

SUSTAINABLE DESIGN WORKSHOP

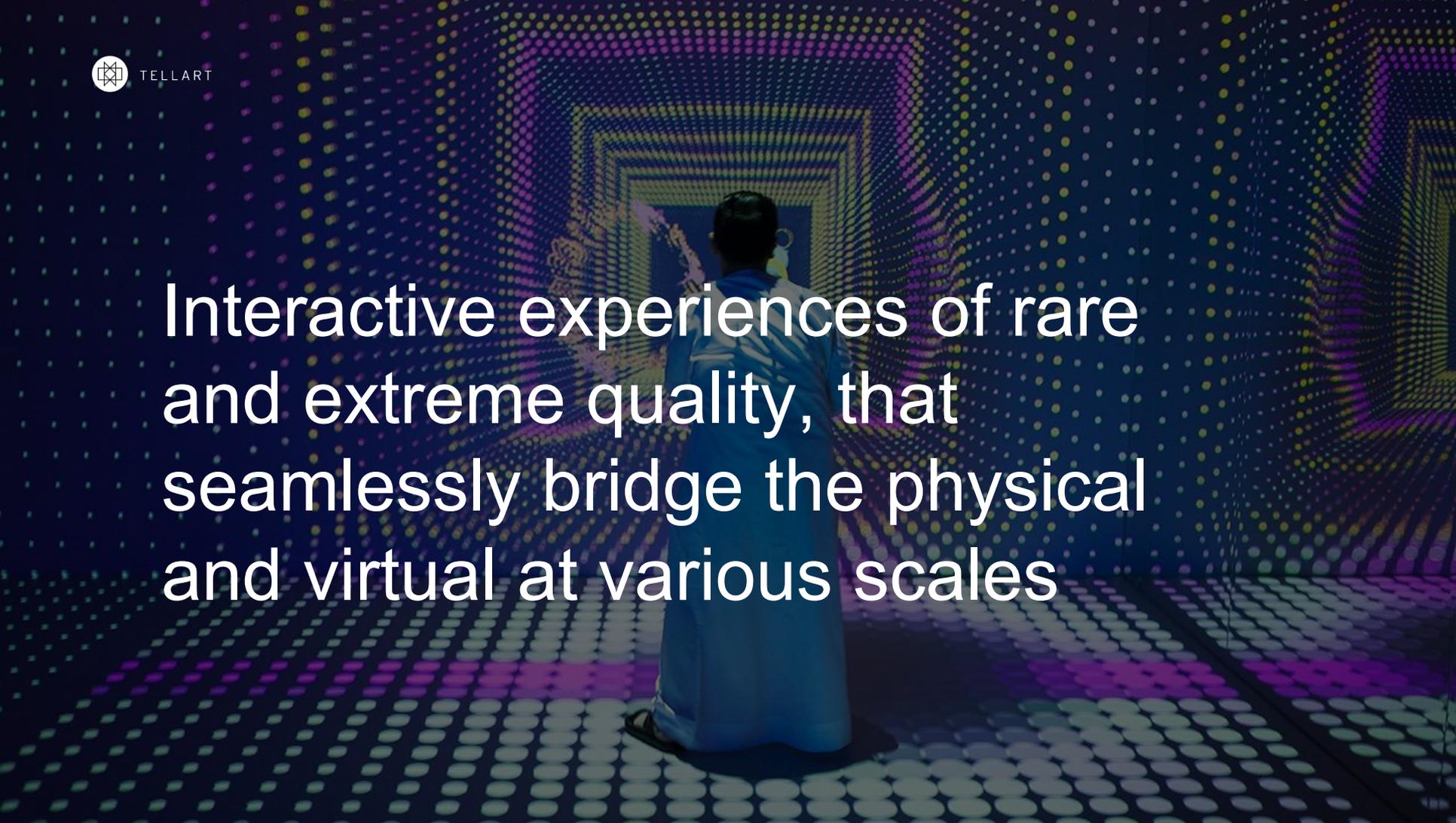
Nick Scappaticci
Laila Aukee



TELLART
www.tellart.com



Making the invisible visible,
the intangible tangible.

A person wearing a blue traditional garment stands with their back to the camera, looking into a virtual tunnel. The tunnel is composed of concentric, glowing frames of colorful dots (purple, yellow, and blue) that create a strong sense of depth and perspective. The floor is also covered in a grid of these colorful dots, which appear to recede into the distance. The overall atmosphere is futuristic and immersive.

Interactive experiences of rare
and extreme quality, that
seamlessly bridge the physical
and virtual at various scales



SAN FRANCISCO

NEW YORK

PROVIDENCE

AMSTERDAM

PST (GMT - 8h)

EST (GMT - 5h)

EST (GMT - 5h)

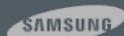
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PHILIPS



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Let's get to know each other...

Name

Company

Job Title

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“The world will not evolve past its current state of crisis by using the same thinking that created the situation.”

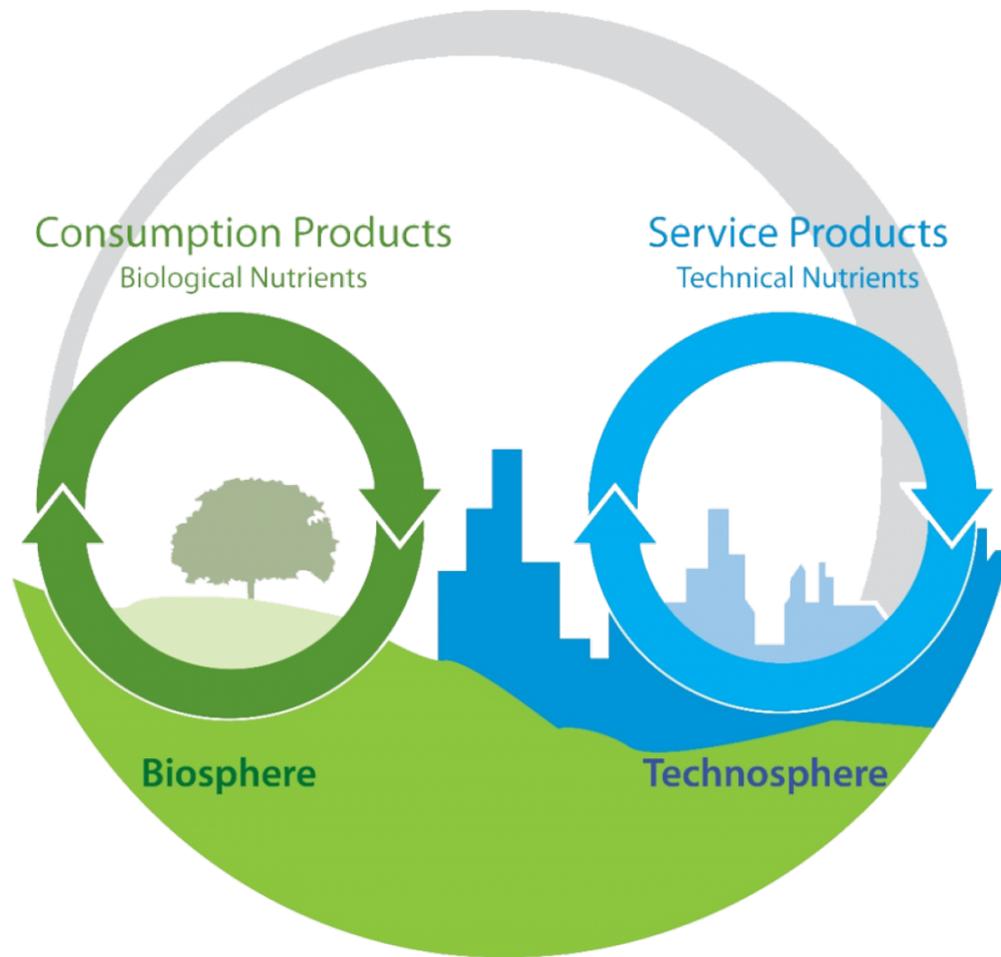
— Albert Einstein

What is sustainable design?

Some topics we'll talk about today:

- + Cradle to Cradle Approach
- + Material selection
- + Messaging, Information & Policy

Cradle to Cradle



“We see a world of abundance, not limits. In the midst of a great deal of talk about reducing the human ecological footprint, we offer a different vision. What if humans designed products and system that celebrate an abundance of human creativity, culture, and productivity? That are so intelligent and safe, our species leaves an ecological footprint to delight in, not lament?”

— Michael Braungart, [Cradle to Cradle: Remaking the Way We Make Things](#)

Everything is a resource for something else. In nature, the “waste” of one system becomes food for another. Everything can be designed to be disassembled and safely returned to the soil as **biological nutrients**, or re-utilized as high quality materials for new products as **technical nutrients** without contamination.

