

An aerial photograph of a city, likely Columbus, Ohio, featuring a prominent tall, Gothic-style building in the center. The city is surrounded by green spaces and other urban buildings. The sky is overcast with grey clouds.

# Small & Medium Business Summit

**Managing Change Throughout Uncertainty**

**Fall 2024**

**Dr. John Camillus, Faculty Director**  
**Chris Gassman, Executive Director**  
**Madeline Fitzgerald, Program Manager**

# Housekeeping

- We operate under **Chatham House Rule**
- This event is recorded for notetaking purposes only
- Photography is allowed
- Please tag us @PittCSB for social media posts
- **To access Wi-Fi, please join "Pitt Guest WiFi" and accept terms of use**
- **Breaks for calls, fresh air, peer to-peer conversations, and refreshments are incorporated into the agenda**



**Access the event workbook for the detailed agenda, speaker bios, and attendee list!**

# Agenda



## Introductions & Overview

**Dr. John Camillus**  
University of Pittsburgh



## Fireside Chat on Change Leadership

**Bernard Brown**  
Empire Diversified Energy  
**Professor Kim Abel**  
University of Pittsburgh



## Panel Discussion on Change in Appalachia

**Professor Leon Valdes**  
University of Pittsburgh  
**Rebecca Bykoski**  
Sustainable Pittsburgh  
**Petra Mitchell**  
Catalyst Connection  
**Trevor Young-Hyman**  
University of Pittsburgh  
**Megan Zeigler**  
SWPA Hub



## Collaborative Activity: Creating Change Action Plans



## Research Presentations: CSB Fellows

**Harsh Nallanthigal**  
Carnegie Mellon University  
**Ben Stanton**  
HWI, a member of Calderys  
**Abby Bonilla**  
University of Pittsburgh  
**Mohit Dewan**  
University of Pittsburgh



# Introduction & Overview

**Dr. John Camillus**

**Chris Gassman**

**Madeline Fitzgerald**



# Center for Sustainable Business

## P U R P O S E

The CSB partners with companies to innovate and implement resilient, responsible, and profitable business strategies that overcome societal, technological, environmental, and economic disruptions

## M I S S I O N

### We identify and innovate best practices

We synergize economic value with social benefit through cutting-edge research and practical solutions

### We cultivate a dynamic Community of Practice

We bring together businesses, academics, policymakers, and community leaders to solve problems collaboratively and build resilient strategies

### We access and apply collective wisdom

We pool the deep and diverse knowledge of the community and research organizations, as well as the research capabilities of the University of Pittsburgh

# Center for Sustainable Business Offerings

## Strategy Collaborations

All strategy collaborators receive invitations to attend our signature events

## CSB Baseline Assessment

A precursor to any further strategy collaborations, the CSB conducts a series of in-depth diagnostic analyses to establish a metric baseline, determines opportunities for sustainable revenue and resilient value, and recommends next steps to set targets and action plans

### Collaborative Research Project

With the information from the Baseline Assessment, a project that is Faculty & grad-student-led, with support from the CSB staff

### On-call Advising

Dedicated time to work with the CSB on a strategy-related project

### Value Chain Resilience Assessment

The next diagnostic layer to examine a company's resilience to workforce disruptions throughout their value chain

## Talent Upskilling

### Open Enrollment ReSET

An immersive Executive Education workshop for those looking to lead their organization through market disruptions

### Custom ReSET

An immersive Executive Education workshop that is customized for a specific company

### Sustainability Micro-Credential

In-depth sustainability course offerings through Pitt Business; credit-bearing and stackable towards a degree

## Limited Engagements

**Standalone Research Project:** Unlike our Collaborative Research Project, this is not informed by our Baseline Assessment

