

Enhancing circular economy adoption: A business model view of the circular plastics transition



C-PlaNeT
CIRCULAR PLASTICS NETWORK
FOR TRAINING

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NTE 7
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AGENDA

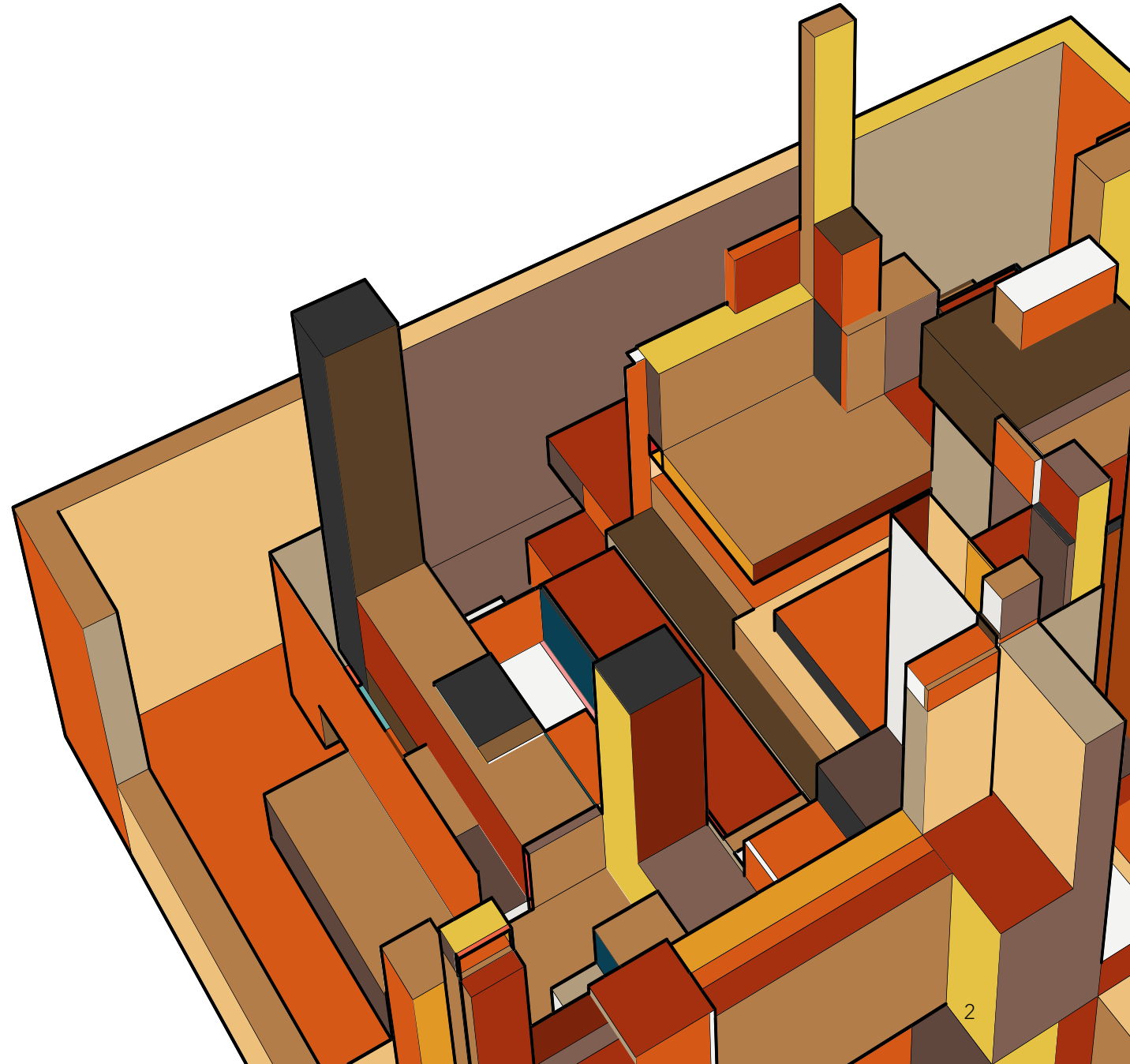
Background

Rationale, Research Design, Methodology

My ESR Journey: A Process-centric Walkthrough
Start-ups, Incumbents, Actor Engagement, and
Beyond

Wrap-Up

What's next?



FRAMING THE BUSINESS MODEL CONCEPT WITHIN A CIRCULAR ECONOMY TRANSITION



An aerial photograph of a winding asphalt road that curves through rolling green hills. The scene is captured during the golden hour of sunset, with long shadows cast across the grassy terrain. The road is bordered by a dark wooden fence. The overall atmosphere is serene and natural.

