



eLCAr

Chapter 7.1.3 End-of-Life

Second eLCAr Workshop

Aachen, October 9th 2012

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Project Consortium:



This project is supported by the European Commission under the Environment (including climate change) Theme of the 7th Framework Programme for Research and Technological Development.



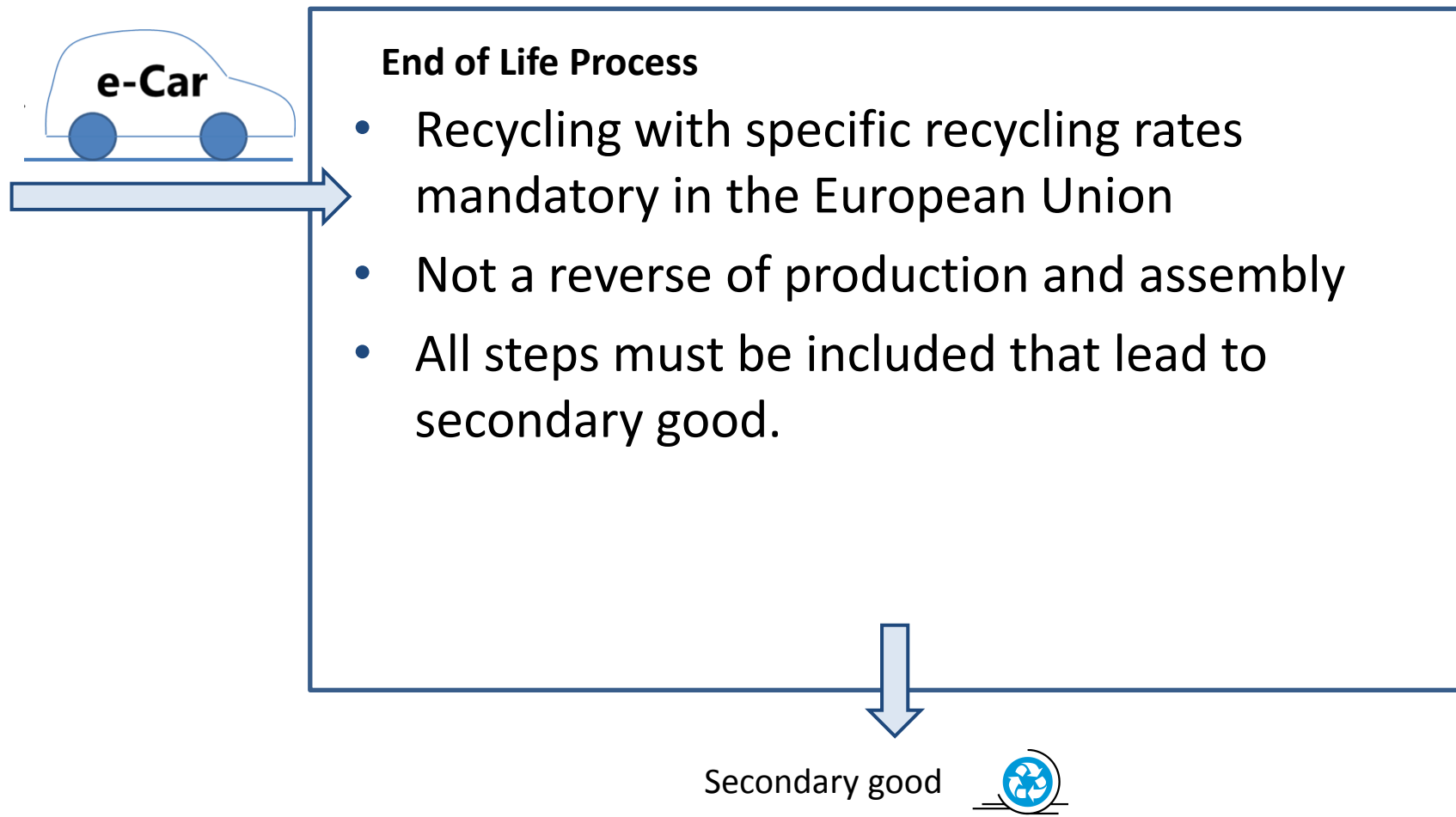
Agenda

- General process of EoL treatment
- Examples of battery and electric motor treatment
- Example of multifunctionality

