



# The Path to Living Product Challenge 2.0: A Visionary Path to a Regenerative Future

Introduce the Philosophy, Standards & Certification Process of the Living Product Challenge

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## Objectives:

- Explain the scope of the Living Product Challenge Petals and Imperatives.
- Use framework to create & select products with a Net Positive Impact across Life Cycle.
- Discover how specified products have been transformed for the Challenge.
- Understand what a handprint means and how it differs from a footprint.

**Footprint vs Handprint** - Sustainability has been about shrinking your footprint, or the sum total of negative impacts caused by the processes that sustain an organization, person, or product. Now we focus on handprints: the positive impacts that a product has across its lifecycle. These beneficial environmental/social impacts are created from net positive strategies and initiatives.

“Handprints: Positive impacts  
we can cause to happen  
relative to “business as usual.”

## The Living Product Challenge (LPC)

The key tenets of the Living Product Challenge, created by the International Living Future Institute, aim to raise the bar from simply doing less harm to seeking to be restorative. LPC provides a manufacturer framework to reimagine product design and construction, to function as efficiently as anything found in the natural world. Living Products are:

- Free of Toxins
- Net positive and benefit people and environment
- Informed by biomimicry and biophilia
- Socially responsible and respect right of workers

## Seven Petals of LPC

The LPC is arranged into seven Petals, drawing on the flower metaphor. The Petals of the Living Product Challenge have specific Imperatives that define the actions needed to achieve that Petal:

- Place (Responsible Place, Habitat Exchange, Living Economy Sourcing)
- Water (Water Footprint, Net Positive Water)
- Energy (Energy Footprint, Net Positive Energy)
- Health + Happiness (Red List, Transparent Material Health, Human Thriving)
- Materials (Responsible Industry, Regenerative Materials, Net Positive Waste, Net Positive Carbon)
- Equity (Ethical Supply Chain, Equitable Investment, Just Organizations, Social Co-Benefits)
- Beauty (Inspiration + Education, Beauty + Spirit)

## Three Pathways to Certification:

- 1. Living Product Full Certification** - A product that achieves all 20 Imperatives.
- 2. Living Product Petal Certification** – A product that achieves all of at least three of the seven Petals, one of which must be the Water, Energy, or Materials Petal. Also, each of the seven Core Imperatives must be achieved.
- 3. Living Product Imperative Certification** – A product



that achieves at minimum, the seven Core Imperatives.

**PLACE PETAL** – Influence how people relate to the natural environment that sustains us.

- Imperative 01 – Responsible Place (CORE): Manufacturer must verify that facilities are not on or adjacent to sensitive habitats or where there are endangered species. Manufacturers must publicly share a three-year plan that demonstrates how they will achieve on-site landscaping that matures and evolves to imitate indigenous ecosystems.
- Imperative 02 – Habitat Exchange: Manufacturer donates a quarter-cent for every dollar of gross profit by the sale of the certified product during the certification period. Donations may go to the Institute's Habitat Exchange for habitat restoration.
- Imperative 03 – Living Economy Sourcing: Incorporate place-based solutions & contribute to expanding regional economy rooted in sustainable practices, products & services. Manufacturers must demonstrate that material source locations adhere to the following: 10% of materials or more must come from within 1,000 km of the manufacturing site; 40% must come from within 2,000 km of the site; 25% must come from within 5,000 km of the site; 25% can be sourced from any location.

**WATER PETAL** – Realign how manufacturers use water & redefine waste within manufacturing.

- Imperative 04 – Water Footprint (CORE): Manufacturers must have quantified water Footprint for their cradle-to-grave production to improve the use and management of water both on-site and within the product life cycle, measured by Life Cycle Assessment.
- Imperative 05 – Net Positive Water: Water use and release from manufacturing must work in harmony with natural water flows, and 100% of manufacturing water needs must be supplied by captured precipitation, natural closed-loop water systems, or by recycling industrial water. All water used must be purified as needed without the use of chemicals.

**ENERGY PETAL** – Consider full life cycle energy footprints & use innovation to conserve energy.

- Imperative 06 – Energy Footprint (CORE): Manufacturers

must have quantified energy Footprint for their cradle-to-grave production, with critical understanding of the amount and types of energy used for on-site production and life cycle energy impact. They must identify opportunities for decreasing energy use and increasing renewable energy on-site.

- Imperative 07 – Net Positive Energy: 105% of the energy used to produce products must be generated from renewable energy produced on-site on a net annual basis. Manufacturers must reduce the product's energy Footprint through innovation, and create an energy Handprint greater than the product Footprint to become Net Positive.

**HEALTH + HAPPINESS PETAL** – Foster conditions that create products & materials that truly benefit consumers.

- Imperative 08 – Red List (CORE): Manufacturers must demonstrate that neither the product nor the packaging contains any Red List materials or chemical substances through a Red List Free or LBC Compliant Third Party Verified Declare Label.
- Imperative 09 – Transparent Material Health: Manufacturers must conduct a transparent hazard assessment for all intentionally-added chemical substances in a product, and demonstrate that product does not create exposure to Carcinogens, Mutagens, and Reproductive (CMR) toxicants or Persistent Bioaccumulative Toxins (PBTs).
- Imperative 10 – Human Thriving: Final production facility must contribute to an active, healthy lifestyle, be designed to nurture the innate human/nature connection, have no reported deaths or serious injuries, and have programs in place to promote health and wellbeing of employees, like health clinics or exercise options.