GETTING TO A CIRCULAR ECONOMY IS A SUSTAINABILITY TRANSITION



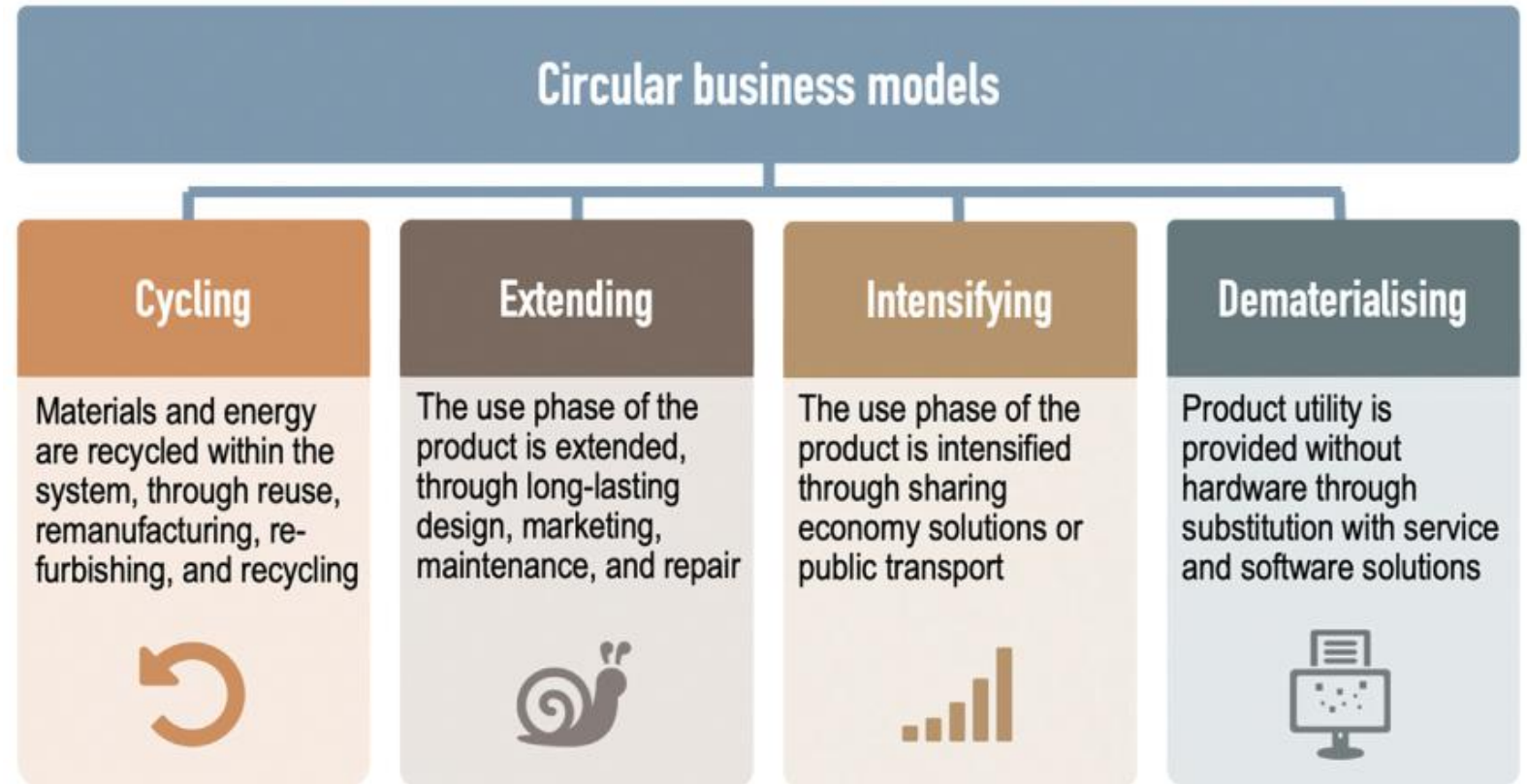
**BUSINESSES ARE POWERFUL GEARS IN
ANY TRANSITION**

A row of pencils is shown against a dark background. Most pencils are dark grey or black, but one pencil in the center is bright yellow. The yellow pencil is slightly taller than the others, making it stand out. The text is positioned to the right of the pencils.