Use clean and renewable energy. Living things thrive on the energy of current solar income. Similarly, human constructs can utilize clean and renewable energy in many forms—such as solar, wind, geothermal, gravitational energy and other energy systems being developed today—thereby capitalizing on these abundant resources while supporting human and environmental health.

Celebrate diversity. Around the world, geology, hydrology, photosynthesis and nutrient cycling, adapted to locale, yield an astonishing diversity of natural and cultural life. Designs that respond to the challenges and opportunities offered by each place fit elegantly and effectively into their own niches.

Case Study: Steelcase Think Chair





5 Steps toward eco effectiveness

1. Get free-of known culprits.

Reduce any obviously harmful materials from your product or process.



5 Steps toward eco effectiveness

1. Get free-of known culprits.
2. Follow Informed Personal Preferences

Use materials and techniques that you have information and visibility about. Prefer ecological intelligence, respect, delight, celebration, and fun.



5 Steps toward eco effectiveness

1. Get free-of known culprits.
2. Follow Informed Personal Preferences
3. Create a Passive Positive List

Analyze the materials or “ingredients” used. Make plans to phase out or prioritize.



5 Steps toward eco effectiveness

1. Get free-of known culprits.
2. Follow Informed Personal Preferences
3. Create a Passive Positive List
4. Activate the Positive

Begin to design with eco-effective principles in mind, using positive or passive materials.



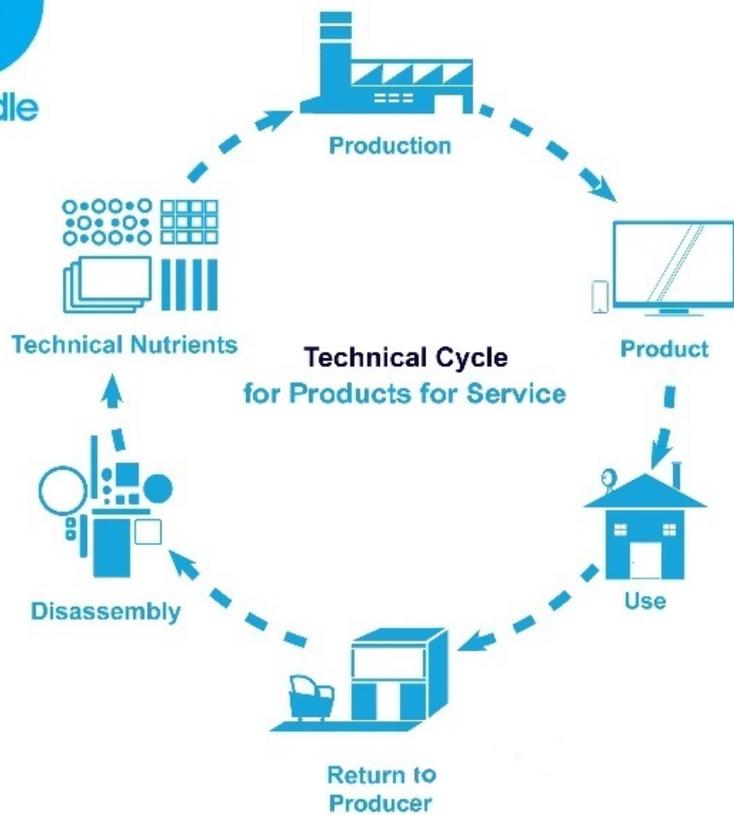
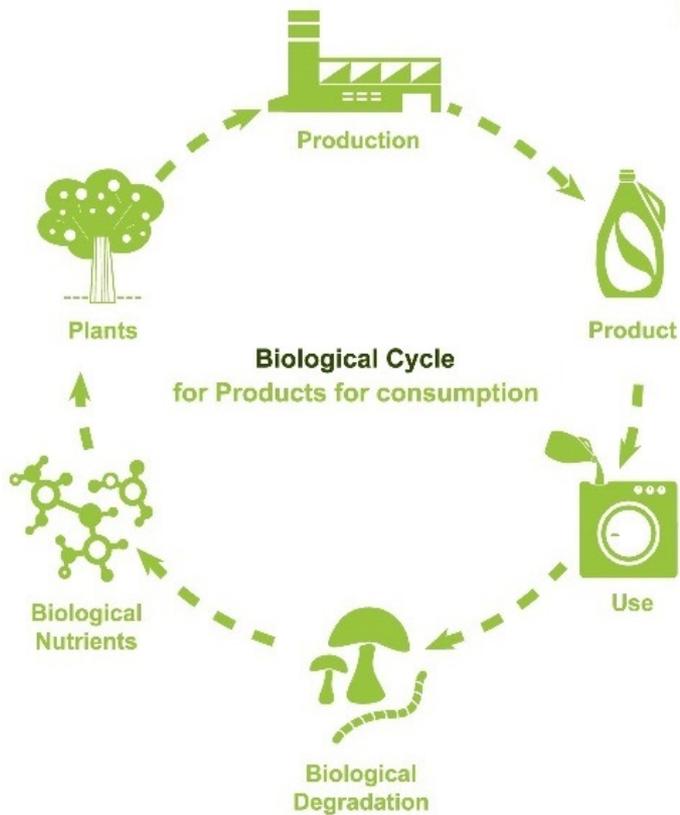
5 Steps toward eco effectiveness

1. Get free-of known culprits.
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3. Create a Passive Positive List
4. Activate the Positive
5. Reinvent

Push the design to include an entire ecosystem. Instead of “redesign the car” think “redesign a new transportation infrastructure”



Materials



“Instead of presenting an inspiring and exciting vision of change, conventional environmental approaches focus on what not to do. What about an entirely different model? What would it mean to be 100 percent good?”

— McDonough, Braungart [Cradle to Cradle: Remaking the Way We Make Things](#)



ENVIRONMENTALLY
FRIENDLY



Case Study: Ecovative Mushroom Materials



Passive Positive List

The “X” list

The most problematic substances.
Any that are harmful in direct or obvious ways.

>> Make these highest priority for phase out.

The Gray list

Problematic substances that are not quite so urgently in need of phase out.
Products that are essential, but that don't yet have a better substitute.

>> Consider models where these might become technical nutrients retained or recycled by the manufacturer.

The “P” list

Positive or preferred substances that are *actively* defined as healthy and safe.

>> Activate these moving forward.

Drive Change | Get Certified | Connect



Find Certified Products | Donate

Material Health Certificate Registry



Search & Filters

Search by keywords

Categories | MasterFormat

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Chelsea Shadecloth

MECHOSYSTEMS
Fabric with solid, graphite-colored backing, designed to be viewed from interior and...

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EcoVeil Sheer™ 6850 and 6750 Series

MECHOSYSTEMS
EcoVeil® Sheer Shadecloth is a window shade textile. It is 100%

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Millennium Nature Yarn

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Search...

HOME > RESOURCES > GREEN BUILDING METHODS > PRODUCT AND BUILDING MATERIALS RED LIST

Product and Building Materials Red List

The materials red list (commonly shortened to simply “red list”) is a compilation of harmful-to-humans chemicals and materials compiled by the International Living Future Institute (ILFI) as part of its Living Building Challenge.

Products that contain chemicals on the red list must not be used if a building is to achieve Living Building status. There are seven performance areas, or “petals,” included in the Living Building Challenge and avoiding red list products falls under the Materials petal. This requirement is intended to ensure that buildings are not only conserving energy or limiting waste, but also protecting occupant health.

Development of the Red List

In addition to seeing chemicals on the red list phased out of production and use, ILFI hopes to influence the materials industry to be more conscientious about producing nonharmful-to-humans materials. While many products exist that may have an adverse effect on human health, the red list focuses on some of the worst offenders. It is subject to change based on emerging scientific knowledge, but currently includes:

Tweets by @GBA_pgh

Sharing



Information, Messaging & Policy

Selections from Tellart's portfolio

RETHINK

Innovation New Uses

REUSE

with high quality

UPCYCLE

Quality Improvement

RECYCLE

Downcycling

REDUCE

Impact

+

0

-

ECO-EFFECTIVENESS

OPTIMISE POSITIVE IMPACT

Time

REDUCE NEGATIVE IMPACT

ECO-EFFICIENCY



Helping people see their environmental impact

Home

Overall Status of Building 101

Diagnostics

Control

4

Current Faults

+22

Total Energy Impact (KWh) This Month

+10

Total Waste Estimate (\$) This Month

Energy Use Comparison

+20%

Deviation from Average Usage (based on similar OAT)

