



REVOLUTION IN A LCA POINT OF VIEW

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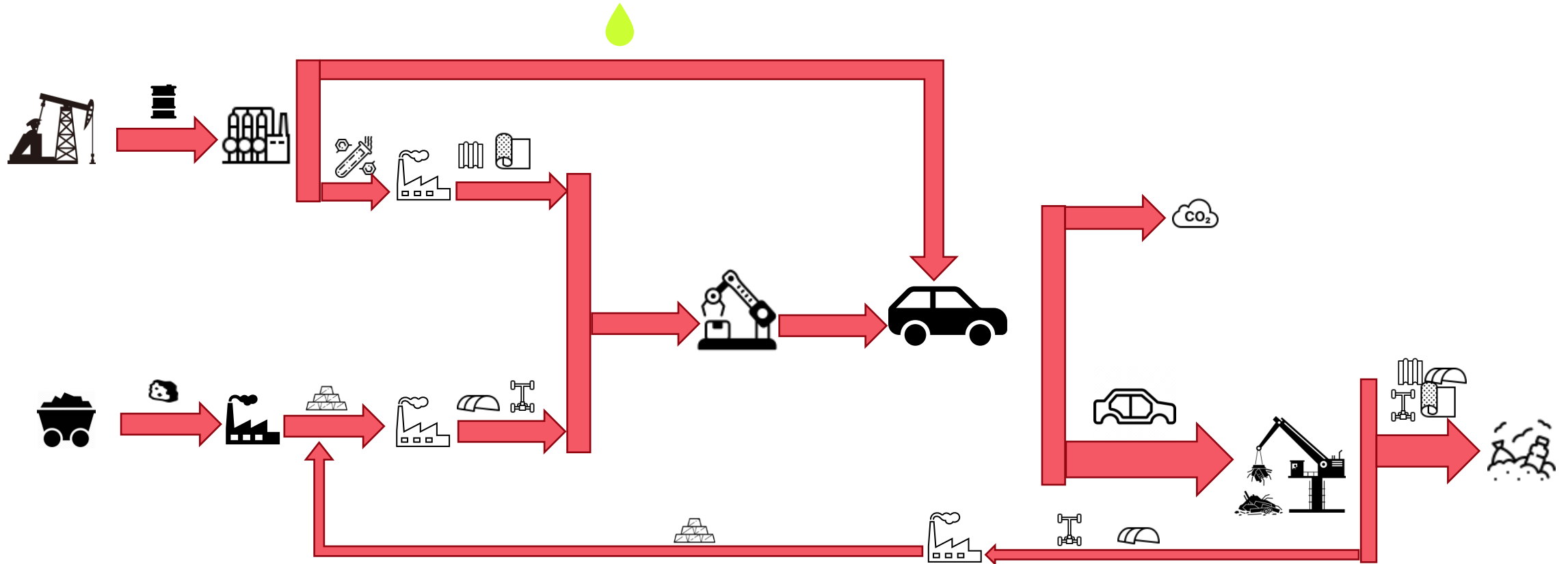
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Content

