in the global textile industry. Recognizing its importance as a textile-sourcing country, the Aii team conducted an expert training and program quality assurance trip in 2023. Patricia Sousa, Aii program operations manager, is spearheading our operations in Vietnam and shared her travel diary with us.

**DAY 1:** Stepping into Hanoi, I directly experienced the lively chaos and authenticity. Our first day was dedicated to a Cbd Energy & Water Efficiency methodology training, which was joined by our expert partners Vietnam Cleaner Production Centre (VNCPC) and Enterteam, and IDH, our program partner in Vietnam. I found the training very insightful, observing the interaction between experts and Aii. A key takeaway for me was that it is important that our training materials are easy to comprehend, even for non-native speakers.

**DAY 2-5:** The second and subsequent days were dedicated to factory visits. Representatives from the factory, the experts, brand representatives, and Aii followed a strict 1-2 day agenda to discuss progress and barriers to implementation, hear technical advice from the experts, and agree on next steps.

Typically, the days ended with a dinner, which was a great opportunity to reflect on the day's learnings, prepare for the next day, and have deep technical discussions.

**“Reflecting on our week in Vietnam, I was left very motivated and had a feeling of being able to drive change. The deep technical discussions and shared insights have shown me the many opportunities we have as an industry to reduce emissions.”**





## Our 2023 Pilot Programs

In alignment with our “pre-seed - pilot - model - scale” approach, we’ve undertaken multiple pilot projects throughout 2023. These initiatives enable us to test, refine, and optimize strategies before moving to the model stage for full-scale adoption. Our team closely supports and evaluates these pilots, extracting insights for continuous improvements and enhanced approaches.

### Renewable Energy Procurement (REP) with Ren Global, Inc. in Taiwan

Apparel Impact Institute and Ren Global, Inc. joined forces to pilot a program helping brands build out renewable energy portfolios for their supply chains. The three brand partners aimed to align goals and supply chain energy usage and pursue renewable energy solutions together.

The program aimed to evaluate energy needs across supply chains, assess energy policies and procurement feasibility, analyze potential savings and carbon reduction from renewable adoption, create a roadmap for specific renewable projects, and apply insights to future endeavors.

#### KEY ACHIEVEMENTS IN 2023:

- The pilot was initiated in 82 producers from three brands.
- Pilot country: Taiwan
- Ren Global, Inc. prepared business cases for onsite solar and offsite wind projects (summarized in the following chart). If all 82 producers implemented onsite PPA, there is an opportunity to decrease carbon emissions by 0.807 Mt CO<sub>2</sub>e over 25 years. However, if only half (41 producers) participate in renewable through offshore wind, it could result in even greater savings over a shorter time (5,596 MtCO<sub>2</sub>e reduction over 20 years).
- Ren Global, Inc. provided brand partners with an in-depth feasibility analysis detailing the corporate renewable energy procurement landscape in Taiwan, helping to drive its business case and ultimate recommendations.
- Ren Global, Inc. led a virtual workshop for the 82 producers to inform about renewable energy options and create comfort about the available opportunities for action.

Electricity Source	Project Size	NPV Savings (USD)	Tonnes CO <sub>2</sub> e Reduced
Onsite PPA 25 Year, Full Participation	45 MW	\$4.7M	807,000
Offshore Wind PPA 20 Year, 50% Participation	223 MW	\$11.3 M	5,596,000

#### KEY LEARNINGS:

- Producers are grappling with a broad spectrum of sustainability needs, with renewable energy being one area where they have limited knowledge and control.
- There is a significant opportunity for producer education and trust-building. Both are necessary to understand the benefits of renewable energy and achieve the buy-in necessary for adoption.
- Producers want to know the potential cost-benefit analysis and minimum energy usage requirements before they feel comfortable sharing their factory-specific data.
- Not all producers have set science-based emission reduction targets at this early stage. To ensure progress, brands must play an active role in goal-setting and data gathering.
- Achieving harmony in goals, solution focus, commitments, and timelines among brands, and producers demands extensive coordination. Alignment is crucial to meet minimum participation thresholds, reap the benefits of renewable energy adoption, and attract developers to meaningful projects.
- Joint Power Purchase Agreements (PPAs) are not broadly tested in Taiwan. Starting engagement with renewable energy developers in 2024 can heavily influence the move toward broader market adoption.

In 2024, Aii, Ren Global, Inc., and the brand partners will reflect on the learnings to date and explore the best way forward. We recognize the strong need to make producers feel comfortable transitioning to renewable energy; however, the opportunity to transition many producers from grid-electricity to renewable energy at once, unlock the best rates from developers, reduce risk, and ensure brands reach their goals quickly is in sight.

## Renewable Energy Transition Initiative (RETI) with Jingneng Power

Renewable energy transition is pivotal for the apparel industry to achieve green transformation and carbon reduction targets in the supply chain.

In 2022, we established the Renewable Energy Transition Initiative (RETI), a pilot program delivered by Beijing Jingneng Power and supported by our China team, to empower producers to design and implement renewable energy (RE) projects.

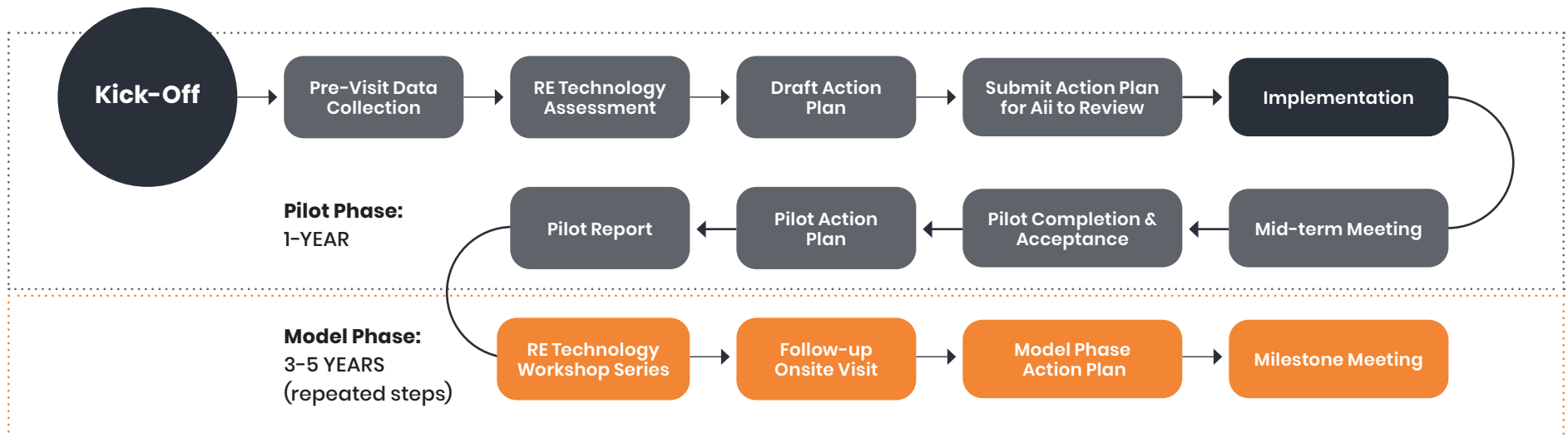
After an initial kickoff and pre-visit data collection, RETI uses a comprehensive assessment to evaluate 14 renewable energy technologies

on policy maturity, technology readiness, and factory implementation conditions. The team then recommends the most suitable technology – or a combination of technologies – for adoption.

Throughout the implementation process, the RETI team conducts on-site visits to validate data and evaluate progress, ensuring renewable energy technologies, policies, environmental considerations, economic impacts, business models, and associated benefits are integrated into a unified solution.

### STEP 3: RENEWABLE ENERGY TRANSITION INITIATIVE (RETI)

#### Roadmap/Key Milestones



## KEY ACHIEVEMENTS IN 2023:

- The pilot was initiated in eight producers from two brands
- Pilot country: China
- By the end of 2023, the total actual GHG emission reduction was around 70,000 tonnes of CO<sub>2</sub>e, an 8.7% reduction
- The total RE generation amount is around 7,600,000 Kwh, a 0.23% coverage by RE

## KEY LEARNINGS:

- The RETI program allowed producers to achieve additional GHG emissions reduction beyond those achieved in Clean by Design.
- Due to the relatively large scale of investment in renewable energy projects, most producers choose to continue investing through third-party energy service companies.
- The implementation rate of solar PV solutions is not high, primarily due to factors such as lack of roof ownership, factory relocation, and complex roof structures. However, these barriers are seen as temporary and can be addressed in future plans.
- Most renewable energy solutions involve significant upfront investments with long payback periods. Achieving noticeable effects in GHG emissions reduction and generating renewable energy within a one-year project cycle can be challenging, especially considering that the contracts for solar investments typically span around 10-15 years. Therefore, it is recommended to extend the project cycle to three to five years.

Based on the learnings, the Aii team is planning to adapt the program design by expanding the period to three years to help producers realize the estimated carbon emissions.

In 2024, RETI will strengthen communication with local governments, obtain the latest policy information, and provide targeted solution suggestions to producers. Meanwhile, the Aii team will summarize the past experiences into processes and toolkits to propel RETI from the pilot to model stage. Additionally, RETI will work with industry experts to regularly host workshops on emerging renewable energy technologies to equip factory personnel with additional information on this important topic.





## Carbon Target Monitoring (CTM)

To address high carbon emissions in footwear and apparel supply chains, our Carbon Target Monitoring (CTM) program builds on the Carbon Target Setting (CTS) program, guiding producers as they implement and refine low-carbon action plans and tracking their progress toward 2030 climate targets.

It is divided into distinct phases, including data collection, progress monitoring, and one-on-one consulting with producers and engineers to evolve the 2030 low-carbon action plan and impact measurement. The aim is to set a structured framework for producers to embark on their 2030 carbon reduction journey by providing regular touch points, progress follow-up, and technical assistance.

### KEY ACHIEVEMENTS IN 2023:

- The pilot was initiated in 11 producers from one brand
- Pilot countries: China, Taiwan, Vietnam, Pakistan, Peru, Malaysia, and Bangladesh

### KEY LEARNINGS:

- The primary challenge is re-engaging producers that completed their Carbon Toolkit over a year ago back into a continuous cycle of action, plan evolution, and progress reporting. CTM tackles these issues by engaging with producers quarterly in a one-on-one engineering discussion to review progress, evolve the action plan, and validate progress made.
- CTM's scalable approach can be applied across various producers and industries, contributing to long-term environmental sustainability.



## Clean by Design Leather (CbD Leather)

Tanning is integral to the fashion world as it transforms raw hides into leather used by high-end and luxury fashion houses to craft premium, iconic products. Much of that material is produced in Italy, a key player in the leather industry that employs over 18,000 workers across 1,100 companies and generates 4.6 billion Euros in value—63% of the EU's total or 24% of global production.<sup>11</sup>

Recognizing the tanning sector's need to accelerate toward a net-zero roadmap, a group of leading luxury brands — including Kering, Prada Group, and Ralph Lauren, among others — joined forces to identify, fund, and scale decarbonization solutions. The group selected our Clean by Design program as a potential solution for the industry.

Italy's technological advancements, environmental commitment, and innovative capacity in tannery are inspiring. As a result, we are wholeheartedly committed to developing and implementing Clean by Design for Leather in Italy.

### KEY LEARNINGS:

- The foundational structure of Clean by Design and its 10 Best Practices apply to textile and leather production as they both involve significant water, energy, and chemical usage.
- The production processes in textile and leather industries differ considerably. Leather production, for instance, usually involves lower water temperatures and longer durations compared to the typical dyeing and finishing processes in textiles. These differences necessitate adjustments to the Clean By Design tools to suit leather production's unique needs.

The newly created tools will initially be deployed in producers for piloting and optimization. Participating mills will complete a performance scan to identify strengths and opportunities for energy and water efficiency improvement. Subsequently, the producer will receive support in executing an action plan. The program concludes with Aii's program staff verifying that completed actions meet the program's standards.

