
Interface®
SUSTAINABLE
PLASTICS SYMPOSIUM
INSIGHTS REPORT
NOVEMBER 2017

Sustainable Plastics Symposium

Insights on Materials Selection from the Sustainable Plastics Symposium

At Interface we're convinced that the way plastic products are selected **needs to change.** Plastics, if used correctly, can drive the circular economy and reduce the carbon footprint of materials while meeting the principles of Green Chemistry. We need to move beyond the limited red-list or hazard-only approaches to truly create a healthier and more sustainable built environment.

We're interested in creating new conversations, forums, sharing perspectives and creating tools that enable us to make product selection decisions that cover all of these areas. We have taken the first steps to catalyze this conversation and commit to openly sharing what we learn through insight reports, video, and via our website.

About the Sustainable Plastics Symposium

Interface convened experts in Green Chemistry, Circular Economy and Embodied Carbon, along with designers, architects, sustainability consultants, manufacturers, NGOs and leading technology companies to discuss the urgent need for an approach to product selection that integrates Green Chemistry, Embodied Carbon and the creation of a Circular Economy. This symposium marked the beginning of a conversation to identify possible assessment criteria, resources, and ways to measure plastic products from these three perspectives.

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The Experts

Lauren Heine, Ph.D., is the Executive Director of Northwest Green Chemistry and one of the leading experts on developing tools for selecting less toxic ingredients for products. She led the development of both GreenScreen for Safer Chemicals and CleanGredients, a database of preferred ingredients for cleaning products that supports the USEPA Safer Choice Program.

Mike Biddle, Ph.D., has a doctorate in polymer science and was the founder of one of the world's most successful plastic recycling companies, MBA Polymers, which converts mixed waste from electronics, appliances and automobiles into clean post-consumer plastic. He is currently Managing Partner at the clean tech venture firm evok innovations. His TED Talk *"We can recycle plastic"* has 1.1M views.

Kirsten Ritchie, PE, is a Principal at Gensler, the world's largest architecture and design firm, where she is recognized as a senior authority on sustainability rating systems and a champion of data-driven decision making, including the use of life cycle assessment (LCA).