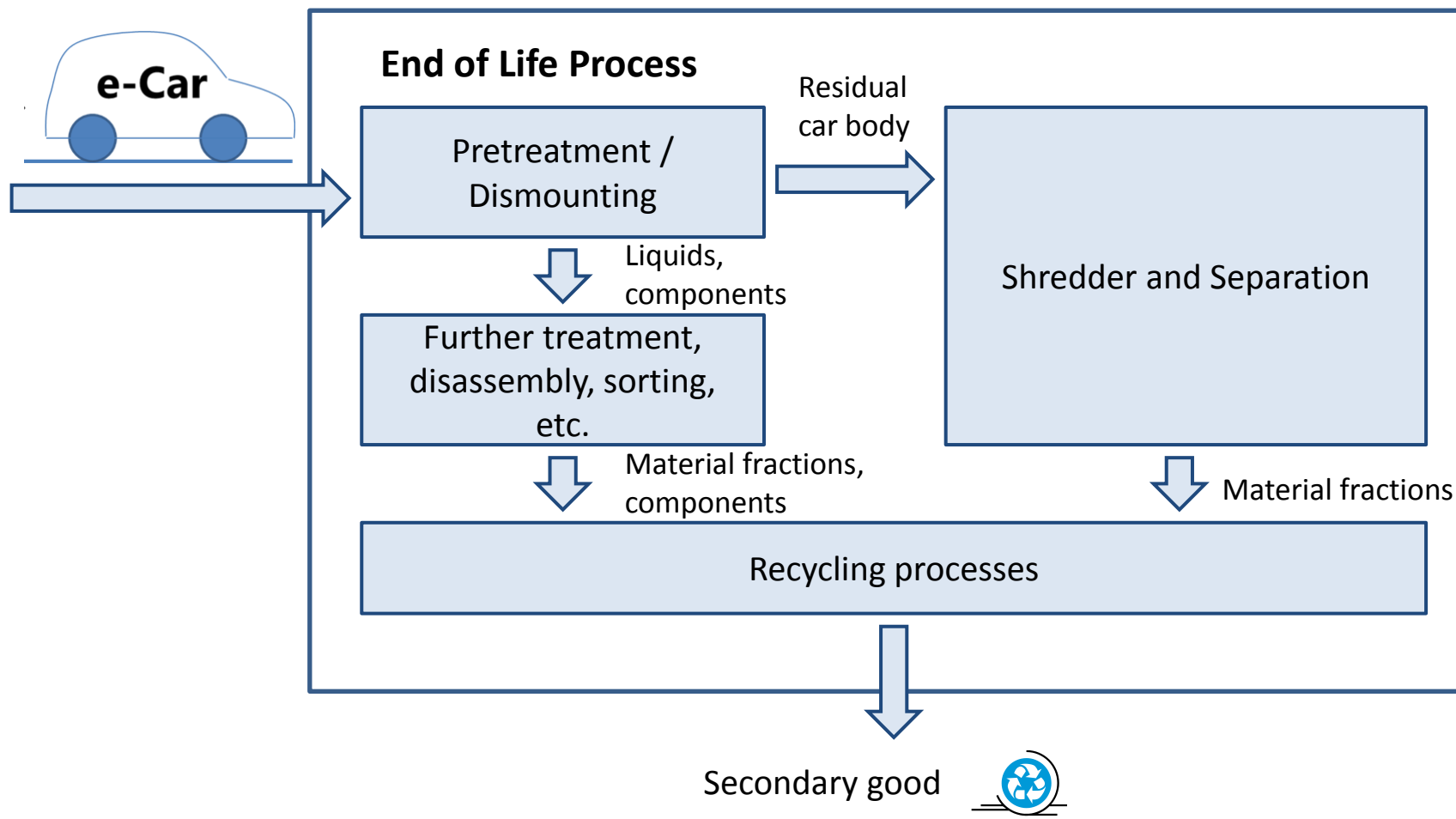
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- Examples of battery and electric motor treatment