1. General project overview
2. LCA approach

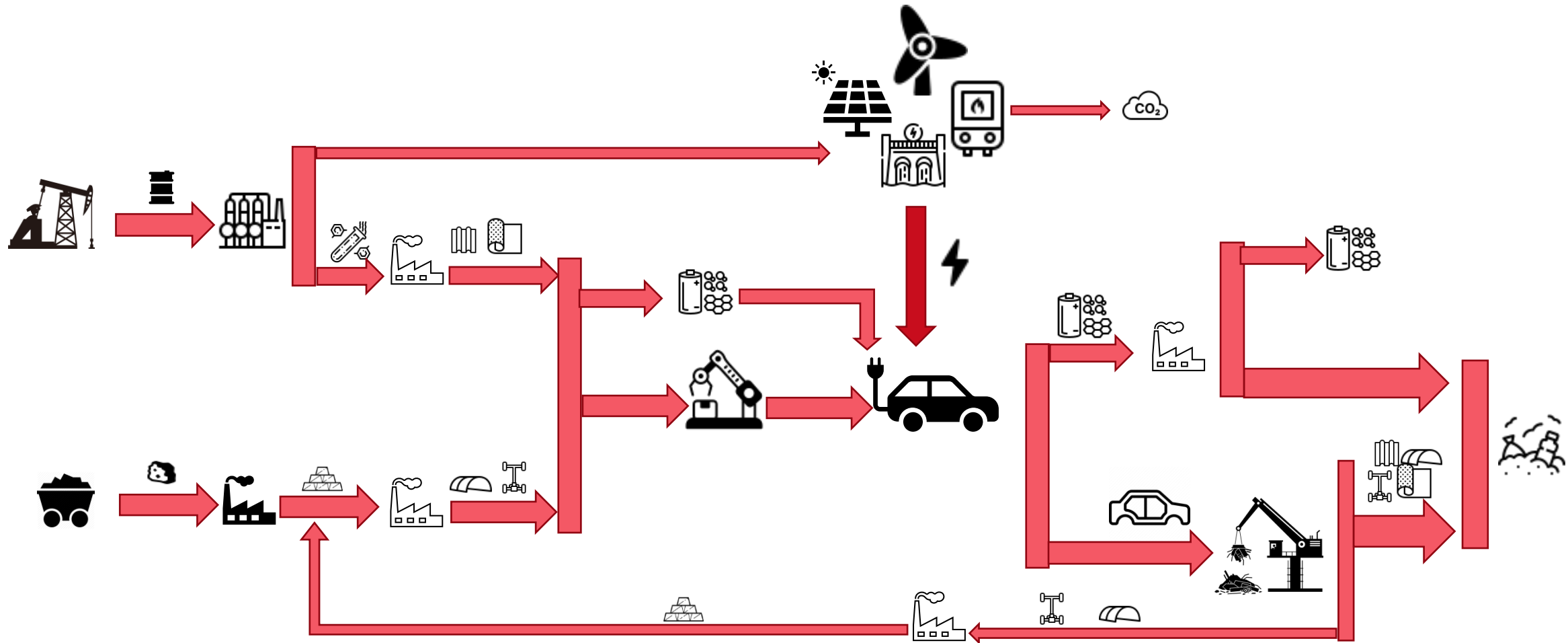
1. General project overview

ACTUAL AUTOMOTIVE SYSTEM




1. General project overview

OBJECTIVE AUTOMOTIVE SYSTEM



1. General project overview



 Application of Circular Economy Principles into the automotive industry



Maximizing recycle materials



Material consistency



IA control strategy



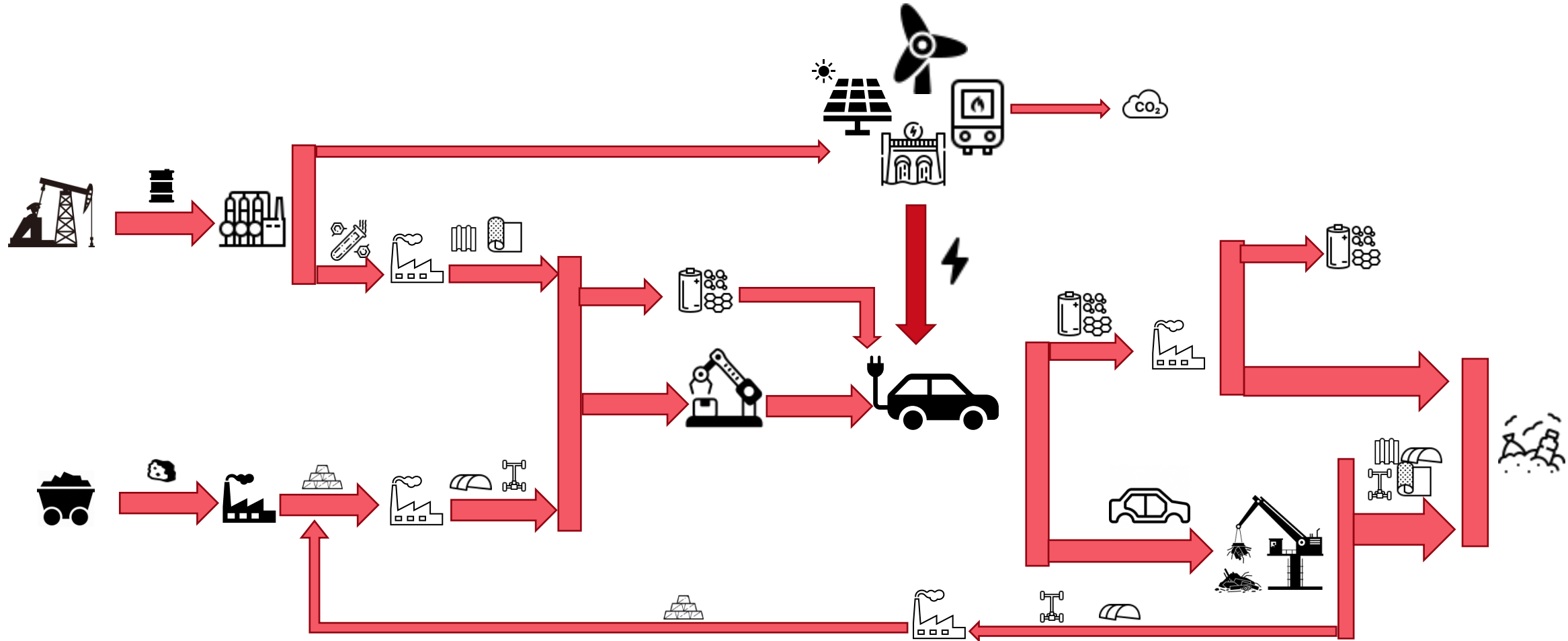
Deploy innovative materials that deliver safety, light weighting and recyclability