<sup>11</sup> [Economic Performance Italian Tanning Industry Year 2022 \(unic.it\)](#)

When the program is fully developed, stakeholders worldwide can adopt these practices to support the tanning industry's decarbonization efforts.

We are set to launch and implement the program in early 2024, with a goal of completing the full project and integrating any learnings in 2025. When the program is fully developed, stakeholders worldwide can adopt these practices to support the tanning industry's decarbonization efforts.





## Regional Expansion in 2023

### Italy

Italy is central to luxury fashion, and major luxury brands are calling for decarbonization actions while manufacturers are calling for cost savings in response to the energy crisis.

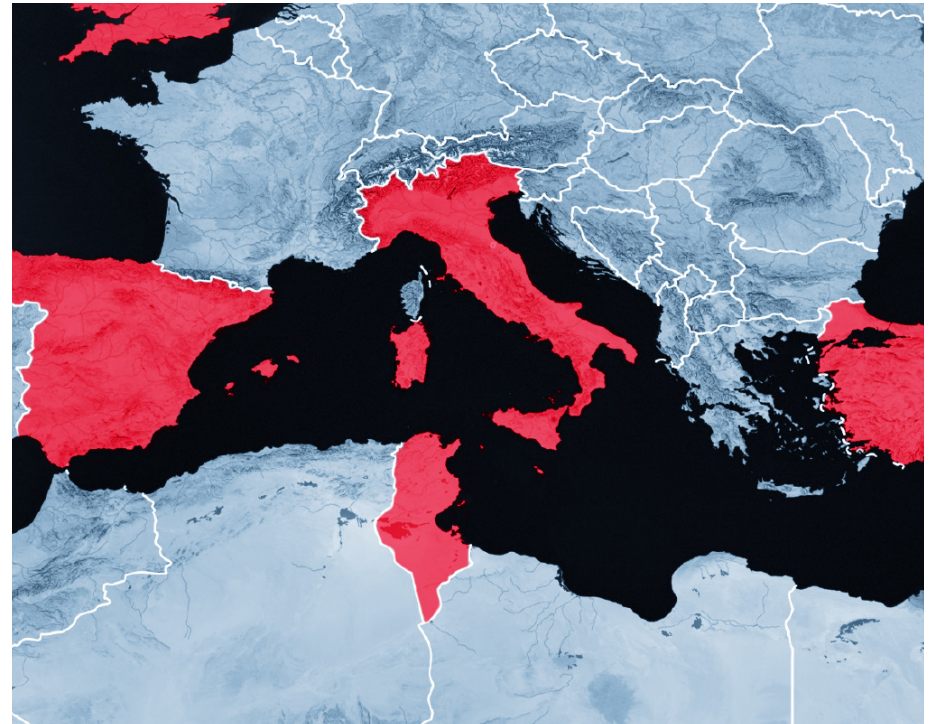
In 2023, Aii focused on building partnerships with Italian experts and organizations to deploy existing solutions, develop new approaches, and build capacity for expansion. We are aiming for large-scale CbD and CTS implementation by 2024, aligning with brands' 2030 goals.

#### KEY ACHIEVEMENTS IN 2023:

- Continued growing the number of producers and brands implementing the CbD program by four and two, respectively.
- Through brand and producer engagement, we laid the groundwork for substantial growth of CTS and CbD implementation in Italy in 2024. We foresee an increase of four active brands and 34 producers in a low scenario.
- Built partnership to implement Carbon Target Setting. The first Carbon Target Setting kick-off for Italian companies is planned for early 2024 with Process Factory as the implementation partner. The collaboration with Process Factory is strategically designed to achieve closer alignment and integration with [4sustainability®](#), a leading implementation framework for reducing impact, with a specific focus on 4s PLANET, one of 4sustainability's six initiatives.

**“In the process of harmonizing 4sustainability with the best methodologies and recognized programs, we’re proud to initiate a partnership with Aii to deploy Carbon Target Setting for implementing carbon targets along the supply chain partners. In this regard, our commitment to building responsible supply chains is accelerating, thanks to a unique system that implements and anticipates upcoming regulations, integrating and aligning the best industry programs.”** – FRANCESCA RULLI, CEO of Process Factory

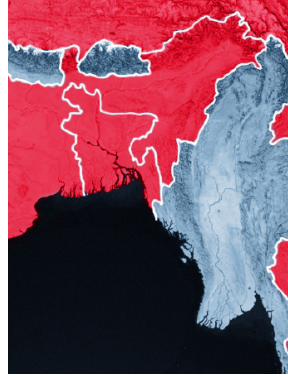
- Identified and committed to new solutions:
  - **CbD for Leather:** An impact program to support the tanning industry in implementing efficiency measures for energy, water, and carbon emissions. This will be developed and deployed starting in 2024.
  - **Electrification of water heating:** Pozzi Leopoldo Srl submitted our Climate Solutions Portfolio's first solution that does not require grant funding and is ready for scaling and deployment through Aii programs. Their solution supports the transition from fossil fuels to electricity, enabling energy savings.





## Bangladesh

Bangladesh, the world's second-largest exporter of apparel, relies heavily on fossil fuel-based systems for energy generation in its ready-made garment industry, which constitutes 84% of the country's total exports. With a strong reliance on non-renewable energy sources and ambitious growth plans, the country faces challenges, such as disruptions of power supply, increased operational expenses, and pressure on the current energy system. Decarbonization in Bangladesh not only is important from an environmental perspective – it's also an economic need.



Two primary opportunities stand out: implementing energy efficiency and transitioning to renewable energy sources.

The first program that Aii deployed in Bangladesh was Clean by Design. Traditionally initiated through brand nominations, it has now captured the direct interest of manufacturers, signaling promising opportunities. Primark and Otto Group have nominated producers for the program, and initial assessments indicate great energy reduction potential.

### KEY ACHIEVEMENTS IN 2023:

- Employed a Regional Lead, South Asia & Southeast Asia who worked alongside local stakeholders to bring Aii's solutions to Bangladesh.
- Partnered with Bangladesh Apparel Exchange to raise awareness about solutions at hand that could immediately be deployed.
- Assessed Bangladesh's first three producers in the Clean by Design Energy Efficiency program. The outcome was an overall potential of 17% CO<sub>2</sub>e savings.
- Selected GIZ's solar PV program in Bangladesh as a Climate Solutions Portfolio grantee. Producer engagement started in late 2023 with eight producers confirming their participation. We are in discussions with nine additional producers that we hope to enroll, and we will recruit another 13 producers through our brand partners in 2024.

**“The collaboration between BluWin and Aii has been transformative. Our collaboration focuses on engaging manufacturers and creating a robust ecosystem for the effective implementation of actions aimed at improving resource efficiency and achieving significant GHG reductions. Furthermore, Aii's commitment to sustainability and dedication to driving positive change through collective action within the apparel industry's manufacturing sector, is commendable. We are proud to contribute to these impactful initiatives strategically alongside with Aii.”**

DR. SIVA PARITI C.COL. A.S.D.C., senior technical marketing officer, BluWin

## Central and South America

The textile industry in Central and South America holds significant importance to global brands, including several of our partners, due to its proximity to major consumer markets, efficient transportation links, and its ability to meet diverse production demands.

### KEY ACHIEVEMENTS IN 2023:

- The CTA and CTS program expanded to Brazil, El Salvador, Haiti, Nicaragua, and the USA, bringing the total number of covered countries to eight.
- We ended 2023 with nine active producers in three countries. 18 producers in eight countries completed a CTA or CTS program.
- CbD expanded with four producers in El Salvador, Mexico, and Honduras and three in the United States of America completing the program.
- An additional four producers joined our Clean By Design Energy & Water Efficiency program at the end of 2023. We expect tangible results by the end of 2024.



# Climate Solutions Portfolio

## Introduction

Aii's Climate Solutions Portfolio is the apparel and textile industry's registry for vetted climate solutions. It simplifies and accelerates the adoption of proven and promising solutions — innovations, projects, or programs — that create a positive impact and deliver measurable CO<sub>2</sub>e reductions.

We achieve this by offering grant funding to less mature solutions, vetting mature solutions, and amplifying both on our Climate Solutions Portfolio platform. We facilitate and support the deployment and scale of these solutions through our programs, network of brands and producers, and blended capital strategy.

In 2023, we launched our first call for Climate Solutions Portfolio grant applications. We were delighted to receive 140 eligible, completed applications spanning the supply chain and the globe. These applications were evaluated using our key criteria:

**Effectiveness** — what is the solution's CO<sub>2</sub>e reduction relative to a typical industrial baseline?

**Reach** — what is the breadth of the supply chain the solution can affect at scale?

**Scale** — how quickly can this solution scale by 2030?

**Funding ask** — what is the funding going to be used for and what can the sector learn from this project?



## Solutions That Were Identified in 2023

Based on these criteria and a thorough review of applications, we selected five projects we felt delivered broad sectoral impact; were doing something new, and could scale to support the sector’s ambitious 2030 goals. We have outlined those projects below.

Organization	Reduction Lever	Project Description & Reason for Selection	Geography & Tiers	Grant Awarded	\$/tonne CO <sub>2</sub> e <sup>12</sup>
<b>Precision Development</b>	Reduce emissions from production of natural and synthetic fibers	Leaf Color Charts – reducing fertilizer use in cotton production. A low-tech, science-based, local engagement-focused approach to reducing agricultural emissions. The Leaf Color Charts feature different shades of green that indicate the different levels of nitrogen content in the plant. Farmers compare the shades on the chart with their own plant to determine whether they should decrease fertilizer usage.	India T4	\$499,005 2 years	\$4.21/ tonne CO <sub>2</sub> e
<b>Made2Flow &amp; BluWin</b>	Reduce process demand for energy  Reduce energy losses	Automated recognition and management to help detect energy efficiency opportunities.  Automating energy efficiency advice could be the solution to scaling decarbonization in a world with limited experts and financing to conduct in-person audits.	India, Bangladesh, Sri Lanka, Vietnam, Indonesia T1 & T2	\$230,000 1 year	\$0.53/ tonne CO <sub>2</sub> e
<b>GIZ</b>	Reduce/eliminate GHG emitted from generating heat and electricity	Tackling GHG emissions through supported renewable energy project development (solar PV).  The opportunity is clear and understood by manufacturers, but they need implementation support to make the installation happen.	Bangladesh T1 & T2	\$649,300 3 years	\$6.01/ tonne CO <sub>2</sub> e
<b>PwC &amp; BluWin</b>	Reduce process demand for energy  Reduce energy losses	Cleaner production system for reducing GHG emissions in an underserved market. This solution includes T3 facilities which have traditionally been overlooked by these programs. This will provide learnings for the sector on the saving potential in this tier and increase focus on this decarbonization opportunity.	India & Bangladesh T2 & T3	\$250,000 1 year	\$0.76/ tonne CO <sub>2</sub> e
<b>BluWin</b>	Reduce process demand for energy  Reduce energy losses	Clean by Design Bangladesh  Through a direct-to-manufacturer recruitment effort – as opposed to the traditional brand nomination approach – this has the potential to really scale and boost the business case for energy efficiency.	Bangladesh T1 & T2	\$88,000 1 year	\$0.46/ tonne CO <sub>2</sub> e

<sup>12</sup> \$/tCO<sub>2</sub>e is calculated by dividing the total grant amount by the forecasted lifetime tCO<sub>2</sub>e impact of the grant project.



In this initial group of applications, we saw a significant number focused on low-carbon thermal energy and energy storage. With more than half of the sector's supply chain emissions originating from energy, it's essential to transition towards lower carbon thermal energy, such as moving away from coal, and renewable electricity sources, which could be accomplished through energy storage.

Energy storage has the potential to drive decarbonization in both thermal energy and electricity as it can improve business cases. Renewable energy sources often produce energy at times when production is not happening and may produce more energy than is needed at that time. An energy storage approach would ensure this energy does not go to waste, bolstering the investment case for renewable energy. We want to investigate to what extent this could help the textile & apparel sector transition more quickly to renewable electricity.