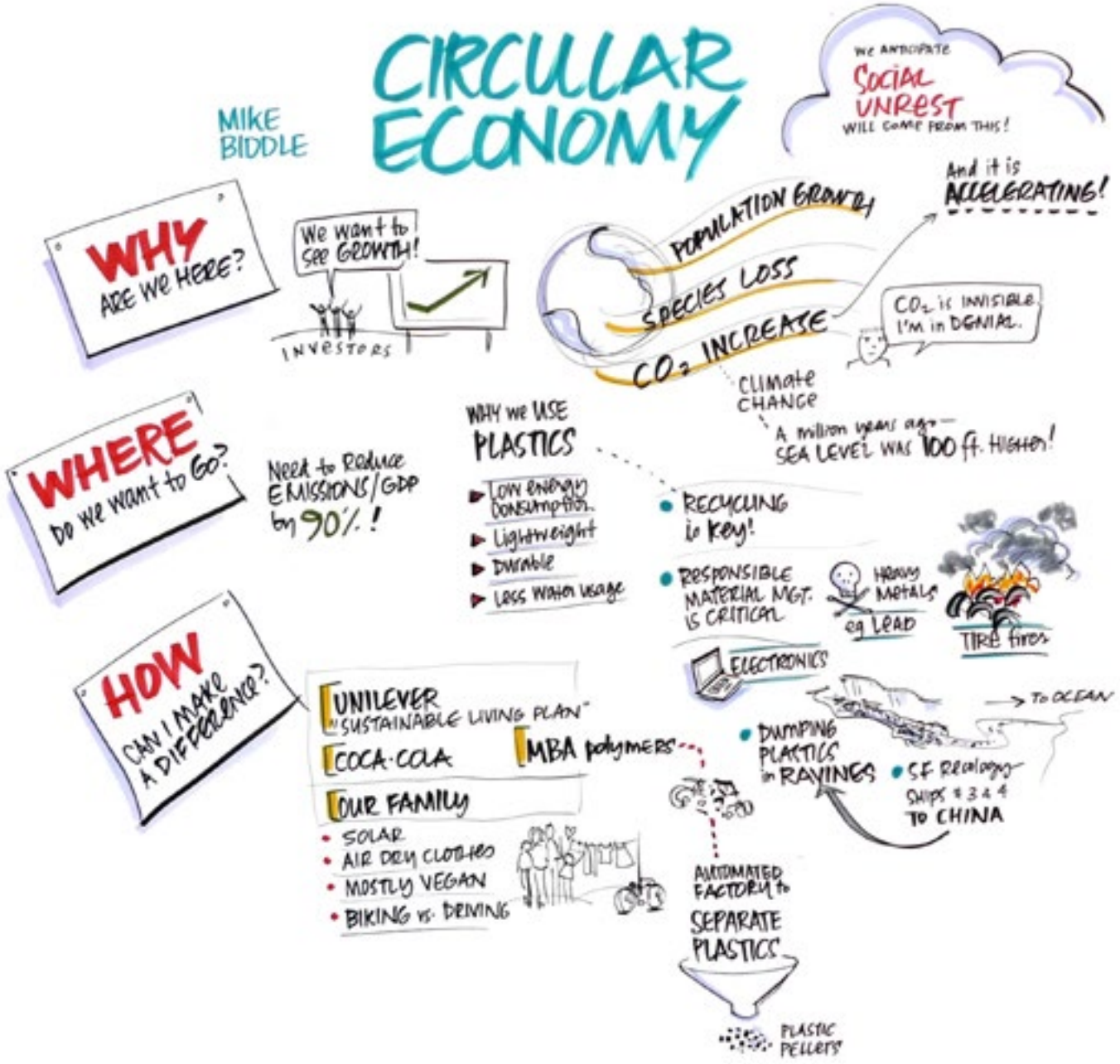
THE KEY LEARNINGS

1.

We have to close the loop!

The take-make-waste economy is not sustainable and products need to be **designed with the end in mind.**

Plastics are key to developing a **circular economy,** which is critical for our future.



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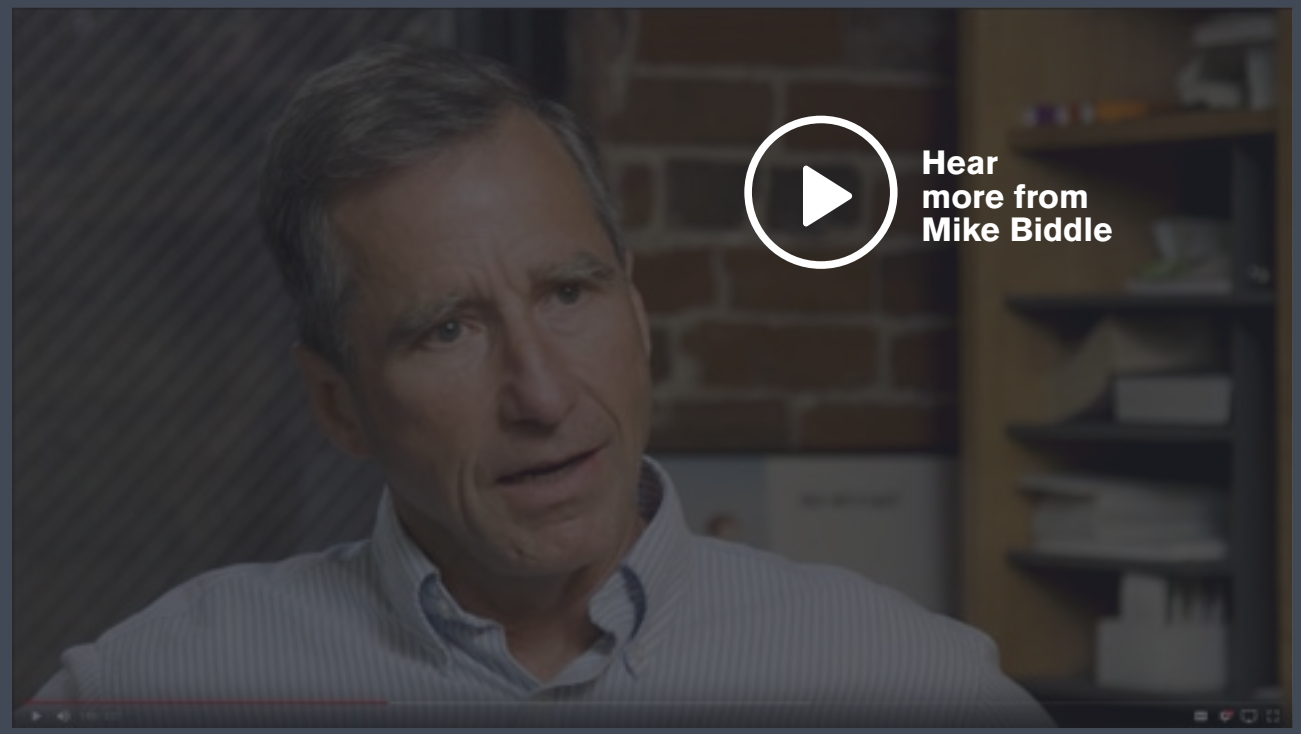
We have to close the loop!

> “Exponential increases in population, species loss and CO_2 levels show it is critical that we take action. Where do plastics fit in this discussion? They are low energy, low in CO_2 generation, provide lightweighting and safety benefits, are durable and long lasting and they are recyclable.”
>
> – Mike Biddle