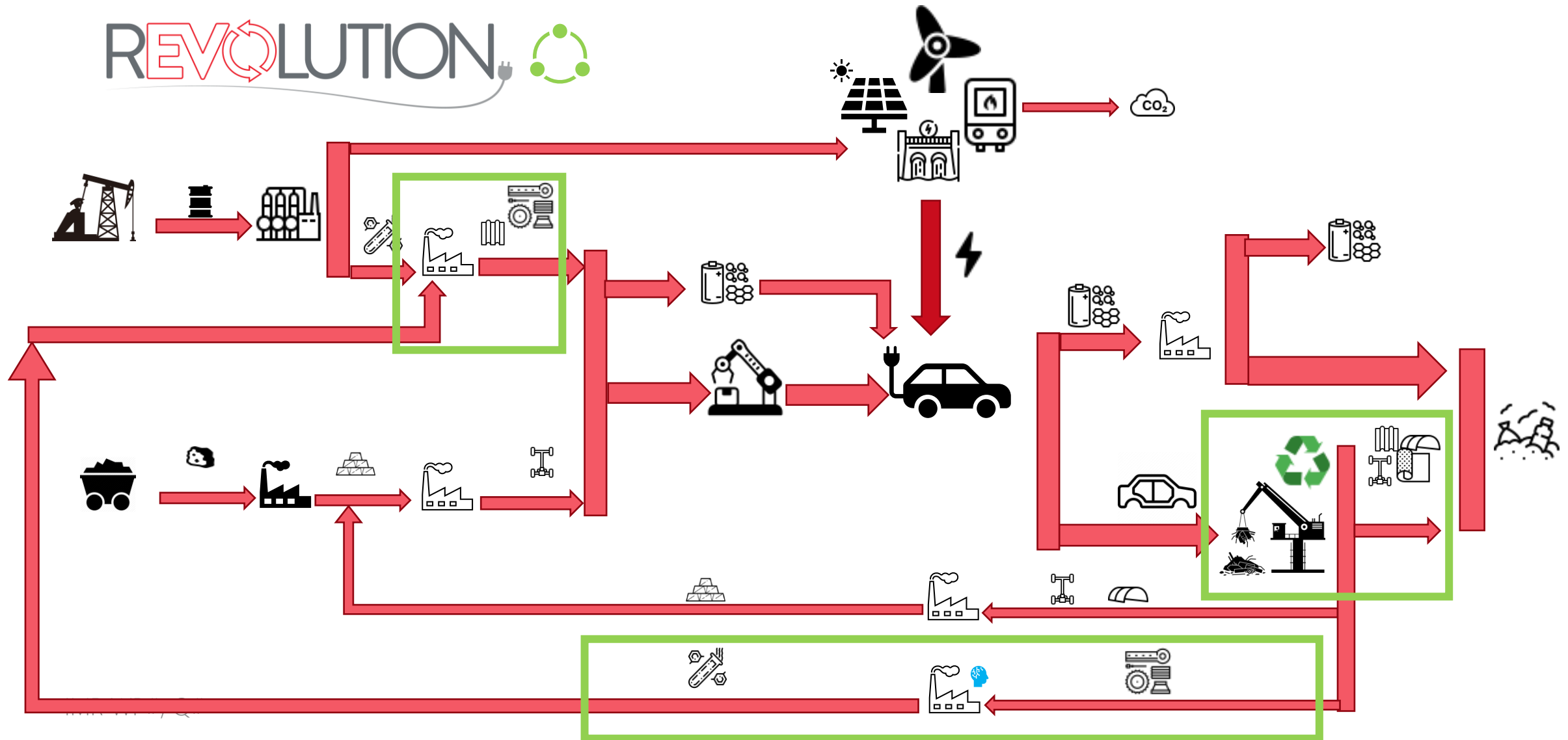
Designing to enable easier disassembly and recovery at End-of-Life.