Similarly, thermal energy (heat) is a key lever for decarbonization. Choosing an alternative, lower-carbon thermal energy source is very challenging as it is highly dependent on local energy, environmental, and economic factors.

After initial research, the CSP Advisory Council determined they lacked the expertise needed to appropriately evaluate these projects because the textile and apparel sector as a whole lacks knowledge and vision on these topics. This deficiency was also apparent from the applications themselves, which did not adequately consider local context and specific, producer-level needs.

Consequently, for our second round of funding in 2023, we issued a targeted call for applications aimed at developing roadmaps on low-carbon thermal energy and the role of energy storage in decarbonization. These roadmaps will examine key technologies, provide a region-specific view of enabling and constraining conditions, and highlight the steps necessary for deployment. Global Efficiency Intelligence and the Carbon Trust were selected for this important work, and will publish the final roadmaps in Q3 2024 to not only inform CSP grant funding, but also act as a blueprint for manufacturers, brands, and investors to guide their decisions on these topics.

In addition to our grantmaking, we have developed a strategy for recruiting mature solutions to the Climate Solutions Portfolio — namely solutions that do not need funding. We accepted one solution, Pozzi, as a registered solution and are piloting their route to deployment within Aii's programs. As we recruit more climate solutions, we are mapping them against Aii's programs, developing our marketplace, and leveraging our wide network to accelerate deployment. Building out this part of the CSP is a key strategic focus for 2024.



## 2024 Application Process

As this was Aii’s first experience as a grantmaker, we learned valuable lessons that are driving our strategy for our second year of the Climate Solutions Portfolio. Some key learnings and subsequent strategic changes are outlined in the table below.

Our [Grant Funding Thesis](#), which clarifies what we fund, was published in January 2024 in preparation for our open call for applications on March 1, 2024. Our targeted call for grant applications will launch September 1, 2024. Registry-only solutions will be able to apply on an ongoing basis after May 2024; applications will be reviewed monthly.

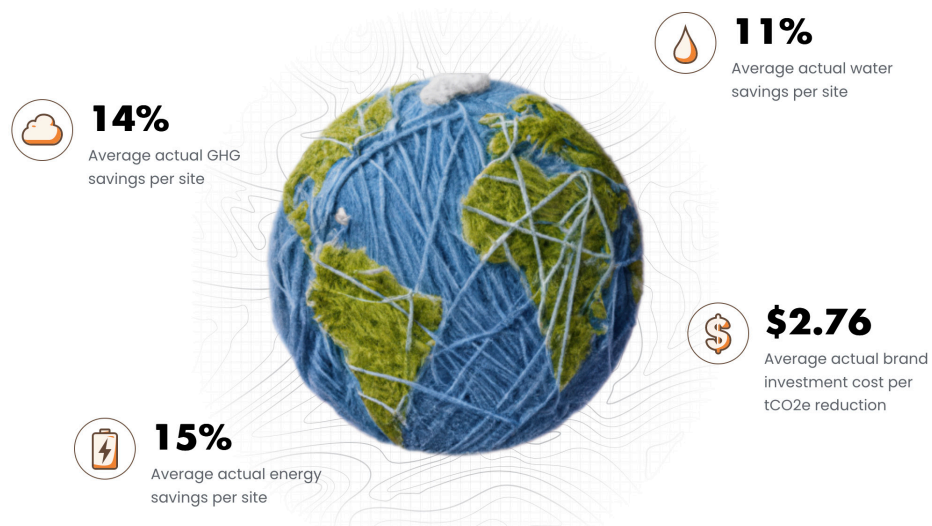
Insights	Strategic Next Steps
Grant applications varied widely in quality, detail, and impact.	Developed a Grant Funding Thesis and accompanying application update so applicants can submit grant projects that meet our requirements.
Being able to evaluate grant applications with quantitative metrics is very important so that we can make sure we fund the most impactful projects.	Developed the Ready Reckoner: Impact Evaluator, a tool that allows applicants to select to the sub-process level (i.e. cotton batch dyeing in T2 facilities) where their solution takes place, enter their reduction potential, and share their plans for scaling. The evaluator then calculates the maximum CO <sub>2</sub> e reduction potential by 2030, allowing CSPAC to compare the impact of one project against another, even if they are completely different solutions.
We need to have a balanced and diverse portfolio of grant projects each year.	In Q1 of each year, we will have an open call for projects, accepting applications for all solutions that meet the requirements of our grant funding thesis. In Q3, we will use insights from our Q1 funding to make a targeted call for projects, filling gaps in technology, decarbonization lever, or geographic location.

**“There are a lot of solutions out there, but we need to cut through the noise and really focus on identifying those that deliver verifiable impact and can be deployed at scale. Our 2030 50% goal is coming up, and a lot needs to be deployed and implemented in order to achieve that. CSP is aiming to become the marketplace for that so that we can matchmake producers with the solutions that are right for them and accelerate their deployment.”**

PAULINE OP DE BEECK, Aii’s environmental portfolio lead

## BRAND IMPLEMENTATION BENEFITS

The CSP has proven efficacy in reducing Scope 3 GHG emissions, along with other key climate impact metrics.<sup>13</sup>



<sup>13</sup> Actual savings and investment data are based on historic data from Aii’s Clean by Design program. These figures will be updated annually with additional data from new CSP solutions.

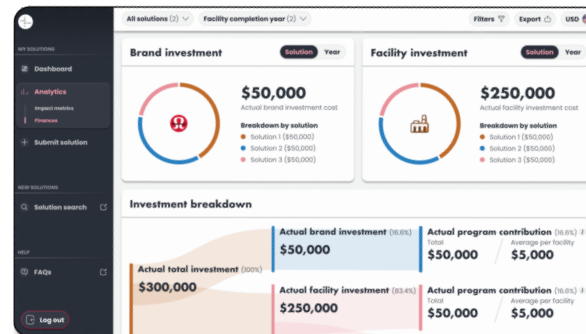
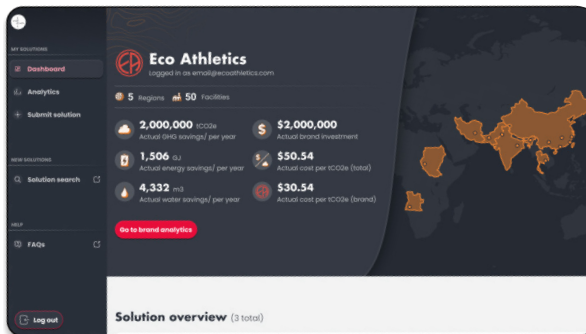
# CSP Technology Platform publication

In 2023, Aii introduced the [CSP platform](#), a software solution aiming to:

- Solve the challenges of identifying effective programs for reducing Scope 3 carbon emissions
- Evaluate and assess solutions for their fit and impact potential, and
- Provide impact reporting that leverages data and analytics to spotlight program progress and facilitate informed decision-making.

The CSP platform delivers a best-in-class experience and suite of features, including a comprehensive registry to make program discovery efficient, ongoing program management of producers enrolled in active programs, and a reporting dashboard for impact measurement.

The CSP platform is constantly evolving and this is just the beginning. Over the next few years, the platform aims to deliver features such as expanded data and verification, quality assurance, vetting and program intake, predictive insights, and program/funding matchmaking.





# Fashion Climate Fund

Aii's Fashion Climate Fund is a pooled fund of catalytic capital built by some of the world's biggest brand retailers, financial institutions, and climate philanthropists to

## 1. ACTIVATE PRODUCERS

We're subsidizing the start of producers' sustainability journey and connecting them with technical assistance to evaluate needs based on location, production, and products.

## 2. CREATE ROADMAPS

We use a data-driven, science-based approach to "follow the carbon" and identify the exact path a producer must take to meet their climate goals.

## 3. BUILD CAPACITY

As part of our ecosystem leadership, we conduct country- and region-specific research to identify proven and promising tools and solutions.

## 4. INCREASE AFFORDABILITY

We use a blended capital approach to lower interest rates and create more incentivized finance.

## New Partners

In 2023, the Fashion Climate Fund welcomed two significant new funders, marking a pivotal moment in our journey.

At COP28, Aii announced HSBC as a new philanthropic funder, pledging an initial \$4M over the next three years alongside in-kind sustainability and trade finance expertise. As the first commercial bank to join as a Fashion Climate Fund Lead Partner, HSBC's commitment signals the financial community's growing commitment to decarbonizing our industry.

The bank's support will fund market insight reports, regional research projects to identify and overcome financial barriers, as well as build connections between producers, brands, NGOs, governments, and financial institutions. HSBC's contributions will ultimately support building the infrastructure needed to enable partners to identify, measure, secure finance for and deploy decarbonization solutions from renewable energy to energy efficient measures.

The Rockefeller Foundation also committed significant grant support to the Fashion Climate Fund and hosted Aii's sustainable finance convening at their Bellagio Retreat Center. Rockefeller Foundation funding will enable Aii to continue activating various stakeholder groups and bring these financial tools from conversation to deployment.

## Fund Deployment

Funds from the Fashion Climate Fund were actively deployed in 2023 to three major categories:

- Awarding the first Climate Solutions Portfolio grants to five carbon-reduction solutions and inducting them into the CSP registry.
- Subsidizing the start of producers' sustainability journey and connecting them with technical assistance to evaluate needs based on location, production, and products.
- Conducting country- and region-specific research to identify proven and promising tools and solutions, including engaging partners for two critical carbon roadmaps for thermal energy and energy storage.



# Sustainable Finance

Aii's Sustainable Finance Ecosystem Strategy stems from two industry cornerstone reports: the Roadmap to Net Zero, co-authored with the World Resources Institute, and Unlocking the Trillion Dollar Decarbonization Opportunity, in partnership with [HSBC](#) and [Fashion for Good](#).

We have identified sustainable finance as a major tool toward achieving our goal of enabling the removal of at least 100 million tonnes of carbon from the supply chain by 2030. Aii has been stewarding an initiative to unlock \$2 billion in capital and pioneer innovative financial vehicles that will make decarbonization capital more accessible to producers.

## The strategy is centered around five key premises:

1. There are ambitious and necessary goals the apparel and footwear industry must reach to move toward decarbonization. Under the current trajectory, the industry will miss the 1.5C pathway by 50%.
2. Scope 1 and 2 emissions are under the direct control of brands and are easier to abate. However, the complex and fragmented nature of fashion supply chains means that Scope 3, which represents the vast majority of emissions, has historically been overlooked.
3. Emissions must be reduced at the producer level for progress to be made. This means funding is required for not only innovations, but also facility retrofitting and energy efficiency capex.
4. Access to sustainable finance is a key barrier to decarbonization, alongside nascent energy ecosystems, policy and regulatory environments, lack of infrastructure, alternative fuel availability, and access to local expertise.
5. Collective action is imperative to realize the most impactful decarbonization solutions for the apparel and footwear value chains.

Our strategy aligns philanthropic and government grantmakers with industry funding and commercial capital across a shared and agreed-upon suite of solutions to reach the ambitious science-based targets. Our blended capital approach is expected to have the following outcomes:

- **Additionality:** adding value via affordable capital to the industry's current investment ecosystem by (i) using a collaborative approach through the involvement of like-minded stakeholders, and (ii) ensuring reduction of GHG emissions.
- **Advantage of scale:** financing impactful, lower-cost solutions at scale, improving cost of efficiency and impacts.
- **Collective action for collective good:** collective funding efforts from apparel and footwear companies are amplified by institutional investors, representing a shared commitment to decarbonizing the value chain and investing in solutions in manufacturing countries — often the most susceptible to the consequences of climate change.
- **Stakeholder effects:** Aii will endorse the provision of affordable finance to implement decarbonization projects in the manufacturing plants of producers of global textile companies, many of which are SMEs. The decarbonization investments will generate energy and water operational cost savings, improving both competitiveness and attractiveness as producers will now be able to market their decarbonization progress to brands and consumers who are increasingly focused on this issue.
- **Environmental effects:** Providing the financial support needed to deploy energy efficiency, rooftop solar, water, and waste reduction projects will displace power supplied by more carbon-intensive sources.
- **Value chain enhancements:** Aii will promote greater sustainability in the apparel and footwear market through local capacity building and promote change in practices by global players in the supply chain.

