Climate Solutions Portfolio Grant Thesis

Understanding the Purpose of the Climate Solutions Portfolio

The Climate Solutions Portfolio was launched in 2022 to identify, fund, and scale climate solutions. Our goal is to simplify and accelerate the adoption of proven and promising solutions that tackle emissions and create a positive impact.

We focus on identifying solutions that can help the industry reach its bold target of a 50% emissions reduction by 2030. We define solutions as innovations, projects, or programs that deliver measurable CO_2e reductions.

With our funding, we want to help grant applicants:

- Demonstrate & prove success in reducing emissions.
- Reduce the cost per tonne of CO_2e saved ($/t$CO_2e$).
- Improve the business case to increase adoption by unlocking barriers to scale.
- Accelerate scale.
- Become part of our program deployment and blended capital financing pipeline.

Past Focus

From 2023-2025 our grant's thematic and maturity focus was broad and aimed at supporting a holistic set of apparel industry solutions across the supply chain. We gave grants that advanced solutions across all Tiers of production - from reducing farming intensity of cotton, to nylon recycling, to Tier 3 energy efficiency, Tier 2 thermal transition and Tier 1 energy efficiency and solar PV programs. Many of these projects are ongoing and demonstrate carbon impact and sectoral learnings.

Future Focus

Following the launch of the Low-Carbon Thermal Roadmap, Aii wishes to prioritize technologies for implementation in facilities to reduce thermal load and enable future electrification. Many of the technologies we need to be at scale in 2030 to achieve the

transition to electrification still require pilots and demonstration in order to achieve technical and commercial viability. Therefore we are prioritizing technologies in the pilot and demonstration phase that reduce thermal load and electrify processes and/or facilities for Climate Solutions Portfolio Grants.

Our key funding thesis is to provide grants that:

Advance the scaled application of solutions that reduce process demand for energy, electrify processing machines, and electrify energy delivery to drive absolute CO_2e reductions in wet processing facilities.

We define eligible solution types as:

- **Reducing process demand for energy** - a technology that reduces the amount of energy you need to deliver a process (e.g., lower impact processing, waterless dyeing.) These solutions can be implemented by factories seeking to prepare for electrification by reducing the amount of heat and steam the factory uses.
- **Electrifying processes** - a solution that was previously powered by thermal energy is now powered by electricity. Examples include digital printing, electric singing. These solutions can be implemented where factories will power them with green electricity.
- **Electrification of energy delivery** - transitioning a facility's fuel source from thermal to electrical energy through a heat pump, electric boiler, or thermal storage, powered by 100% certified green electricity (ideally onsite generation and/or Corporate Power Purchase Agreement).

We encourage electrification where local conditions are suitable (e.g., green electricity can be procured).

Grant Project Purpose

Suppliers should apply for a CSP grant if they have identified a solution they'd like to pilot. The supplier should be comfortable that the vendor of that solution has done sufficient testing and that the solution is ready for a pilot or post-pilot demonstration. Additionally, the solution should become technically and commercially viable by 2030.

The purpose of a pilot or post-pilot demonstration should be as follows:

- Test technology in a commercial setting
- Solve for obstacles in the technology
- Apply the technology in new areas (new country, new process line)

- Capture data with the intention of sharing with the industry
- Support the scaling of that technology by 2030

Below we have a table outlining the solution maturity scale. Projects will only be eligible at the pilot and demonstration stage.

Commercialization stage	Definition	Considerations for funding
Pre-seed	Solutions that are at a concept level and in the process of evaluating and establishing their impact potential.	We will be selecting pre-seed solutions that have a clearly defined, feasible, and rapid plan to scale. We will not support projects seeking to prove concepts.
Pilot	**Solutions that are in the process of testing their solution to demonstrate a proof of concept.**	**Solutions looking to move from pilot to model are our sweet spot. The purpose of funding at this stage is to evaluate opportunities for and barriers to scale, allowing for customized deployment of the solution.**
Model	**Solutions that are working towards de-risking and reducing known barriers to scale**	**Funding should be used to iron out any remaining barriers, risks, or lack of knowledge preventing widespread deployment of the solution.**
Scale	Solutions that are commercially viable with a proven go-to-market strategy	In these projects we see the funding facilitating a large-scale implementation project and supporting solutions with connections to our large network to ensure the right actors are involved.

Eligible Technologies

Below we have outlined example types of technologies that are eligible for a CSP grant. If you are interested in applying for a solution that is innovative but not listed here, please reach out to CSPHelp@apparelimpact.org to check eligibility. We are aiming to support solutions that have less than 10 implementations globally and/or continue to have technical and commercial obstacles or risks to implementation.