1. General project overview

OBJECTIVE AUTOMOTIVE SYSTEM



1. General project overview



1. General project overview

REVOLUTION



Rear seatback panel



Currently: Steel

Objective: SRPO

B-pillar cover



Currently: PMMA and ABS-GF (polymeric)

Objective: rPMMA

Crash box



Currently: Steel

Objective: PP, PC or PA

Objective: - Weight

Rear Lower Bumper



Currently : PP (polymeric)

Objective: rPP

Content

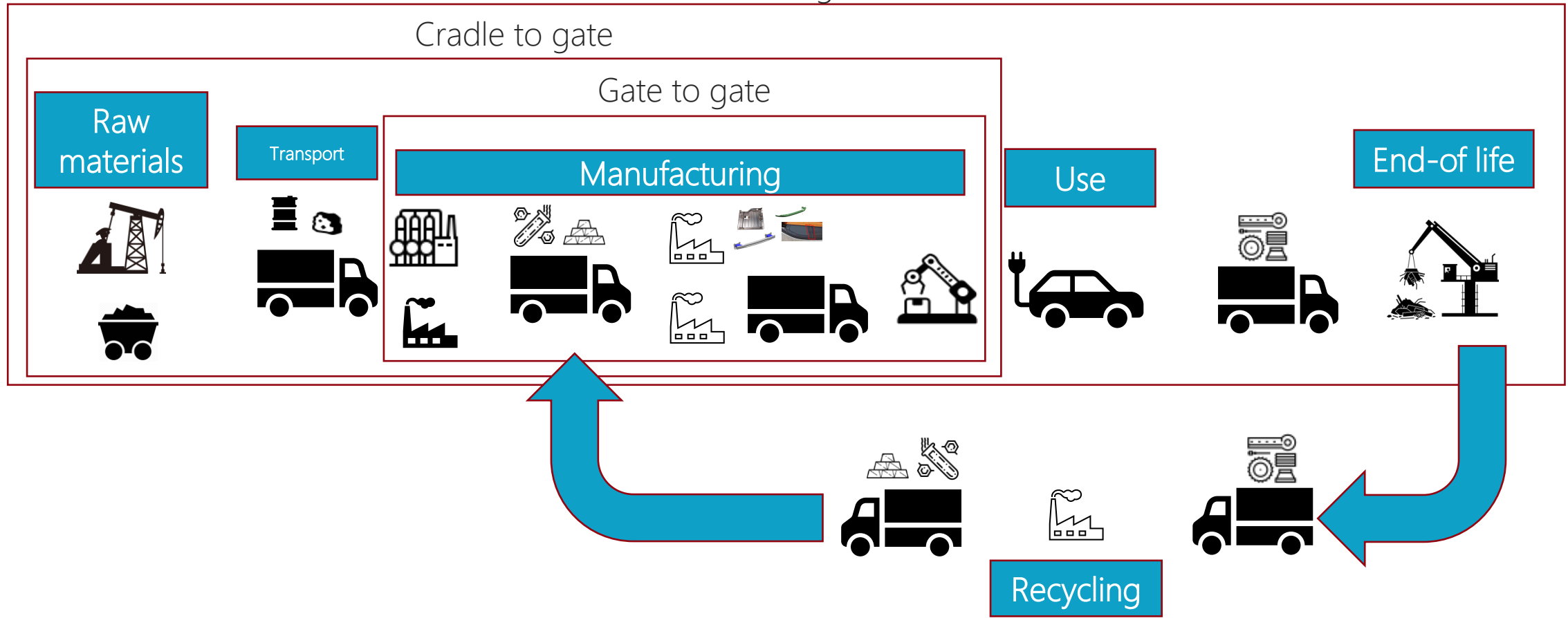
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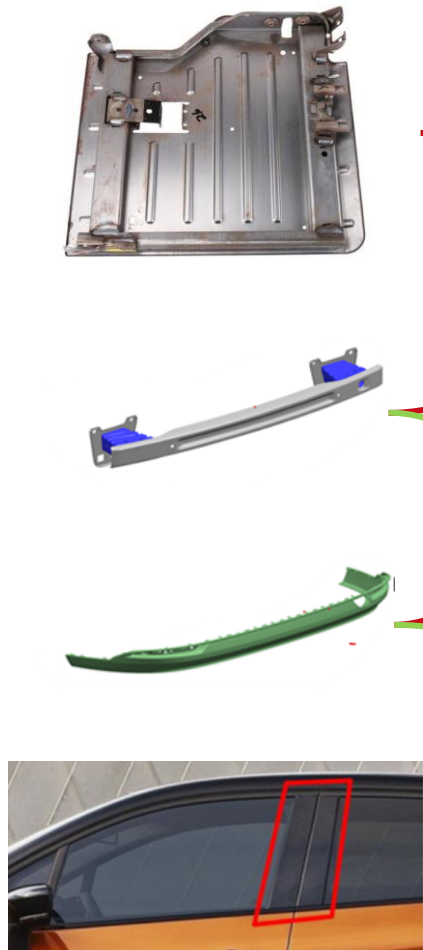
Cradle to cradle