The overall Sustainable Finance Ecosystem strategy's objective is to further Aii's impact by:

1. Creating a graduation effect from activities undertaken by the Climate Solutions Portfolio grantees.
2. Supporting local SMEs to strengthen their ability to navigate the capital continuum from philanthropic sources to commercial success.
3. Improving the SME finance market by strengthening investee capacity and supporting new and innovative financial initiatives.
4. Developing and sharing knowledge to shorten producers', brands', and financial institutions' learning curves within the SME finance sector.
5. Supporting producers and co-investors with reporting and capacity improvements.

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## 2023 Activities and Achievements

Our key activities focused on strategy development, collective action activation, and operationalization of initiatives. In 2023, we hosted [two flagship events](#) to align change-makers around the biggest opportunities to urgently act on Scope 3 decarbonization efforts:

- New York Climate Week: Financing Fashion Decarbonization
- Bellagio Retreat: Financing Decarbonization in the Apparel and Footwear Supply Chain

Read more about these events in the following section of the report.



**“More than \$35 trillion of financial capital is available globally for Environmental, Social, and Governance (ESG) investments. However, there are critical barriers preventing this financial capital from flowing to projects in emerging markets, including currency risk, credit risk, and lack of validated project pipelines. Unlocking sustainable finance requires engagement between brands, producers, financial institutions, and philanthropic funders to create innovative financing mechanisms to solve for these barriers.”**

RYAN GAINES, Aii's CFO



# Thought Leadership

## Events & Stakeholder Engagement

### FIRST ANNUAL STRATEGY SUMMIT:

In May 2023, Aii gathered 75 stakeholders — including Aii board members, Fashion Climate Fund and brand partners, financial institutions, NGOs, and solutions providers — for three days of meetings, workshops, and focused conversations.

The event served as an opportunity to provide updates and solicit feedback on key Aii topics such as the Climate Solutions Portfolio funding evaluation process and software platform, our sustainable finance strategy, and our approach to decarbonization in the luxury market.

The week capped off with a visit to Mantero Seta, a Tier 2 facility near Milan that has participated in Aii programming.



### NEW YORK CLIMATE WEEK — FINANCING FASHION DECARBONIZATION:

During New York Climate Week in September 2023, Aii hosted a gathering with a community of over 70 investors, apparel brands, and related ecosystem partners for shared learning towards climate action and unlocking sustainable finance in the industry. The convening included discussions and collaborative strategy sessions focused on the challenges and opportunities across the industry, including specific types of financing structures, potential credit enhancement mechanisms, and ways for stakeholders to work together toward decarbonization.

The following conclusions were drawn:

- Ultimately, a systemic change is needed to foster the climate transformation of apparel stakeholders; improve access to finance, jobs, and income; while also boosting local regulatory conditions.
- To make progress, emissions must be reduced at the producer level. This will require funding for innovations, facility retrofitting, and energy-efficient capex.
- Access to sustainable finance is one of the key barriers to decarbonization alongside nascent energy ecosystems, policy and policy environments, lack of infrastructure, alternative fuel availability, and access to local expertise.
- Industry participation and risk sharing is imperative to realize the most impactful solutions to decarbonizing the apparel and footwear value chain.

## BELLAGIO RETREAT — FINANCING DECARBONIZATION IN THE APPAREL AND FOOTWEAR SUPPLY CHAIN:

Following our NY Climate Week event, we partnered with the Rockefeller Foundation to host the Financing Decarbonization in the Apparel and Footwear Supply Chain Retreat at the Bellagio Center in Lake Como.

Key stakeholders from across the value chain — including HSBC, BNP-Paribas, Standard Chartered, MAS Holdings, Brandix, PVH, Lululemon, H&M Group and Guidehouse — gathered to create an activation plan starting with the most critical regions.

### The retreat had the following objectives:

Connection	Action	Commitment
<p>Work in a new and more connected manner involving different stakeholders (financial institutions, brands, solutions providers, and manufacturers) to design mutually beneficial solutions.</p> <p>Build collective understanding and appreciation for drivers and challenges across sectors and create a shared sense of urgency on the imperative to decarbonize.</p>	<p>Generate viable, cross-sector financial solutions that address implementation challenges.</p> <p>Design a concrete plan to operationalize one or more tools, including measures of success and clear responsibilities.</p>	<p>Reach clarity around collective action for the sector.</p> <p>Leave with a good understanding of how to remain engaged and co-implement a shared roadmap over the next year.</p>

A clear outcome of the gathering was a collective agreement to launch a suite of climate finance solutions via a marketplace portfolio approach to facilitate producers' access to affordable capital. This will include two initial financing initiatives which will incorporate (a) guarantee-backed loans and (b) vehicles with blended capital components.

Three working groups composed of participating stakeholders will operationalize and guide these initiatives to address the following drivers and needs:

Stakeholder	Drivers	Needs
<b>Brands</b>	Consumer demand and regulatory requirements	A unified approach toward decarbonization and proper carbon allocation standards
<b>Producers</b>	Upstream pressure from brands and improved business metrics through sustainability practices	More incentives to make investments attractive. Less individual risk burdening and improved access to finance
<b>Commercial Banks</b>	Transformation toward more sustainable portfolios	Risk sharing and brand skin-in-the-game
<b>Development Finance Institutions</b>	Market creation and enhance investment productivity	Alignment across different actors to spread risk

### COP28

Lewis Perkins, Aii president, attended COP28, along with Giovanni Zenteno, director of sustainable finance, and Andres Bragagnini, manager of stakeholder engagement. Lewis participated in several speaking engagements, including a co-hosted conversation at Goals House with HSBC on unlocking the trillion-dollar opportunity to decarbonize the fashion industry.

Lewis also appeared on stage at the World Climate Foundation's World Investment COP to share insights on the strategies employed by brands to reduce greenhouse gas emissions and attract climate-conscious consumers. He participated in the Sustainable Innovation Forum alongside Alpine Group and others, discussing the theme "Beyond Aspirations: Taking Concrete Steps in the Fashion World." Lastly, he joined other executives at a Global Fashion Agenda Assembly to present the GFA Monitor publication, which takes stock of the industry's progress towards a net positive industry and aims to mobilize action through the consolidation of knowledge, proven best practices, data insights and solutions.

## Media Highlights

### Introducing the Vogue Business 100 Innovators: Class of 2023

Aii president Lewis Perkins was recognized in September as part of The Vogue Business 100 Innovators Class of 2023 in the category of Sustainability Thought Leaders. This year's cohort of sustainability innovators comprises founders, activists, organizers, and designers dedicated to reshaping fashion's impact by minimizing waste and resource depletion. Lewis' inclusion in this prestigious group highlights the pivotal role Aii plays in advancing impactful initiatives and driving positive, industry-wide change. > [Read full story](#)



### Six major press announcements/pitches

(in comparison to four from May - Dec, 2022)

- **January 31:** Apparel Impact Institute Opens First Call for Applications for the Climate Solutions Portfolio > [Press release](#)
- **April 6:** Apparel Impact Institute Welcomes Claire Bergkamp to Board of Directors > [Press release](#)
- **April 24:** Aii 2023 Impact Report (no press release – all targeted pitching via email)
- **June 2:** Roadmap Refresh report "Taking Stock of Progress Against the Roadmap to Net Zero" (no press release – all targeted pitching via email)
- **September 19:** Apparel Impact Institute Announces First Grant Recipients from its Climate Solutions Portfolio (CSP) to Help Ignite Carbon Reduction Solutions in the Fashion Industry > [Press release](#)
- **December 11:** Apparel Impact Institute Announces HSBC as New Funder to the Fashion Climate Fund + Debuts new financial tools to help producers finance decarbonization projects with support from Rockefeller Foundation (all targeted pitching via email)

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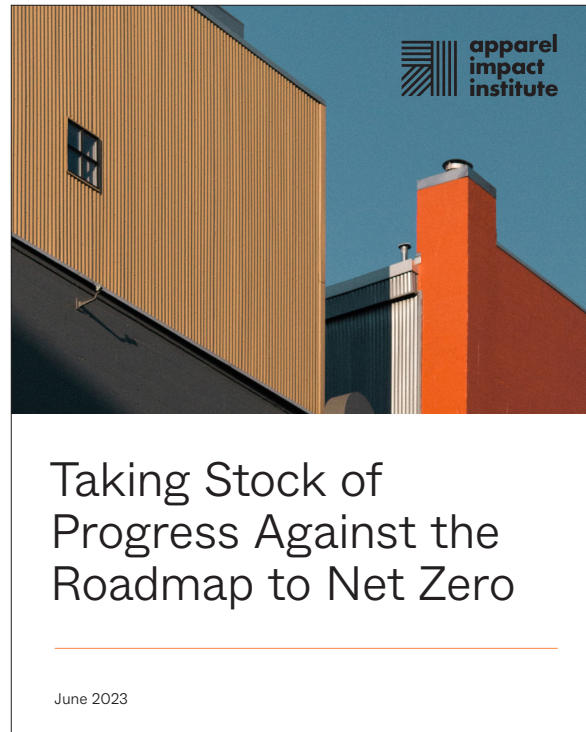
Total Stories

4,869,538,706

Total UVM



## Data & Reporting



### Taking Stock of Progress Against the Roadmap to Net Zero

[Taking Stock of Progress Against the Roadmap to Net Zero](#), published in June 2023, is the highly anticipated sequel to the [2021 Roadmap report](#).

As with the original report, Aii used data from Cascale, Worldly, and Textile Exchange — with revised assumptions — to refresh the GHG estimate for the apparel sector. The report also includes examples of companies and organizations taking action to reduce emissions across the six interventions.

While the reductions needed to stay within 1.5°C will take a massive effort, the examples in this report are intended to show that progress is possible.



### The GFA Monitor 2023

The second [GFA Monitor](#), which launched at COP28, takes stock of the industry's progress towards net positive and emphasizes the imperative need for social and environmental sustainability. The Monitor also presents a clear pathway forward with proven solutions, credible resources, and industry best practices. Aii contributed to the Monitor as an Impact Partner.

## Multi-Stakeholder Initiatives

### apparel alliance Working Group

The apparel alliance Working Group convenes data leads and experts from Cascale, ZDHC, Textile Exchange, and Aii. It has shown its strongest progress in the Supply Chain Taxonomy project which aims to achieve a standard framework of agreed-upon definitions and aligned classifications of raw materials, processes, products, operators and producers. The taxonomy framework will enable the Apparel Alliance Data Working Group to map our unique datasets before diving into detailed impact data alignment and/or reporting.

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**“The apparel alliance’s supply chain taxonomy work aims for industry-wide sustainability implementation and transparency. Ongoing effort focuses on refining standardized data frameworks and fostering coherence in reporting impact. ZDHC’s specific focus is providing insights on sustainable chemical management and its impact areas.”**

FRANK MICHEL, chief executive officer (CEO), Stichting ZDHC Foundation

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**“The development of a shared perspective of the apparel supply chain tiers will provide clarity to our industry and enhance future communications and tool alignment strategies. We look forward to the continuation and release of this work with our apparel alliance partners.”**

JOËL MERTENS, director, Higg Product Tools

**“If we are to create interoperability for the fashion, textile, and apparel industry, it is essential that we are aligned when it comes to data standards and taxonomy. This enables us to efficiently share data, deliver consistent measurement and reporting, and effectively track our climate and nature impacts.**

**Textile Exchange is excited to be part of the apparel alliance Data Working Group, which started out in 2023. Our main aim has been to create a shared supply chain taxonomy [and] to facilitate a unified approach to reporting the impacts of various fibers and raw materials across multiple tiers. This is set to be publicly released in 2024.**

**Looking ahead, we will be working to develop a harmonized glossary as well as consensus around how facility identifiers are used. Also in the pipeline, we will be defining the industry’s scope for impact measurement and developing conversion factors for fibers and raw materials throughout the supply chain.”**

EVONNE TAN, senior director data and technology, Textile Exchange

## VCI Apparel and Footwear Working Group

The [Value Change Initiative \(VCI\)](#) helps companies and practitioners remove barriers to achieve Net Zero Value Chains. VCI's focus has been on supporting ambitious corporate Scope 3 climate commitments with technical guidance on credible GHG accounting for value chain interventions associated with category 1: Purchased Goods & Services. These are aligned with leading standards such as Greenhouse Gas Protocol (GHG Protocol), Science Based Target initiative (SBTi) and the International Standard Organisation (ISO).