Should be relatively simple to add to existing factory operations/ processes

Will likely require new production lines/ significant engineering,

Area	Specific tech area	Decarb / Elec	
Processing	Digital coating	Support electrification	
Dying	Spray dying	Thermal Load Reduction	
Dying	Rope Dying	Thermal Load Reduction	
Dyeing	Low Temperature Dyeing	Thermal Load Reduction	
Dying	Digital spray dyeing	Support electrification	
Dying	Digital dyeing (pigment dyeing)	Support electrification	
Pre-treatment	Ozone bleaching	Support electrification	
Factory-wide	Heat pumps for steam	Electrification	
Processing	Electric singeing	Electrification	

Excluded Technologies

Mature technologies such as rooftop solar installations, biomass boiler replacements or retrofits, and standard energy efficiency projects are not eligible.

Hard to implement but proven technologies may be eligible for a Deployment Gap Grant instead of a Climate Solutions Portfolio grant. Additional information can be found here.

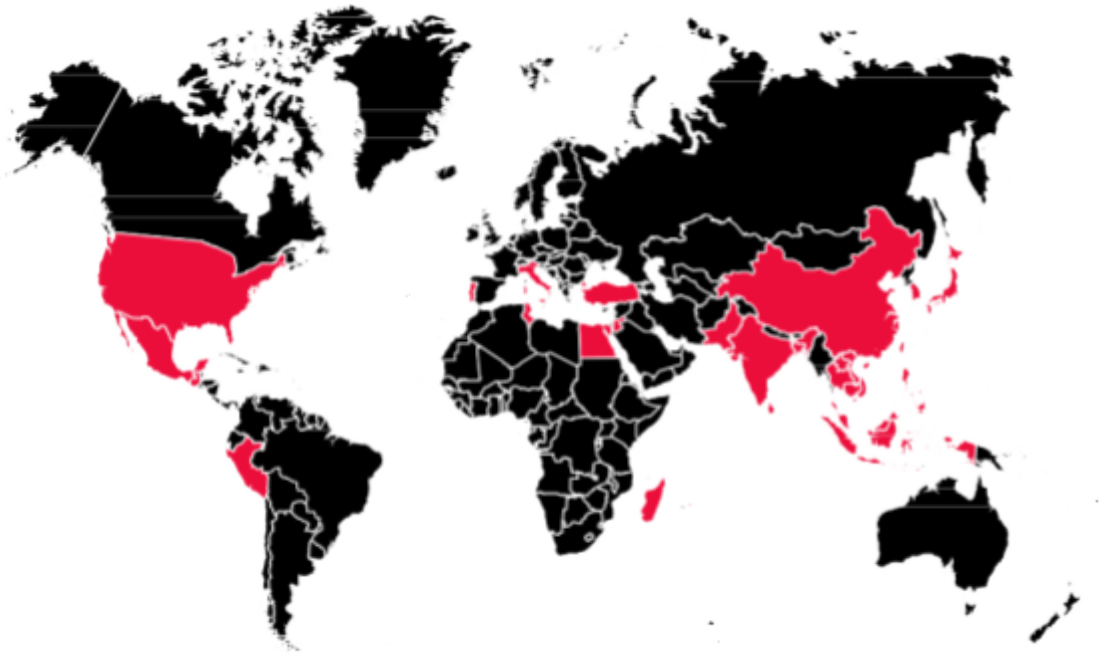
Considerations for Electrification Projects

All electrification projects must clearly demonstrate the existing factory % of RE, and include a roadmap to source at least 50% - and ideally 100% Renewable Energy (RE) - by 2030. Ideally, any increase in electricity consumption from the investment is matched by International Renewable Energy Certificate (IREC), while onsite solar is expanded/built, or corporate Power Purchase Agreement (PPA) are finalized. Decarbonization investments should also aim for a 20% minimum reduction in emissions (linked to reduction in steam/ gas/ non-renewable electricity usage).

Regions

We aim to foster diversity in project types, sizes, and geographical locations in the textile and apparel sector. We are focused on the highest producing and emitting countries and those that have a strategic focus for Aii: China, India, Bangladesh, Vietnam, Indonesia, India, Türkiye, Sri Lanka, Taiwan, Japan, South Korea, and Pakistan. We stress the importance of considering local context and feasibility - especially concerning energy sources.

Aii's regional footprint:



Navigating the Evaluation Landscape: What We Look For

Data

If you are applying, we require specific data to assess the effectiveness, reach, and scale of the proposed solution.

Our preference is to receive impact calculations based on measured data. However, we recognize that some solutions may not have primary and measured data at the point of application due to where they are in the commercialization cycle. If your project is in the pre-seed or pilot phase, we will accept projected emissions savings or secondary data.

For technology-driven applications, submission of the innovation's performance data is essential.

Where estimated data is used we will require the underlying assumptions behind the scenario analysis and its associated parameters such that this estimation can be evaluated.

Where secondary sources are used we expect that the secondary data and associated studies selected are as closely related to the conditions of the applying solution as possible. It must be made clear how your solution is similar or different from the secondary source being used. Where calculations have been made based on secondary data, we require a methodological explanation of the assumptions used so that the reviewing experts and advisory council members can assess to what extent the calculations are realistic.

