## SUSTAINABLE BUSINESS FORUM

### The Customer Sustainability Interface: Challenges and Opportunities
March 29 & 30, 2023
Alumni Hall, 5th FL, Rm 531 unless noted otherwise – 4227 Fifth Ave, Pittsburgh, PA 15260

### Wednesday, March 29th

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tr>
<td>11:30-12:00</td>
<td>Registration and Light Lunch</td>
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<tr>
<td>12:00-12:30</td>
<td>Group Introductions, Opening Remarks</td>
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<td>CB Bhattacharya, CSB Director &amp; H.J. Zoffer Chair in Sustainability &amp; Ethics, Pitt</td>
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<tr>
<td>12:30-1:30</td>
<td>Breakout: Baselining [530A &amp; 530B]</td>
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<td>Where are we today in what people are spending with us and why?</td>
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<td>1:30-2:15</td>
<td>Academic Keynote: The Materiality of Sustainability in Consumer Decision-Making and Valuation</td>
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<td>Remi Trudel, Associate Professor of Marketing, Boston University</td>
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<td>Moderator, Trevor Young-Hyman, Assist. Professor of Business Admin. and Sociology, Pitt</td>
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<td>2:15-2:30</td>
<td>Break</td>
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<td>2:30-3:30</td>
<td>Panel: The Voice of the Customer</td>
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<td>Katie Miller, Senior Leader for Climate, U.S. General Services Administration</td>
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<td>Uma Patwardhan, Senior Sustainability Project Manager, JLL</td>
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<td>Aiyana Bodi, Senior Associate, Drawdown Labs</td>
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<td>Paul Vladuchick, Senior Design Engineer, Mitsubishi Electric Power Products, Inc.</td>
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<td>Moderator, Meg Haggerty, Senior Associate – Sustainable Finance, PNC</td>
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<td>Conversations will be divided by primary customer (Business, Consumer, Government) for focused discussions on handling customer journeys on sustainable products and services. What additional value could we be creating with customers if we were even more aligned to the safe and just space for humanity to thrive?</td>
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<tr>
<td>4:15-4:30</td>
<td>Break</td>
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<tr>
<td>6:00-9:00</td>
<td>Dinner Reception at The Porch</td>
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### Thursday, March 30th

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>8:30-9:00</td>
<td>Coffee, Pastries, and Your Burning Questions</td>
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<tr>
<td>9:00-10:30</td>
<td>Facilitated Workshop: SHIFT Framework to Build a Customer Education Plan</td>
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<td>Rishad Habib, Assistant Professor in Marketing, Toronto Metropolitan University</td>
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<td>Kickstart your Monday conversation by thinking of a customer centric problem you want to change and creating a customer education plan using the SHIFT framework. Discuss and brainstorm in small groups to identify strategies, then identify how to test and implement in the coming months.</td>
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<tr>
<td>10:30-10:45</td>
<td>Break</td>
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<td>Vanessa Miller-Fels, VP Environment and Climate, Schneider Electric</td>
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<td>Moderator, Grant Ervin, Director of ESG and Innovation, S&amp;B USA</td>
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<td>11:30-12:00</td>
<td>Key Takeaways</td>
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<td>Moderator, David Sanchez, Associate Director, Mascaro Center for Sustainable Innovation</td>
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<tr>
<td>12:00-12:15</td>
<td>Survey and Feedback</td>
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The spring Sustainable Business Forum is part of the **2023 Worldwide Teach-in on Climate and Justice**. This week, over 200 K-12 Schools, Colleges, Universities, and greater communities across the globe will participate in solutions-oriented dialogue to grow people with widespread climate despair into citizens with the agency to take action.

**Pre-Work Reading Material (recommended)**

We recognize that many of you will not have enough time to read extensively before the meeting. As such, we have carefully selected material to help you prepare for our discussions, keeping in mind the need to balance substantive contribution, readability, and technical expertise.

- **Nudging Consumers to Purchase More Sustainably**
- **Get Your Science Out of Here: When Does Invoking Science in the Marketing of Consumer Products Backfire?**
- **Strengthening B2B brands by signaling environmental sustainability and managing customer relationships**
- **The Elusive Green Consumer**, co-written by Workshop Facilitator, Professor **Rishad Habib**
- **Sustainable Consumer Behavior**, by Academic Keynote speaker, Professor **Remi Trudel**

**Where are CSB Members in facilitating the Customer Sustainability Interface today?**

*Out of 14 Member companies*

<table>
<thead>
<tr>
<th>Activity</th>
<th>Member Count</th>
<th>Total Count</th>
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<tbody>
<tr>
<td>Set internal targets for sustainability</td>
<td>14</td>
<td>14</td>
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<tr>
<td>Community engagement</td>
<td></td>
<td></td>
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<tr>
<td>Engaging Customers in terms of climate solutions</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>Employee education</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Supply chain transparency</td>
<td>7</td>
<td>7</td>
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<tr>
<td>Customer education</td>
<td>6</td>
<td>6</td>
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<tr>
<td>Publishes of sustainability reports on regular basis</td>
<td>5</td>
<td>5</td>
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<tr>
<td>Assist Customers (B2B, B2C) on achieving susty goals</td>
<td>4</td>
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<tr>
<td>Engaging CSB for customer oriented insights</td>
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SUSTAINABLE BUSINESS FORUM