Between February and November 2023, the VCI hosted the second edition of the [Apparel & Footwear Working Group](#) which yielded the following results and takeaways:

- Identified the general challenges and constraints within the Apparel & Footwear sector.
- Defined two archetypes of interventions across the value chain and their differentiated challenges: Raw Material Interventions and Manufacturing Process interventions.
- Explored different pathways for the implementation of GHG accounting.
- Aligned on key safeguards to enhance credibility and acknowledged the range of solutions objectives.
- Explored simplified practical examples for each archetype of intervention, identifying the challenges and possible sensible scenarios for accounting, reporting, and claiming impact.
- Delved into the barely explored relationship between circularity and Scope 3, identifying the challenges and opportunities.

## Fashion Conveners

The Fashion Conveners is a group of leading nonprofits committed to aligning key industry players around bold goals needed to shape a restorative future. The Conveners' objective is to advance sustainability in fashion through collaboration, clarity, and trust. Aii joined this coalition to leverage partnerships and accelerate collective action within the apparel value chain.

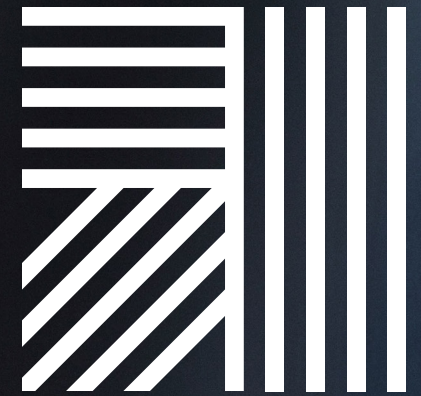
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**“Engaging with key industry players in 2023 revealed an unprecedented collective action approach, fostering a common language for target-setting and the implementation of decarbonization solutions for the textile and apparel industry. Partnerships continue to be paramount, amplifying our impact as we navigate the intricate web of private, public, and non-profit collaboration. It has been crucial to recognize and address duplicative efforts across the industry while leveraging our own organizational strengths. Our partners continue to look up to us as one of the key drivers for this transformative journey, underscoring our commitment to sustainability by pursuing our mission to identify, fund, and scale proven solutions to decarbonize the industry.”**

ANDRES BRAGAGNINI, Aii's manager of stakeholder engagement



# IV. Who We Are





# Our Vision, Mission, & Values

## Our *VISION*

A transformed apparel, footwear, and textile industry that has a positive impact on people and the planet.

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## Our *MISSION*

We identify, fund, and scale proven quality solutions to accelerate positive impact in the industry.

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## Our *VALUES*

**Passionate and purpose-driven:** We are ambitious about making a positive impact, and we'll go the extra mile for the cause. We're grounded, brave, bold, and intellectually curious.

**Trustworthy and real:** We value working together in a manner that is transparent, authentic, and credible. We can be trusted to do what we say we will do.

**Human-centered:** We believe humans are the path to delivering data driven solutions and impact. We bridge people to people, people to ideas, and people to tools. We work with mutual respect for each other's diverse viewpoints and examine our own bias.

**Collaborative:** We seek to partner and align with existing impact-related work streams rather than reinvent the wheel, and yet we are ready to build new pathways when gaps exist.



# Our History

The Apparel Impact Institute is a not-for-profit (501c3) registered in the state of California and founded in 2017 by four industry leaders: Cascale, the Sustainable Trade Initiative (IDH), Natural Resource Defense Council (NRDC) and Target Corporation. The organization emerged organically as a result of a real need that apparel brands and retailers self-identified.

Today, Aii is recognized as an ecosystem leader in carbon reduction programming.

## 2007

**Founding of Clean by Design:** Clean by Design was created to improve energy and water efficiency in mills by implementing 10 Best Practices.

## 2017

**Aii Founding:** Apparel Impact Institute was established by a group of diverse stakeholders to strategically drive sustainability improvements.

## 2021

**Roadmap to Net Zero:** Aii and The World Resources Institute (WRI) released “Roadmap to Net Zero,” a report and guide calling for the system-wide collaboration needed to reduce GHG emissions of the apparel and footwear industry by 50% by 2030 and to zero by 2050.

## 2023

**Climate Solutions Portfolio:** Aii deployed its first Climate Solutions Portfolio grants funded by the Fashion Climate Fund. Aii also debuted the CSP platform, a registry for proven climate solutions.

## 2030

**Looking forward:** By 2030, Aii aspires to enable the reduction of carbon emissions by 100Mt.

## 2020

**apparel alliance:** Aii partnered with Cascale, Textile Exchange, and ZDHC to form the apparel alliance to create a connected, end-to-end path to action for the entire apparel and footwear industry.

## 2022

**Fashion Climate Fund and IP Transfer:** Aii launched the innovative \$250M Fashion Climate Fund which is designed to unlock up to \$2B in capital to reduce carbon emissions in fashion. Additionally, the Clean by Design IP was transferred from NRDC to Aii this year.

## 2050

**Looking Forward:** We envision the industry reaching net-zero, driven by Aii’s support.



## Aii's Theory of Change

Apparel Impact Institute was founded in 2017 to accelerate positive impact in the apparel, footwear, and textile industry to transform the impact that the sector has on people and the planet.

The basis of our theory of change is the [“Roadmap to Net Zero: Delivering Science-Based Targets in the Apparel Sector”](#) report published by World Resources Institute and Aii in 2021, which identifies six solutions the fashion industry can adopt to deliver the GHG reductions needed by 2030 to stay within the 1.5°C pathway.

These solutions enable a net-zero industry to be achieved by 2050, with a combined GHG emissions reduction potential of 2.5 Gt CO<sub>2</sub>e, of which 1.2 Gt (47% of combined solution categories) will be contributed by solutions already existing today, 1.0 Gt (39%) by innovative solutions, and 0.3 Gt (14%) by other solutions including materials efficiency and reducing overproduction.

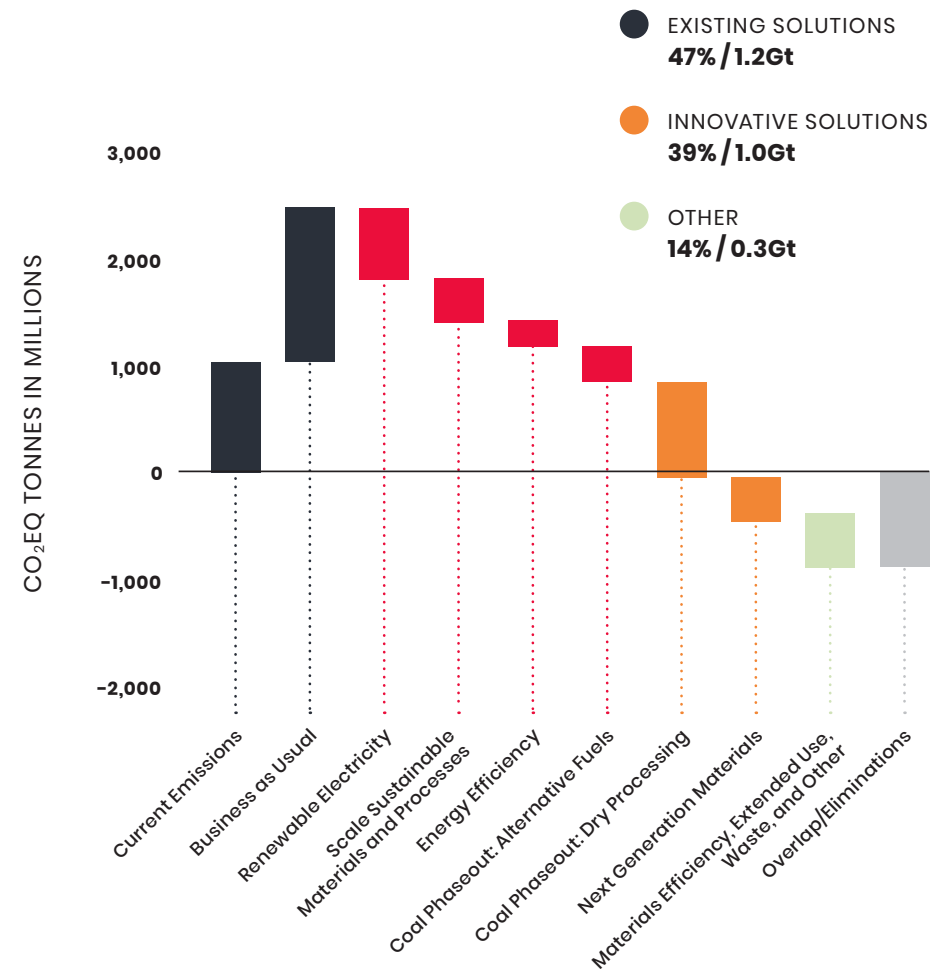
Our research indicates that it will cost \$1 Trillion for the apparel industry to fully decarbonize its supply chain by 2030. Much of this investment has a positive financial ROI and can be funded by financial institutions.<sup>14</sup>

Therefore, Aii applies a blended capital approach, utilizing funds from apparel brand and philanthropic foundations to catalyze investment from debt and equity providers, thereby achieving greater impact and scale.

Additionally, Aii's Climate Action Approach portfolio and Climate Solutions Portfolio are establishing a deliberate, scientific approach to selecting the most cost-effective and scalable solutions to reduce carbon in apparel supply chains.

All Aii programs are aligned with science-based targets to reduce apparel sector carbon emissions by 50% by 2030 and to net zero by 2050.

## Pathway to Net-Zero: Reduction Potential by 2050



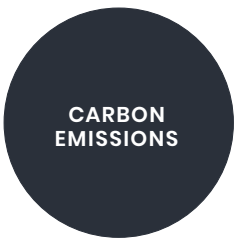
Solution categories that enable a net-zero fashion industry by 2050. Source: Aii and FFG analysis (2021).

14 Source: [Aii\\_UnlockingTheTrillion-DollarFashionDecarbonisationOpportunity\\_Report\\_v11.pdf\(apparelimpact.org\)](#)

# Our Focus Areas

Our immediate priority is carbon reduction to work toward a zero-carbon fashion industry. The following secondary impact areas result from this work.

## Primary Impact Area



## Secondary Impact Areas



To achieve sufficient carbon reductions for a 1.5C pathway, Aii and WRI concluded in the report Roadmap to Net Zero that the following six interventions are needed to be implemented by the apparel sector.<sup>15</sup>

1. Maximizing material efficiency.
2. Scaling sustainable materials and practices.
3. Accelerating the development of innovative materials.
4. Maximizing energy efficiency.
5. Eliminating coal in manufacturing.
6. Shifting to 100 percent renewable electricity.

Beyond the six interventions, the paper also identified the potential benefits of circular business models and practices.

All seven areas are critical to decarbonizing the supply chain.

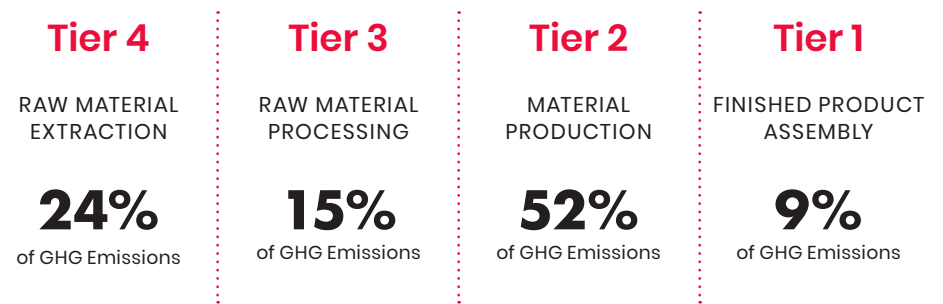
<sup>15</sup> Source: [21\\_WorkingPaper\\_RoadmapNetZero\\_.pdf \(apparelimpact.org\)](#)

Based on these findings, Aii has identified focus areas that form the fundamentals for our [Climate Solutions Portfolio](#), and our own [Climate Action Approach](#) programming.