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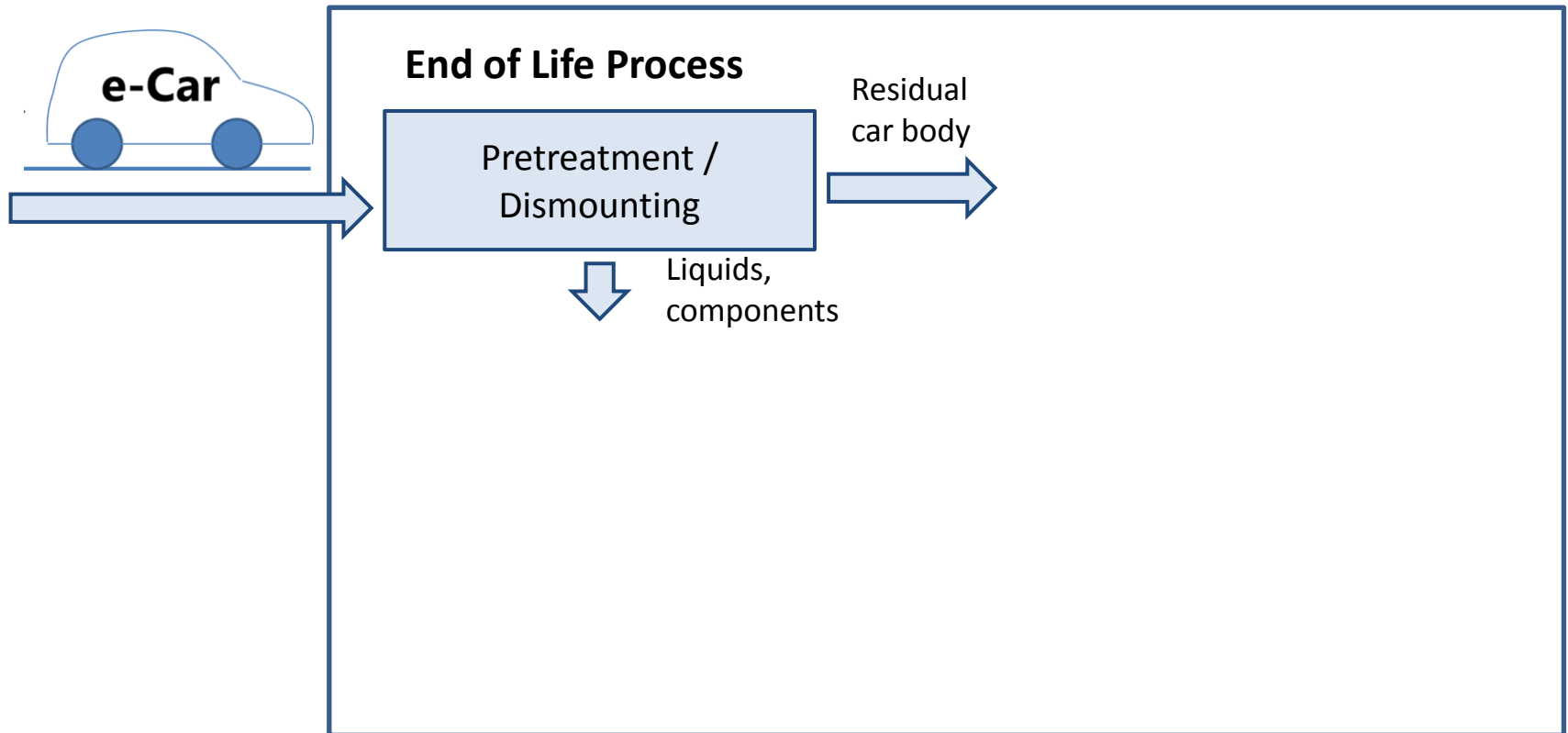
General Process of EoL



