

Acceleration of Circular Economy

in EU's Automotive Industry



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A G E N D A

Accelerating CE in the automotive sector

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Aim and Objectives

To provide a set of recommendations to the automotive supply chain and policy makers to accelerate the integration of CE principles into their business.

01

First

Identify the enablers and barriers to integrate circular economy principles in EU's automotive industries

02

Second

To form a model that supports the acceleration of circular economy in this sector

Methodology

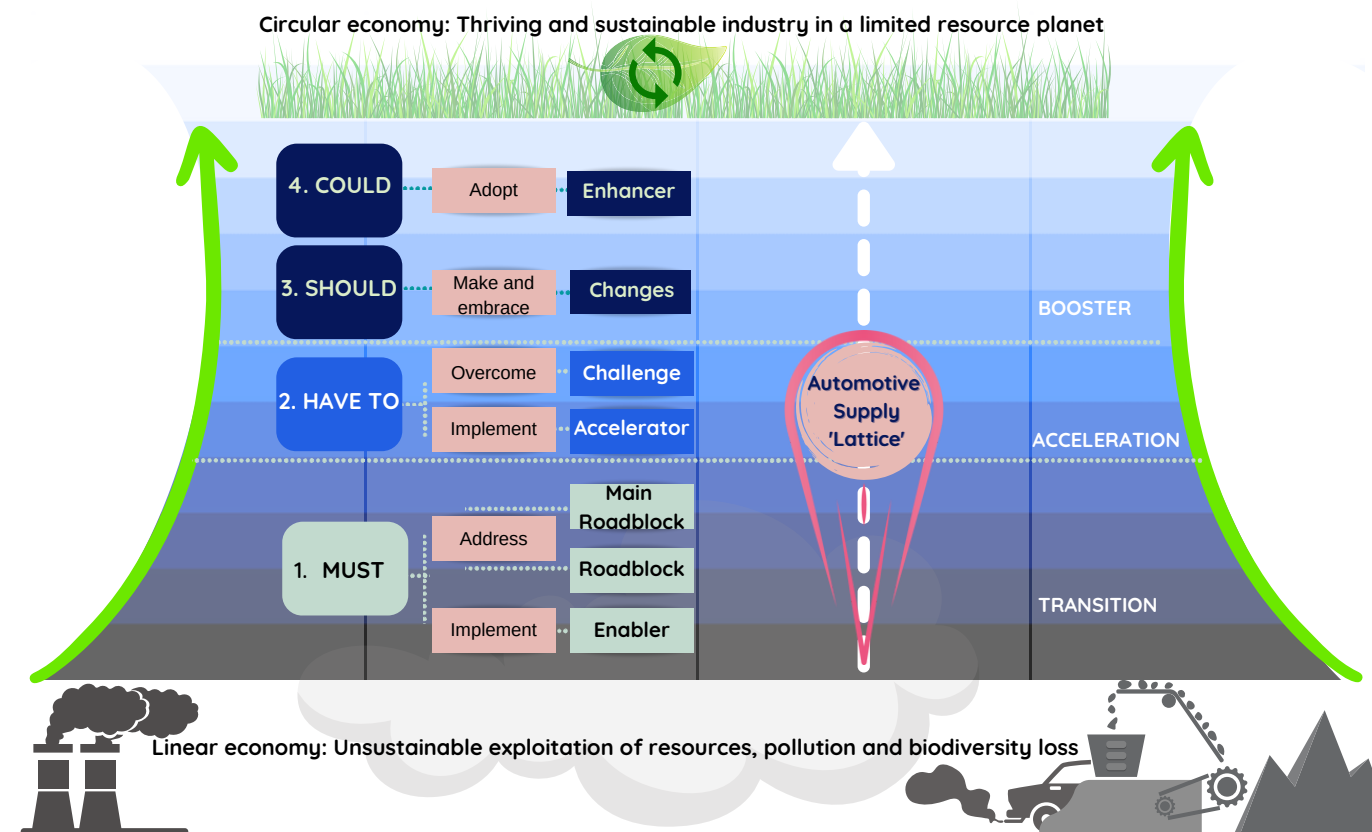
- **Method:** Qualitative
- **Data Collection:** 12 Semi-structured interviews
- **Target population:** Automotive SC managers and sustainability practitioners
- **Data analysis:** Content Analysis