## Philanthropic Engagement Benefits

### CSB Baseline Assessment

Donors receive the CSB Baseline Assessment once per year

### CSB Events

Donors receive invitations to attend our signature events



# Center for Sustainable Business: Identity

## Core Values



**Business**



**Innovation**



**Collaboration**



**Research**



**Integrity**

### Aspirations

Dynamic Community  
of Practice

Valued Diagnostic,  
Education, and  
Advisory Services

Impactful Research  
and Leading  
Practices

Regional Acumen  
with Global Reach

### Distinctive Competencies

Global Network of  
Partners

Expert and Dedicated  
Staff

Access to Resources  
of an AAU University

# CSB Staff



**Dr. John Camillus**  
Faculty Director

Role: Strategic  
direction



**Terri Gregos  
Fitzgerald**  
Faculty Advisor

Role: Research &  
educational  
guidance



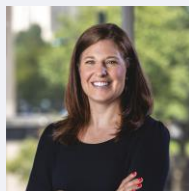
**Chris Gassman**  
Executive Director

Role: Staff Lead



**Max Clark**  
Program Manager

Role: Executive  
Education



**Madeline  
Fitzgerald**  
Program Manager

Role: Corporate  
Sustainability Strategies



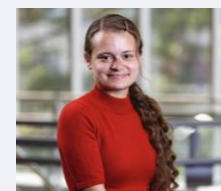
**Muhammad Jami**  
Program Manager

Role: Workforce  
Development



**Dan Lampmann**  
Program Manager

Role: Strategic  
Partnerships



**Emmy Ray**  
Marketing  
Manager

Role: Marketing &  
Project Management



# Grants & Partners (past & present)





# Fireside Chat: Change Leadership



**Bernard Brown & Professor Kim Abel**

COO, Empire Diversified  
Energy

Pitt Business



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**What is a word or phrase you think of when you think about change?**

① Start presenting to display the poll results on this slide.

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# What are some key challenges that organizations face when implementing change?

① Start presenting to display the poll results on this slide.

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**What are some successful strategies you have seen that help move change along?**

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**If you are the person leading change, what would be one of the first things you do?**

① Start presenting to display the poll results on this slide.




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**When you are not the person leading the change, what role can you play?**

① Start presenting to display the poll results on this slide.



# Panel Discussion: Change in Appalachia



**Moderator: Professor Leon Valdes**

Pitt Business

**Panelists:**

**Rebecca Bykoski**

Director of Programs,  
Sustainable Pittsburgh

**Petra Mitchell**

CEO, Catalyst Connection

**Professor Trevor Young-Hyman**

Pitt Business

**Megan Zeigler**

CEO, SWPA Municipal Hub

# Break Time

**10 Minute Break**

# Upcoming CSB Initiatives and Events

Speak with any CSB Staff Member or visit our website to learn more!

## Sustainable Business Forum Fall 2024

October 24<sup>th</sup>

Join us for our flagship event where we curate and host cross-sector conversations that generate visionary sustainable business solutions.



## ReSET: Resilience Strategies Executive Tailored Program November 14<sup>th</sup> -15<sup>th</sup>

Elevate your leadership with our executive education program. This immersive one-and-a-half-day experience will equip you with the tools and frameworks to develop resilience strategies that seamlessly integrate sustainability into your business strategy. Through dynamic workshops and targeted training sessions, you will learn how to mitigate today's risks, tackle emerging disruptions, and unlock tomorrow's opportunities for value creation.



# Collaborative Activity



## Creating Change Action Plans



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**What is the biggest challenge you or your business will be facing in the next 6 months – 1 year?**

① Start presenting to display the poll results on this slide.



# Creating Change Action Plans

## What is a Change Action Plan?

A change management plan is a strategic blueprint that outlines the steps, tools, and processes an organization intends to use to manage changes within its systems, processes, or structure

## Why complete a Change Action Plan?

### Minimize Disruption

A plan helps guarantee the smoothest possible transition for all stakeholders involved

### Engage Stakeholders

A plan ensures that stakeholders are engaged at every stage of the change, increasing buy-in

### Ensure Success

A plan ensures that the change is implemented smoothly and effectively

### Outline Details

A plan specifies how certain changes can be implemented across all facets of the organization

# Creating Change Action Plans

## Timing

- 20 mins to complete activity at your tables
  - 10 mins to complete worksheets individually
  - 10 mins to share with table
- 10 mins for report-out



## Collaboration

Discuss ideas with your table as you complete your worksheet. All table members present completed plans to each other prior to report-out



## Worksheet

Use a real-life example to complete your own Change Action Plan worksheet. Each individual should complete a plan



## Report-out

Designate a speaker to share the key takeaways from your table's discussion with the wider group (1-2 minutes for each table). What were some common themes, and shared challenges?