We are looking to:

- Reduce process demand for energy & reduce energy losses
- Reduce/eliminate GHG emitted from generating heat and electricity
- Reduce emissions from production of natural & synthetic fibers
- Minimize waste in each step of production
- Maximize circular reuse of fibers, fabrics or chemicals

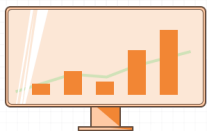
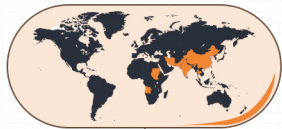
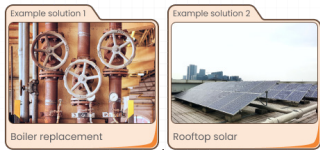
As shown in the below figure, material production is the biggest hotspot of emissions (52% of total) followed by raw material extraction (24% of total). Therefore, Aii's programs currently focus mainly on material production.



# How We Work

Aii provides access to, implementation, and tracking of programs that result in positive environmental impacts in the production of apparel and footwear products.

We're transforming the apparel and footwear industry by identifying, funding, scaling, and measuring proven solutions and programs that decrease carbon emissions.



## We IDENTIFY

We use verified data to identify programs and solutions that are poised to have a significant impact on industry carbon emissions.

## We FUND

We aggregate existing resources and attract new ones to build a pipeline of scalable impact in the industry.

## We SCALE

We remove barriers to accelerate the implementation of proven solutions.

## We MEASURE

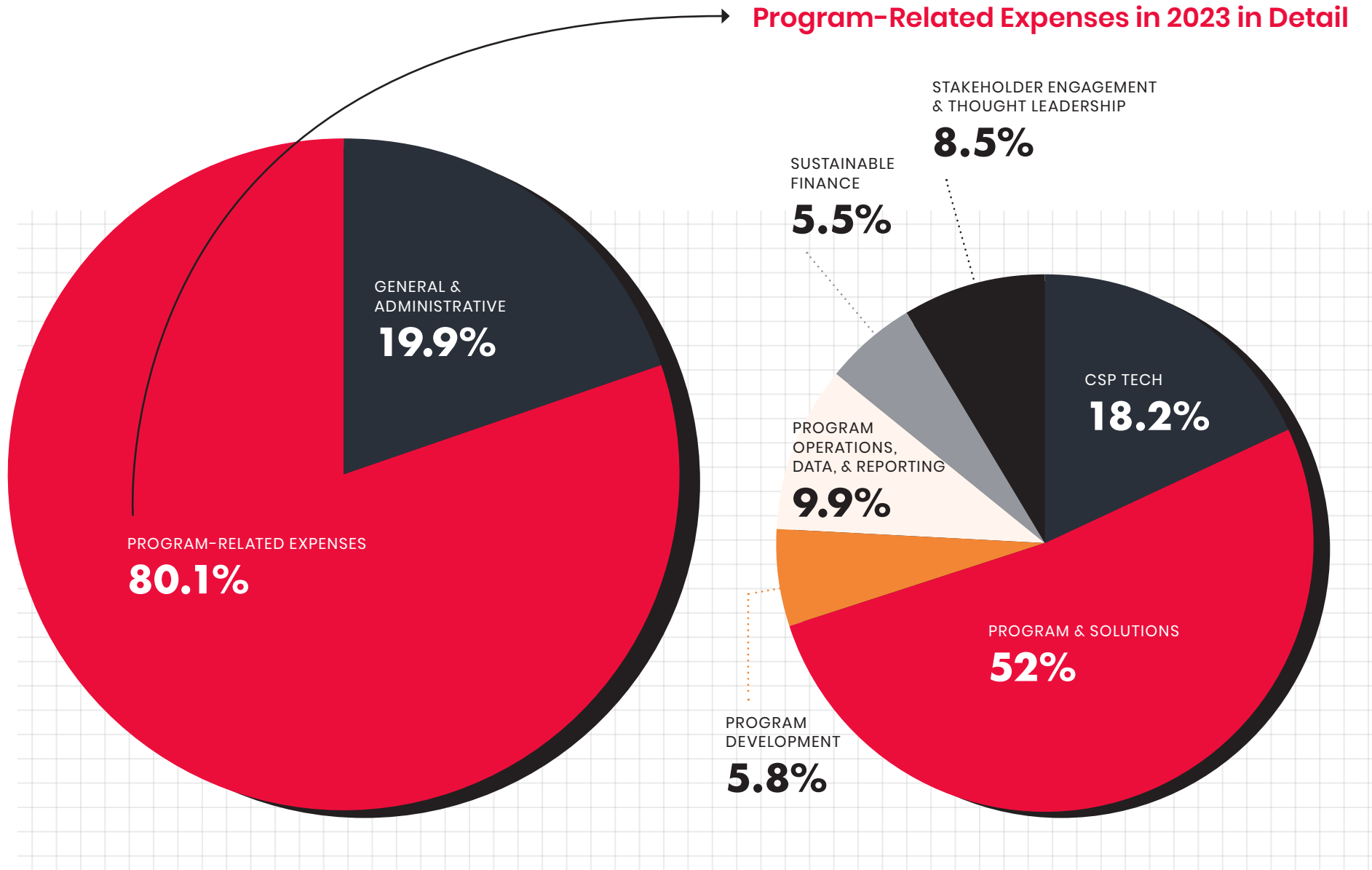
We ingest, analyze, and report critical data to move our partners closer to their climate targets.

Aii's daily work spans the following five areas:



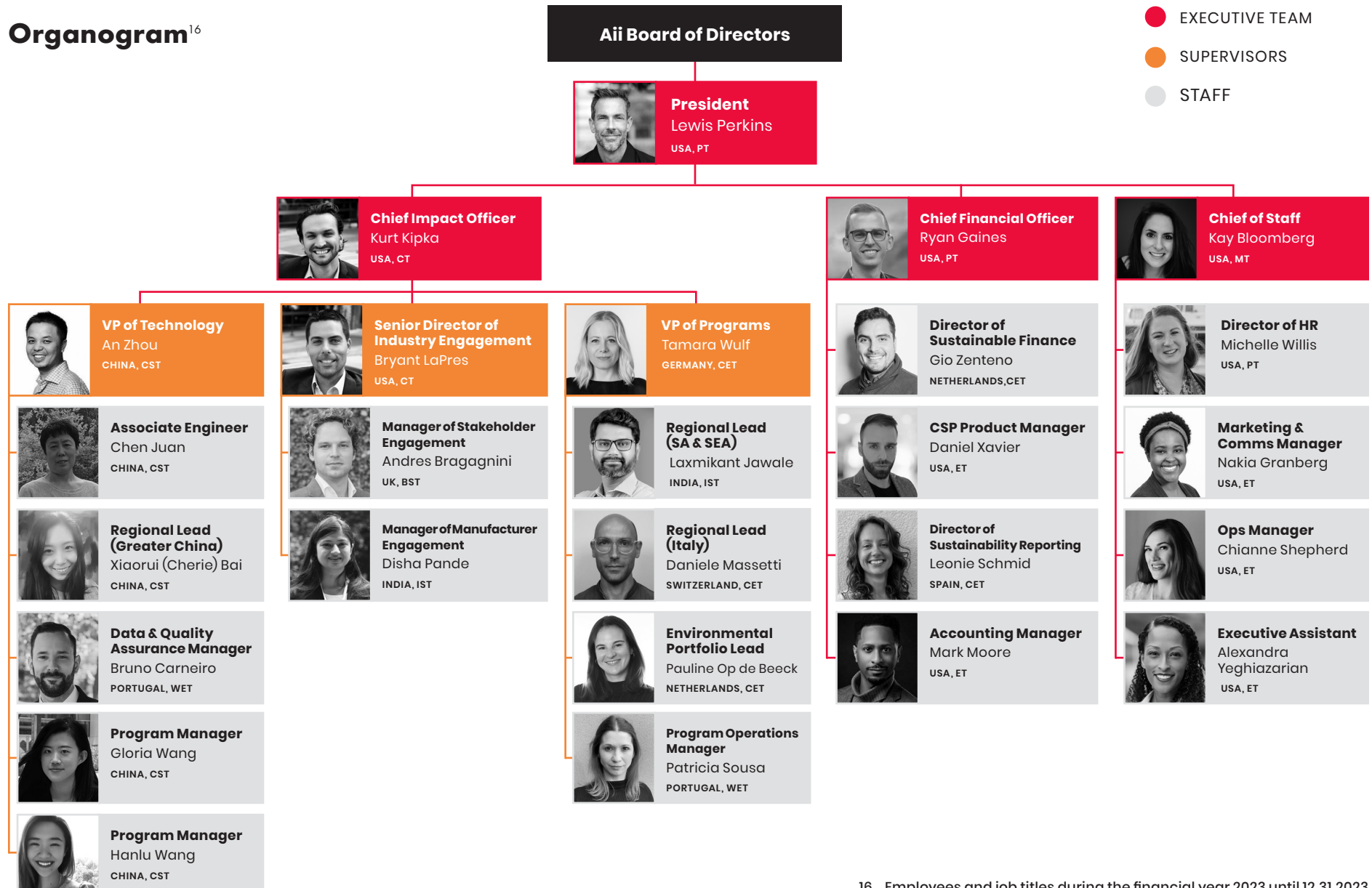


# Allocation of Funds



# Aii Team

## Organogram<sup>16</sup>



<sup>16</sup> Employees and job titles during the financial year 2023 until 12.31.2023

## Geography & Demographics of the Team

Aii is thrilled to have grown from 15 employees to 26 in 2023.

In 2023, Aii's team represented almost an equal distribution of male and female employees. Aii's executive team is composed of four people — 75% identifying as male and 25% as female.

We are especially proud to be an international and diverse team from nine different nationalities.

