Building for a Net Positive Future, Now!

The Challenges and Promise of Net Positive Products

Mike Johnson, Sustainability and Net Positive Design Professional

Atmospheric CO2-eq Concentrations

416.71_{ppm}

350 ppm - 1988 400 ppm min. - 2016 Earth Temperature Records since 1880

2015-21: 7 Years Globally

07/21: Global Month

12/21: Contiguous US (6.7F)

U.S. Weather & Climate Catastrophes

2020: 22 x Billion USD events, totalling \$102B

2021: 20 x Billion \$ events, \$145B

2020 - 2021: 17M+ Acres

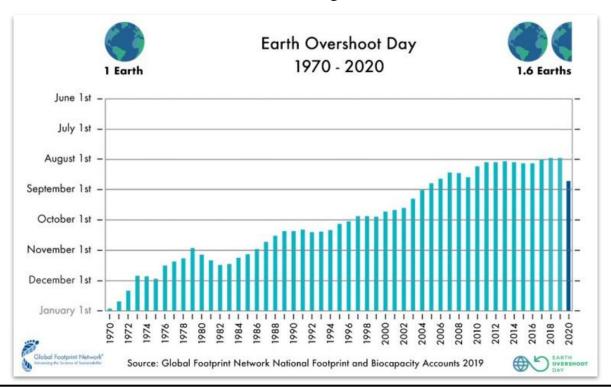
Global Population Projections

2030: 8.5 billion

2050: 9.7 billion

2100: 11.2 billion

Earth Overshoot Day - 07/29/2021



The Built Environment Opportunity

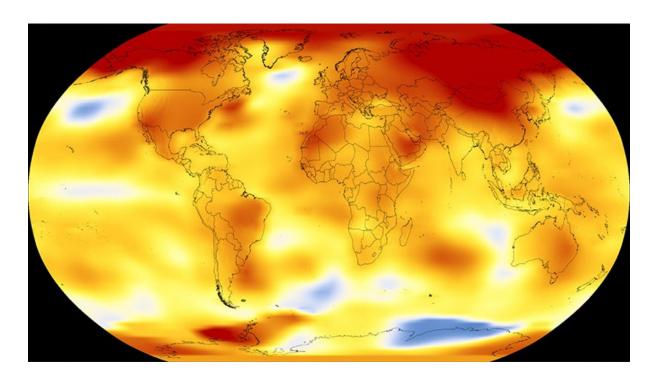
40% of global GHG emissions

11% from building materials

57% embodied 2020-2040

X? - multiplication factor for premature replacements ...

Clearly, limiting damage is not enough ...



The Question:

How do we meet the social, environmental, and economic needs of 8+ billion people ...

and all the other species on Earth, upon which we depend for survival?

One Solution: Designing for Net Positive



Understanding Hidden Product Costs

Roads? Yes

Earth? No

Health? No



Managing the Hidden Costs

Step 1: Identify and Quantify: LCA and Material Ingredient Inventories

Step 2: Report / Compare: EPDs and Declare Labels or HPDs, and possibly social equity reporting.

Step 3: Improve: Optimized EPDs and Ingredient Optimizations

Moving Beyond Managing Impacts - Product Manufacturers

Step 1: Identify the goals, and create or adopt a framework, such as Living Product Challenge, or Platinum Level Cradle to Cradle Certification.

Step 2: Prove net positive methodologies using LCA and report.

Step 3: Maintain continuous improvement and market accomplishments aggressively.

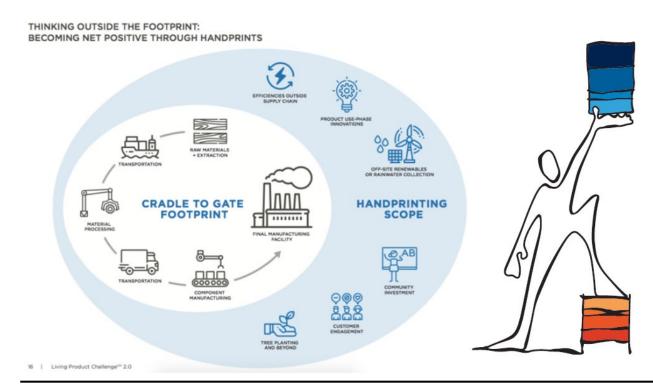
Moving Beyond Managing Impacts - Consumers and Project Teams

Step 1: Create <u>steadfast</u> purchasing specifications aligned to Net Positive goals (environmental, health, and/or social)

Step 2: Buy.

Step 3: <u>Feedback</u> to the manufacturers or vendors that Net Positive was key criteria for purchase.

Why Not? The Challenges of Net Positive:



Ingredients Disclosures at 100 PPM

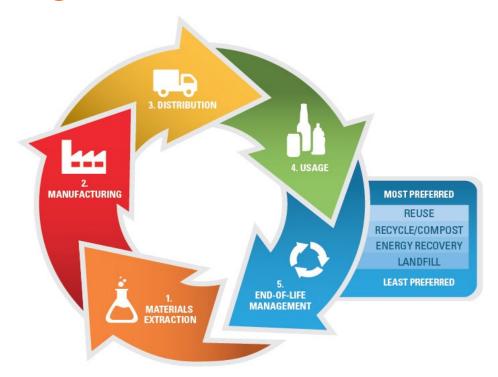


Take Back Programs versus Waste Norms

Recapture

Costs

Legislation



Competitive Advantage or Disadvantage?

Investments

Time Costs

Feedback?



In Summary: How Change Happens ...

- 1. Create Purchasing Criteria
- 2. Actively Communicate Criteria Via Specification
- 3. Create Consumer Demand

Thank you!

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