The Customer Sustainability Interface: Challenges and Opportunities
March 29 & 30, 2023
Alumni Hall – 4227 Fifth Ave, Pittsburgh, PA 15260

IMPORTANT INFORMATION

| SBF Events Location | Alumni Hall – 4227 Fifth Ave, Pittsburgh, PA 15260, Room 531
Including Wednesday Lunch and Thursday Coffee
Please take the elevators at either end of the ground lobby up to the 5th floor. Off the main lobby on the 5th floor, go through the center doors towards the Executive Suites. All main events will take place in room 531. |
|---|---|
| Remote attendance will be provided for accessibility of this event | Day 1: Use this link for all events on Wednesday, March 29: [https://pitt.zoom.us/j/91988772463](https://pitt.zoom.us/j/91988772463)
Day 2: Use this link for all events on Thursday, March 30: [https://pitt.zoom.us/j/95297006676](https://pitt.zoom.us/j/95297006676) |
| Dinner Reception | Where: The Porch at Schenley, 221 Schenley Drive, Pittsburgh, PA 15213
When: 6:00 – 9:00pm
Per request for an opportunity for those able to join in person: please join us for dinner and camaraderie. |
| Wednesday, March 29th | Photography and Recording
We are taking pictures during the meeting. They will be used in the event summary and on our website. If you have any objections, please let us know.

We will be recording all sessions for archival purposes and distribution to attendees. If you have any objections, please let us know. We reserve the right to use short clips on our website or media to promote the center. |
| Zero-Waste Event | Compost and recycling bins will be provided for the duration of the event. Instructions will be given on site for how to sort your what you are done with onto its next life.

Please consider bringing a reusable water bottle and/or travel mug to help us minimize waste! |
| Transportation and Parking | Please consider taking public transportation or carpooling to the event site! In addition to being a more sustainable choice, parking in Oakland can be difficult. Alumni Hall is located on Fifth Avenue which is served by many bus routes.

Parking, [Soldiers and Sailors garage](http://www.soldiersandsailors.org) is closest at 4390 Bigelow Blvd. Pittsburgh, PA 15213.
Note: The garage entrance is located on Bigelow Blvd. Alternately, we recommend looking into what options you can reserve in advance on [ParkMobile](http://www.parkmobile.com) or similar apps. If you need a parking voucher, please contact [Emmy Ray](mailto:emmy_ray@pitt.edu) so that she can make arrangements. |

The Chatham House Rule reads as follows: When a meeting, or part thereof, is held under the Chatham House Rule, participants are free to use the information received, but neither the identity nor the affiliation of the speaker(s), nor that of any other participant, may be revealed.
The Chatham House Rule are invoked at meetings to encourage openness and the sharing of information.
SUSTAINABLE BUSINESS FORUM

The Customer Sustainability Interface: Challenges and Opportunities
March 29 & 30, 2023

DAY ONE: Wednesday, March 29th

11:30 AM - Registration and Light Lunch
12:00 PM Join us a few minutes early for a sandwich to get your day started and an opportunity to register for the day ahead.

HELP MAKE THIS EVENT ZERO WASTE
LOOK FOR THE COMPOSTABLE GREEN BAG

Please take a moment and fill out a brief survey to help us accurately track the climate impact of the SBF.

- Survey created by Graduate Student: Apurva Balekar

Notes:
SUSTAINABLE BUSINESS FORUM
The Customer Sustainability Interface: Challenges and Opportunities
March 29 & 30, 2023

12:00-12:30 PM - Priming

Group Introductions, Opening Remarks & Presentation

Dr. CB Bhattacharya is the H.J. Zoffer Chair in Sustainability and Ethics at the University of Pittsburgh. He is a world-renowned expert in business strategy innovation aimed at increasing both business and societal value. His book Small Actions Big Difference: Leveraging Corporate Sustainability to Drive Business and Societal Value is a guide that helps leaders accelerate their journey towards sustainable business models. With more than 49K+ citations to his name, he is recognized amongst the top 50 cited marketing scholars by Google Scholar. Dr. CB’s research focuses specifically on how companies can use underleveraged intangible assets such as corporate identity, sustainability, etc. to strengthen stakeholder relationships and drive value.

Notes:
SUSTAINABLE BUSINESS FORUM
The Customer Sustainability Interface: Challenges and Opportunities
March 29 & 30, 2023

12:30-1:30 PM – Breakout: Baselining [530A & 530B]

Peer Breakouts

- Where are we today in what people are spending with us and why?