From content analysis, 120 codes were obtained, revealing 8 main categories which are split in 3 themes

01

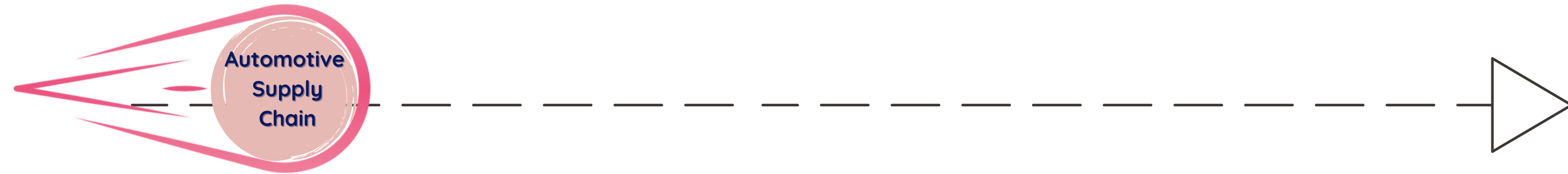
A set of factors that impact differently depending on which stage of CE integration the companies are located in : Transition, Acceleration or Booster phase.

02



Main Results

Identified Factors



Transition

Enabler

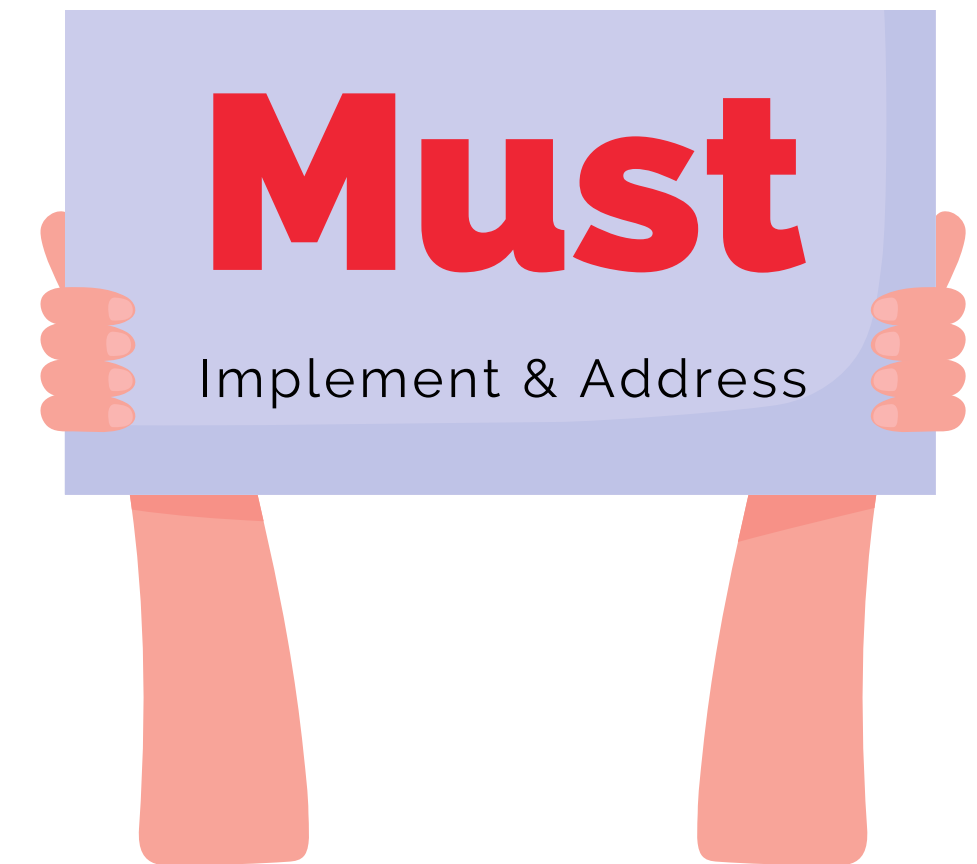
- Acknowledge the importance of circular design
- Creation of innovative business models
- Availability of innovative sustainable solutions in the market
- Investment in technology
- Policy incentives.