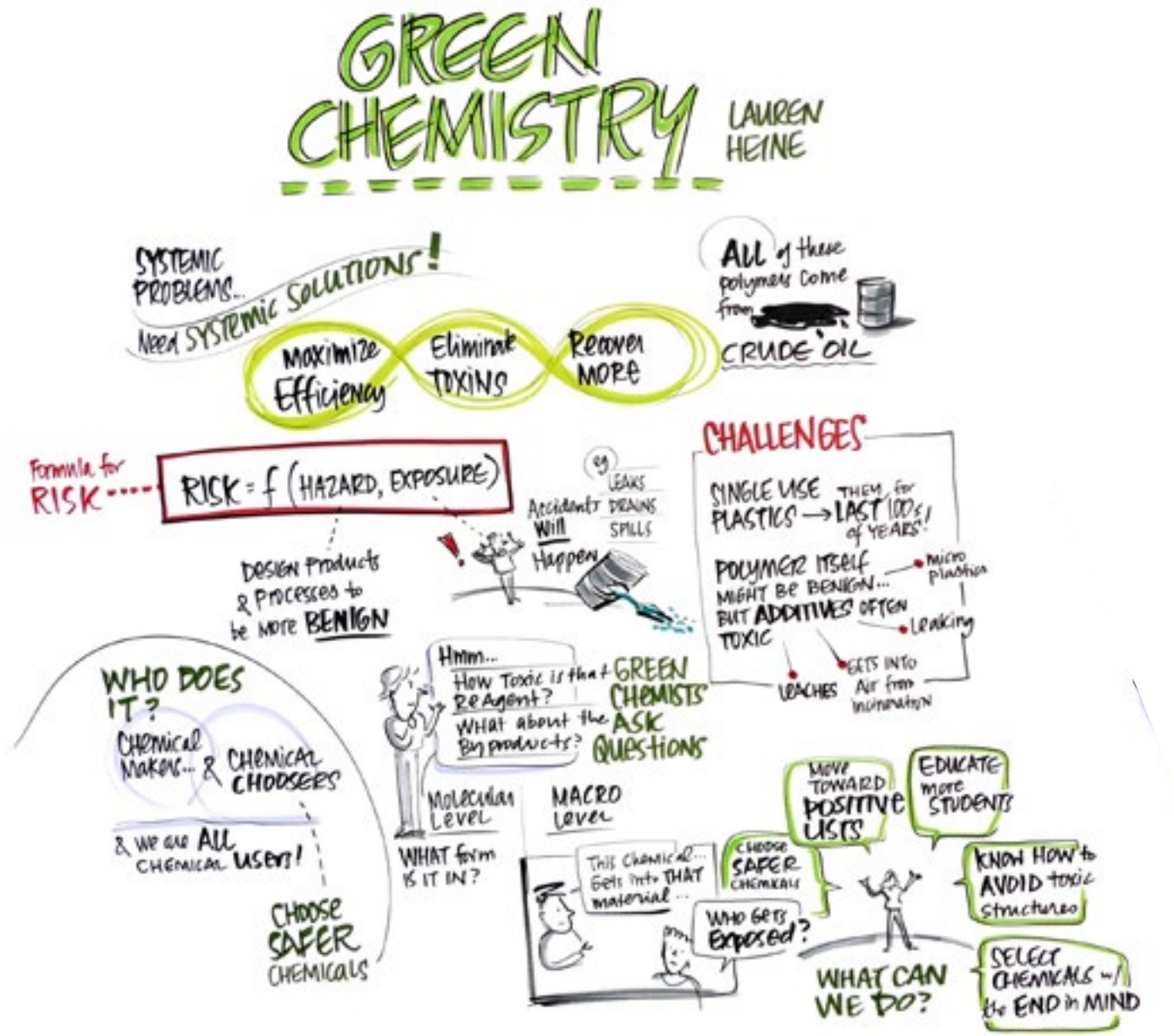
Lightweighting considers types of materials you are using and the manufacturing processes required for design. (e.g., in the auto industry using lightweight materials such as plastics can mean less strain on the engine and better gas mileage as well as improved handling.)



2.

Plastics themselves are not necessarily toxic but can have problematic additives & lifecycle emissions.

Plastics require a more holistic approach than red-listing to help designers choose materials that meet the needs of human health, sustainability, and the circular economy.



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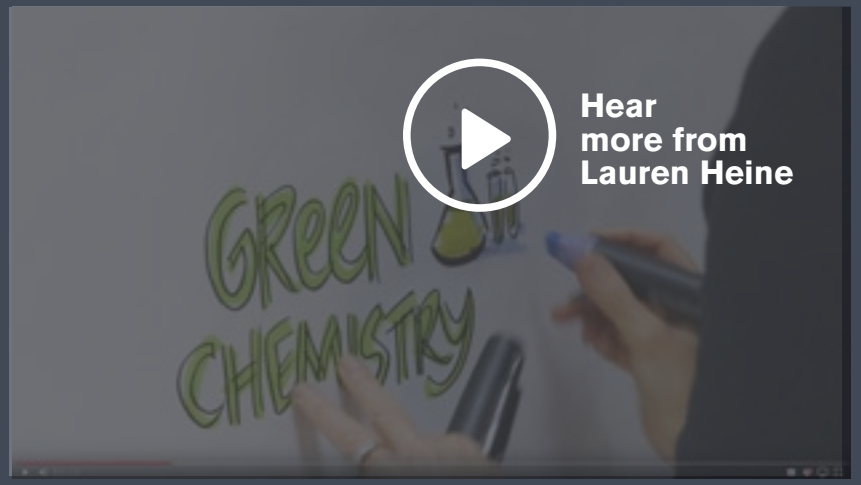
Plastics themselves are not necessarily toxic but can have problematic additives & lifecycle emissions.