**TO CHANGE BUSINESSES,
WE MUST CHANGE THEIR
UNDERLYING LOGIC:
THEIR **BUSINESS MODELS****

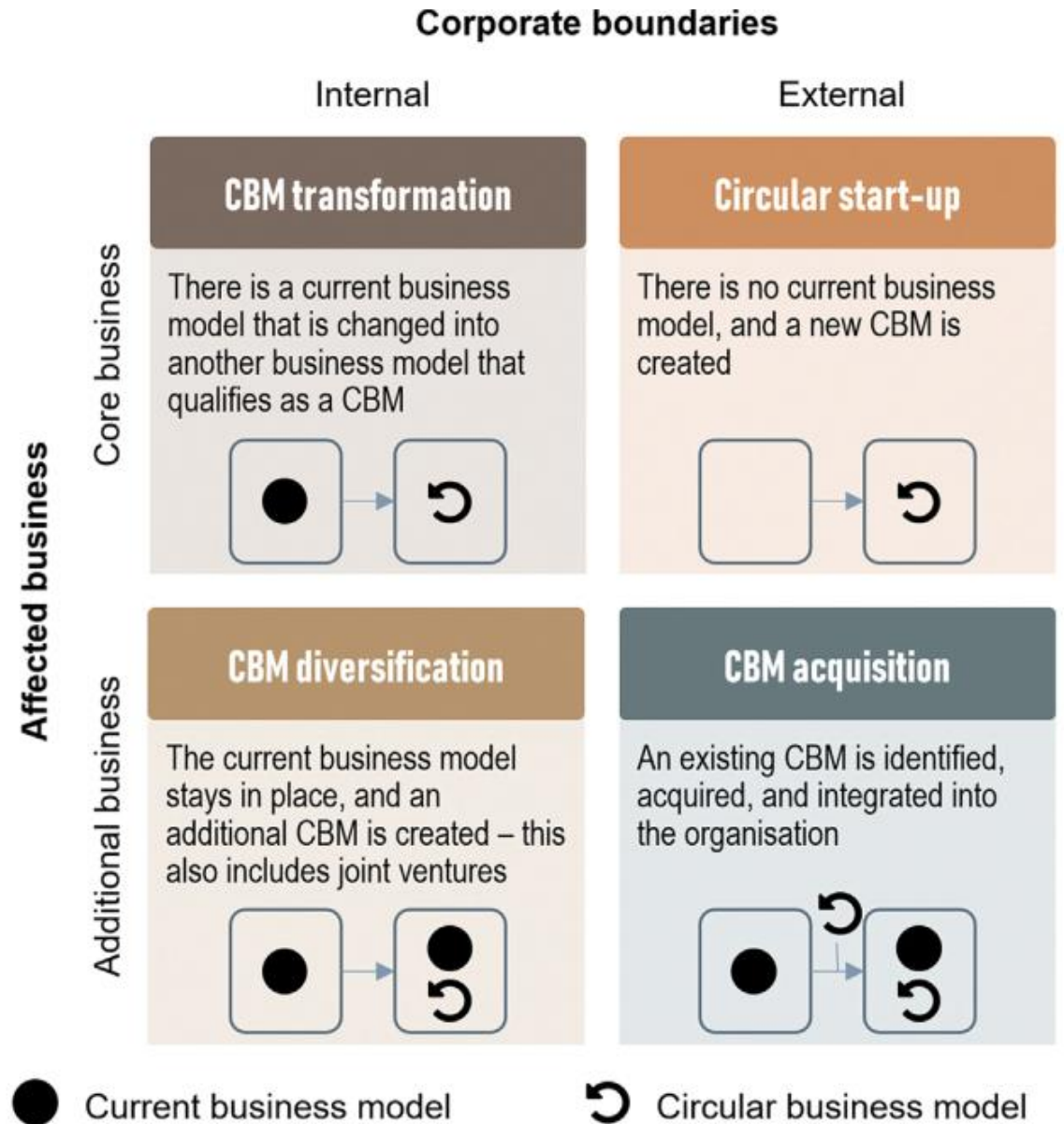
CIRCULAR BUSINESS MODELS (CBM)

Circular business model strategies, developed from Bocken et al. (2016) and Geissdoerfer et al. (2018a, b) in (Geissdoerfer et al., 2020)



CIRCULAR BUSINESS MODEL INNOVATION (CBMI)

Four types of circular business model innovation, developed from Geissdoerfer et al. (2018a, b) in (Geissdoerfer et al., 2020)





RESEARCH QUESTION

HOW CAN BUSINESSES BE EMPOWERED TO ADOPT AND IMPLEMENT
CIRCULAR BUSINESS MODELS?

WHAT KIND OF DATA DO I USUALLY COLLECT?



INTERVIEWS

~of start-up founders as well as managers, directors, and executives at large incumbents