Cradle to grave

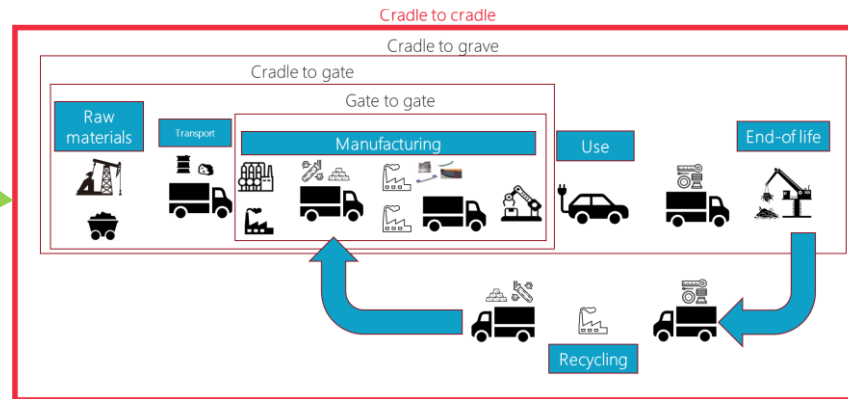
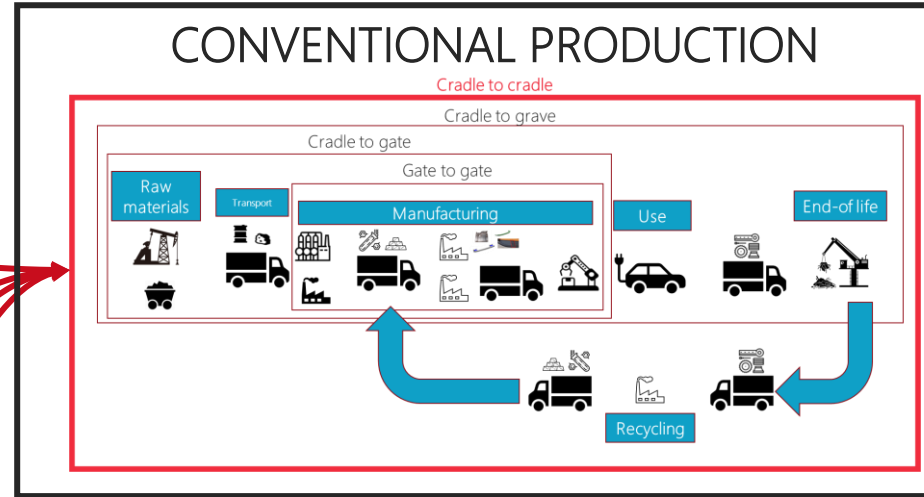
Cradle to gate