Roadblock

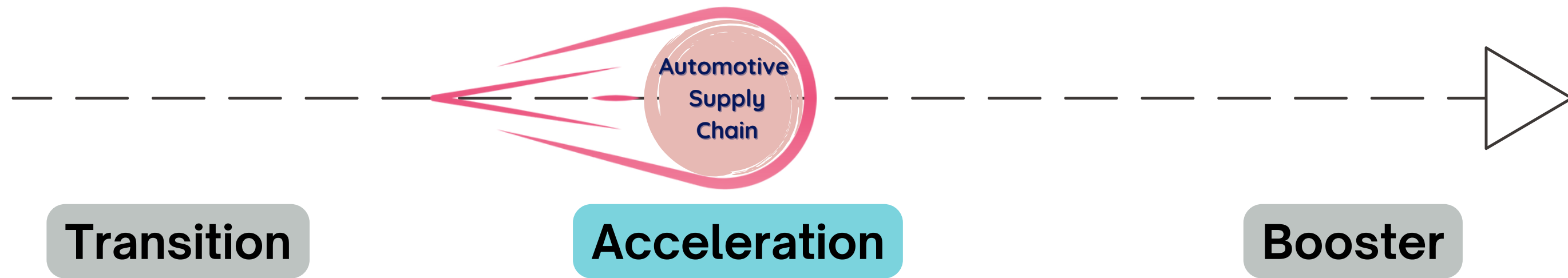
- Lack of CE expertise and infrastructure
- Complex logistics
- Constrained time
- High implementation costs
- Lack of communication internally and across the entire SC

Acceleration

Booster



Identified Factors



Accelerator

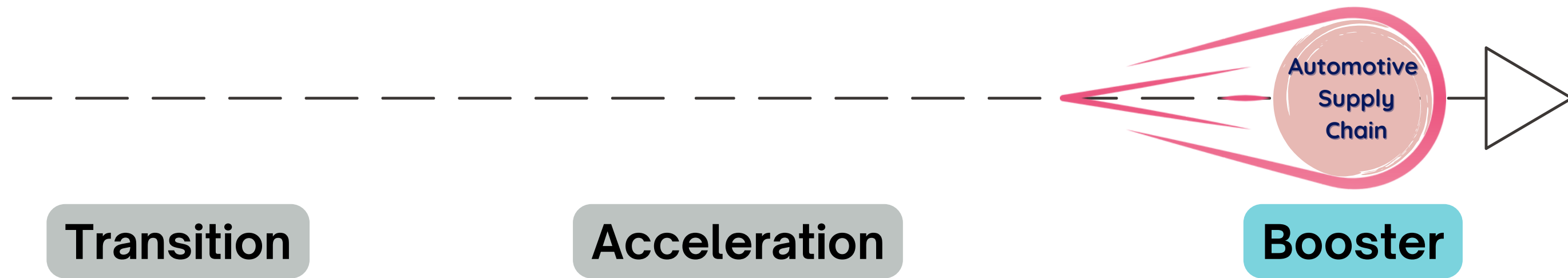
- Building expertise of CE
- Demand creation through collaboration
- Early engagement of CE practices and stakeholders
- Engagement of other sectors
- Implementation of CE targets
- Visionary leadership

Challenge

- Adaptation of CE strategies based on generational gap differences
- Complex designs
- Measuring the company's progress towards CE
- Product obsolescence
- Redefinition of requirements
- Tight timelines.