**MATERIALS PETAL** – Create a healthy, restorative, transparent & equitable materials economy.

- Imperative 11 – Responsible Industry (CORE): Third-party certified manufacturing standards for sustainable resource extraction and fair labor practices. All wood-based materials are certified to Forest Stewardship Council (FSC) 100% standards. All dimension stone products are ANSI Natural Stone Council Standard certified. All agricultural inputs are certified organic under U.S. Department of Agriculture. All potential conflict minerals comply with Responsible



Minerals Assurance Process. No animal-derived ingredients from near-threatened, vulnerable, endangered, or critically endangered species.

- Imperative 12 – Regenerative Materials: Products must minimize the extraction of virgin fossil-fuel based inputs, decrease existing global waste, and maximize the usage of natural, bio-based, and carbon sequestering materials.
- Imperative 13 – Net Positive Waste: Demonstrate that waste stream from manufacturing achieves 100% diversion from landfill, or meet a minimum diversion rate of 90% and create new waste Handprints that divert the equivalent amount of remaining waste.
- Imperative 14 – Net Positive Carbon: Conduct a Life Cycle Assessment (LCA) to assess carbon Footprint, identify key drivers to reduce carbon Footprint and generate fewer GHG emissions. Create a carbon Handprint greater than the Footprint to become Net Positive.

**“Equity is a critical aspect of achieving true sustainability.”**

**EQUITY PETAL** – Foster just, inclusive manufacturing communities to achieve true sustainability.

- Imperative 15 – Equitable Supply Chain (CORE): Manufacturer demonstrates responsibility across entire operations including human rights due diligence for top 10 priority suppliers, identifying critical social risks with each priority supplier, and giving preference to priority suppliers that obtain certification or address identified social risks.
- Imperative 16 – Equitable Investment: Manufacturer contributes to financial well-being of local communities by giving back through product and monetary donations, ensuring economic success from product sales contributes to the well-being of the community.
- Imperative 17 – Just Organizations: Product helps create a more equitable society through transparent disclosure of the manufacturer’s business practices. These manufacturers receive the Just Label, The Social Justice Label from International Living Future Institute.
- Imperative 18 – Social Co-Benefits: Manufacturers must

work within the broader ecosystem of suppliers, workers, customers, and key stakeholders to harness social co-benefits from their environmental Handprint strategies.

**BEAUTY PETAL** – Recognize the need for beauty to enrich lives & honor the impacts of products.

- Imperative 19 – Inspiration + Education (CORE): Create educational materials about the design, manufacturing, use, and disposal of a product that must be provided to the public.
- Imperative 20 – Beauty + Spirit: Product’s primary use will not further disconnect people from nature, has the potential to transform people’s relationship to the natural world, and must be informed by the natural world and biophilic/biomimicry principles.

### Defining Handprint

Manufacturers must demonstrate at certification, and for the next 3 years of production, that a product will give more than it takes over its life cycle. A Positive Handprint will be larger than its cradle-to-grave Footprint in relation to one or more sustainability impact categories: human health, climate, energy, water, waste, or ecological impacts. Two ways to create handprints:

1. By preventing/avoiding footprints that would otherwise have occurred, which includes reducing the magnitude of footprints that occur relative to what it would be otherwise.
2. By creating positive benefits that would not otherwise have occurred.

### HumanScale Different Smart Chair Case Study

Received full Living Product Challenge certification for meeting all seven petals including:

- Responsible Place 01: Piscataway, NJ facility doesn’t threaten endangered species in area.
- Habitat Exchange 02: World Wildlife Fund contribution & on-going restoration efforts.
- Net Positive Energy 07: Life-Cycle Assessment, 255% Solar panels & energy programs.

### Owens Corning Loose-Fill Insulation Case Study

Achieved the Imperative Certified status under the Living



Product Challenge, including meeting:

- Responsible Industry 09: Mount Vernon Plant has a virtually waste-free process for unbonded loose-fill insulation, uses recycled content & reduces waste from product line.
- Net Positive Waste 11: Mount Vernon is a company leader in waste diversion efforts.

### **Flooring Manufacturer Commercial Carpet Tile Case Study**

The assemblages of multi-hued, multi-textured lichens and their regenerative role in our ecosystem inspired the patterns and colorations designed by Jason F. McLennan and his team. They created the first floor covering to achieve Living Product Challenge Petal Certification by meeting all or part of five LPC Petals: Place, Water, Health & Happiness, Materials & Beauty. Lichen are Bioindicators of air pollution that can absorb pollutants and provide atmospheric information. These are some of the product benefits that earned the Living Product designation:

- Over 1.2 million gallons of water saved annually.
- Product & installation system are Red List Free.
- Product is 40% lighter than one using a conventional backing platform.
- Product has an average of 60% Recycled Content.
- Manufacturer has a Take Back Program for recycling.
- Product manufacturing used 10.52 kg of a CO2 equivalent.

As companies develop LPC products, they are poised for a collaborative future involving partnerships with other manufacturers, architects, and designers to develop social and environmental handprints, living spaces, and living solutions.

**“Let us create positive handprints together.”**