Effectiveness

This is the magnitude of the reductions the solution is estimated to deliver relative to a typical industrial baseline.

Our priority is to highlight solutions that demonstrate significant reductions in GHG emissions by the year 2030. Refer to our application guidelines to calculate effectiveness based on the baseline scenarios outlined. We will evaluate applications according to the projected average impact of a solution, as well as the total emissions reduced through the grant-funded project itself.

Reach

The reach of a solution is the percentage of the industry it has the potential to affect.

While your solution might boast high emissions reduction potential, its impact could be limited if it only addresses a niche segment within the market. In such instances, the overall impact on emissions reduction may be comparatively less significant and, consequently, less preferred. To ensure a comprehensive evaluation of reach, we urge you to specify where your solution can be applied. This precision is crucial for accurately calculating the full extent of its impact.

Scale

Scale is a credible, realistic projection of how quickly a solution can be implemented to achieve its maximum potential.

We prioritize solutions that are already at scale or well into their scale-up phase, enabling widespread deployment by 2030. Consequently, solutions encountering significant barriers to implementation will not be considered. However, if any of these barriers can be mitigated through CSP grant funding and consequently facilitate the scalability of your solution, this is of great interest and should be explicitly communicated in the application.

Funding Available

We are offering $50,000-250,000 in grant funding per year of a grant project. We aim to support projects that promise the most significant CO_2e reduction for each dollar spent, and to eliminate obstacles to implementation. We evaluate projects based on the expected cost per metric ton of CO_2 equivalent saved ($/t$CO_2e$ saved).

To provide context, most energy efficiency and renewable energy projects typically have a $/t$CO_2e$ ratio of less than $20/t$CO_2e$. In the climate solutions investment market, a ratio of up to less than $50/t$CO_2e$ is considered attractive and scalable. For solutions at an early stage, this ratio would likely fall in the range of $100-200/t$CO_2e$. The grant funding's purpose is to serve as a pathway for reducing this ratio and providing a compelling business case for adoption.

We will also evaluate how your project intends to use the funding and why it's essential for expanding the solution. If selected, you will need to provide a transparent financial plan, with funding tied to project milestones.

We assume that the majority of grants requested will be for capex support. All applicants must provide additional funding to contribute to the project cost as we can only cover a maximum of 50% of the total project cost.

Transparency

The main objective of the Climate Solutions Portfolio is to support the scaling of solutions that support the sector's journey to electrification. To accomplish this, your solution must be ready to share the insights gained from your projects, enabling others to learn from your experiences and maintaining transparency regarding the impact of your initiatives.

Solution Details in Application

Maintaining transparency regarding any barriers to scaling and potential adverse consequences of your solution is crucial. We cannot support projects that have adverse consequences on human rights, local environmental pollution, or biodiversity. If your solution involves chemicals, we ask that you provide documentation to allow us to ensure a clear understanding of what we are funding. Furthermore, if there are patents associated with your solution, please include them as part of your application.

Grant Project Deliverables to be Shared with Aii

- Final Impact Report – The final impact report must include CO_2e reduction impact data and a summary of funding use, both with accompanying evidence and lessons learned that can be shared with the sector.
- Climate Solutions Portfolio – You must agree that your solution, including all impact details, will be featured on Aii's Climate Solutions Portfolio platform. The impact published on the platform can be found here.

How does the Fashion Climate Fund fit into the ecosystem, and what is the role of other funds?

Fashion for Good

The Fashion for Good Innovation Program is for startups driving innovation in sustainability, circularity, and transparency to make all fashion good. They aim to bring ideas from niche to norm. Where this differs from FCF/CSP is the niche aspect. We aim to fund projects that have a broad application and have moved on from the niche stage in their development. The key differences here are the stage at which solutions are funded as well as the support they receive. FFG's incubation services are a great place for organizations who require support in getting to the pilot stage. FFG is specifically looking for innovators in the raw materials, manufacturing & retail, processing, end use, and transparency & traceability spaces.

Good Fashion Fund

The Good Fashion Fund is a first-of-its-kind initiative to create systemic change in the textile and apparel industry by financing the implementation of highly impactful and disruptive production technologies in Asia. The Fund targets long-term USD debt investments in textile & apparel manufacturers in India, Vietnam, & Bangladesh.

The FCF/CSP provide short-term small grants for discrete projects. Our blended capital goal is to target longer- time financing options, but these will come from our blended capital partners rather than the FCF itself.

Textiles Exchange

Textile Exchange convenes the fashion, apparel, and textile industry toward the use of preferred materials that drive impact reduction and beneficial outcomes. Textile Exchange has several tools and resources, including the Preferred Fiber and Materials Matrix and the Materials Impact Explorer. It is the home of all things raw materials. We do not aim for the CSP to be a portfolio of materials solutions — this would be a duplication of efforts within the industry.