**We are based in nine countries over three continents.**

**26**  
employees

FROM

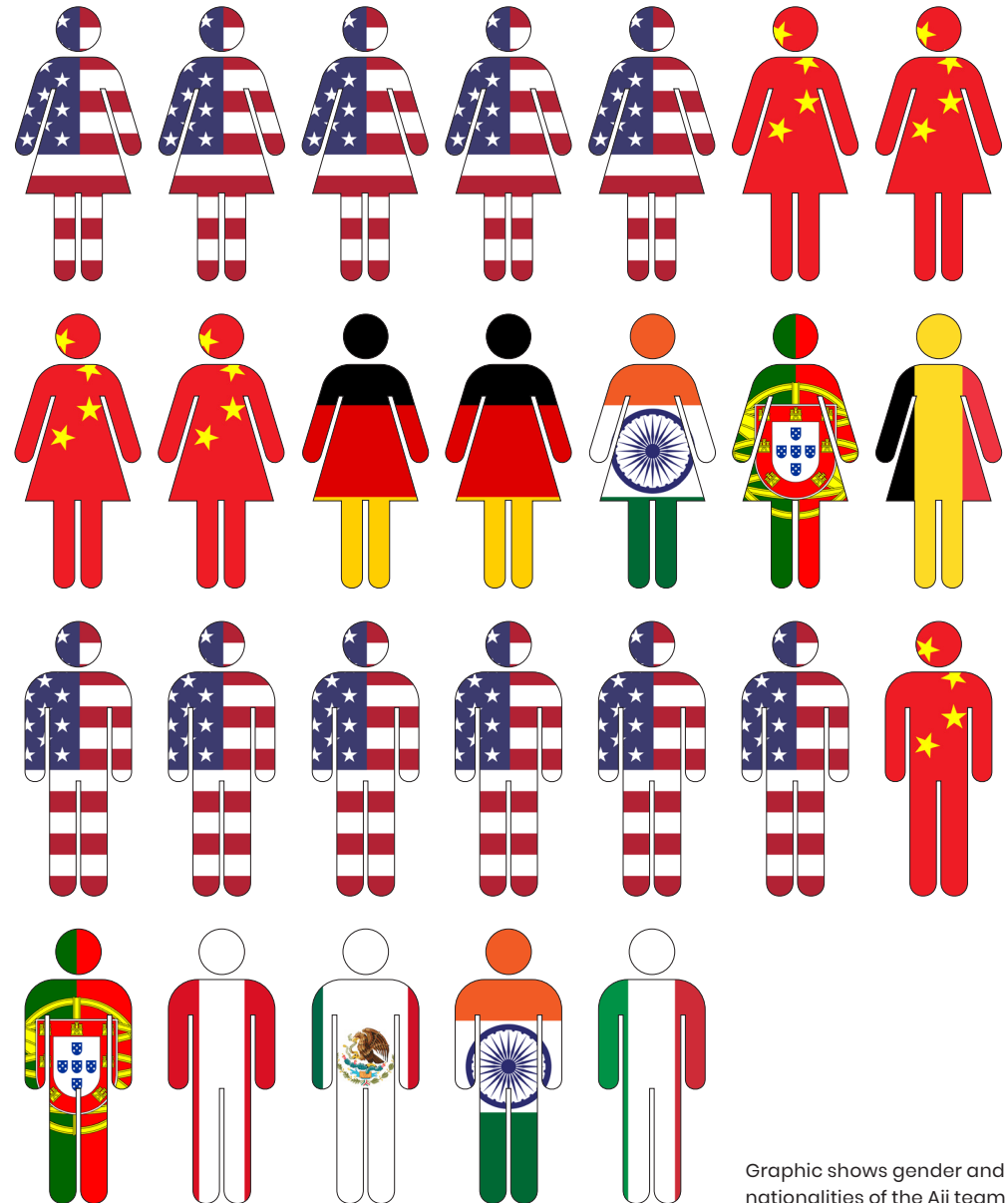
**9** nationalities

BASED IN

**9** countries

OVER

**3** continents



Graphic shows gender and nationalities of the Aii team



## Team Initiatives

**Employee Guidebook** — Created and released our employee guidebook, offering employees around the globe unified guidance surrounding values, working norms, and expectations for working at Aii.

**Employee Engagement Survey** — Produced and deployed our first annual employee engagement survey to set a baseline for future benchmarking of our organizational health as it relates to our employees. The survey consisted of 26 questions surrounding employee engagement and satisfaction on a 1-5 scale rating with 5 being positive.

Our overall engagement score from our employees was an impressive 4.2 out of 5.

We have committed to ongoing improvement initiatives in the lower-scoring areas:

- **Work/Life Balance:** Developed a communication guide to support and encourage work/life balance and the ability to disconnect while not working.
- **Operations:** Formed a culture committee composed of a cross-functional team of employees to support a better understanding of Aii's informal structures and processes.
- **Connection:** Established new team-building initiatives and opportunities for connection in both our monthly staff meetings and asynchronously in internal communication channels to feel more connected globally.

**“The engagement survey was monumental in focusing our efforts to build a top-notch culture for our employees. It provided a much-needed baseline to measure employee engagement year-over-year and the opportunity to focus team initiatives catered to the specific needs of our employees.”** — MICHELLE WILLIS, Aii's HR director

**Compensation Philosophy & Strategy** — Established and internally shared a transparent policy framework that enables systematic decisions around employee compensation.

**Compensation Benchmarking & Analysis** — Conducted a detailed compensation review to ensure fair pay internally and to remain competitive and aligned with the outside labor market. Using data from reputable compensation benchmarking tools, as well as an industry-

specific benchmarking project with other NGOs in our ecosystem, we have formed global salary bands to go hand in hand with our Compensation Philosophy & Strategy. Employees who were at a compensation level below our research were adjusted to be within our newly established bands.

**“This initiative holds immense significance for me given my role in overseeing a team across Europe and Asia. I take great pride in the collective growth of each team member, as they have all experienced substantial individual development. The compensation benchmark has been instrumental in acknowledging the contributions of team members to Aii's vision and mission in a comprehensive, fair, and equitable manner. This recognition is crucial in cultivating a global culture that values and respects local contexts.”** — TAMARA WULF, Aii's vice president of programs:

**Internal Staff Newsletter** — Initiated a monthly staff newsletter that celebrates birthdays, anniversaries, internal victories, and allows a place for our employees to get to know each other on a deeper level.

**Staff Retreat** — Gathered in Atlanta, GA, to build in-person bonds. Together we reaffirmed who we are as an organization, where we are going, and what we hope to accomplish in the short- and long-term. We learned collaboration, communication, and problem-solving skills while recommitting to our vision, mission, goals, and objectives.

**“Attending the Atlanta retreat was an immensely enriching experience for me. It was a time of recharging both personally and professionally, surrounded by a team of individuals who quickly became more than just colleagues. The retreat seamlessly blended enjoyable team building activities and high-level strategic discussions, creating an environment where bonds were forged and cultural differences dissolved. Overall, the Atlanta retreat was more than just a getaway; it was a transformative experience that left a lasting impression on me. Thanks to the Aii family for a memorable retreat.”** — LAXMIKANT JAWALE, Aii's regional lead (SA & SEA)

**Holiday Gift** — Planted 10 trees in each of our employees' names in countries most relevant. You can follow the report of the 260 trees planted here: [Company Report - EcoMatcher](#)

# Aii Governance

## Board of Directors

Aii is governed by its Board of Directors, whose role includes:

- Determining Aii's mission and purpose.
- Monitoring and strengthening programs and services.
- Ensuring adequate financial resources.
- Protecting assets and providing proper financial oversight.
- Building a competent Board, including articulating prerequisites for candidates, orienting new members, and periodically and comprehensively evaluating their own performance.
- Maintaining legal and ethical integrity.
- Enhancing the organization's public standing.
- Establishing a balance of representation from a variety of fields on the Board to maintain diversity and encourage inspiration and innovation from a wide range of sources.
- Approving the final Fashion Climate Fund allocations as part of the budgeting process.

Aii board members serve a three-year term and attend quarterly Meetings. The Board has three established committees: Board Development, Audit, and Finance.



**Melissa Fifield**  
Bank of the West  
BOARD MEMBER



**Amina Razvi**  
Industry Expert  
BOARD MEMBER



**Devon Rothwell**  
Condé Nast  
BOARD MEMBER



**Amanda Tucker**  
Target Corporation  
BOARD MEMBER



**Claire Bergkamp**  
Textile Exchange  
BOARD MEMBER



**Pramit Chanda**  
IDH  
BOARD MEMBER

## CSP Advisory Council

The Climate Solutions Portfolio Advisory Council (CSPAC) operates as a diverse multi-stakeholder entity with a primary focus on identifying solutions capable of significantly reducing CO<sub>2</sub>e at scale within the textile industry. The ultimate aim is to include these impactful solutions in the Climate Solutions Portfolio (CSP).



**Linda Greer, Ph.D.**  
Environmental Scientist and Impact Advisor



**Phil Patterson**  
Managing Director, Colour Connections Textile Consultancy



**Beth Jensen**  
Director, Climate+ Impact, Textile Exchange



**Crispin Wong**  
Senior Director of Product Sustainability & Environment, lululemon



**Mallory McConnell**  
Vice President of Corporate Responsibility, PVH Corp



**Kurt Kipka**  
Chief Impact Officer, Aii



**Abhishek Bansal**  
Head of Sustainability, Arvind

## Apparel Impact Roundtable

The Apparel Impact Roundtable (AIR) is a strategic advisory body consisting of brands and retailers, responsible for driving the strategic scale and implementation of sponsored initiatives.

The Apparel Impact Roundtable is composed of the industry partners contributing to the Fashion Climate Fund along with additional strategic industry partners. Their primary responsibility is to review and provide feedback on the recommended docket of the fund.





# Stakeholders in 2023

## 2023 Partners

### 2023 BRAND PARTNERS

Apparel, footwear, or retail companies who nominate, sponsor, or provide funding to Aii to drive facility-level environmental improvement programs and impact reductions.<sup>17</sup>

Abercrombie & Fitch, Amazon, Amer Sports, American Eagle, Arc'teryx, ASICS, ASOS, Burberry, C&A, Columbia, Decathlon, Eileen Fisher, European Outdoor Group, Farfetch, FILA, Fjällräven, Gap, HellyHansen, Icebug, JCPenney, J. Crew, Kering, Levi Strauss, LL Bean, Marks & Spencer, Nemo, New Balance, Nike, Nordstrom, Otto Group, Outdoor Industry Association, Prada Group, Primark, Puma, PVH, Ralph Lauren, Rapha, REI, REWE, SHEIN, Stella McCartney, Tchibo, The Reformation, Under Armour, VF Corporation, Victoria's Secret, W.L. Gore

### FASHION CLIMATE FUND STRATEGIC COLLABORATORS

Non-profit organizations with expertise and knowledge of the apparel, footwear, and textile industry or adjacent sectors collaborating with and providing guidance and insights to Aii.

Cascale  
Fashion for Good  
Solidaridad

Textile Exchange  
ZDHC Foundation

### FASHION CLIMATE FUND LEAD PARTNERS

Organizations committing at least \$10M to the \$250M Fashion Climate Fund.

H&M Foundation  
H&M Group  
HSBC  
lululemon

PVH Foundation  
The Schmidt Family Foundation  
Target Corporation

### FUNDING PARTNERS

Organizations who provided funding to Aii in 2023 to advance our mission for the apparel, footwear, and textile sector.<sup>18</sup>

Bank Of The West  
Cascale  
Chaiken Foundation  
Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)

Fair Wear Foundation  
IDH  
Roy A. Hunt Foundation

### THOUGHT PARTNERS

Organizations with expertise and knowledge on issues relevant to the apparel, footwear, and textile sector that collaborate with and provide guidance to Aii.

Accelerate Circularity  
Fashion Conveners  
Fashion Pact  
Global Fashion Agenda  
Natural Resources Defense Council (NRDC)  
Pakistan Environment Trust  
Race to the Top

The Industry We Want (TIWW)  
United Nations Fashion Industry Charter for Climate Action (UNFCCC)  
Value Change Initiative  
World Resources Institute (WRI)  
World Wildlife Fund (WWF)

<sup>17</sup> Partners include organizations that previously contributed and/or currently contribute funding to Aii

<sup>18</sup> Industry & Funding Partners include organizations that previously contributed and/or currently contribute funding to Aii.

## 2023 Implementation Partners

Solution providers with specialist knowledge in countries that implement Aii's programs.

<b>Albini Energia</b> Italy	<b>Hongyu (Guangzhou Hongyu Ecological Technology)</b> China
<b>Beijing Jingneng Power</b> China	<b>International Energy Management Association (IEM)</b> China
<b>BluWin Ltd.</b> India, Bangladesh, China, Mexico, Honduras, El Salvador, USA	<b>Legambiente</b> Italy
<b>Cascade Energy</b> United States	<b>Pozzi Leopoldo</b> Italy
<b>Ckinetics</b> India	<b>Reset Carbon</b> Multiple locations
<b>Catoer Wibowo</b> Indonesia	<b>VNCPC</b> Vietnam
<b>Energica SRL</b> Italy	<b>Yujin Energy Technology Co.,Ltd.</b> South Korea
<b>Enerteam</b> Vietnam	

## 2023 Sustainable Finance Partners

Organizations who contributed finance and blended capital expertise to Aii in 2023 to further our Sustainable Finance Strategy objective of unlocking \$2 billion in decarbonization/climate funding for the apparel and footwear industry.