"While PVC is a completely benign polymer, the monomers and additives used to make it and to give it certain performance characteristics can be toxic and problematic. The question is: have other polymers been evaluated using the same comprehensive, systemic approach to considering life cycle impacts?

Circular flows of materials are the ideal. We need to not only choose inherently safer chemicals and make safer chemicals, but also select materials and products with the end in mind.

– Lauren Heine



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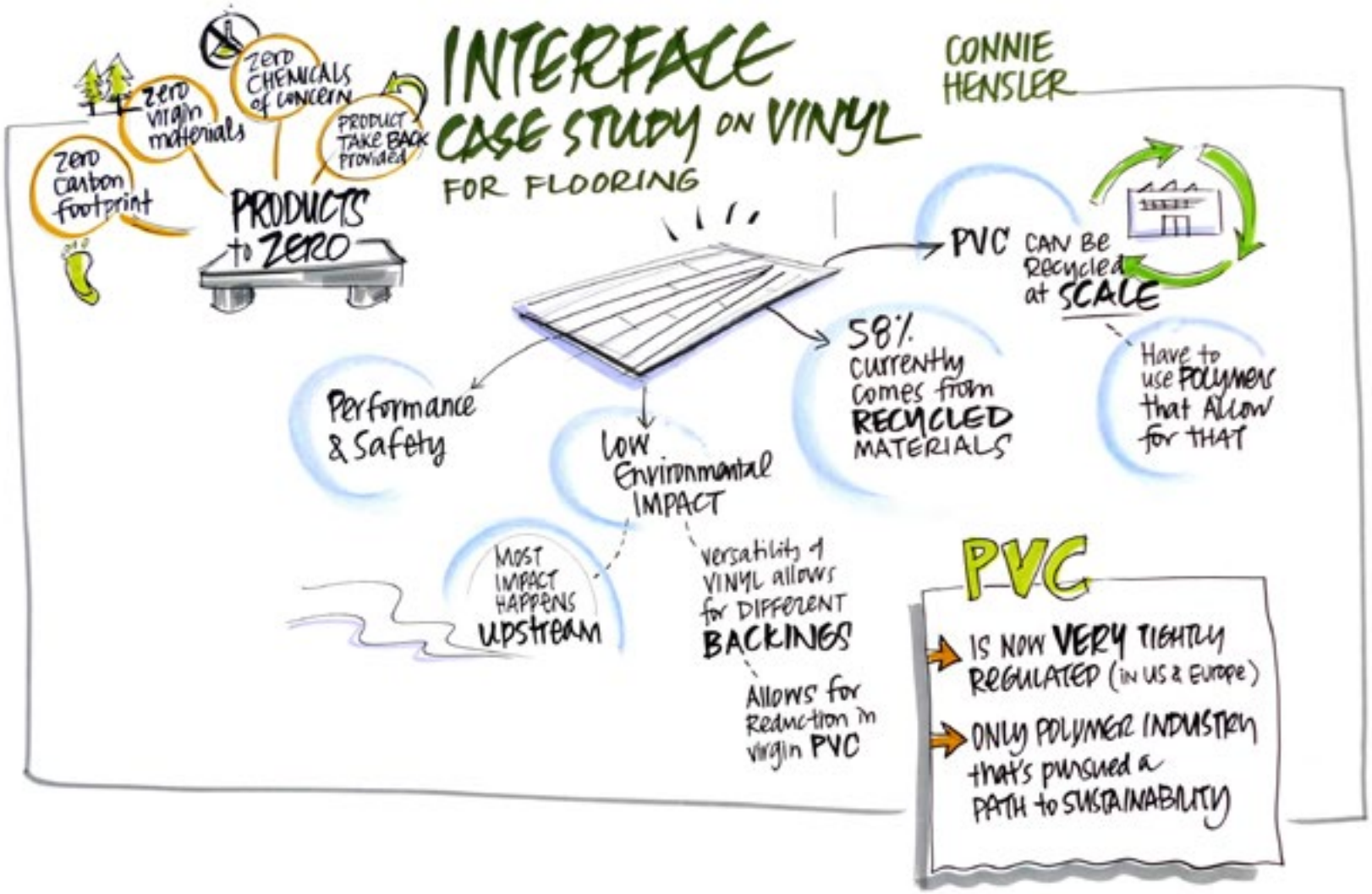
3.

Red listing isn't a scalable approach to safer and more sustainable products.

Material "red lists" of potentially toxic materials have dominated product selection in recent years, but this approach can decrease recycling and increase carbon emissions, leading to negative health impacts.