General Process of EoL



Pretreatment and Dismounting

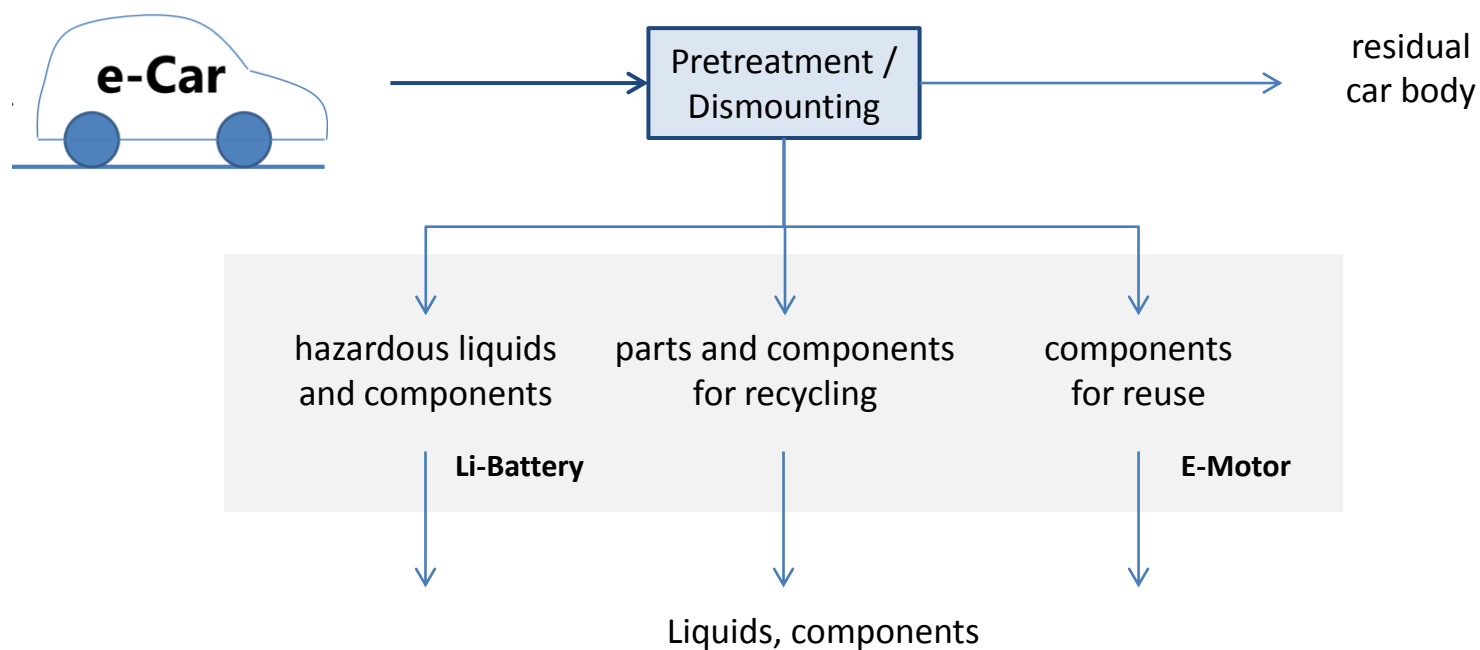


Secondary good

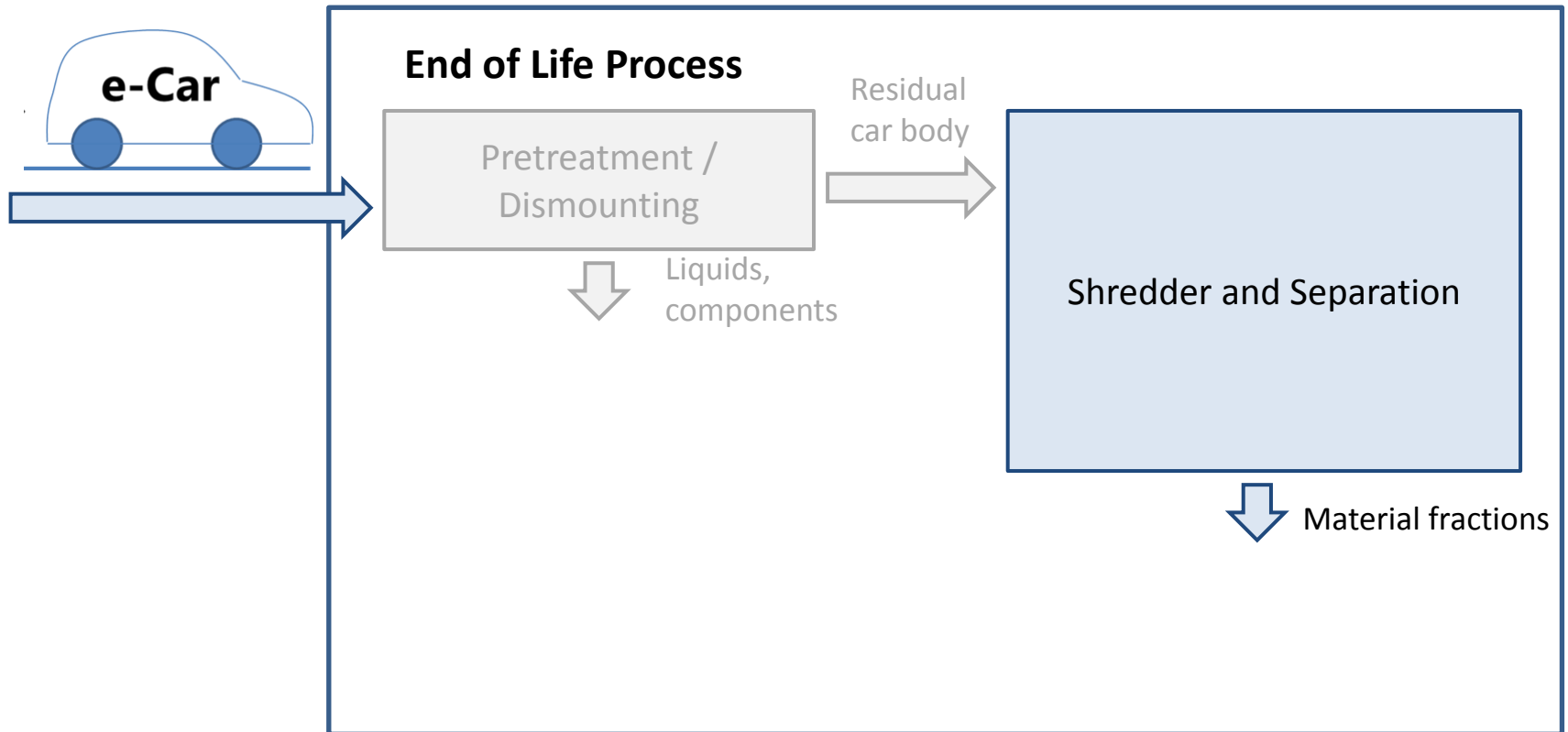


Pretreatment and Dismounting

- Hazardous liquids and components must be removed.
- Valuable components and parts are dismantled.



