

# **Ops - Cogitate: Case Study Challenge**

## **Overcoming Decarbonization Challenges in Supply Chain**

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# Tidal Wave Decarbonization Strategy

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# Scopes of emission at Tidal Wave

## Scope 1

In house & out  
bound;  
Controllable

Manufacturing, in-house transportation, out  
bound transportation, infrastructure

## Scope 2

Purchased

Electricity

## Scope 3

Out bound;  
Uncontrollable

Extraction and production of purchased  
materials, transportation of purchased fuels

# Strategies to reduce scope 1 emissions



## Optimizing manufacturing process

1. Use of grey cast iron (GCI), non-asbestos organic (NAO) pads, metalloids pads, and low metallic (LM) pads instead of asbestos

## Reducing carbon footprint of employees



1. Carpooling
2. Use of eco-friendly alternatives wherever possible (eg; sustainable dungarees, toiletries, re-usable utensils)
3. Digital methods to avoid paper
4. Re-using single side prints as notepads, etc.
5. Sensitization of employees on significance of sustainable practices



**Environmental  
Awareness  
in the Workplace**  
Training Course Materials

## Green in-house logistics

1. Use of eVs
2. Re-usable packaging material



## Environmental amelioration

1. A dedicated department for plantation drives to increase carbon sequestration



## Eco-friendly infrastructure

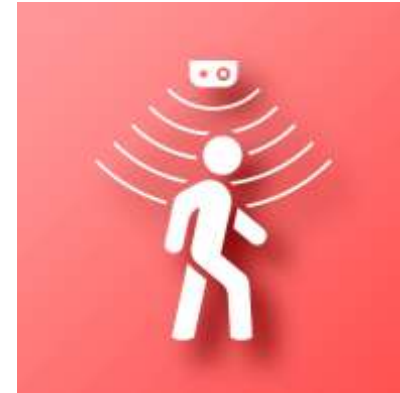
1. Frugal, age-old building practices to control internal temperatures
2. Repurpose an existing building to serve new functions as opposed to erecting new infrastructure from scratch



# Strategies to reduce scope 2 emissions

## Supplementing power supply with renewable supplies

1. Solar energy
2. Open roofs to allow light during day time
3. Reducing electricity consumption via LED, low hanging lights
4. Motion sensor lights in bathroom



# Strategies to reduce scope 3 emissions

## Outbound logistics

1. Carpooling of supplier material: Integrating suppliers to pool deliveries to reduce engine emissions during delivery
2. Managing reverse logistics with aim to reduce unnecessary to and fro movement
3. Demanding supply of material in re-usable packaging instead of single-use cardboard packaging.



Re-usable packaging



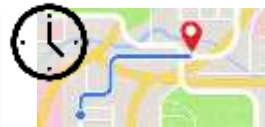
Supplier 1



Supplier 2



Supplier 3

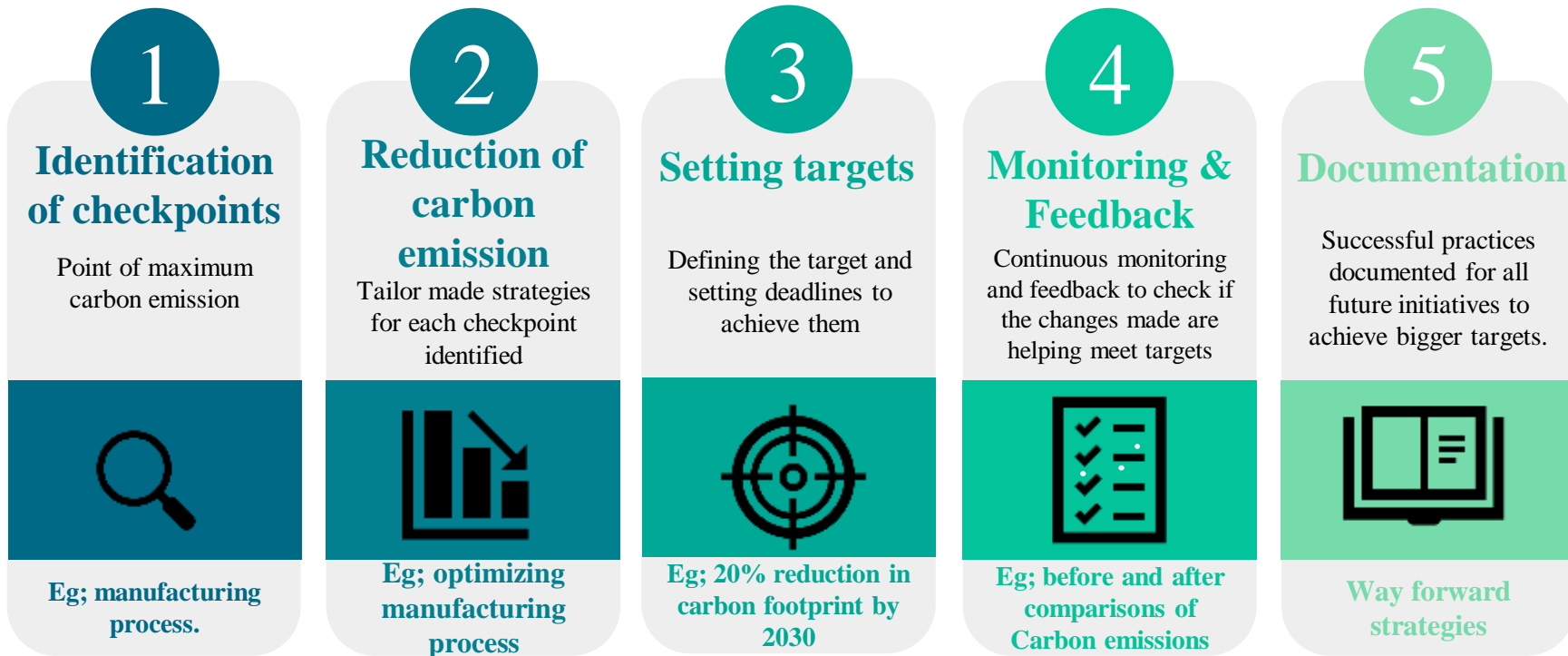


Prudent location and  
time coordination



Vehicle pooling for delivery

# Outcome Map for Decarbonization Reporting



**END SLIDE**