Notes:
SUSTAINABLE BUSINESS FORUM
The Customer Sustainability Interface: Challenges and Opportunities
March 29 & 30, 2023

1:30-2:15 PM -
Academic Keynote

The Materiality of Sustainability in Consumer Decision-Making and Valuation

Remi Trudel is a consumer behavior researcher and professor at the Questrom School of Business at Boston University. His research interests focus on consumer well-being, with a particular emphasis on sustainability, health and diet, and personal finance. Trudel's work aims to provide consumers, marketers, and policymakers with the means to make better, more sustainable decisions for themselves, society, and the environment. He has published extensively in top academic journals, including the Journal of Consumer Research, the Journal of Marketing Research, and the Journal of Consumer Psychology. Trudel's research has been featured in numerous media outlets, including NPR, The New York Times, The Wall Street Journal, and Harvard Business Review. In recognition of his contributions, Trudel was awarded the Broderick Prize for Excellence in Research Scholarship at the Questrom School of Business in 2012, as well as the Broderick Prize for Outstanding Faculty Contribution to the Doctoral Community and Program in 2015.

Trevor Young-Hyman is an Asst. Professor of Business Administration and Sociology in the Katz School of Business at the University of Pittsburgh. His research examines the formal and informal organizational structures that shape knowledge-intensive work. His research explores a range of empirical contexts including engineering consulting firms, venture capital firms, startups, and French worker cooperatives. Trevor is a member of the Pitt Business Sustainability Committee.

Notes:
SUSTAINABLE BUSINESS FORUM
The Customer Sustainability Interface: Challenges and Opportunities
March 29 & 30, 2023

2:15-2:30 PM - Break

Notes:
SUSTAINABLE BUSINESS FORUM

The Customer Sustainability Interface: Challenges and Opportunities
March 29 & 30, 2023

2:30-3:30 PM - The Voice of the Customer

Panel

Katie Miller is the Senior Leader for Climate for the General Services Administration’s Federal Acquisition Service. Previously, she was the founder of Adaptive Futures, a consulting firm working with organizations to sustainably prepare for the impacts of climate change. Katie has also managed federal programs including increasing the number of alt. fuel vehicles in the federal fleet, launching the federal gov’t’s sustainable supply chain initiative, and ensured providers of a $50 bil. telecommunications contract for climate change risks. For these efforts, Katie received a Climate Champion award from President Obama.

Uma Patwardhan is a Senior Sustainability Project Manager at JLL’s Project and Development Services team located in Pittsburgh. She has extensive knowledge about different green building rating systems, such as LEED, WELL, WELL HSR, Fitwel, and Living Building Challenge. Previously, Uma worked as a third-party verifier for GBCI, where she conducted LEED reviews. She holds a Bachelor of Architecture from the University of Mumbai and a master’s degree in Sustainable Design from Carnegie Mellon University.

Aiyana Bodi is a senior associate at Drawdown Labs, where she collaborates with corporate partners and their staff to promote climate solutions in a more impactful way. Prior to joining Project Drawdown, Aiyana worked at Pacific Forest Trust, where she worked with policymakers and other stakeholders to strengthen forest conservation and climate policies at the state and federal levels. Aiyana has worked in various roles at environmental nonprofits and holds a Master of Public Administration in Environmental Science and Policy from Columbia University.

Paul Vladuchick is a Senior Design Engineer at Mitsubishi Electric Power Products, a leading supplier of equipment, systems, and services to utilizes and industrials in the U.S. and overseas. He specializes in high voltage switchgear design, testing and verification, simulation, and analysis. Paul’s previous experience includes contributing R&D and mechanical engineering expertise to ABB and Cymer. Paul holds a Mechanical Engineering degree from Grove City College.

Meg Haggerty is a Senior Associate on the Sustainable Finance team at PNC Capital Markets. Created in 2020, this team helps clients align its treasury and finance activities with the company’s ESG goals through the sustainable bond and loan issuances. Before joining the Sustainable Finance team in July 2022, Meg started her career in PNC Corporate & Institutional Banking on the Loan Syndications team in Debt Capital Markets. Meg holds degrees from Villanova University and a certificate in Environmental Sustainability from the University of Illinois Urbana-Champaign.
SUSTAINABLE BUSINESS FORUM

The Customer Sustainability Interface: Challenges and Opportunities
March 29 & 30, 2023

2:30-3:30 PM - The Voice of the Customer
Panel

Notes:
What additional value could we be creating with customers if we were even more aligned to the safe and just space for humanity to thrive?

Notes:
SUSTAINABLE BUSINESS FORUM
The Customer Sustainability Interface: Challenges and Opportunities
March 29 & 30, 2023

4:15-4:30 PM - Notes: Break
SUSTAINABLE BUSINESS FORUM

The Customer Sustainability Interface: Challenges and Opportunities
March 29 & 30, 2023

4:30-5:30 PM  Customer Education and Storytelling Around Sustainable Choices
Panel

Kim Frankovich is the VP of Sustainability at Griffith Foods Worldwide, Inc. Kim joined Griffith Foods in 2022 and brings over 15 years of experience in sustainability in the food and packaging industry with interests in preserving forests, human rights, and improving farmer incomes. Prior to joining Griffith, Kim worked on the Cocoa for Generations program at Mars Wrigley, established the sustainability strategy at Solo Cup Company. She holds a J.D. from Notre Dame and a B.S. in Economics from Westminster College.