Shredder and Separation

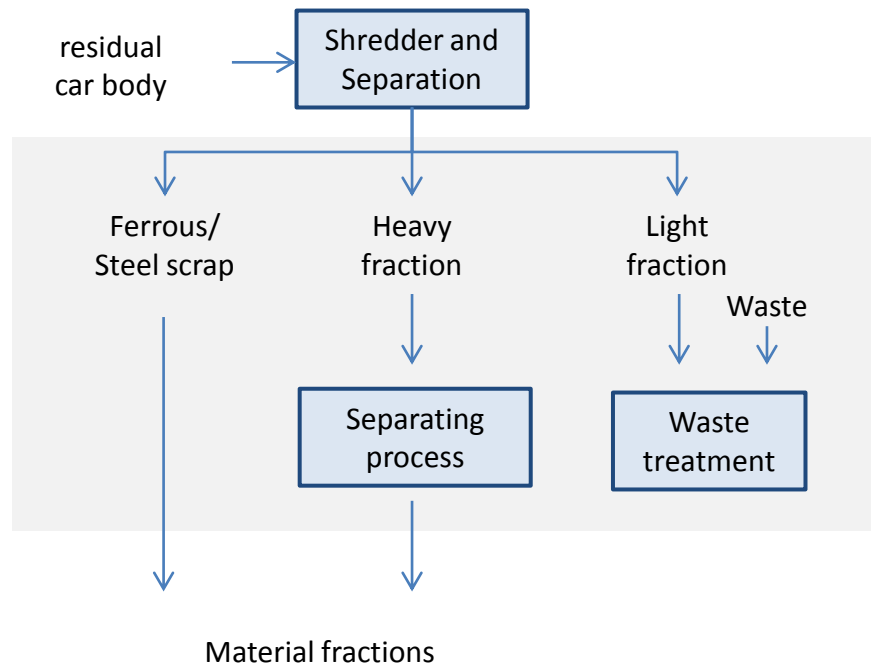


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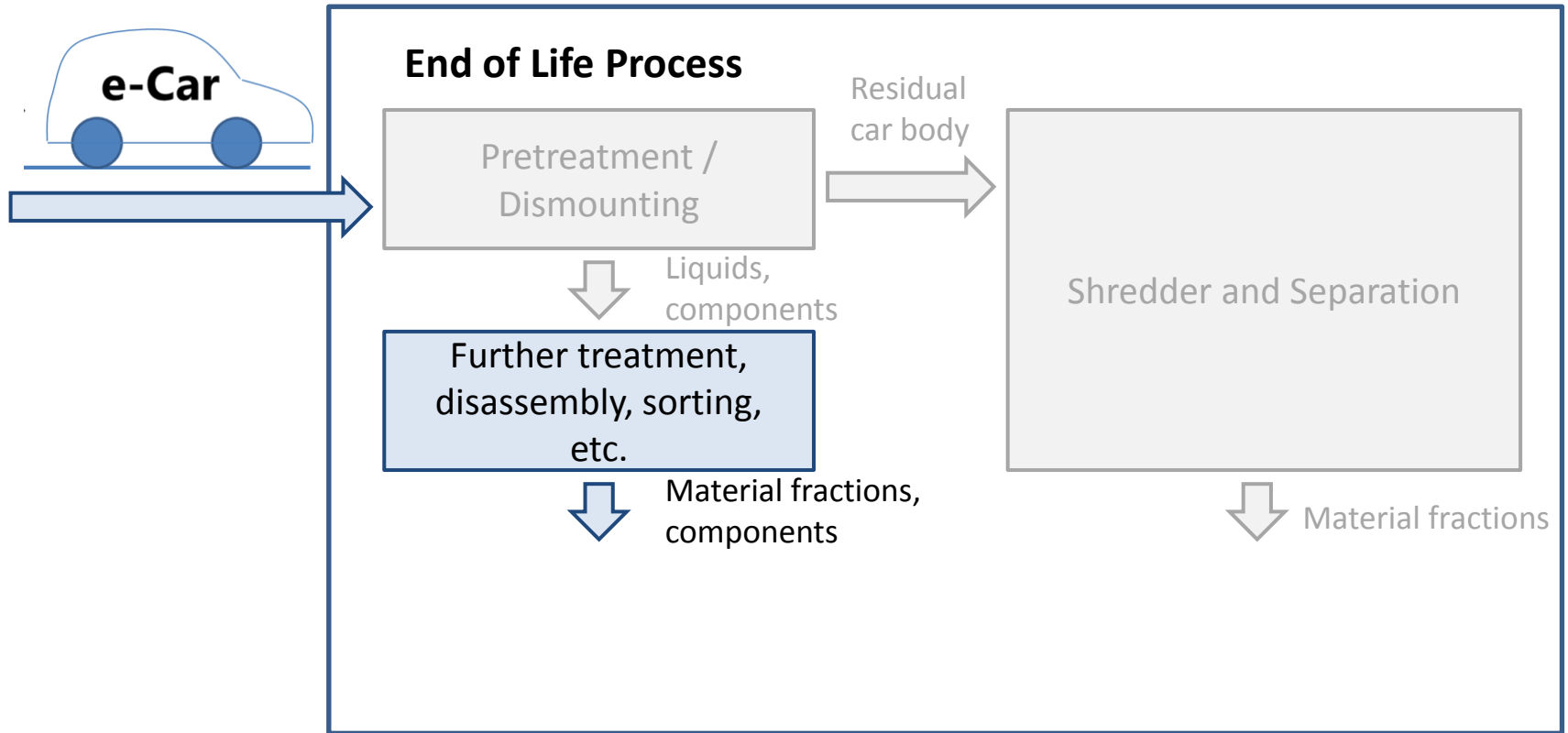