# Small & Medium Business

# Fellowships Overview

**Madeline Fitzgerald, CSB Program Manager**

# SMB Fellowships

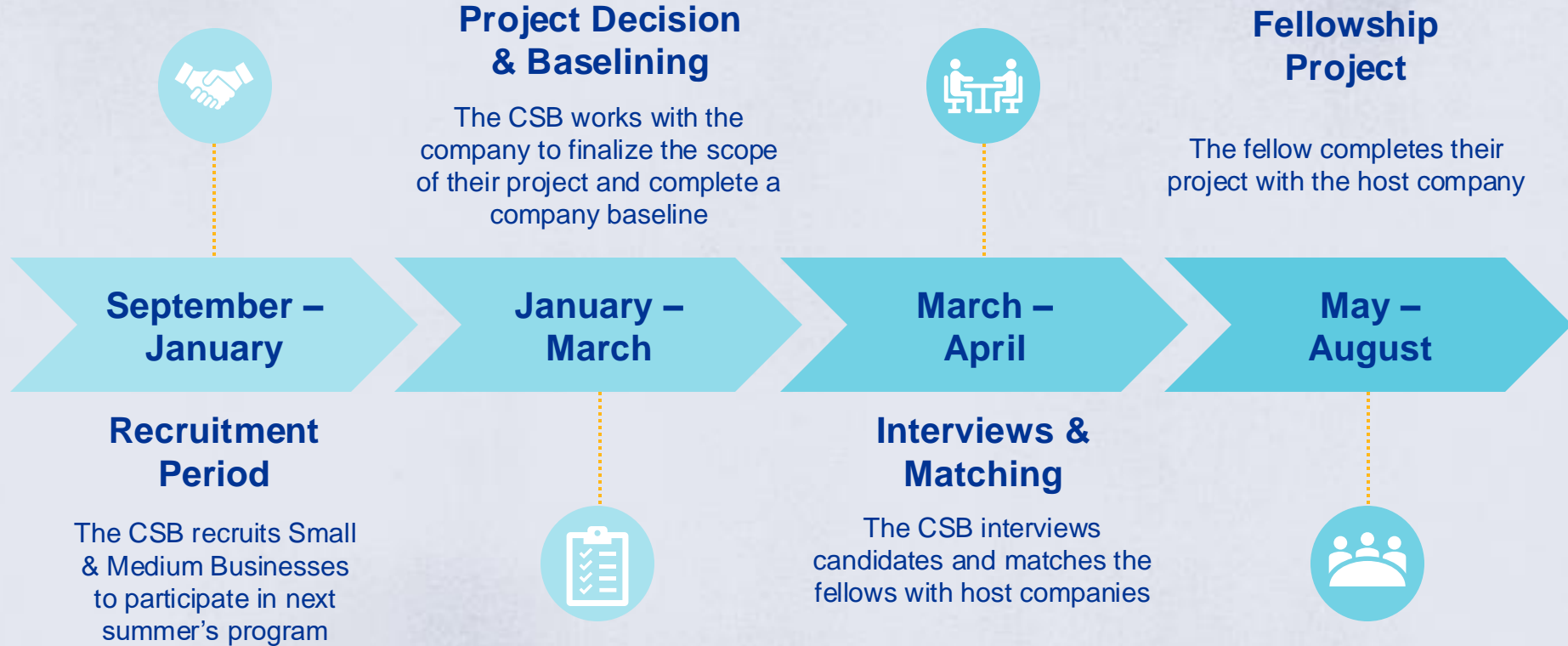
## What is the SMB Fellowship program?

Similar to a summer internship, our SMB Fellowship program is modelled after the Environmental Defense Fund's Climate Corps Fellowships. We train undergraduate and graduate students and match them with climate and sustainability-related projects within Small and Medium Businesses.