Lucie Gordon is AVP, Associate Director, Proposal Services at Federated Hermes. Lucie oversees a team of 20 that is responsible for the asset management firm’s proposal, client due diligence and consultant database efforts, including ESG and sustainability-related requests. Lucie received a BA in English Writing and Communications from Saint Mary’s College in Notre Dame, Indiana and obtained her Fundamentals of Sustainability Accounting Credential from the Value Reporting Foundation (formerly SASB) in 2022.

Natalie Stewart is a Service Designer at Accenture and a seasoned strategist in UX and design with a strong focus on communication across cultures. Her expertise in creating products and designing for communities is influenced by her background in anthropology and sustainability. Natalie is currently based in Pittsburgh; her unique perspective and skills make her a highly sought-after speaker and consultant on cross-cultural design and UX strategy.

Jennie Roth is Global Marketing Project Manager at MSA Safety. She is a Marketing professional with a passion for ESG and leads a team of cross-functional associates to reduce energy consumption, waste to landfill, and natural gas utilization at MSA’s corporate campus in Cranberry.

Notes:
SUSTAINABLE BUSINESS FORUM

The Customer Sustainability Interface: Challenges and Opportunities
March 29 & 30, 2023

6:00-9:00 PM Dinner Reception at The Porch

Notes:
SUSTAINABLE BUSINESS FORUM
The Customer Sustainability Interface: Challenges and Opportunities
March 29 & 30, 2023

DAY TWO: Thursday, March 30th

8:30-9:00 AM Coffee, Pastries, and Your Burning Questions
Join us for coffee, local pastries (including GF and Vegan options!) to get your day started and discuss your burning questions with your peers, CB and the CSB team!

Notes:
SUSTAINABLE BUSINESS FORUM
The Customer Sustainability Interface: Challenges and Opportunities
March 29 & 30, 2023

9:00-10:30 AM  Workshop  SHIFT Framework to Build a Customer Education Plan
Kickstart your Monday conversation by thinking of a customer centric problem you want to change and creating a customer education plan using the SHIFT framework.

Discuss and brainstorm in small groups to identify strategies, then identify how to test and implement in the coming months.

*See Workbook for this session at the beginning of the Appendix Section

Rishad Habib is an assistant professor of marketing at Toronto Metropolitan University specializing in consumer behaviors. Her research focuses on the intersection of novel marketing practices, social norms, and prosocial behavior. She investigates how consumers react to shifting norms and novel marketing practices, and their effect on their prosocial and sustainable decision-making. She also explores managerial strategies to encourage positive behavior. She completed an MSc in Marketing and Consumer Studies from the University of Guelph and a Ph.D. in Marketing and Behavioral Science from the Sauder School of Business, at the University of British Columbia.

Notes:
SUSTAINABLE BUSINESS FORUM
The Customer Sustainability Interface: Challenges and Opportunities
March 29 & 30, 2023

10:30-10:45 AM  Break

Notes:
SUSTAINABLE BUSINESS FORUM

The Customer Sustainability Interface: Challenges and Opportunities
March 29 & 30, 2023

10:45-11:30 AM-
Industry Keynote Address

Vanessa Miler-Fels is VP of Environment and Climate at Schneider Electric. She is a leader in Global business, and technology and an investment leader in climate change and energy transition. She started her career working on the policy side with the French Ministry of Energy, before working in the UK for a green infrastructure fund, and then moving to the US to join Microsoft, initially leading its renewable energy procurement efforts including carbon reduction plans to be carbon negative by 2030. She now works with Schneider Electric to help achieve its sustainability targets.

Grant Ervin serves as the Chief Resilience Officer and Assistant Director for the Department of City Planning for the City of Pittsburgh. Grant oversees the integration of sustainability and resilience into City services, programs, and policy. He works to make the City of Pittsburgh a smart, sustainable, and resilient city by fostering partnerships, leveraging assets, and finding creative ways to solve problems.

Notes:
SUSTAINABLE BUSINESS FORUM

The Customer Sustainability Interface: Challenges and Opportunities
March 29 & 30, 2023

11:30-12:00 PM  Key Takeaways and Actions Come Monday

1. What did you learn?
2. What do you still have questions about?
3. What will you take back to your organization and do differently on Monday?
4. Themes for future meetings?

David Sanchez is the Associate Director of the Mascaro Center for Sustainable Innovation. He is responsible for building research and scholarly initiatives around Sustainable Water, Sustainable Food, Sustainable Innovation, and Global Engagement. Dr. Sanchez is also responsible for managing and directing MCSI's Faculty, Education, and Community Engagement programs, which include the John C. Mascaro Faculty program, the Len Peters Faculty Fellows, the Community Education Fellows, the Master’s in Sustainable Engineering, the university-wide undergraduate certificate in sustainability and the Student Sustainable Innovation Fund. He also oversees the undergraduate and graduate sustainability curriculum and our K-12 programming.