FIELD NOTES

Observations, participation at events & meetings, and informal conversations

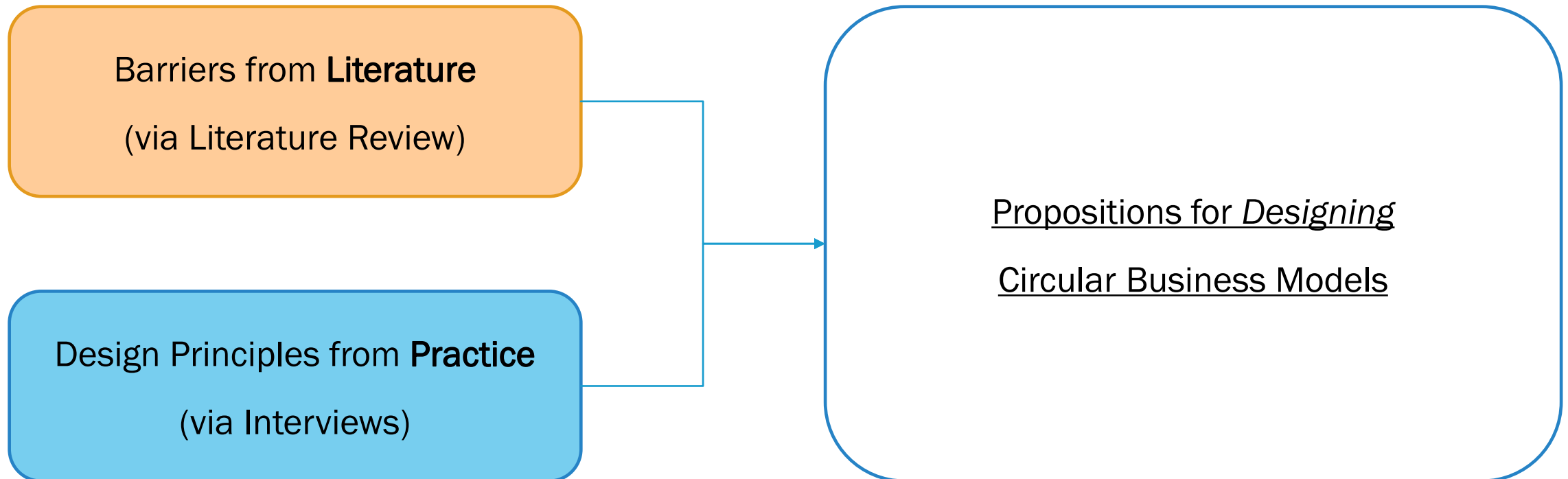


SECONDARY DATA

Academic and gray literature, popular press articles, websites, etc.

END PART OF YEAR 1
INITIAL IDEA FOR
RESEARCH ON CIRCULAR
BUSINESS MODELS:
DEVELOP PROPOSITIONS
FROM LITERATURE &
PRACTICE.

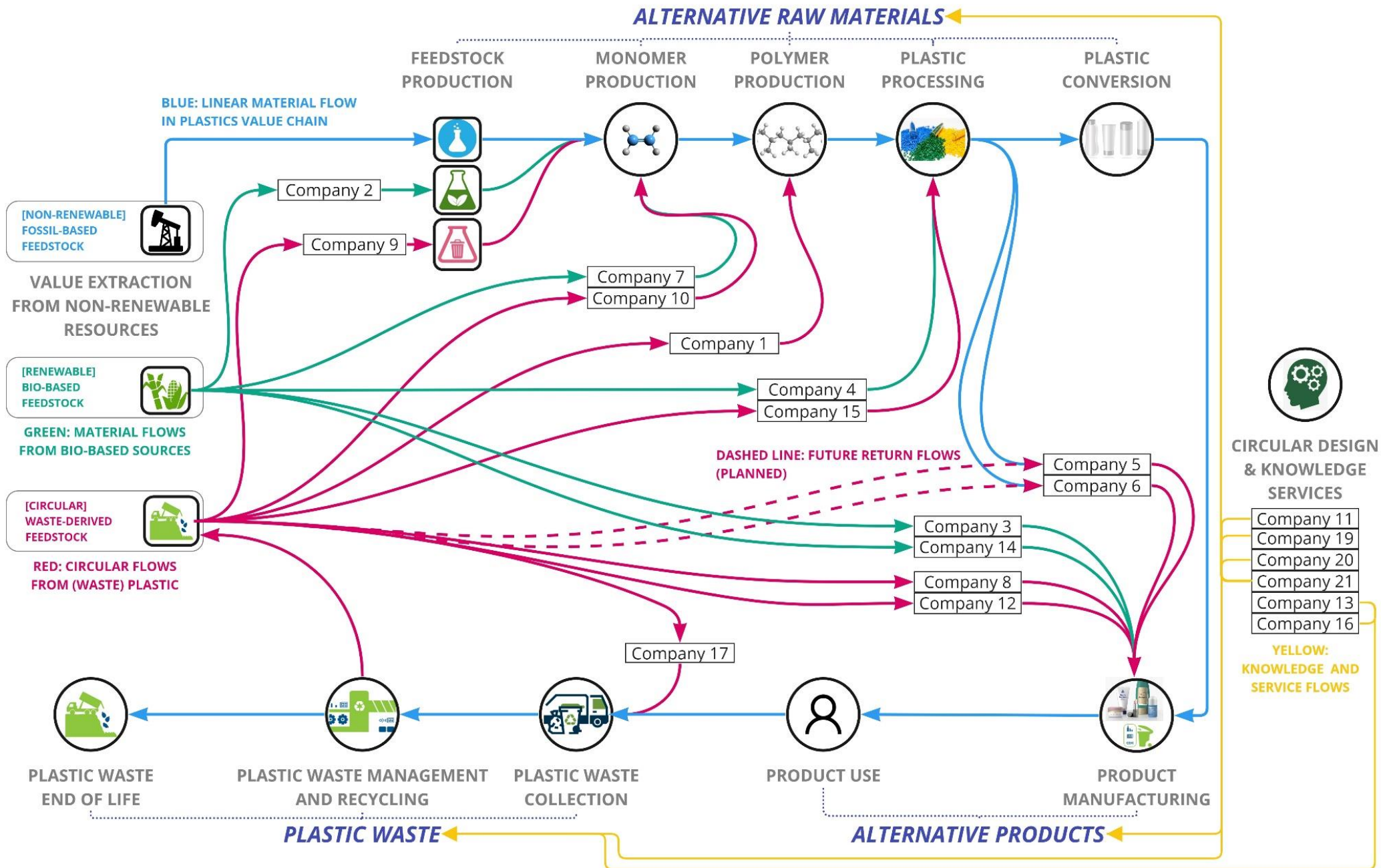
INITIAL IDEA: INVESTIGATE **BARRIERS** TO CIRCULAR BUSINESS MODEL **DESIGN** TO CREATE PROPOSITIONS FOR FUTURE BUSINESS



⁺1ST HALF OF YEAR 2

OPPORTUNITY ARISES:
JOINT DATA GATHERING
ON START-UPS AT A
CIRCULARITY HUB





EVOLVING IDEA: BARRIERS & **SUCCESS FACTORS** FOR CIRCULAR **START-UPS'** BUSINESS MODEL IMPLEMENTATION

~~Design Principles from Practice
(via Interviews)~~

Success factors to *CBM implementation*
(Replaces propositions for *CBM design*)

Empirical Data Collection: Interviews

- Business models of circular **start-ups**
- Barriers to **Design Implementation**
- ~~Design Principles~~ → **Success Factors** to overcome Barriers

Qualitative Data Analysis

- Transcription
- First Cycle Coding & Double Coding
- Second Cycle Coding & Thematic Analysis

Submission

- **Main contribution:** contextualized barriers for circular start-ups in plastics; success factors for overcoming such barriers; broader implications calling for a multi-stakeholder view of business models

2ND HALF OF YEAR 2

**ANOTHER OPPORTUNITY:
COLLABORATION WITH
MORE EXPERIENCED
RESEARCHERS TO
VALORIZE PRIOR
LITERATURE REVIEW.**

Background

The transition to a circular model, is not easy and includes a high degree of uncertainty — not in the least because of the large number of actors that need to be engaged (Köhler et al. 2019)

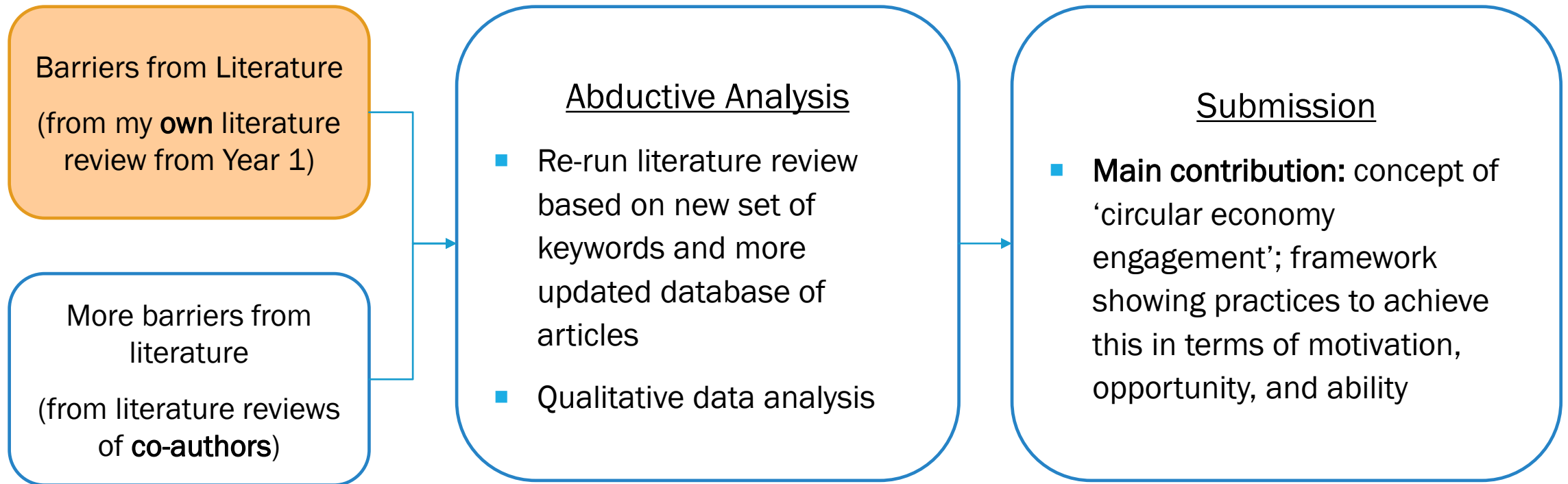
The financial and circular potential of new business models like CBMs can only emerge when multiple actors simultaneously embrace CBMs.

Research question: how can we boost actors' circular economy engagement (CEE)?

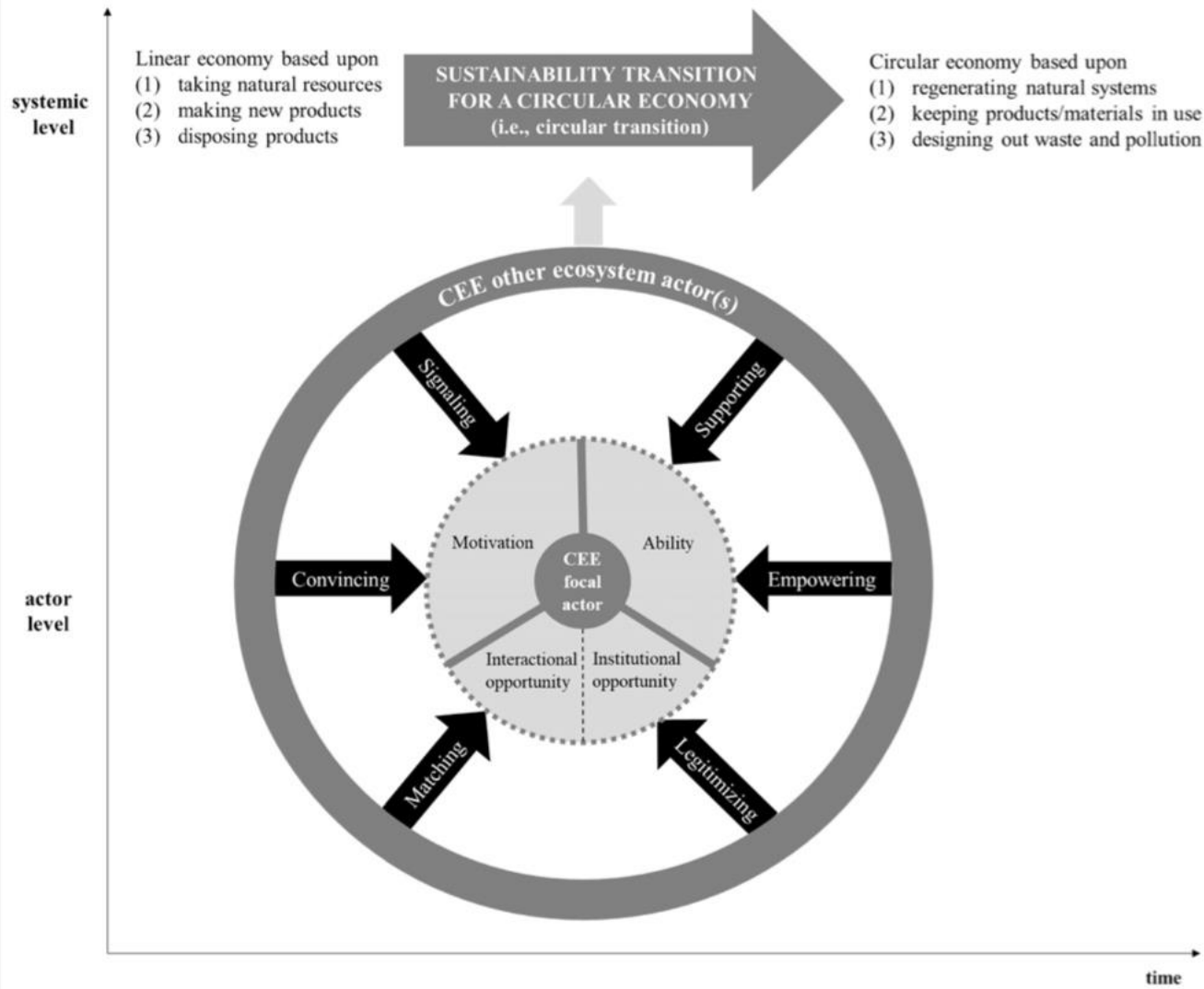
CEE: the disposition or state of actors to embrace CBMs with behavioral and non-behavioral manifestations



EVOLVING IDEA: **BARRIERS** TO CIRCULAR BUSINESS MODELS AS SITES FOR UNDERSTANDING **ACTOR ENGAGEMENT**



Panel A: Circular Economy Engagement (CEE) framework



Panel B: Lexicon

Concept	Definition
Linear Economy	an economic system that builds upon the principles of (1) taking natural resources, (2) making new products, and (3) disposing products (i.e., linear economy principles).
Circular Economy	an economic system that builds upon the principles of (1) regenerating natural systems, (2) keeping products/materials in use, and (3) designing out waste and pollution (i.e., circular economy principles).
Circular Transition	long-term, multi-dimensional, and fundamental transformation process through which established linear economic systems shift to more circular economic systems.
Circular Economy Engagement (CEE)	an actor's disposition or state to embrace circular business models (CBMs) with behavioral and non-behavioral manifestations.
Motivation	focal actor's willingness to engage with CBMs.
Opportunity	contextual or other external circumstances facilitating the focal actor to engage with CBMs.
<i>interactional opportunities</i>	formal and informal connections facilitating a focal actor to engage with CBMs.
<i>institutional opportunities</i>	rules, norms, and regulations facilitating a focal actor to engage with CBMs.
Ability	focal actor's resources, capabilities, and knowledge to engage with CBMs.
CEE Practices	concrete activities and actions to engage a focal actor in the circular economy.
<i>signaling</i>	highlighting the potential benefits of engaging with CBMs for a focal actor through information provision.
<i>convincing</i>	persuading a focal actor to engage with CBMs by orienting their attention to specific financial and/or pragmatic measures.
<i>matching</i>	connecting with a focal actor with the ambition to exchange resources that are mutually reinforcing in the context of CBMs.
<i>legitimizing</i>	developing and launching specific measures to create an institutional context that enables a focal actor to embrace CBMs.
<i>supporting</i>	providing operand resources to the focal actor so that they are able to embrace CBMs
<i>empowering</i>	developing a focal actor's operand resources for embracing CBMs.

Note: CEE = circular economy engagement; = CEE practices

1ST HALF OF YEAR 3

**SECONDMENT AT DOW:
INDUSTRY VIEW OF CE +
SUBMISSION OF STARTUP
BARRIERS PAPER +
REVISION OF ACTOR
ENGAGEMENT PAPER**

2⁺ND HALF OF YEAR 3

SECONDMENT AT UGENT;

REVISION OF PAPER ON

START-UPS;

PUBLICATION OF PAPER

ON ACTOR ENGAGEMENT

+

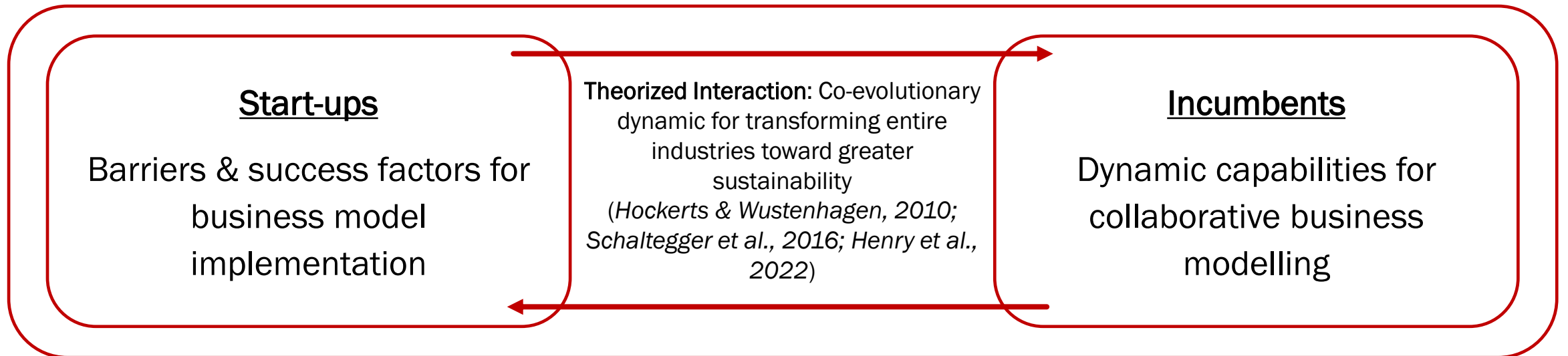
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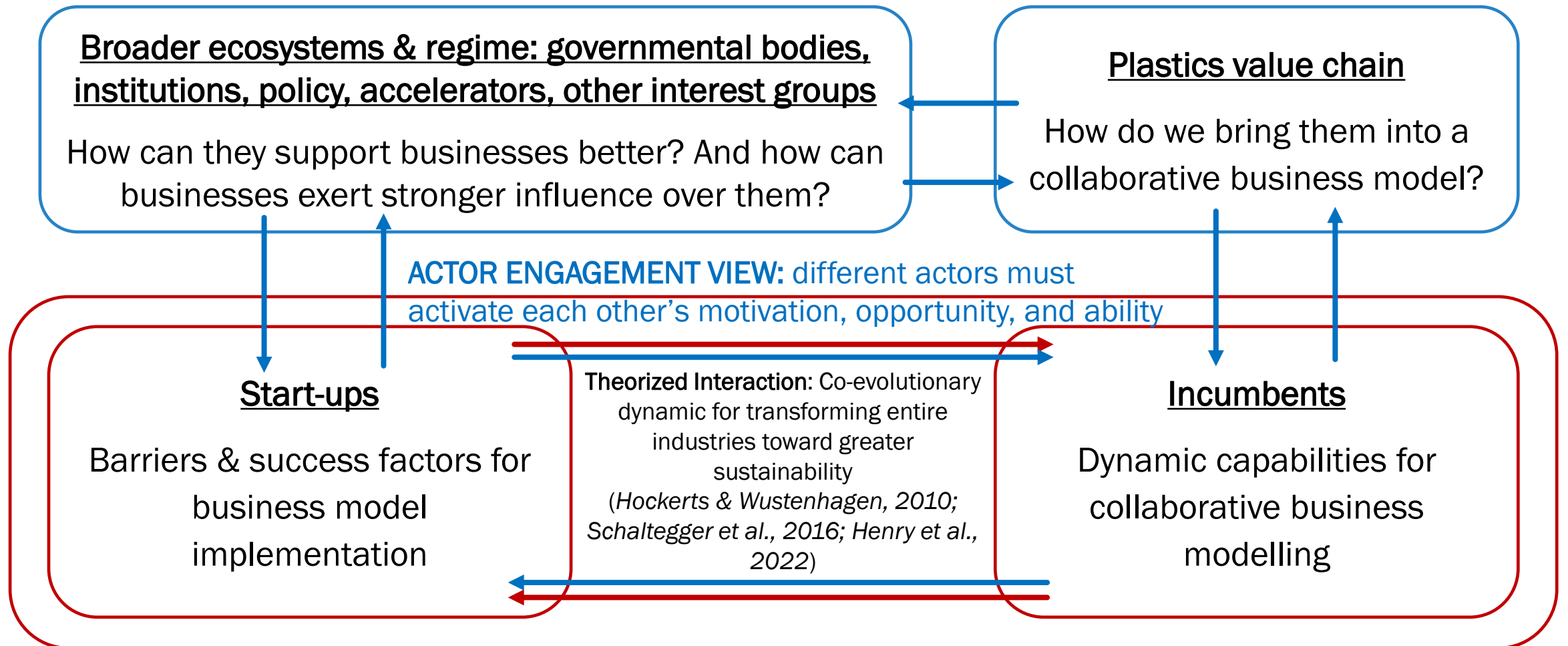