## What projects can we offer?

- Innovative Value Creation Using Sustainability Solutions
- Data-driven Decision Making
- Enhanced ESG Reporting and Compliance
- Strategic Partnerships & Collaboration
- Operational Efficiency & Cost Savings
- Employee & Stakeholder Engagement
- Risk Management & Resilience-Building

# Timeline for SMB Fellowships





# Fellow Research Presentations





# Harsh Nallanthighal & Ben Stanton: Refractory Brick Recycling



## Objective

This project aimed to create a circular economy design pathway for HWI's Korundal XD (KXD) refractory brick in order to:

1. Promote sustainable innovation & design pathways
2. Measure emissions release & energy consumption
3. Understand base case consumption and recyclability of the KXD product



## Approach

- Mapped out flows of consumption and segregated processes by relevance to ensure understanding of the system boundary
- Analyzed data for electricity consumption, fuel for raw material transportation, and natural gas consumption
- Examined emission factors for all sources of energy
- Analyzed sales data to understand product turnaround

## Methodology

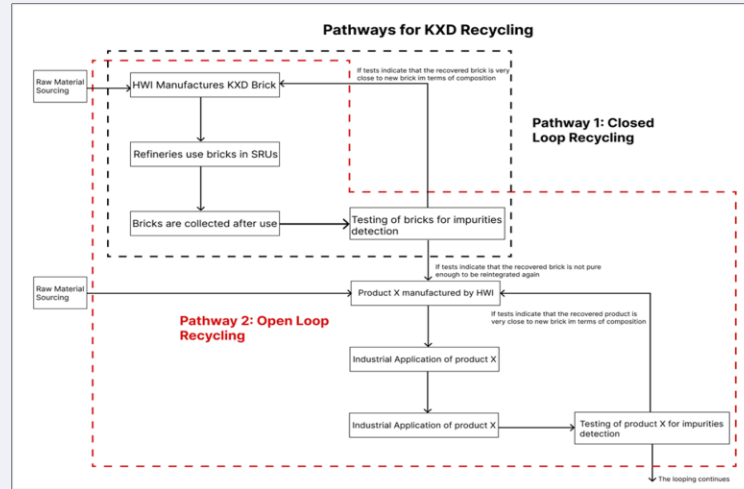
- Compared mass allocation for KXD to consumption of the 'n' other products produced at the plant. This mass allocation was used to understand KXD's consumption of electricity and natural gas inside the plant, and fuel consumption for raw material transportation
- Justified assumptions and validated model
- Conducted linear scaling of results to understand impact
- Utilized R to analyze sales data

# Harsh Nallanthighal & Ben Stanton: Refractory Brick Recycling



## Outcome

- The Life Cycle Analysis showed the opportunities to reduce emissions
- Sales trends analysis allowed us to determine optimal timing for future recycling efforts
- We created the pathways for both Open Loop and Closed Loop recycling (pictured here)
- We determine cost savings opportunities



## Key Findings

- Product turnaround cycles by analyzing sales data using R between the years 2009-2023 gave us the potential companies to contact by revenue, and volume of brick that can be returned.
- \$1.2 million/year in savings from employing circular design pathways
- Energy consumption values in GJ and emissions in CO<sub>2</sub>e to look at Global Warming Potential (GWP) contributions

## Impact

- The research conducted is a critical step forward in HWI's recycling efforts, creating the blueprint they will use to continue optimizing their materials' lifecycle and reduce emissions

# Mohit Dewan: Emissions & Process Improvements



## Objective

To complement Peoples' pipeline replacement strategy (aiming for a 60% reduction in carbon emissions) by developing comprehensive strategies to achieve the remaining 40% reduction through innovative solutions targeting scopes 1, 2, and 3 emissions and process improvements



## Approach

- Identified and analyzed key areas of carbon emissions within scope 1 (direct emissions), scope 2 (indirect emissions from purchased energy), and scope 3 (other indirect emissions)
- Explored process improvement opportunities, including enhancing energy efficiency, optimizing supply chain operations, and transitioning to sustainable transportation options
- Engaged with stakeholders, including employees and strategic partners, to drive collective action and support for the emission reduction goals

## Methodology

- Integrated advanced technologies like AI-driven leak detection, smart energy forecasting, and enhanced carbon capture to target emissions reductions across scopes 1, 2, and 3
- Identified and implemented process improvements, including energy efficiency upgrades, sustainable transportation initiatives, and supply chain optimizations
- Engaged employees through comprehensive training and recognition programs, and partnered with external organizations for carbon offset projects to support and scale emission reduction efforts