Notes:
SUSTAINABLE BUSINESS FORUM
The Customer Sustainability Interface: Challenges and Opportunities
March 29 & 30, 2023

12:00 – 12:15 PM  Survey and Feedback

Notes:
SUSTAINABLE BUSINESS FORUM
The Customer Sustainability Interface: Challenges and Opportunities
March 29 & 30, 2023

APPENDIX

Contents
SHIFT Workbook ................................................................................................................................. 22
Research Collaborations & 2023 Fellow Details ............................................................................ 28
Compendium of Papers and Courses ............................................................................................... 29
Glossary of Useful Terms .................................................................................................................. 31
Attendees List ................................................................................................................................... 33
NOTES: ................................................................................................................................................ 36
Understanding the process of using the SHIFT framework

The steps to using the SHIFT framework are highlighted in Figure 1. Note that the first three steps involve setting the stage to be able to think about and implement the SHIFT framework. Before you can think about what specific tools to employ you must have an in-depth understanding of the context and the behaviour you wish to change, the target market and other elements such as the key barriers and benefits.

It is important to remember that no single consumer behaviour change tool works “best.” Rather, the most effective strategy is to consider the specific consumer behaviour you wish to change, the specific context and the intended target segment, as well as the barriers and benefits associated with changing the existing behaviour and adopting a new sustainable consumer behaviour. This is key to using the SHIFT framework to effect positive sustainable consumer behaviour change.

FIGURE 1
SUMMARY OF THE STEPS IN THE SHIFT FRAMEWORK

<table>
<thead>
<tr>
<th>Steps to using</th>
<th>S H I F T</th>
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<tbody>
<tr>
<td><strong>STEP 1</strong></td>
<td>Clarify the context</td>
</tr>
<tr>
<td><strong>STEP 2</strong></td>
<td>Select the target segment</td>
</tr>
<tr>
<td><strong>STEP 3</strong></td>
<td>Determine the details</td>
</tr>
<tr>
<td><strong>STEP 4</strong></td>
<td>Select and apply the tools</td>
</tr>
<tr>
<td><strong>STEP 5</strong></td>
<td>Test your strategy</td>
</tr>
<tr>
<td><strong>STEP 6</strong></td>
<td>Implement your plan</td>
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</table>

- **STEP 1**: Clarify the context
- **STEP 2**: Select the target segment
- **STEP 3**: Determine the details
- **STEP 4**: Select and apply the tools
- **STEP 5**: Test your strategy
- **STEP 6**: Implement your plan

Think about the context, your goals and the behaviour

Identify your target market

Determine the specific needs, barriers and benefits

Take SHIFT tools that reflect your context, target, barriers and benefits

Pilot your strategy. You may need to return to a previous step

Implement your plan and evaluate outcomes
**STEP 1**

**Clarify the context**

**IN THIS STEP** It is important to think about the sustainable consumer behaviour you wish to accomplish. Be specific about what sustainable consumer behaviour you wish to influence. Rather than saying "I want my customers to be sustainable", you might say "I want my customers to purchase our new technology", "I want my customers to use this product more effectively," or "I want my customers to bring back the packaging, so it can be repurposed". Be clear on what your objectives are. In addition, consider the context in which the behaviour will take place. Is it public or private? Do you want to encourage short-term changes or long-term changes? Think about the full nature of the context in which the desired sustainable consumer behaviour will occur.

1. What are your (or your organization’s) higher-level goals and objectives for the behaviour change plan? Why are these important?

2. What is the specific sustainable consumer behaviour that you wish to promote? Does it fit with your higher-level goals?

3. Are there other elements of the situation or context that are important? Are there regulatory factors or other contextual factors that are relevant here? What characteristics does your focal sustainable behaviour have (e.g., is it public or private, is it short-term or long-term, is it low-involvement, or high-involvement?). Is it possible to measure the behaviour you wish to influence? Can you monitor changes in the behaviour over time?
Has your organisation tried to influence similar behaviours in the past? Were past efforts successful? Why or why not? Are there any insights from this analysis? Who else do you need to talk to before moving forward?

**STEP 2**

**Select the target segment**

**IN THIS STEP** It is important to think carefully about the specific group of consumers you wish to influence or appeal to. Why have you chosen this group? Consider the characteristics of your selected consumer segment. What are they particularly motivated by? What specific needs and wants do they have? Are there specific types of messages that would best resonate with them? Specific research might be done to better understand your target segment and their needs, as well as what they see as key barriers and benefits (see Step 3).

**A)** What specific group of consumers do you wish to target and why? Consider if there is a particular segment that might be relevant in terms of being accepting of your particular message, product or service. It could also be worth considering whether a given target will make a bigger impact based on their behaviour change.
STEP 3

Determine the details

**GIVEN WHAT HAS BEEN** uncovered in Steps 1 and 2, you should consider the specific barriers to behaviour change (as well as potential benefits to behaviour change). Why wouldn’t consumers want to engage in the identified sustainable behaviour? What are the possible barriers to adoption of the product, service or behaviour? The best way to answer this question is to first look at existing research — does it have anything to say about barriers in your specific domain? The second step is to ask your current or desired customers. Different techniques, such as observation, surveys, interviews, focus groups etc., could be used for this purpose.