Gate to gate





IMR WP#, Q#

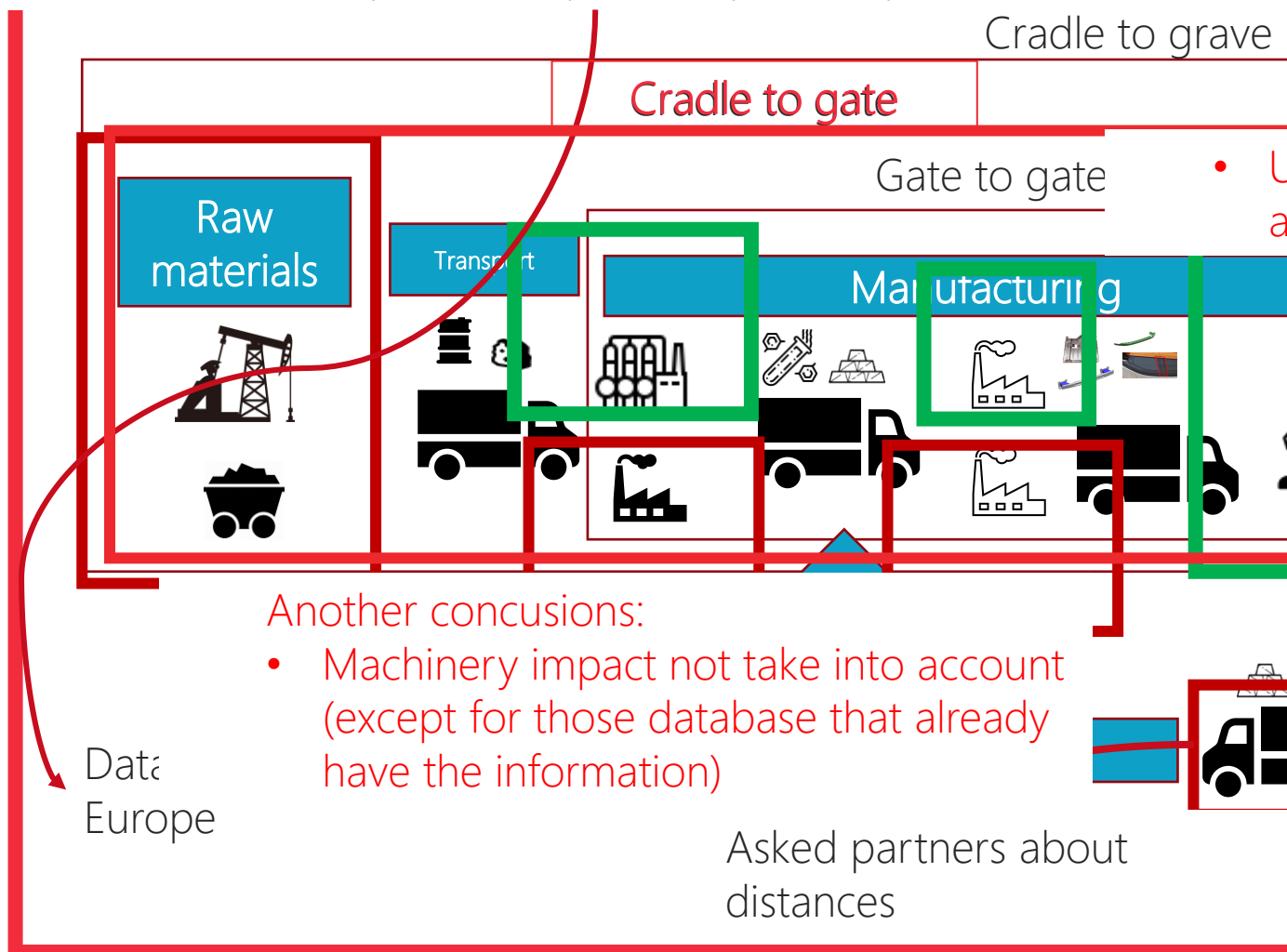


Method : ReCiPe 2016 (Hierarchist)

Software: SimaPro

FU: Per piece

Asked information (process, inputs, outputs) to partners



Another conclusions:

- Machinery impact not take into account (except for those database that already have the information)

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Conclusion summary of LCA of

- Use of the piece in car. How to take into account? PP, ABS, ...
- ... is the principal source for the Global warming impact in the four-case studied.
- Transport of materials start to be relevant in the impacts when transport distance is high (around 5000 km).
- In the metal pieces, welding is an important source of impacts, due to the electricity mix of the country and the production of fume welding (gases mixtures made of metals).

Recycling



Thanks for your attention!

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