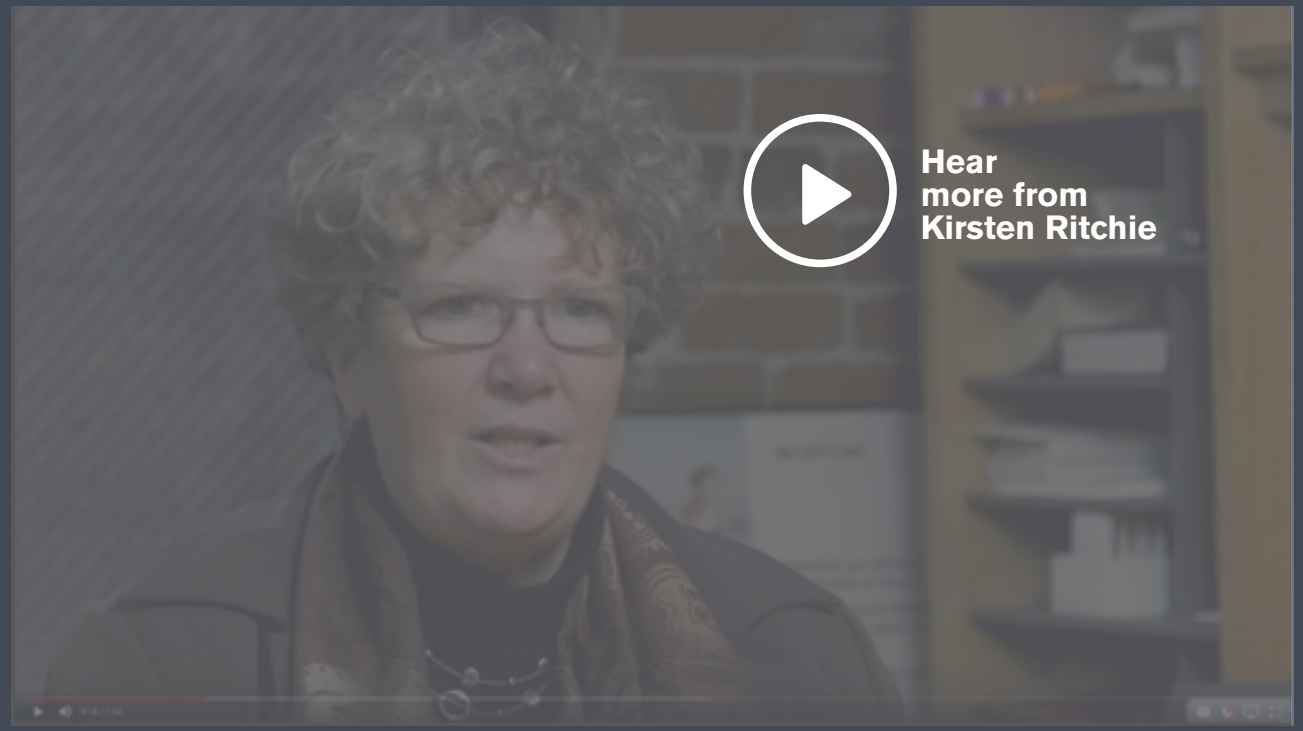
Interface supports the development of a material selection approach that is based on Green Chemistry, low carbon footprints, and supports a circular economy. PVC, for example, is the only flooring polymer that is recycled at commercial scale. Recycling has to work not just technically, but must be scalable with infrastructure and commitment to closing the loop.



Red listing isn't a scalable approach to safer and more sustainable products.

> "The way we have been tackling it (health and health in the built environment) is good chemistry vs. bad chemistry or good chemicals vs. bad chemicals and I think that is a bit short sighted... we need to craft a more holistic way to agree on what is healthy."

– Kirsten Ritchie



4.

Waste-to-Energy is not recycling.

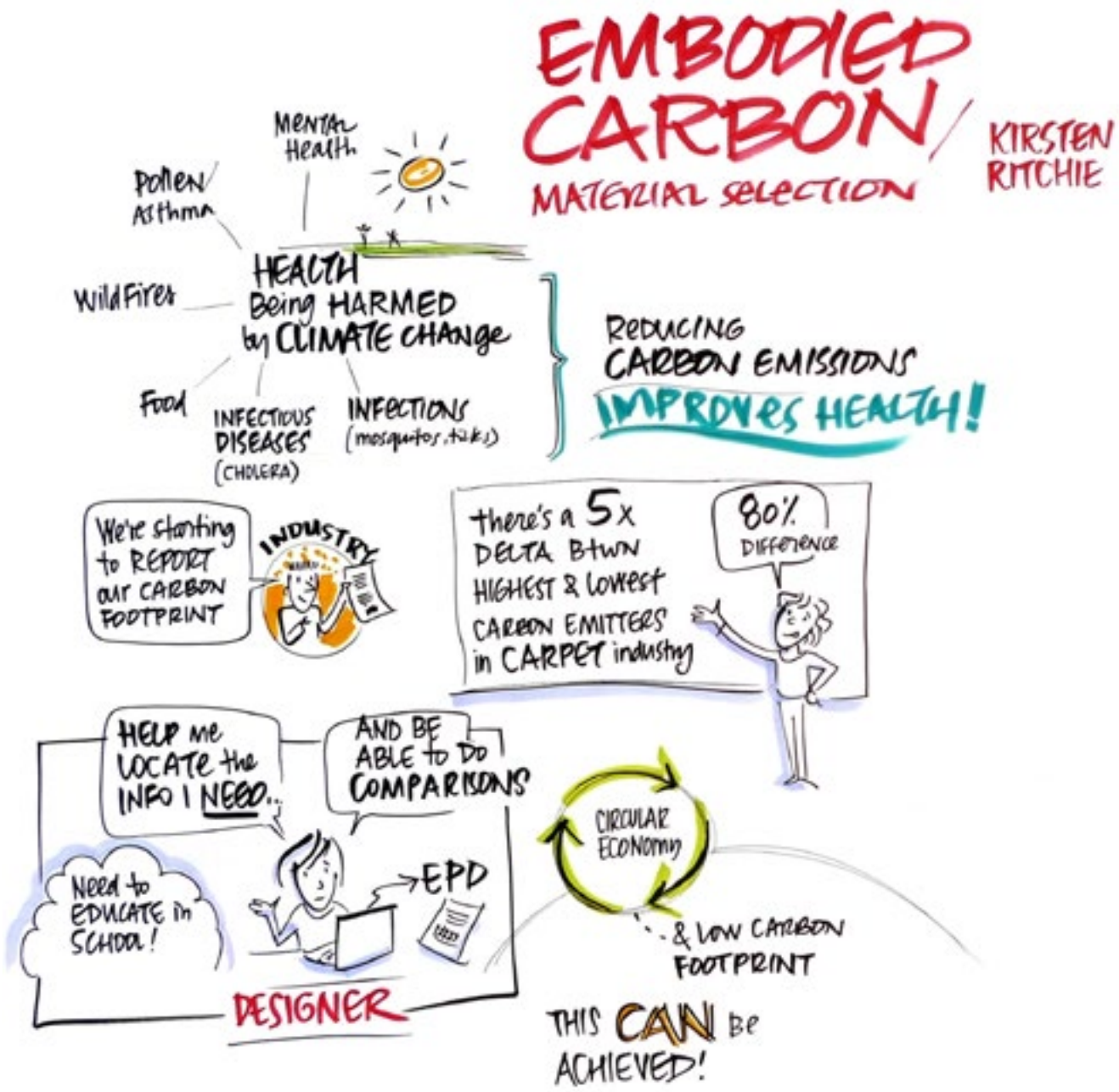
Incineration of plastics releases carbon, toxins and particulates in the atmosphere. Interface's recycling of modular carpet, as in GlasBac®RE, is an example of how materials and products can be designed to eliminate toxic emissions in the supply chain, reduce carbon emissions that contribute to negative impacts on human and planetary health, and make the promise of a circular economy real.

5.

We have to reduce carbon!

Climate change is the **biggest threat** to human health.

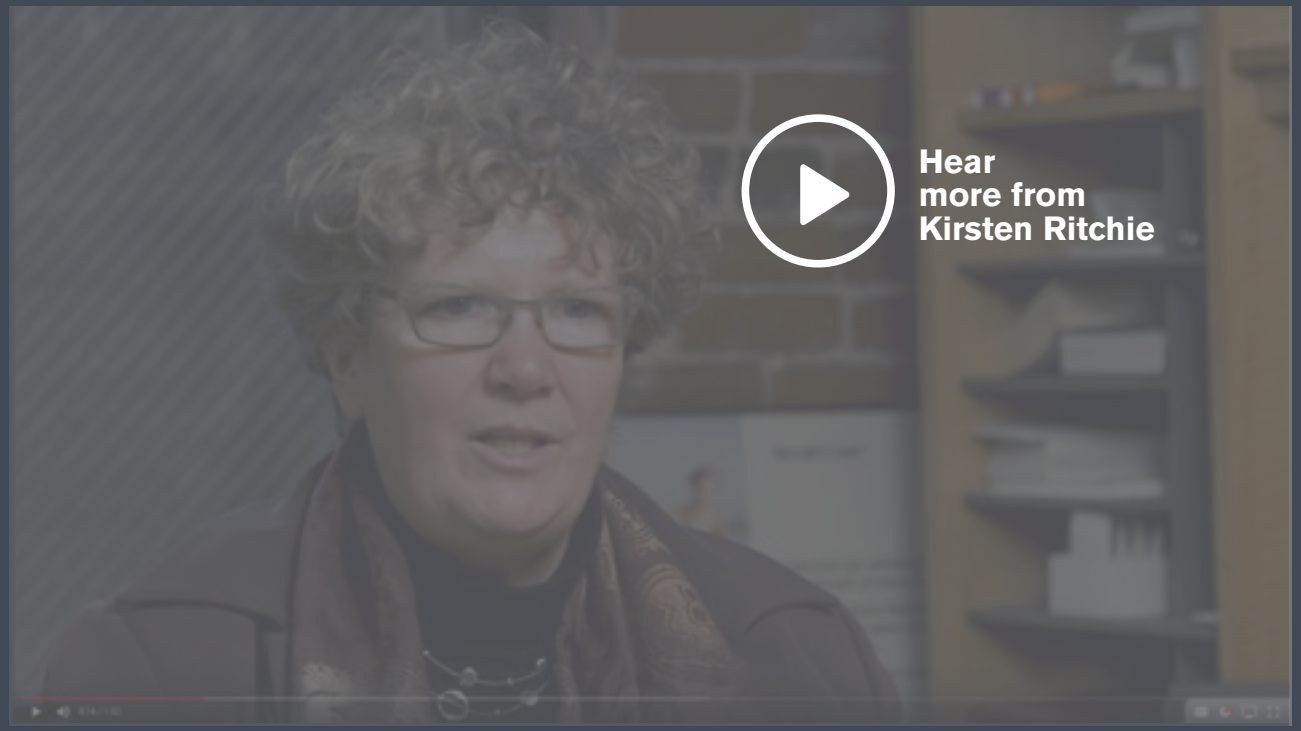
What's "healthy" is bigger than a good chemistry/bad chemistry question. **Carbon** is a critical part of the conversation.