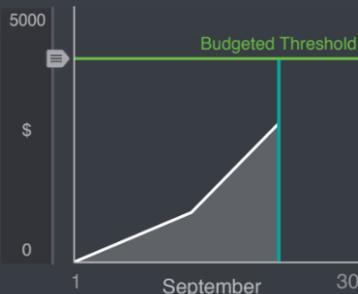
Similar OAT

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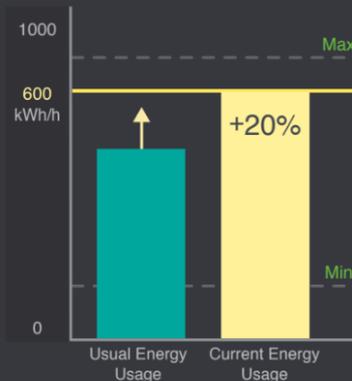
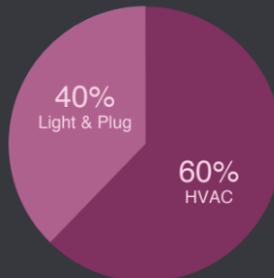
SEP 21

Building Level Energy Usage

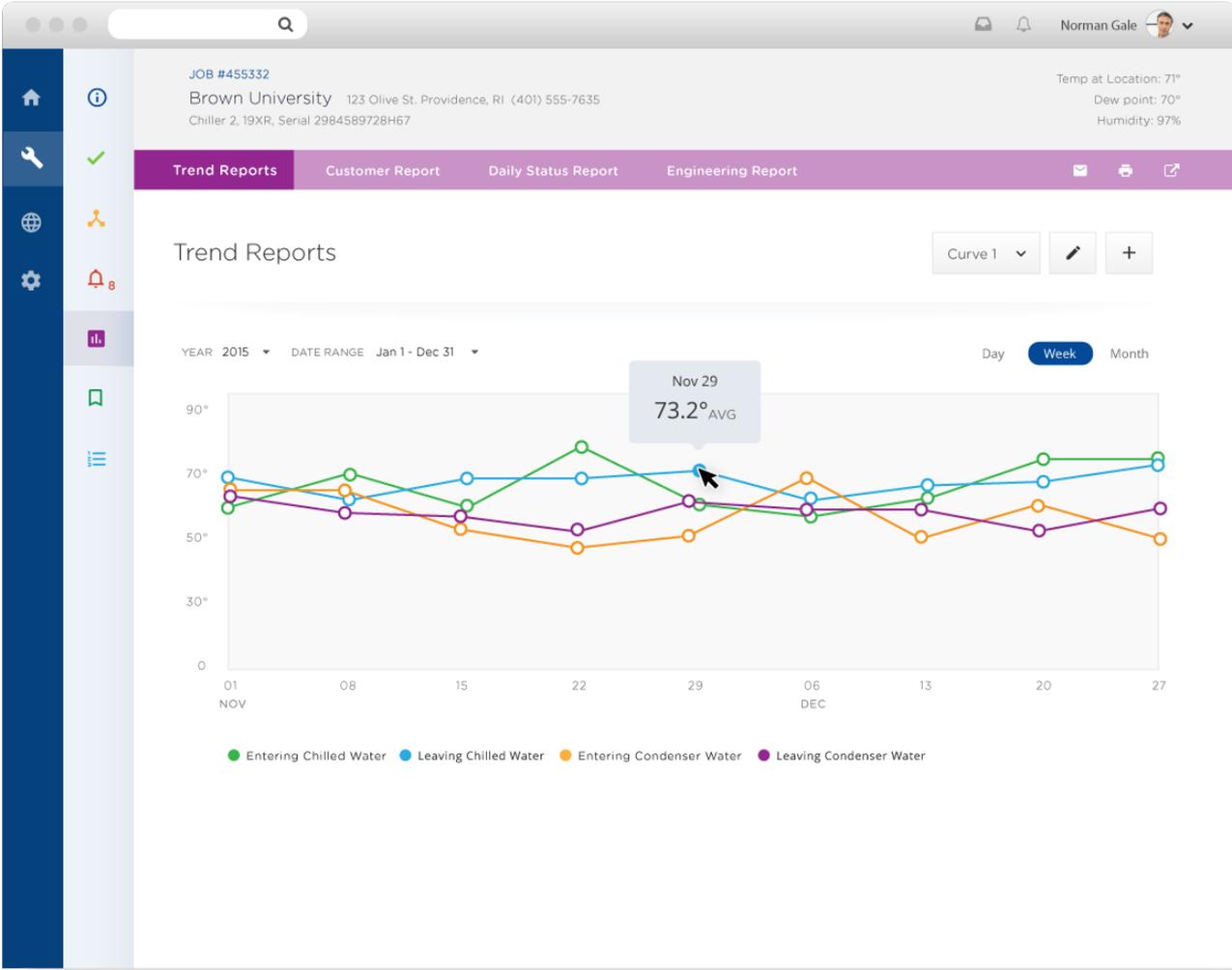
Cumulative Usage This Month



Energy Usage Breakdown



Customize Widgets



Experience Smart Cold Chain™ Transport

Control from a 1,000 miles away



Smart Cold Chain™ Diagnostics



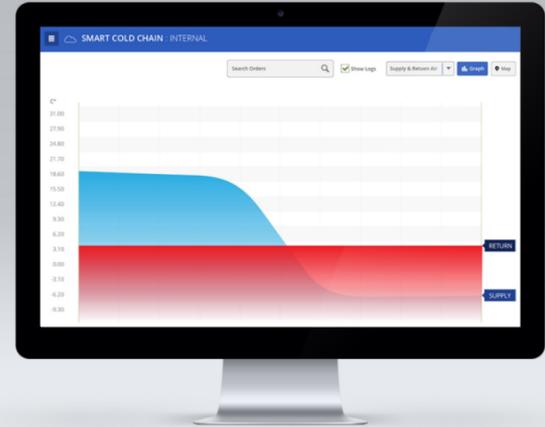
Data access, analytics, and intelligent recommendations drive additional customer value and revenue

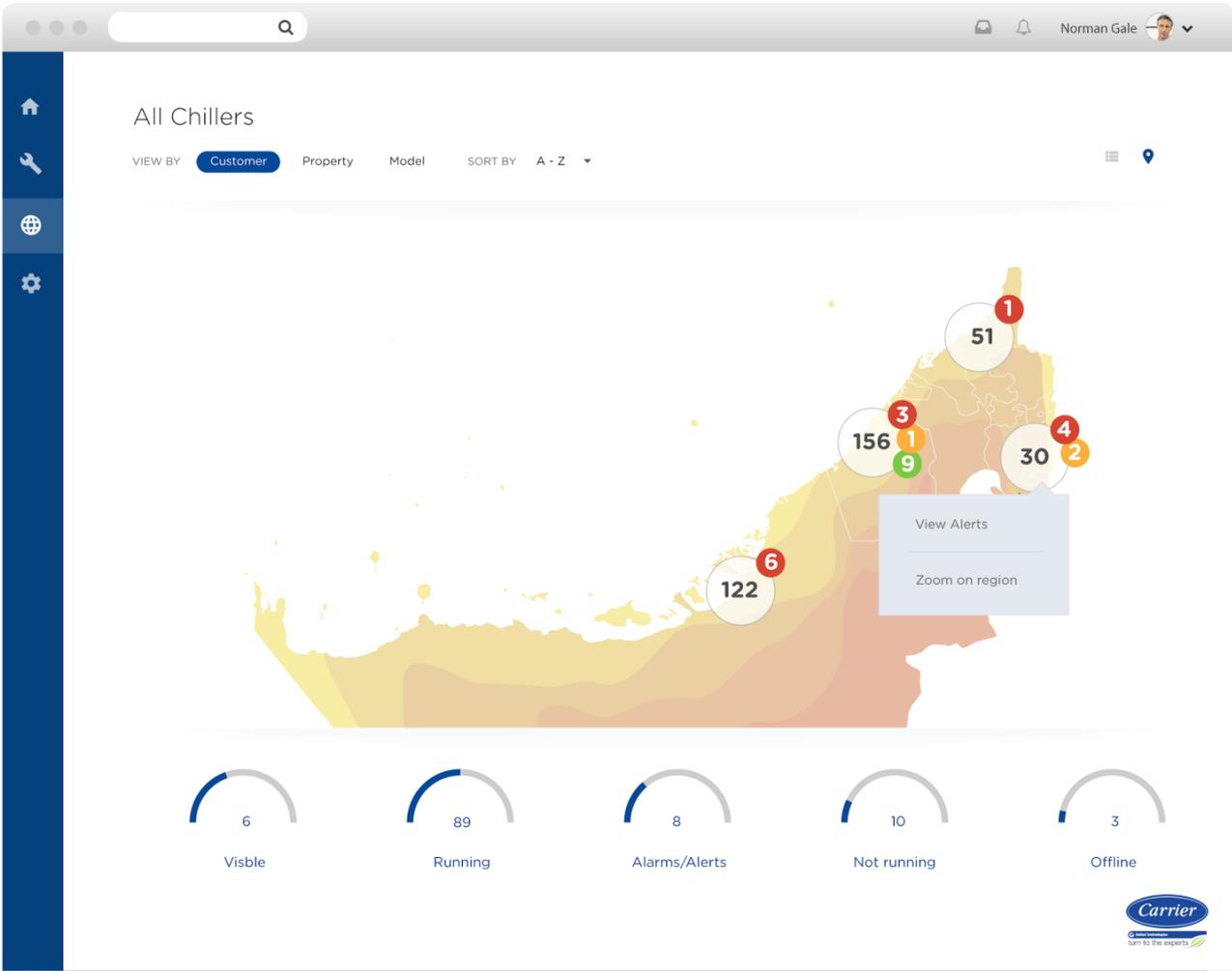


System optimization and advanced algorithms reduce internal costs and customer waste