A) What has your research told you about the wants and needs of your target market?

B) Based on your research, what does your target market see as the benefits of adopting the given sustainable product, service or behaviour?

C) Based on your research, what does your target market see as the barriers to adopting the given sustainable product, service or behaviour? Also, what are the barriers to giving up the existing behaviour?
**STEP 4**

**Select and apply the tools**

**SELECT TOOLS** that make sense given the **behaviour and the context**, the **target and the specific barriers and benefits** associated with behaviour change. Please turn to Section C of this Workbook for an in-depth examination of the SHIFT framework and the different tools.

Given what you have identified in Steps 1-3, what elements of the **SHIFT** model (**Social influence**, **Habit formation**, the **Individual self**, **Feelings and cognition**, and **Tangibility**) are most relevant for you? There are different ways you can go about selecting specific strategies, but here are some ways of doing it.

---

A) **Given what you uncovered in Steps 1–3**, is there an element of the **SHIFT** framework that would be particularly compelling for your selected target audience/behaviour/context? For example, perhaps given that your target market is teenagers, you might determine that social factors are important.

---

B) **Given the barriers to behaviour change that you have identified**, are there elements of the **SHIFT** framework that are particularly relevant? For example, if the existing negative behaviour is very habitual in nature, you might want to consider habit tools. If it is clear that social norms are dictating current behaviour, you might want to think about ways to change perceptions of social norms. List any potential factors that are linked to barriers here.

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C) **Given the benefits to behaviour change that you have identified**, are there elements of the **SHIFT** framework that are particularly relevant? For example, if one of the benefits a new product is offering is a health benefit, in addition to a sustainable benefit you might consider communicating this to a relevant target audience. List any potential factors that are linked to benefits here.
D) Taking all of a-c together and considering the description of the SHIFT framework in Section C of this Workbook, are there relevant strategies that can appeal to the target market, while also considering the behaviour, the context, the barriers and the benefits? It can be worth thinking about strategies that might at the same time resolve two or more important barriers or that might resolve a barrier and highlight a benefit at the same time.

E) Thinking about a-c above, which aspects of the SHIFT framework make the most sense for you? What overall strategy makes sense for you?

F) How might you use specific tools/tactics to implement your strategy? Think about the pros and cons of different alternatives.
SUSTAINABLE BUSINESS FORUM
The Customer Sustainability Interface: Challenges and Opportunities
March 29 & 30, 2023

Research Collaborations & 2023 Fellow Details
In addition to benchmark analysis and strategy recommendations on ESG risks and opportunities; each Gold Member had their own tailored foci:

**Ansys – Bishal Dasgupta:**
Built the business case to establish an ESG function to focus on the overlap of sustainability and cyber security for its customers.

**CONSOL Energy – Spandan Ghosh:**
Analysis and recommendations on corporate policies (human rights, conflict minerals, biodiversity, etc.) in order to excel on the Bettercoal commitment for customers.

**Ingevity – Ziyi Song:**
Independent, academic thought partner for customer pilot study; review the impact, distill learnings publicly, and recommends next steps. This project is a collaboration that grew up between CSB member companies Ingevity and People’s Gas.

**Lawyers for Net Zero – Kelly (Yi-yu) Lu:**
Developed an automated project management system catering to both internal and external stakeholders. The system facilitates exponential growth while ensuring optimal utilization of internal resources.

**MSA Safety – Justin Thomas:**
Working to identify ways to engage the employee base with the company's environmental goals through education, awareness, and providing opportunities to get involved within the company and the community.

**People’s Gas – Evelyn (Zixuan) Wang:**
Expanding the tools in their portfolio for customers to decarbonize their energy use; including strategies for how does Peoples transition, how do we ensure energy is affordable and equitable, as well as how to take the burden off the grid in the transition to electrify everything.

**PITT OHIO – Aman Sardana:**
Acquired a 500-acre parcel of land in the Pittsburgh region and is working with the CSB to identify ecological and societal regenerative opportunities above and beyond the legal minimums, turning this liability into an asset for all.

**Tarkett – Kartikey Shukla:**
Analysis of supply chain climate data and recommendations on environmental product declarations (EDPs) for customer awareness.
SUSTAINABLE BUSINESS FORUM
The Customer Sustainability Interface: Challenges and Opportunities
March 29 & 30, 2023

Compendium of Papers and Courses
Purpose
There are still many, many things we do not know about how taking a more sustainable approach to business can lead to better financial, social, and environmental outcomes for a wider range of stakeholders. We aspire to make the Center for Sustainable Business a world-renowned hub for applied research in the field of sustainable business models.

The Center solicited submissions from around the globe to recognize the best sustainable business practices within any institute. This compendium will be shared with senior leaders attending our Spring Sustainable Business Forum and published via the Center.