Shredder and Separation

The residual car body is shredded and separated into a ferrous/steel scrap, a heavy and a light fraction.



Further Treatment

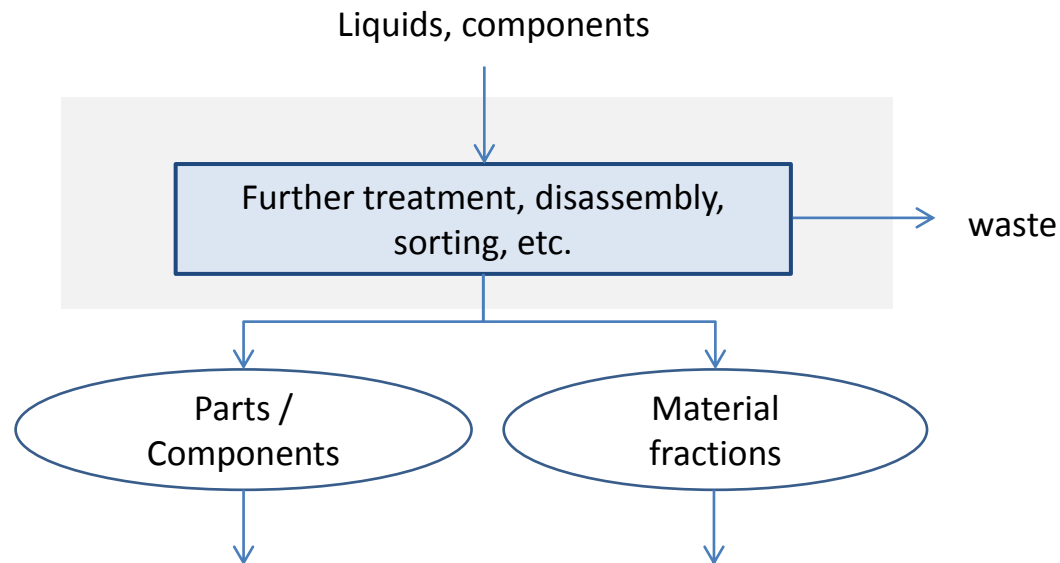


Secondary good