<b>BNPP</b>	<b>IFC</b>
<b>Standard Chartered</b>	<b>Workshop</b>
<b>HSBC</b>	<b>DFI</b>
<b>Rockefeller Foundation</b>	<b>Guidehouse</b>
	<b>BluWin</b>

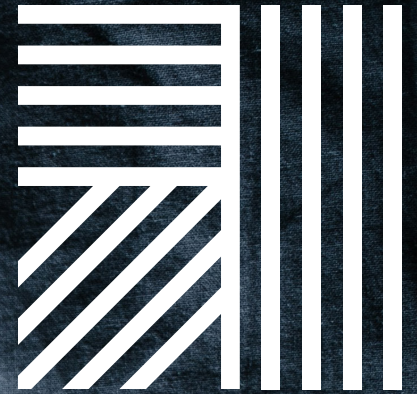
## 2023 Producers Implementing Aii Programs

[Names and locations of producers](#)





# V. How We Report





# How We Report

This 2023 Impact report was published on March 15, 2024, and covers the financial year from January 1, 2023, to December 31, 2023. This report provides a comprehensive view of Aii's approach to sustainability and highlights our progress and performance in 2023. Please contact us with any questions about our Impact Report at [Impact@apparelimpact.org](mailto:Impact@apparelimpact.org)



# Definitions

## Blended Capital

A mix of funding sources, including public, private, or non-profit grants, equity, and debt.

## Impact Programs

Aii programs that save actual emissions at the factory level. These programs are applied in the implementation phase of the Climate Action Approach.

## Producer

For Aii, a producer is an umbrella term that refers to stakeholders along the value chain, including mills, manufacturers, farms, and suppliers.

## Savings – Impact Programs

The type of savings a producer has depends on its program status. Aii therefore divides savings into four different categories:

**1. Potential savings** are based on the full list of potential actions that have been identified at a producer when starting an Aii program.

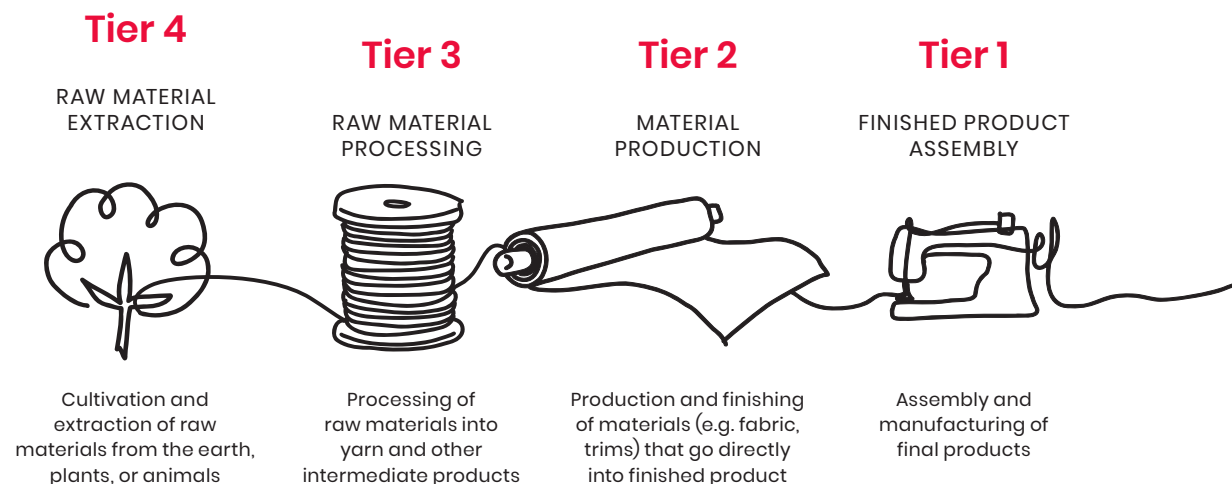
This would be the highest possible value and the other three data points would represent a subset of these actions.

**2. Forecasted savings** are based on a roadmap of interventions that we expect the producer to begin implementing over a multi-year period.

**3. Projected savings** are based on the subset of actions the producer has agreed to and is in the process of implementing.

**4. Actual savings** are based on actions that have been implemented and achieved results. This is measured at the end of the Aii program.

## Tiers



## Savings – CSP Solutions

**Forecasted savings** are based on the interventions the grantee intends to deliver over the course of the project.

**Actual savings** are based on actions that have been implemented and achieved. Results are measured at the end of the solution's implementation.

# Abbreviations

**Aii:** Apparel Impact Institute

**CO<sub>2</sub>e:** Carbon dioxide equivalent

**CSP:** Climate Solutions Portfolio

**GHG:** Greenhouse Gas

**GJ:** Gigajoule

**Gt:** Gigatonnes

**Mt:** Megatonnes = 1 million tonnes

**VCI:** Value Change Initiative

## SOLUTIONS, LEGEND: <sup>19</sup>

STEP	PROGRAM / SOLUTION	
Step 1	Benchmark	Carbon Technology Assessment (CTA)
Step 2	Target Setting	Carbon Target Setting (CTS)
Step 2	Target Setting	Supplier Climate Action Program (SCAP)
Step 3	Implementation	Clean By Design Energy & Water Efficiency (CbD)
Step 3	Implementation	Clean By Design Plus (CbD+)
Step 3	Implementation	Clean By Design Chemistry & Wastewater Management (CbD Chem)
Step 3	Implementation	Clean by Design Bangladesh
Step 3	Implementation	Solar PV Installation Bangladesh
Step 3	Implementation	Cleaner Production Systems
Step 3	Implementation	Electrification of Water Heating
Step 3	Implementation	Lead Color Charts
Step 3	Implementation	Renewable Energy Transition Initiative (RETI)
Step 3	Implementation	Renewable Energy Procurement (REP)
Step 3	Implementation	Production Waste Management (PWM)
Step 3	Implementation	New Construction Factory Optimization (CFO)
Step 3	Implementation	Facility Impact Measurement Software
Step 4	Target Monitoring	Carbon Target Monitoring (CTM)

<sup>19</sup> For more information about the programs and solutions, refer to "Our Programs and Processes" and "Climate Solutions Portfolio" in this report.



# Methodology

## Actual Cost per tCO<sub>2</sub>e (total)

Total investment including contributions.  
For CSP solutions, this is total funding  
(Total GHG reduction x useful life).

## Average % Reduction

The % reduction is calculated by dividing the reduction value by the baseline value for each metric. Therefore, the average % reduction is the average of the % reduction value from all the producers.

However, in some cases, it is not possible to calculate this value for a specific producer. For example, if no baseline is available (due to being out of the project scope, or because the first assessment was not possible).

In those cases, the producer will be excluded from the average calculation. Therefore, if in a total of 50 producers, 2 do not possess the baseline values, the average will be calculated considering 48 producers.

## Carbon Emission Unit

Aii's carbon emissions data is measured in tonnes/metric tons (1000 kg).

## Conversion Factors

Conversion factors are used to convert the original energy source units to a common unit. In the case of our programs that can have reductions in multiple sources (e.g., natural gas, electricity, biomass), we use the conversion factors to receive a single unit (megajoule or gigajoule), thus allowing to sum the reduction achieved. The same principle applies to the baseline. Aii is currently adopting the [Conversion Factors provided by Higg FEM](#).

## Emission Factors

The emission factors represent the greenhouse gas emissions associated with a specific activity or process. In the case of our programs, it represents the emission associated with the amount of energy consumed or reduced from a specific energy source. Aii is currently using a mix of emission factors, including [Higg FEM](#), country-level grid electricity emission factors, and other country-level adjustments for some energy sources.

## SOURCES GRID ELECTRICITY

### Vietnam:

Emission Factor 2021 until today: Official Document No. 1278/BĐKH-TTBVTOD, dated December 12, 2022, Department of Climate Change – MONRE

Emission Factor 2020: Official Document No. 1316/BĐKH-TTBVTOD, dated December 12, 2021, Department of Climate Change – MONRE

Emission Factor 2019: Official Document No. 116/BĐKH-TTBVTOD, dated December 26, 2021, Department of Climate Change – MONRE

### USA:

[Emission Factor 2022 until today](#)

### Pakistan:

[Emission Factor 2021 until today](#)

### Bangladesh:

[Emission Factor 2020 until today](#)

### Italy:

[Emission Factor 2022 until today](#)

[Emission Factor 2021](#)

[Emission Factor 2020](#)

[Emission Factor 2019](#)

### South Korea:

[Emission Factor 2022 until today](#)

[Emission Factor 2021](#)

[Emission Factor 2020](#)

[Emission Factor 2019](#)

### Indonesia:

[Emission Factor 2022 until today](#)

[Emission Factor 2021](#)

[Emission Factor 2020](#)

[Emission Factor 2019](#)

### India:

[Emission Factor 2022 – today](#)

[Emission Factor 2021](#)

[Emission Factor 2020](#)

[Emission Factor 2019](#)

### China:

[Emission Factor 2023 until today](#)

[Emission Factor 2022](#)

[Emission Factor 2018–2021](#)

## SOURCES STEAM

### China:

[Source](#)

### Other Countries:

EPA, Emission Factors for Greenhouse Gas Inventories, 2022: [www.epa.gov/climateleadership/ghg-emission-factors-hub](http://www.epa.gov/climateleadership/ghg-emission-factors-hub)

IPCC Guideline for GHG Inventories 2006 revised in 2019

## SOURCES BIOMASS

### China:

[www.ipcc-nggip.iges.or.jp/public/2006gl/](http://www.ipcc-nggip.iges.or.jp/public/2006gl/)

### Other Countries:

[Resources Library – FEM 3.0 Resources & Archive – User Resources: How To Higg](#)

## SOURCES BIODIESEL

China: N/A

### Other Countries:

[Resources Library – FEM 3.0 Resources & Archive – User Resources: How To Higg](#)

## SOURCES WOOD

China: N/A

### Other Countries:

[Resources Library – FEM 3.0 Resources & Archive – User Resources: How To Higg](#)

## GHG Reductions

We report the absolute GHG (greenhouse gas) reduction at the base year production level, rather than the GHG Intensity value. In the textile sector, the specific GHG emission, or the GHG emission per unit of production, is nearly an incomparable index due to the thousands of different types and qualities of products.

The factory's absolute GHG reductions are the sum of all individual GHG reductions from each retrofit project implemented during the Aii project term.

The annual projected GHG reduction is calculated as follows:

Before starting programs at a participating producer, an expert conducts a baseline investigation of all energy uses from equipment or processes within the project's scope.

There are two methods to calculate energy savings:

1. After implementing a program, the post-implementation energy use is measured. The difference between the baseline and the post-implementation measurements is annualized to determine the yearly energy reduction.
2. Energy savings can also be calculated directly based on the differences in key energy parameters, such as temperature.

GHG reductions are then calculated by multiplying the energy savings by the corresponding emission factor.

To calculate the GHG emissions reduction over the life of the project, the GHG emissions per year are forecasted over the useful life of the project, assuming no changes to GHG emission factors, no change in production volume, and annual degradation of the equipment efficiency in line with equipment specifications

## Pre-seed, Pilot, Model, Scale

Commercialization stage	Definition
<b>Pre-seed</b>	Solutions that are at a concept level and in the process of evaluating and establishing their impact potential.
<b>Pilot</b>	Solutions that are in the process of testing their solution to demonstrate a proof of concept.
<b>Model</b>	Solutions that are working towards de-risking and reducing known barriers to scale
<b>Scale</b>	Solutions that are commercially viable with a proven go-to-market strategy

## Useful Life

Typically, a standard efficiency project remains effective for 10 years. In the case of high-investment efficiency projects and renewable energy projects, we factor in a longer lifetime, ranging from 15 to 20 years. It's important to note that the precise lifetime can vary, even for the same technology, depending on factors such as the choice of equipment brands at different producers.

For estimating the carbon reduction over the useful life of the investment, we assume a 3.5% annual decrease in savings to account for reduced efficiency of equipment over time (ie, year 2 is 96.5% of year 1 savings, year 3 is 96.5% of year 2 savings, etc.). For equipment with a 10-year useful life, the annual decrease in savings results in an effective useful life of 8.6 years. For CSP grant recipients, we assume the grantee, as subject experts, will devise their own useful life calculation with our consultation. While we acknowledge these variations, for our calculations, we have made conservative assumptions, considering a standard lifetime of 10 years.