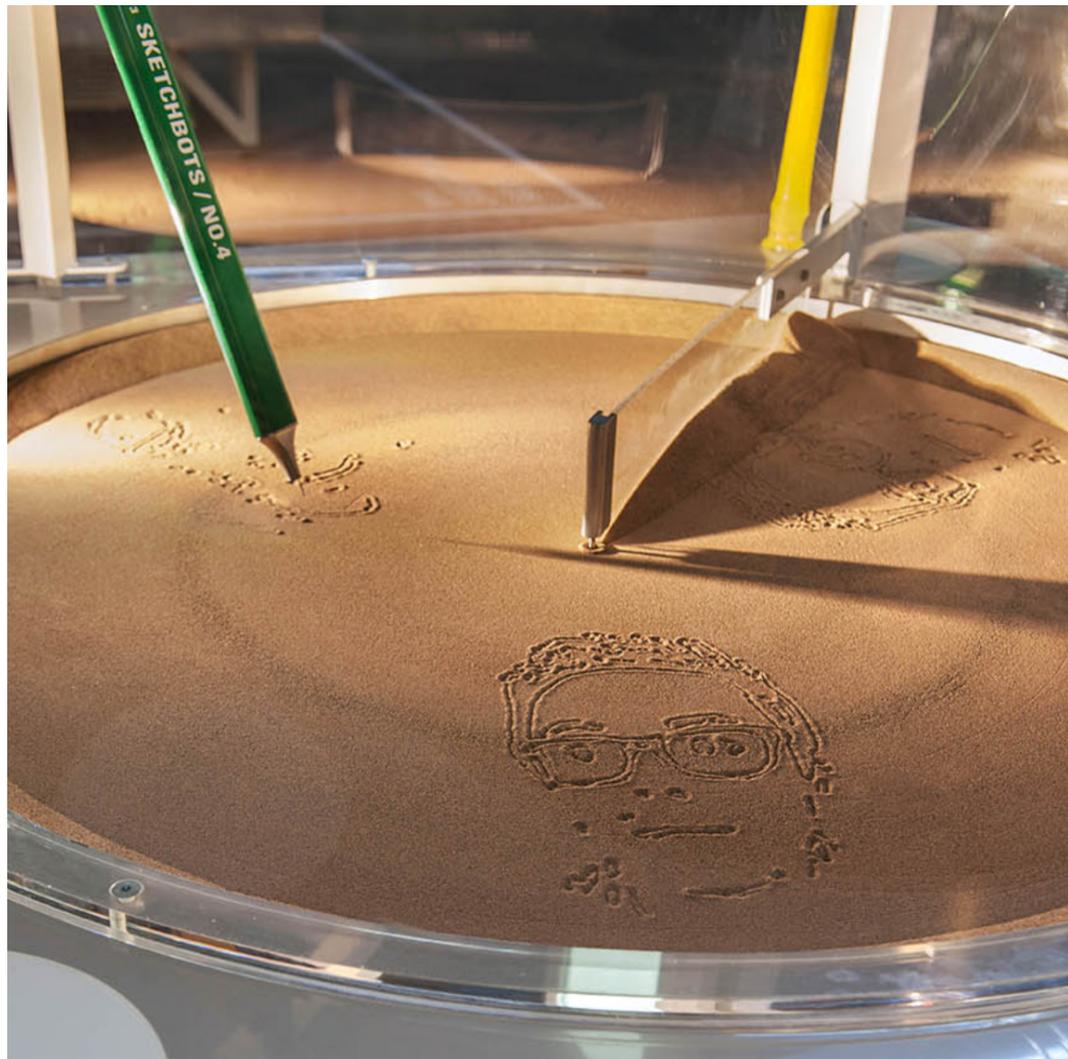


Improved visibility and traceability translates to greater customer service and insights

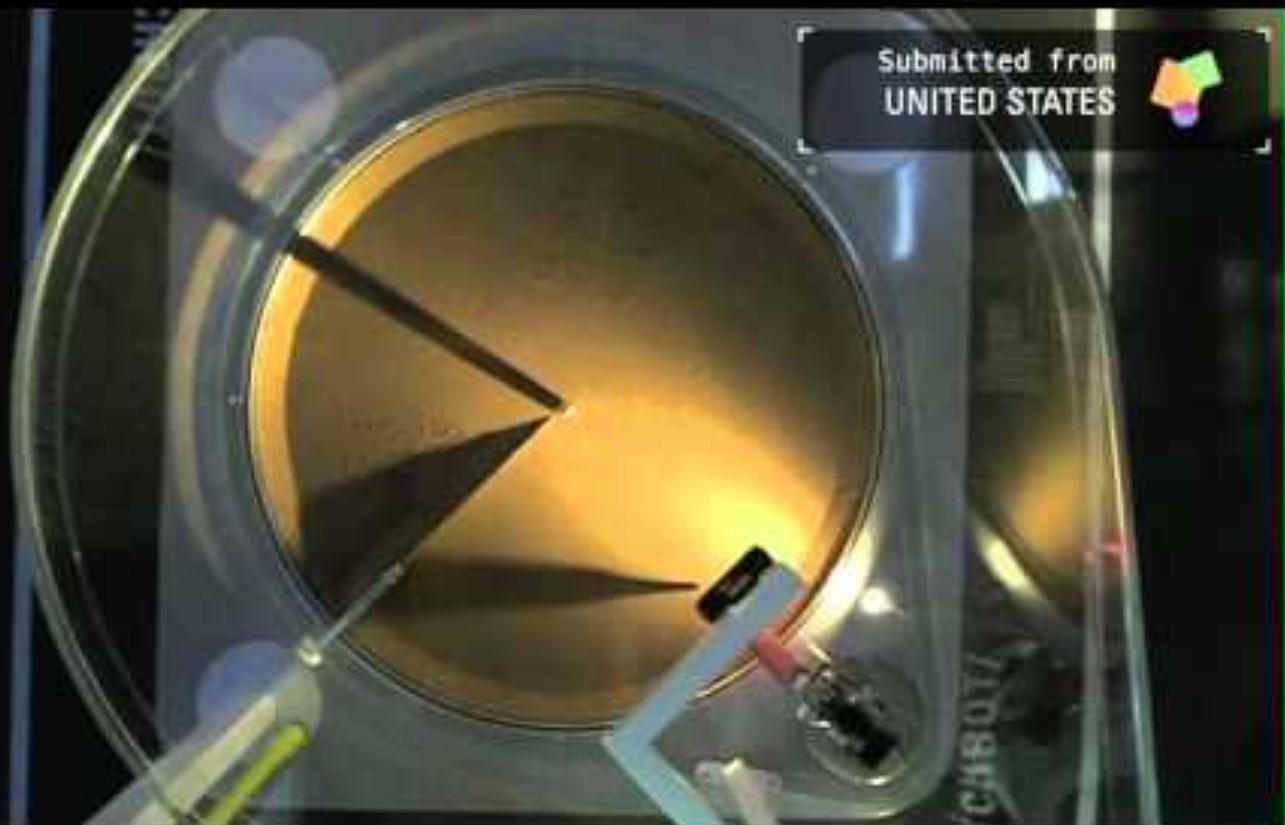




Material Choices



Submitted from
UNITED STATES



Inspiring Audiences



What does it show?

Click to watch the animation through a bee's eyes.

Sending Secret Signals

Bees and flowers communicate across the plant-animal divide.

Many plants sport yellow, white, or blue flowers to grab bees' attention. That's because bees can't see red. Flower petals may also have patterns visible only in ultraviolet light—patterns bees can see. They follow the patterns to the centers, pointing the way toward nectar. In return for the sugar treat, these pollinators spread the flowers' pollen.



Yellow flowers

Blue flowers

Ultraviolet patterns

Red flowers

White flowers



Santa Fe

Hundreds of waterfalls – The many rivers that bathe the mountains of Santa Fe National Park flow downhill from rock to rock by leaps and jumps, creating complex ecosystems and scenic beauties.