We have to reduce carbon!

> “How do we tackle carbon in the built environment? We can select products with low carbon footprints. Interface PVC backed carpets have dramatically lower carbon footprints than most (modular carpets), in some case as much as five times lower.”

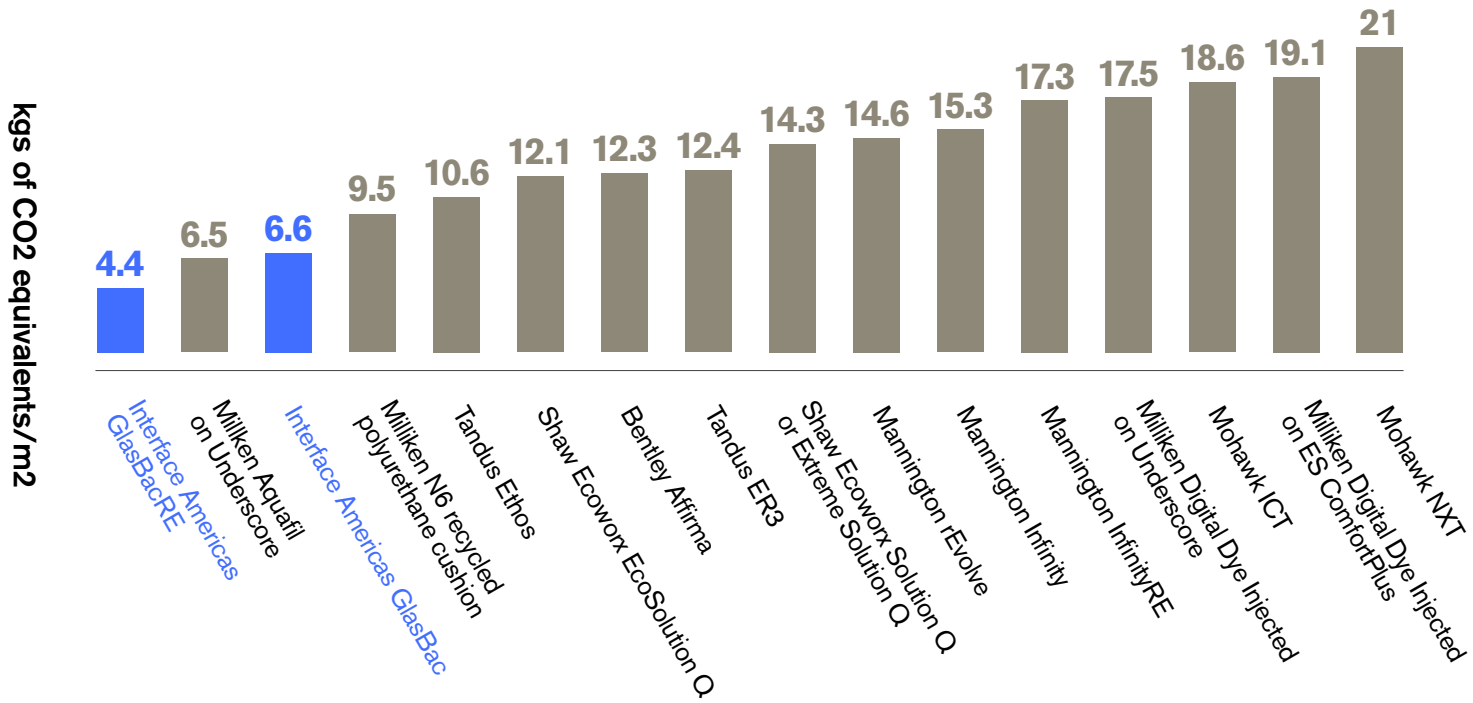
– Kirsten Ritchie



Interface PVC-backed carpet has the lowest carbon footprint of any modular carpet.