Where we solicited from
• Green Schools List
• NBS SCC (Network for Business Sustainability- Sustainability Centres Community)
• SDSN (the UN Sustainable Development Solutions Network)

Criteria for inclusion
• Date range after January 2022
• Courses OR Research Papers / Working Papers
• Related to Sustainable Business

Working Paper: “Managing uncertain inventories, washing, and transportation of reusable containers in food retailer supply chains”
- Lam Family College of Business, San Francisco State University

This article discusses the challenges faced by food retailers in managing the inventories, washing, and transportation of reusable containers in their supply chains. Using reusable containers can help reduce waste and improve environmental sustainability, but it also creates uncertainty in terms of inventory management and cleaning requirements. They propose a mathematical model to help food retailers manage their inventory of reusable containers, as well as the washing and transportation processes. The model considers various factors such as the demand for products, the number of reusable containers available, the cost of washing and transporting the containers, and the potential for loss or damage. Examples demonstrate the effectiveness of the proposed model in managing the uncertainty associated with the use of reusable containers. There is a potential cost savings by optimizing the inventory, washing, and transportation while improving operational efficiency, reducing waste, and achieving sustainability goals.
Course: “Seminar Course on Sustainability and Strategic Audit”
- University of Asia and The Pacific

This seminar course is delivered by sustainability professionals at the Center for Social Responsibility (CSR) at UA&P. It aims to equip fourth-year students pursuing a BS in Management or Accountancy with complementary knowledge to the technical and managerial competencies acquired through other classwork. Students study Sustainability as a Strategy, which includes the different tools of non-financial corporate reporting and emphasizes the importance of Sustainability and Strategic Audit in Corporate Governance. At the end of the course, students will be able to define and differentiate sustainability from CSR, understand its concept in the context of the corporation, determine the importance and implications of sustainability in Corporate Governance and its integration into business strategy, relate the impact of climate change on business, and understand the financial risks and opportunities that come with this impact.

Course: “The Economics of Human Rights”
- University of Pittsburgh

This seminar course explores the responsibility of private businesses to respect human rights globally using economic theory. It aims to improve students’ expertise on a complex economic issue through reading, research, analysis, discussion, and improving their writing and presenting skills. Students also gain practical experience by creating a case study including researching a corporation, applying economic analysis to complex social and business issues, and engaging in constructive debate about those issues. The goal of the case study is to give students a deeper perspective on the complexity of business interaction with human rights by researching human rights policies and issues for one company and by working together to summarize and present the results of the class research.

Course: The UN SDGs and Corporate Purpose: Partnering to Deliver Shared Value in Africa
- Gordon Institute of Business Science, University of Pretoria

The course explores the shift from a shareholder model to a stakeholder model and the importance of creating sustainable businesses with strategies that make a profit and have a purpose. It covers embedding the SDGs into business strategy, executing strategies to address global challenges, and the role of partnerships in delivering shared value for multiple stakeholders, particularly in the African context. The course emphasizes the need for businesses to develop the art of partnership and work together towards common goals to contribute to the SDGs and create prosperity and a better world for people and the planet.

EmpowHER: Career Development Program for Women in Sustainable Finance (Course)
- NYU Stern Center for Sustainable Business

The NYU Stern Center for Sustainable Business has launched a career development program for women in sustainable finance called EmpowHER. The program aims to help a diverse group of professionals build their financial expertise and networks, creating the foundation for gainful career opportunities in sustainable investing. The two-year leadership development initiative for MBA students includes intensive training on ESG issues, hands-on learning experiences, employer engagement, networking opportunities, and mentorships. The program is designed to address the demand for sustainability-related financial expertise to manage the growth of ESG investments, which currently account for 1 in every $4 invested in the US.
SUSTAINABLE BUSINESS FORUM
The Customer Sustainability Interface: Challenges and Opportunities
March 29 & 30, 2023

Glossary of Useful Terms
1. **Biodiversity net gain**: Development should leave the natural environment in a measurably better state than it was before.
2. **Biodiversity**: The variety of living organisms in a particular habitat or ecosystem, including species diversity, genetic diversity, and ecosystem diversity.
3. **Carbon footprint**: The amount of greenhouse gases, primarily carbon dioxide, emitted by an individual, organization, or product.
4. **Carbon intensity**: The amount of GHG emissions per unit of economic activity, such as per unit of GDP or per unit of energy consumed.
5. **Carbon offset**: Compensating for the emissions of greenhouse gases by investing in projects that reduce or remove an equivalent amount of greenhouse gas emissions elsewhere. Looser denotation and worse connotations than Carbon Removal.
6. **Choice architecture**: To the different ways a decision can be presented to consumers.
7. **Circular economy**: Based on 3 principles, driven by design: 1) Eliminate waste & pollution, 2) Circulate products & materials (at their highest value), 3) Regenerate nature. It decouples economic activity from the consumption of finite resources.
8. **Construal level**: People construe future events differently from present events. Either make the future more salient in the present or have consumers process more abstractly and with a future focus.
9. **Customer relationship management (CRM) practices**: A firm’s ability to identify attractive customers and prospects, initiate and maintain relationships with attractive customers, and leverage these relationships into customer level profits.
10. **Decarbonization pathway**: A plan or strategy for reducing GHG emissions and transitioning to a low-carbon economy, including targets, policies, and technologies.
11. **Defaults**: requiring consumers to actively opt out of something if they do not want it.
12. **Ecosystem services**: Benefits that humans derive from natural ecosystems, such as air and water purification, pollination, and soil formation.
13. **GHG emissions**: Abbreviation for GreenHouse Gas emissions.
14. **Greenwashing**: The practice of making unsubstantiated or misleading claims about the environmental benefits of a product or service. Subset of Causewashing.
15. **Hedonic brands, products, and attributes**: These focus on positive sensory and affective experiences; associated with higher levels of warmth.
16. **Incentives**: Use of motivational devices such as competitions, games, premiums, etc… to promote a sale. Extrinsic incentives may also undermine consumers’ intrinsic desire to adopt a behavior.
17. **Life cycle assessment**: A systematic analysis of the environmental impacts of a product or service over its entire life cycle, from raw material extraction to disposal.
18. **Loss aversion**: People’s tendency to prefer avoiding losses over making equivalent gains. This can help marketers frame choices by communicating what’s at stake.
19. **Nature positivity**: The principle of enhancing and conserving the natural environment, rather than just minimizing harm or reducing negative impacts.
20. **Nature-based solutions**: Using natural ecosystems or processes to address environmental challenges, such as carbon sequestration through reforestation and afforestation.
21. **Net-Zero**: Corporate net-zero targets can mean 1) achieving a scale of value chain emissions reductions consistent with 50% near term and 90% long term, and 2) neutralizing residual emissions by permanently removing equivalent volume of CO2.