San Lorenzo

Triple protection! – First, it protected us from pirates; then, it held a military base that protected the Canal. Now that it protects our fauna, it's our turn to protect the San Lorenzo Protection Forest.

Protecting the Caribbean slope

Population 3.6 M

Protected area 32.1 %



ES



Imagine Preferable Futures







Environment and Sustainability Policy

Revision Date	Author
27 August 2015	Brian Hinch, Katie Schon, Matt Cottam, Dan Lockwood and Nick Scappaticci (writing by Brian Hinch)

Through its relationships with clients, and through its operations, Tellart has an opportunity to be an environmental caretaker.

To minimize its impact on the environment, Tellart shall:

- minimize waste in its operations
- be aware of the environmental and sustainability policies of its clients and vendors
- encourage active discussion of developing environmental problems and solutions proposed by the design community, science, industry and the arts
- whenever possible use non-hazardous chemicals, such as cleaners, markers and paints. When a hazardous chemical must be used, measures must be taken to dispose of it safely and in a way which prevents its introduction into the natural environment.
- recycle whatever we can, both through municipal recycling and by reusing leftover/scrap materials
- encourage our clients to use responsibly-manufactured products and materials
- meet or exceed its obligations under relevant environmental laws
- be aware of, and actively avoid direct use of, or use by its vendors of, materials found on the U.S. Green Building Alliance "**Red List**":
<https://www.go-gba.org/resources/green-building-methods/materials-red-list/>
- work toward establishing a giving program to help offset its environmental impact, such as [1% for the Planet](#).

Consider

- Where in your business do you generate the most waste? How might we make that visible or easier to understand? How might you transform this into an opportunity to recycle / reuse?
- What materials are you using? What might be a more environmentally friendly alternative?
- How might we create policies, standards, or initiatives to create a culture that's willing to prioritize sustainable measures?

Want to know more? We're in Providence!



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- [Cradle to Cradle: Remaking the Way We Make Things, McDonough & Braungart, 2002](#)
- <https://www.c2ccertified.org/>
- [Steelcase](#)
- [Accoya Wood](#)
- [Green Building Alliance Red List](#)
- [The triple layered business model canvas: A tool to design more sustainable business models](#)
- [Tellart.com](#)

RIMTA

Workshop

Part II

Sustainable Design Workshop

Laila Aukee
& Nick Scappaticci



2019 SOUTHERN NEW ENGLAND
MARINE INDUSTRY
ENVIRONMENTAL
CONFERENCE

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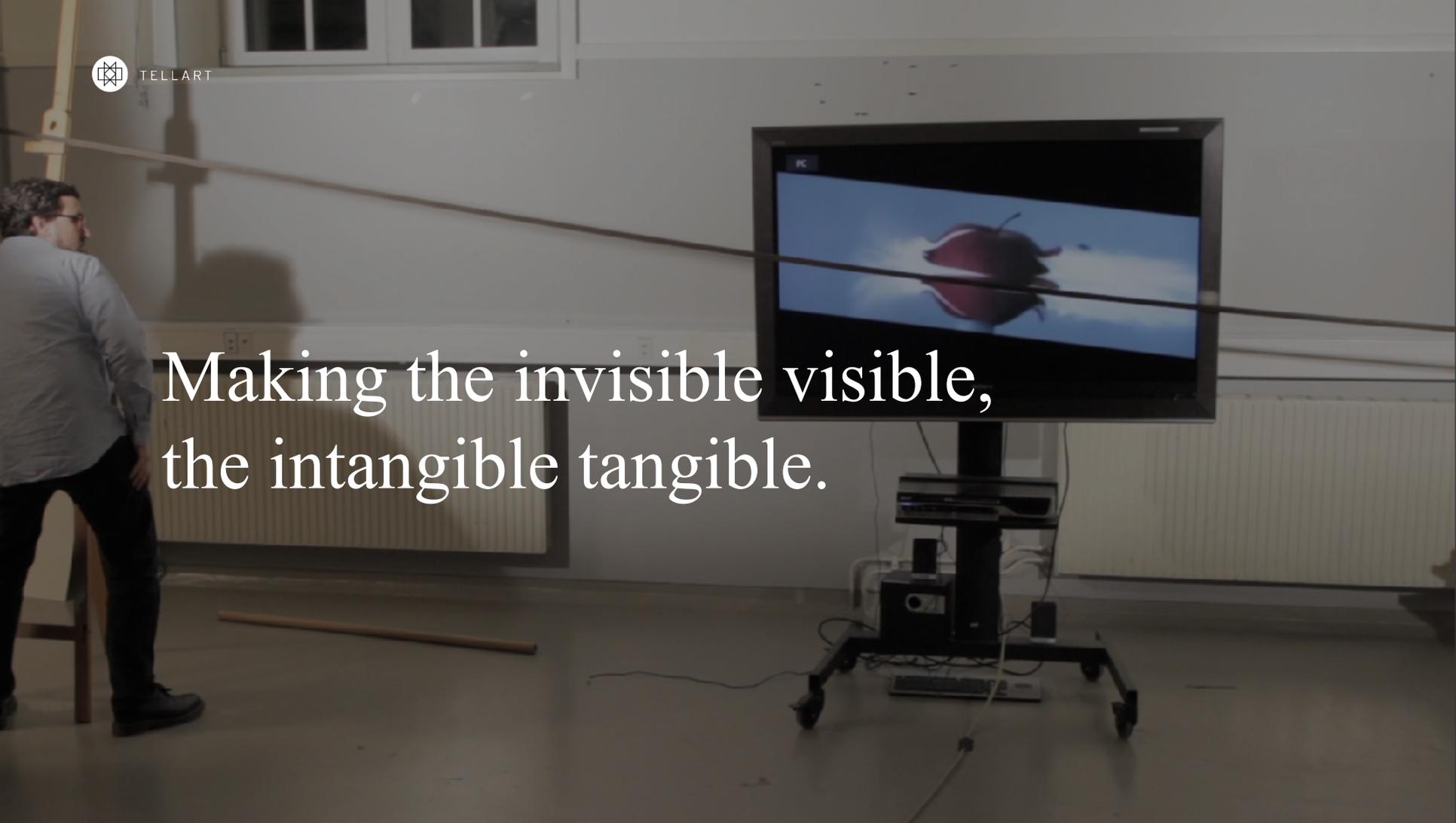
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SUSTAINABLE DESIGN WORKSHOP Part II

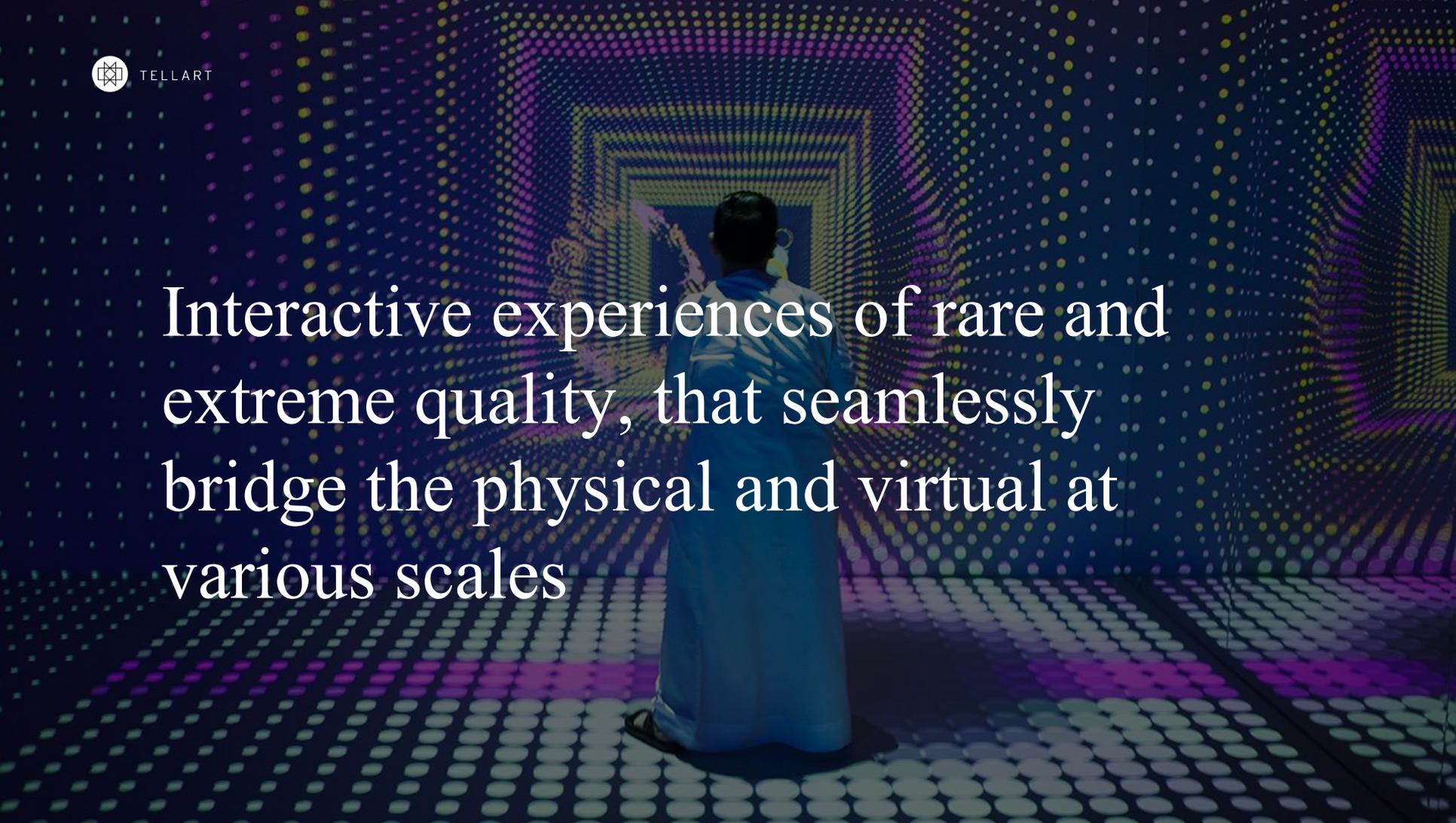
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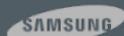
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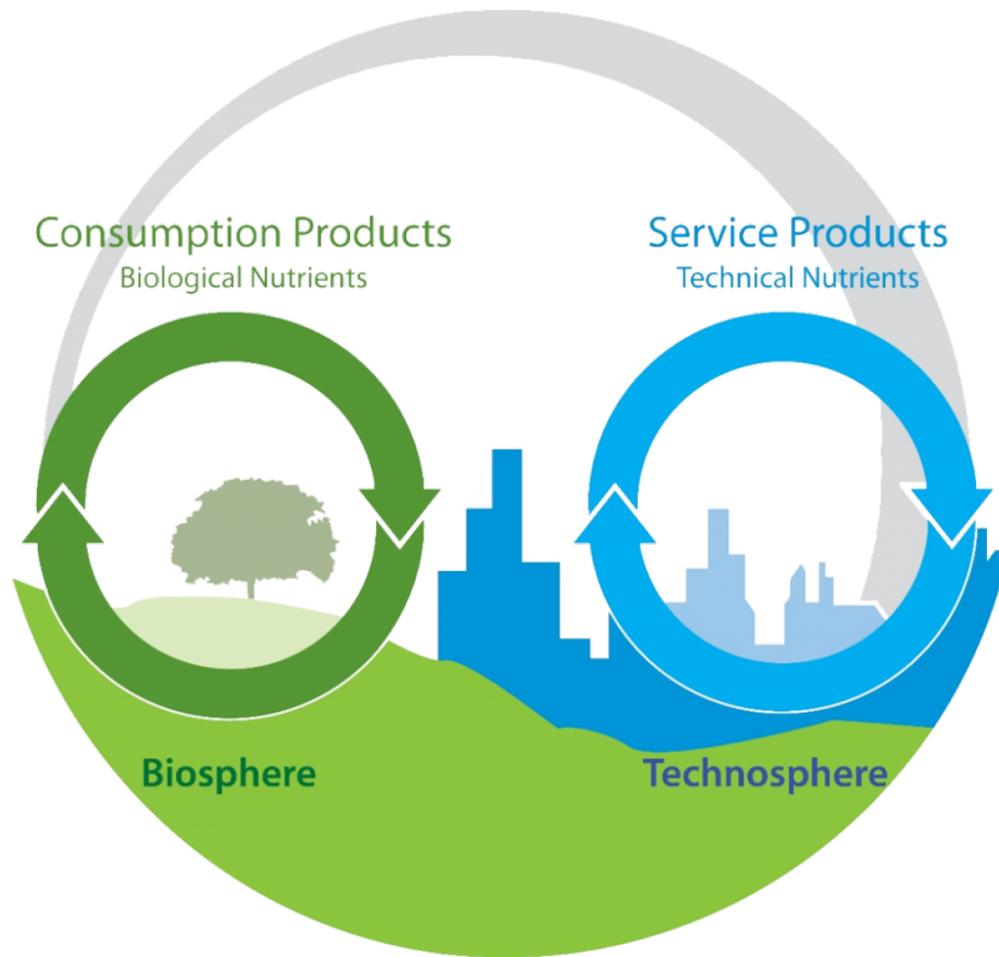
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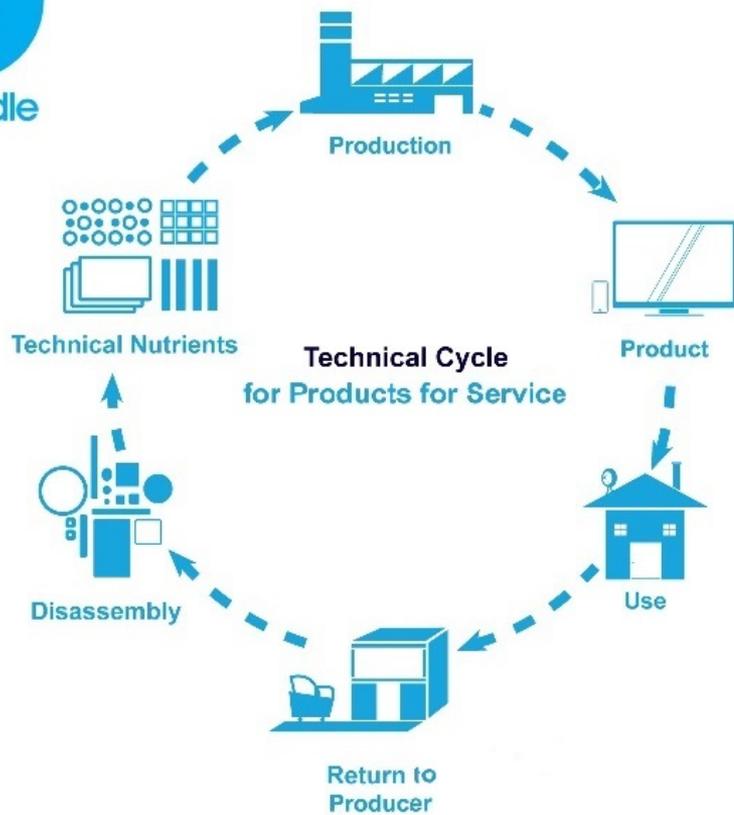
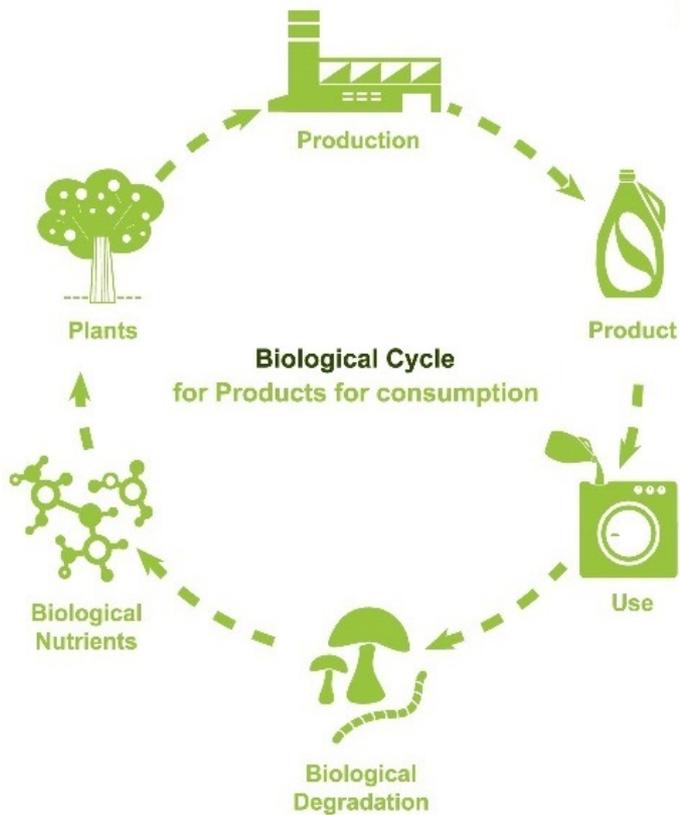
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RETHINK

Innovation New Uses

REUSE

with high quality

UPCYCLE

Quality Improvement

RECYCLE

Downcycling

REDUCE

Impact

+

0

-

ECO-EFFECTIVENESS

OPTIMISE POSITIVE IMPACT

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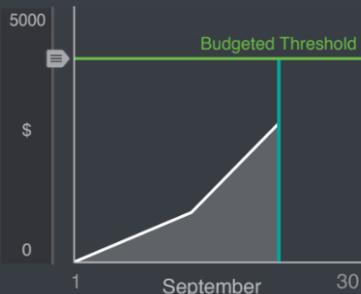
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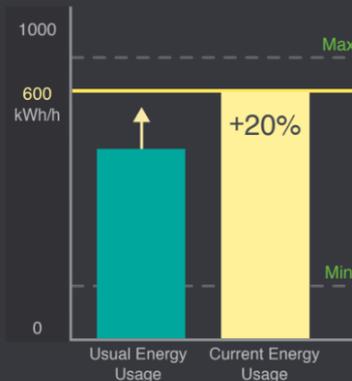
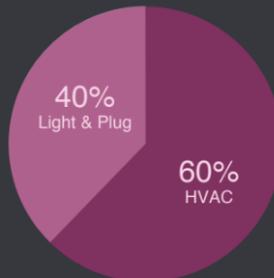
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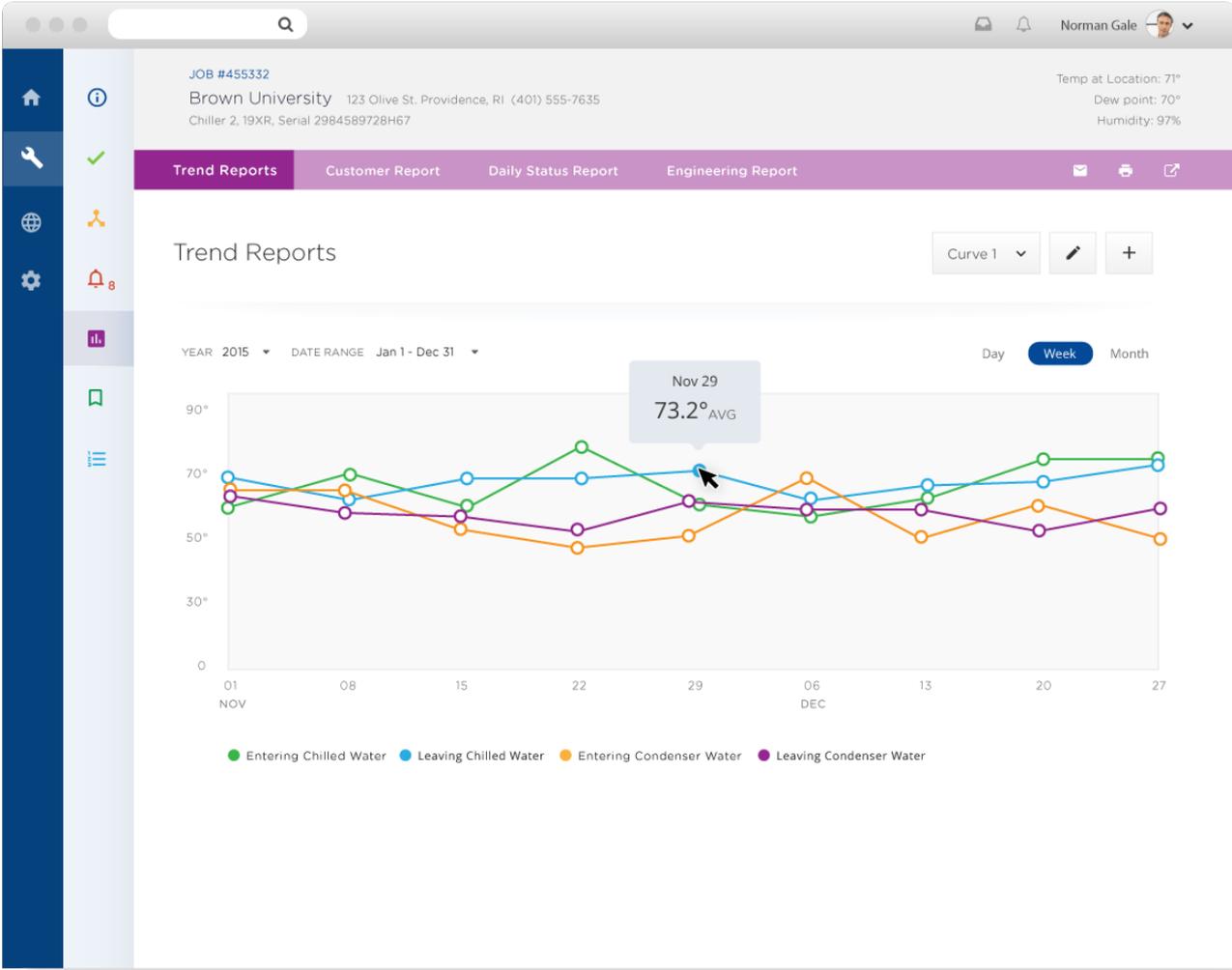
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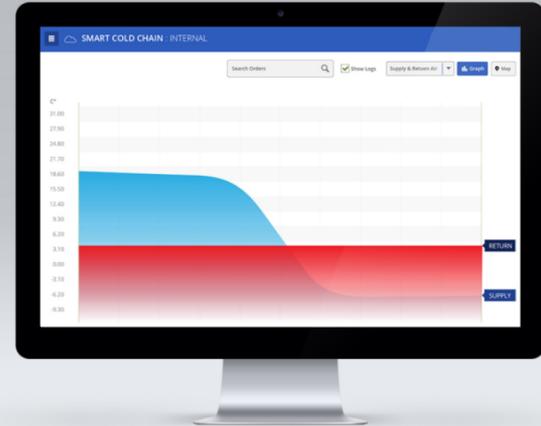
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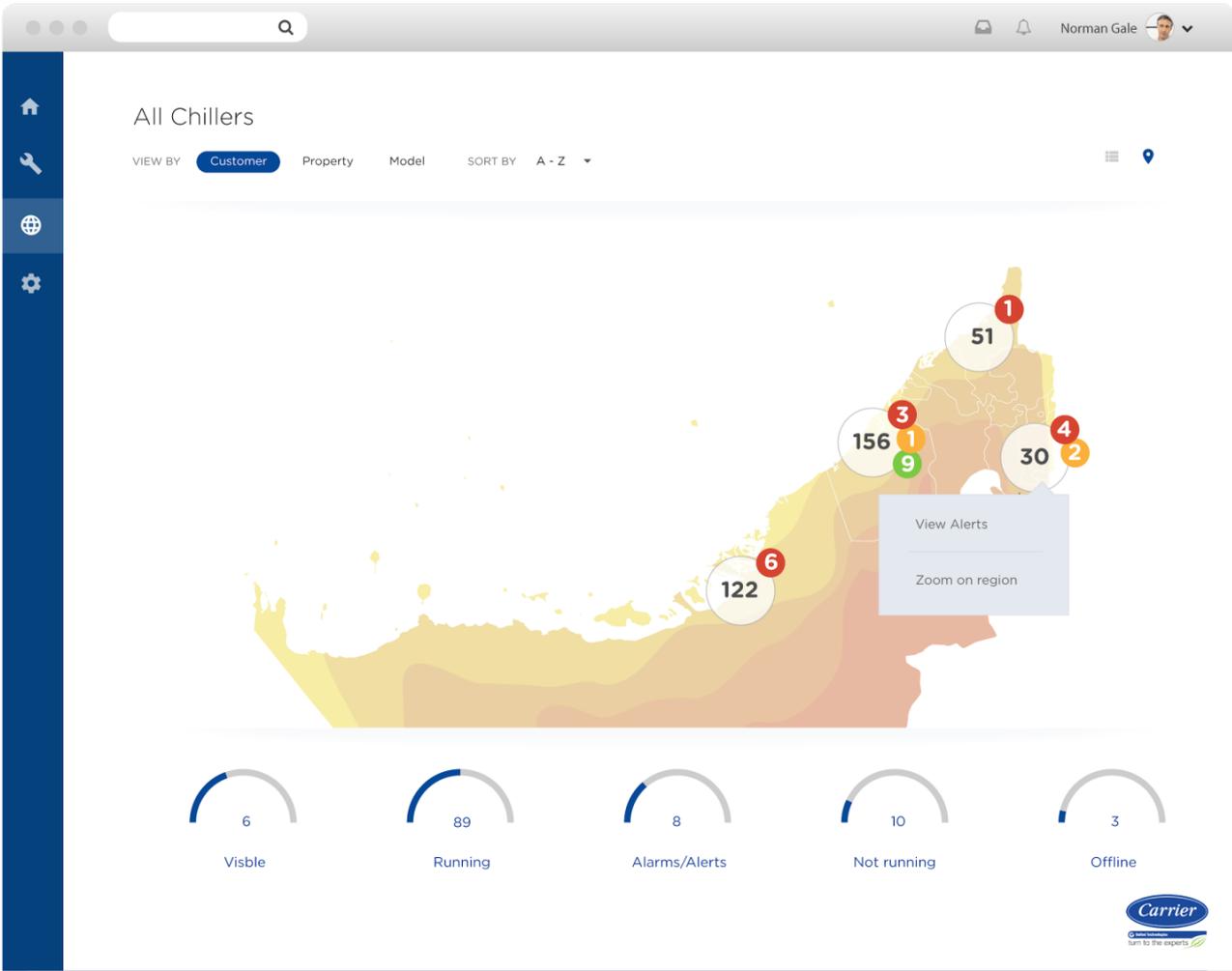