WRAP UP



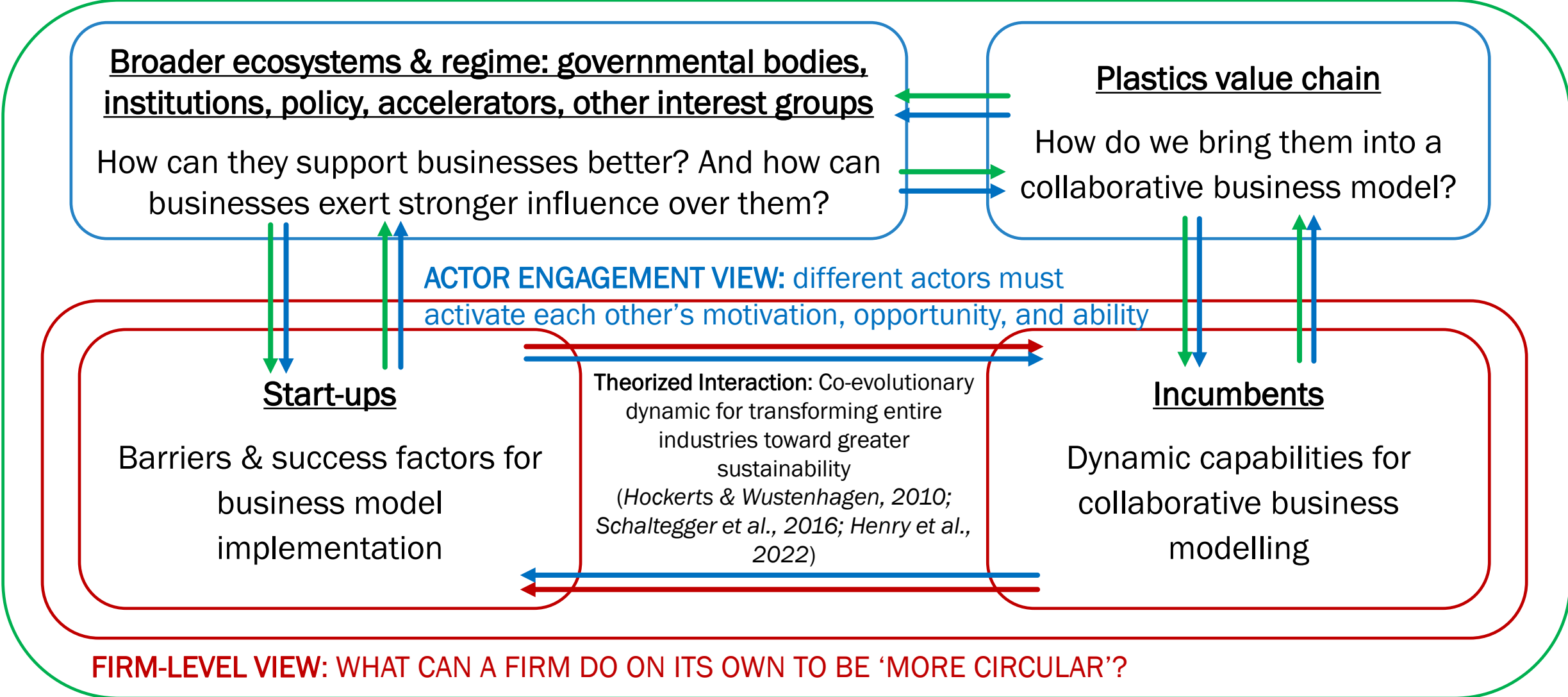


FIRM-LEVEL VIEW: WHAT CAN A FIRM DO ON ITS OWN TO BE 'MORE CIRCULAR'?



FIRM-LEVEL VIEW: WHAT CAN A FIRM DO ON ITS OWN TO BE 'MORE CIRCULAR'?

MESO/MACRO VIEW: START-UPS AND INCUMBENTS DON'T SEEM TO ACHIEVE THE PREVIOUSLY-THEORIZED SUSTAINABILITY TRANSFORMATION OF INDUSTRIES. FOR A CIRCULAR TRANSFORMATION, WHAT ELEMENTS ARE MISSING? HOW CAN WE HELP START-UPS AND INCUMBENTS TO BE MORE INNOVATIVE AND RADICAL? IS A BROADER VIEW OF THE BUSINESS MODEL NECESSARY?



THANK YOU

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