Identified Factors



Changes

Redefinition of business models
Redefinition of concepts like: design, value and luxury

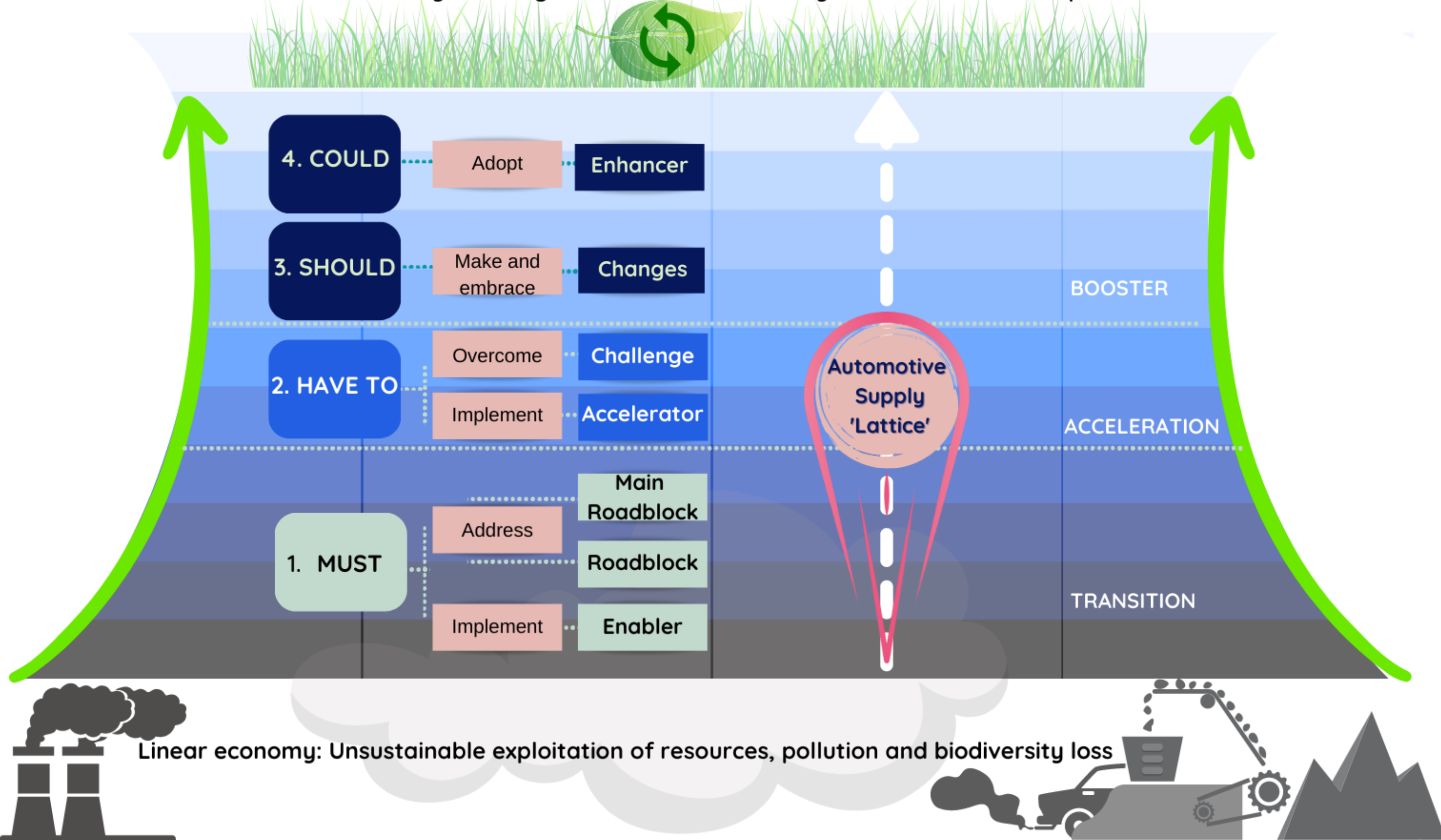
Enhancer

Challenge the current system
Decentralise supply chain
Lack of processes efficiency
Good planification
Strategic thinking



Accelerating Model

Circular economy: Thriving and sustainable industry in a limited resource planet



Recommendations

Evaluate where the company is located within the presented model to elaborate a short and mid-term strategy to move up in the model from one phase to the next one.

CE benefits are not perceived at a short-term, thus adopting a **long-term vision** for sustainability is key for a successful acceleration.

Companies need to address not only recyclability and reusability but innovate through their **designs** and their **business models**

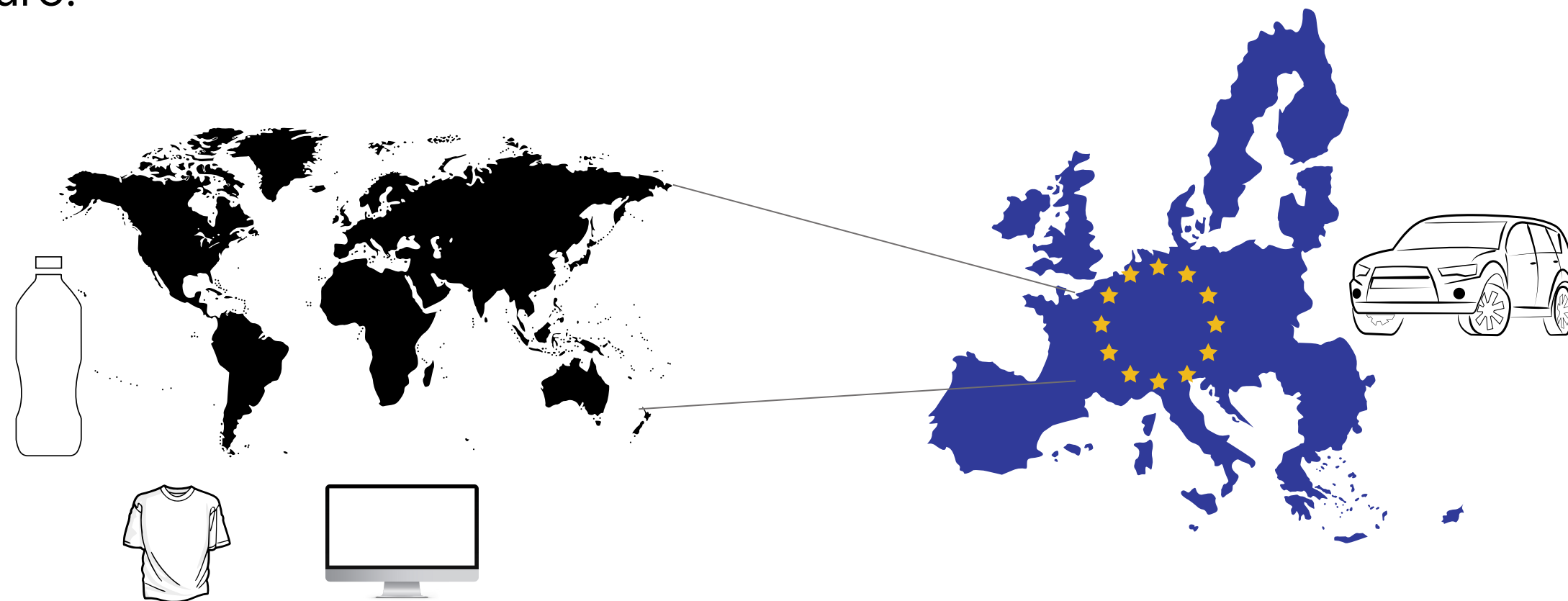
Companies should prioritise **upstream demand** of CE over downstream push to the customer

Government need to encourage **technological innovations** and **collaboration** with academics and other industries through incentives.

Companies are **already looking for sustainable solutions** to replace their current use of materials and practices. **Huge opportunity** for entrepreneurs and start-ups.

Future work

This research was conducted in the EU, and so might reflect the situation in Europe. It is not recommended to generalise it with other regions unless the identified factors are managed with caution. Future work could look at quantitatively testing the model developed and to iterate it. Similarly, the adoptability of the model to other manufacturing sectors should also be tested in the future.





**A thriving and responsible future is
everybody's responsibility**

Thank You

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