## Outcome

- The integration of AI-driven technologies and process improvements led to optimized energy management, reduced operational costs, and enhanced resource allocation across the organization
- Engaged employees and stakeholders in sustainability initiatives, fostering a proactive culture of environmental stewardship and positioning Peoples as a leader in the energy sector's transition to carbon neutrality
- Developed and implemented strategies projected to achieve a 40% reduction in carbon emissions by 2035, complementing Peoples' pipeline replacement strategy and aligning with overall sustainability goals

## Impact

- Projected a 40% reduction in carbon emissions by 2035, aligning with Peoples' overall sustainability goals
- Enhanced company reputation as a forward-thinking leader in environmental stewardship

## Key Findings

- Combining advanced technologies with process improvements and stakeholder engagement significantly enhances the effectiveness of emissions reduction strategies across scope 1, 2, and 3
- Out-of-the-box strategies, such as AI-driven solutions and strategic partnerships for carbon offsets, not only reduce emissions but also improve operational efficiency and foster a culture of sustainability

# Abby Bonilla: Social Impact at the Community Level

## Objective

This project analyzed 21 companies that have collaborated with the CSB and their social impact at the community level. The intention is for these materials to be useful when CSB staff meet and consult with companies on topics related to Social Impact, Corporate Social Responsibility, and ESG to identify areas in which companies have seen success, and recommend best practices to companies who are falling short.



## Approach

- Identified key markers indicating community involvement for 21 CSB members
- Conducted interviews with relevant Pitt Faculty and Staff
- Completed a literature review to determine best practices
- Provided Social Impact recommendations for CSB partners

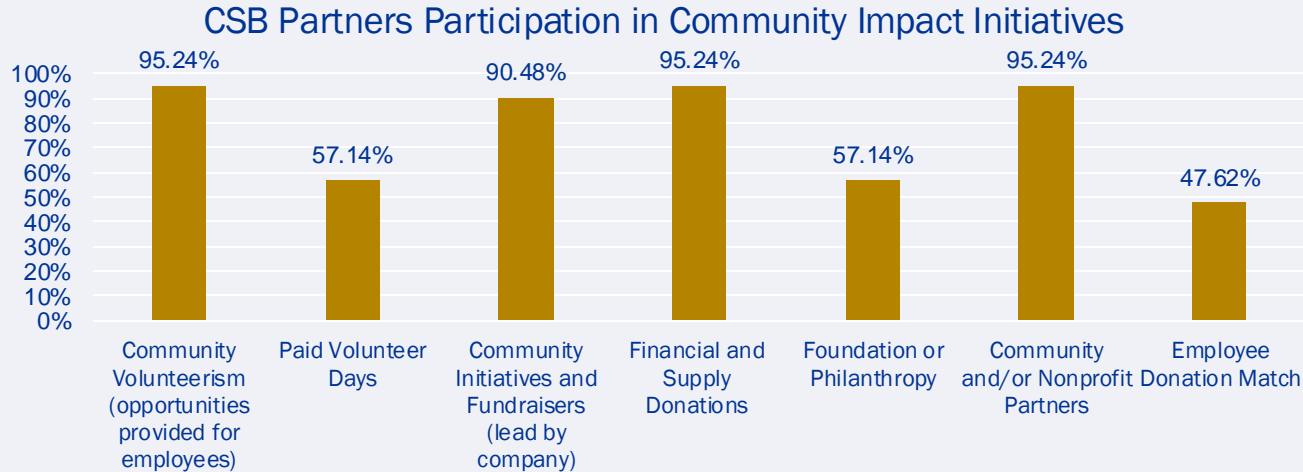
## Methodology

Criteria used for analysis:

- Community Volunteerism (opportunities provided for employees)
- Paid Volunteer Days
- Community Initiatives and Fundraisers (led by company)
- Financial and Supply Donations
- Foundation or Philanthropy
- Community and/or Nonprofit Partners
- Employee Donation Match

# Abby Bonilla: Social Impact at the Community Level

## Outcome



## Impact

- The CSB will be able to use this data when working with companies to determine high-impact areas and recommend best practices

## Key Findings

- Social Impact is company-specific
- Determine company positioning and capacity for the greatest impact
- Beyond one-off events or donations, initiatives must be company-specific, aligned with business priorities, and associated with a long-term goal(s)
- Measuring impact requires clear goals aligned with company strategy relevant to shareholders and stakeholders



# Please fill out the brief feedback survey!



We would love to hear your feedback on today's  
program



# Thank You!