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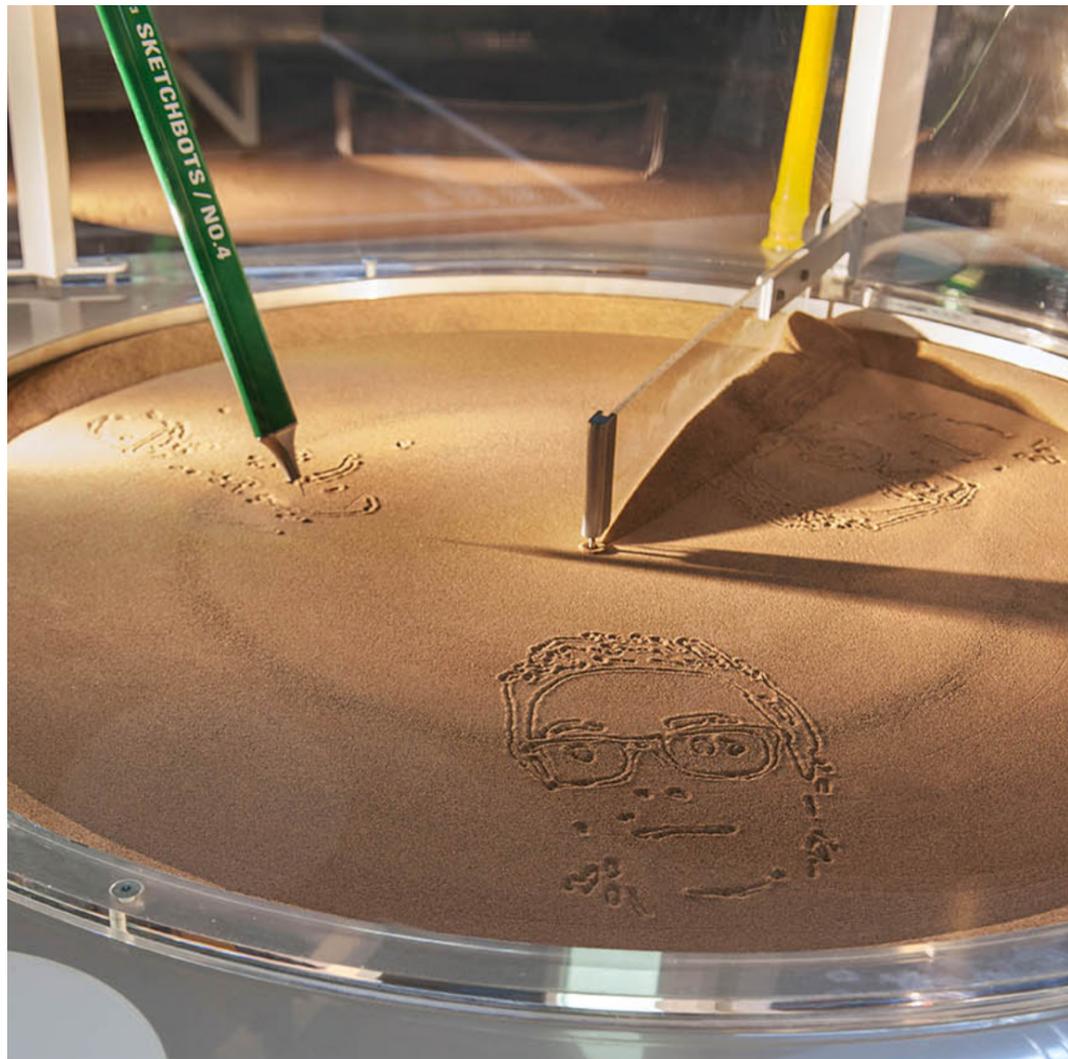


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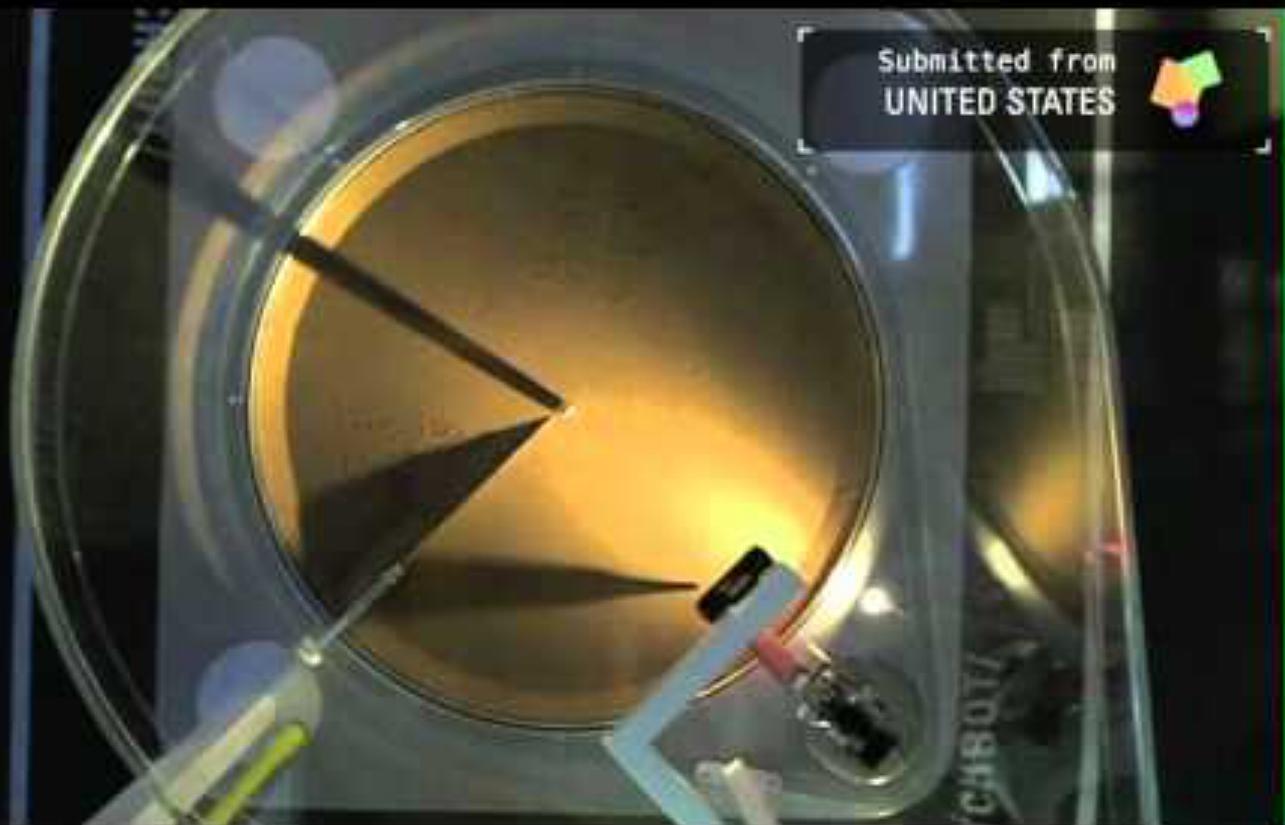




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UNITED STATES



Inspiring Audiences



Sending Secret Signals

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Ultraviolet patterns
Many flowers have patterns that are only visible in ultraviolet light. Bees can see these patterns and follow them to the nectar.

Color patterns
Bees can't see red, but they can see yellow, white, and blue. Many flowers have these colors to attract bees.

Ultraviolet patterns
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Protecting the Caribbean slope

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ES



Imagine Preferable Futures





ACTIVITIES

Supplies and Out-sourcing	Production	Functional Value	End-of-Life	Use Phase
	Materials		Distribution	
Environmental Impacts 			Environmental Benefits 	

News Headline:

Today **Organization 1** and **Organization 2** partnered to announce **Initiative Name** to help deal with **problem**. **Initiative Name** works by **solution**. It will help **positive**, but experts are concerned **criticism**. The service will be launched in **date and location**.

Share Out

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