22. **Norms, Descriptive**: Characterized by the perception of what people commonly do.

23. **Norms, Injunctive**: Characterize what consumers ought to do and what is commonly approved or disapproved by a social group.

24. **Nudges**: Positive reinforcements, small suggestions, or changes in choice architecture intended to influence the behavior of consumers.

25. **Plausible deniability**: If people can find an excuse for not doing the right thing when it is inconvenient, they are likely to take it, even subconsciously.

26. **Prompts**: Reminding people to engage in desired behaviors. Prompts work best when they are easy to understand and received where/when the behavior will take place.

27. **Science-based targets**: GHG emissions reduction targets that are consistent with the level of decarbonization required to limit global warming to 1.5°C above preindustrial levels.

28. **Scope 1-3 emissions**: Scope 1) GHG emissions from sources that are owned/controlled by an organization, such as from combustion of fuels on-site. Scope 2) emissions from the generation of purchased electricity, heat, or steam consumed by an organization. Scope 3) emissions from sources that are related to the organization’s activities, such as emissions from purchased goods/services, business travel, and employee commuting.

29. **Self-identification**: Benefits that consumers seek by signaling information about themselves to others.

30. **Self-signaling**: Provides a positive self-image without regard to the perceptions of others.

31. **Slacktivism**: When consumers are asked to make smaller (often online) commitments to a cause, which may lead to them being less likely to engage in a larger task later.

32. **Social influence**: The change in a person’s attitude or behavior resulting from the influence of others in a group. Collectively, social influence, and social norms, powerfully influence sustainable behaviors.

33. **Social proof**: A descriptive social norm providing proof of how people actually behave. When people are unsure how to behave, they may look to others and “view a behavior as correct in a given situation to the degree that they see others performing it.”

34. **Spillover, Negative**: A sustainable action may lead someone to subsequently behave less sustainably. Termed *licensing*, this occurs when a consumer feels that an initial ethical action confers permission to behave less virtuously in the future.

35. **Spillover, Positive**: People like to be consistent, so if they adopt one sustainable behavior, they are often apt to make other positive changes in the future.

36. **Status quo bias**: People’s preference for the current state because any changes to the status quo are perceived as a loss to be avoided.

37. **Sustainable development**: Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

38. **Sustainable land use**: Land use practices that balance the needs of human development with the conservation and restoration of natural ecosystems.

39. **Triple bottom line**: A framework for evaluating the performance of an organization based on three factors: social, environmental, and economic.

40. **Utilitarian brands, products, and attributes**: These focus on instrumental outcomes and fulfilling a particular function; associated with higher levels of competence.

41. **Water footprint**: The amount of water used to produce a product or service, including both the water consumed directly and the water used indirectly in the production process.
SUSSUSTAINABLE BUSINESS FORUM
The Customer Sustainability Interface: Challenges and Opportunities
March 29 & 30, 2023

Attendees List

Accenture
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Ansys
Cassie Yaeger, ESG Program Lead

Boston University
Remi Trudel, Associate Professor of Marketing

CNX
Joe Fink, VP New Technologies
Matt Maione, Senior Engineer

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Brady Kovalchuk, Manager, Operations Programs
David Bokash, Manager, Large Customer Relations
Ned Leppo, Major Accounts Manager (Remote)

CONSOL Energy
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Jacquie Fidler, VP, Environmental & Sustainability
Jessica Moore, Senior Corporate Accountant

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Liz Vescio, ESG Advisor
Olivia Zietz, Business Immersion Program

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SUSTAINABLE BUSINESS FORUM

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March 29 & 30, 2023

NOTES: