Project Overview

Name of project Purpose Accelerator

Bilfinger Tebodin

Time period: October 2018 - October 2019 Date: 14-01-2019

1. Context

This document was formulated based on several meetings with SMO, the PhD team and Bilfinger Tebodin. This document functions as the two-pager for the Purpose Accelerator project. It defines the main deliverables of the project and explains the methods and planning. The document might be adjusted during the project, in consultation with the involved partners.

2. Vision / Mission

Our vision

We believe that we can fight climate change by encouraging companies to adopt a circular value chain. Chemical industry is a top potential change maker, who can take the lead in reducing worldwide CO_2 emission and bring us to a more circular future.

Missions

1. Identify existing barriers that prevent chemical industries from adopting a circular value chain.
2. Develop a roadmap to help the next wave of early adopters to overcome these barriers and implement circular practices.

3. Question

What are key barriers that inhibit chemical industry from adopting circular value chains, and how can these barriers be overcome?

How?

1. Review existing literature on circular business models in chemical industry (case studies)
2. Review relevant governmental regulations in NL and EU
3. Collect existing information from BT
4. 40 in-depth interviews with key employees or board members from chemical companies

4. Deliverables

1. Market scan (mission 1):

a. Compile a list of companies that in relation to BT's Circular Production Scan (CPS) product have:
   - Used the product (quickscan/fullscan)
   - Used the product and implemented improvements
   - Not used the product because it is not relevant/useful for them
   - **Target Group: not used the product yet and are hesitant to go circular due to certain barriers, despite being interested.**

   For each company, understand why they fall into the corresponding category.

b. Investigate sustainability incentives (1), corporate culture (2) and willingness to innovate (3) of companies on the list towards circular operations.
c. Determine parameters and criteria, from steps a. and b., to identify the target group of chemical companies that are potentially interested in circular operations and using the CPS.
d. Identify barriers, opportunities, sustainability maturity and relevant contact persons within the target group, incorporating the competence and expertise of BT.

2. Roadmap (mission 2):
The roadmap is **a targeted strategy tool** that considers the needs and interests of the target group. We seek ways to overcome the identified barriers and exploit the opportunities mentioned in section 1d in this roadmap. Likely sections in the roadmap:

- Analysis of existing vs. circular value chains, from the perspective of:
  - Environmental cost impact and global warming potential
  - Financial cost impact
  - Implementation: constructing new facilities vs. upgrading existing facilities
  - Impact on competitive advantage
- Tool to self-assess readiness for change from cultural, technological, and financial perspectives
- Impact on public perception by changing to circular operation – branding, certificates
- Key learnings from case studies of early adopter companies. Ideally, these should be from chemical industry.

6 months planning
Formulate competency teams combining PhD students and BT representatives. Each team will focus on one of the following subtopics:

- Best and worst practices of circular technologies in the chemical industry including a limited scope market review
- Viability and feasibility from financial, environmental and technological perspectives
- Study the role of sustainability incentives, corporate culture and willingness to innovate
- Key regulations in place and future policy developments

Stakeholders:

- SMO - facilitator between BT and the PhD team to execute this project
- Bilfinger Tebodin - consulting and engineering firm for (chemical) industry
- Chemical industry - top potential change makers
- Society - our ultimate goal is to provide benefits to society as per vision above
- Government - policy makers play an important role in the transition to circular economy

PhD students in formulated competency teams will be in direct contact with a designated BT representative to allow efficient communication and information exchange.