Americas Carpet Tile Carbon Footprint

Cradle-to-Gate, from raw material extraction through manufacturing



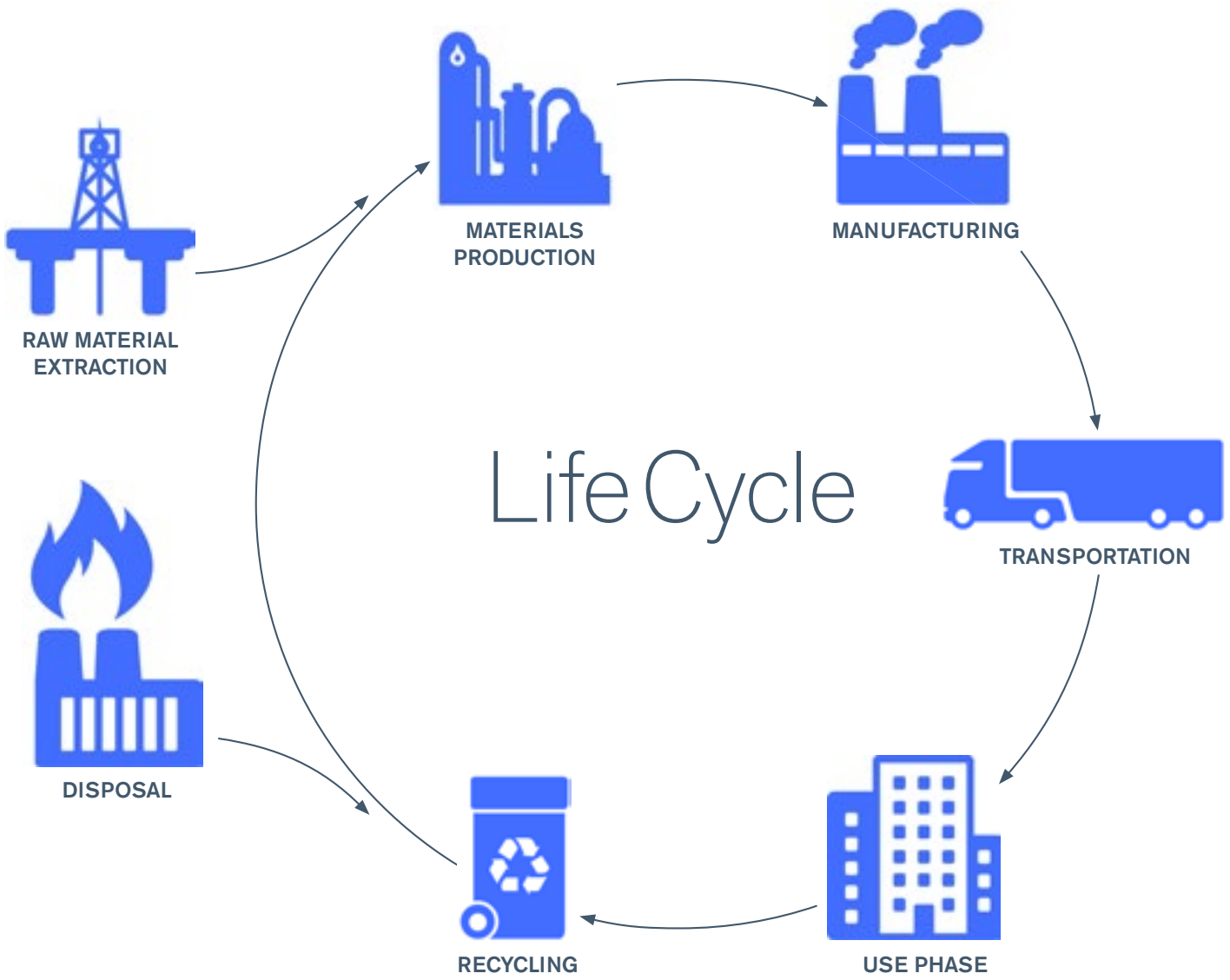
This data is geographically limited to the Americas. The carbon footprint values are taken from publicly available third party verified Environmental Product Declarations. Although Environmental Product Declarations generally have limited comparability, the characterization factor for each product's carbon footprint is the same across all of these Environmental Product Declarations.

Our GlasBac® (PVC) backed carpet tiles do not contain toxic additives.

We strive to eliminate any materials of concern from our products. Some of our successes include elimination of fluorocarbons, phthalates, formaldehyde, and flame retardants.

PVC has been and continues to be red-listed by some individuals and organizations. This red-listing of PVC has been based on old, outdated assumptions and is not helpful for the promotion of human health, sustainability, or the circular economy.

Do we at Interface think we should continue to use virgin PVC? No, we shouldn't use any virgin polymers, but as we attempt to transition to a circular economy, we must choose safe, low carbon materials that facilitate that path.



We need not decide between having Green Chemistry, the Circular Economy or a Climate fit for Life. Whereas a Red List approach leads to unacceptable trade-offs, a new holistic approach can show us the path to make plastics part of the solution for a healthier, more sustainable world for all with no unnecessary trade-offs.

Who is Interface?

Interface, Inc. is the world's largest manufacturer of modular carpet, and recently expanded into modular resilient flooring with a new luxury vinyl tile line. Our hard and soft tiles are designed to work together in an integrated flooring system. We are committed to sustainability and minimizing our impact on the environment while enhancing shareholder value. Our mission, Climate Take Back™, focuses on driving positive impacts in the world to create a climate fit for life.

Get the full story on the Plastics Symposium.

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