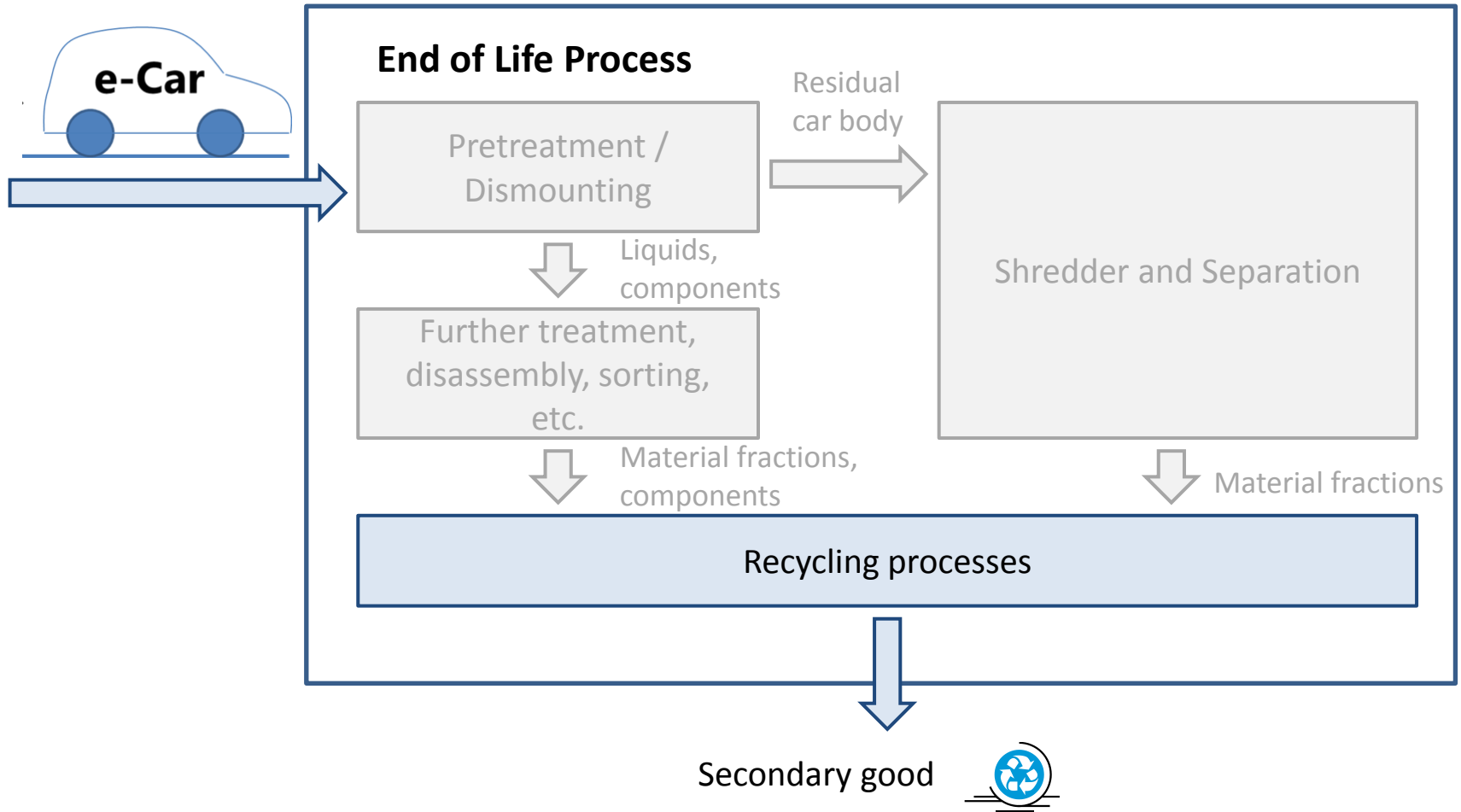


Further Treatment

- Hazardous liquids and components are sent to further treatment.
- The parts are then treated as waste, material fractions or components.

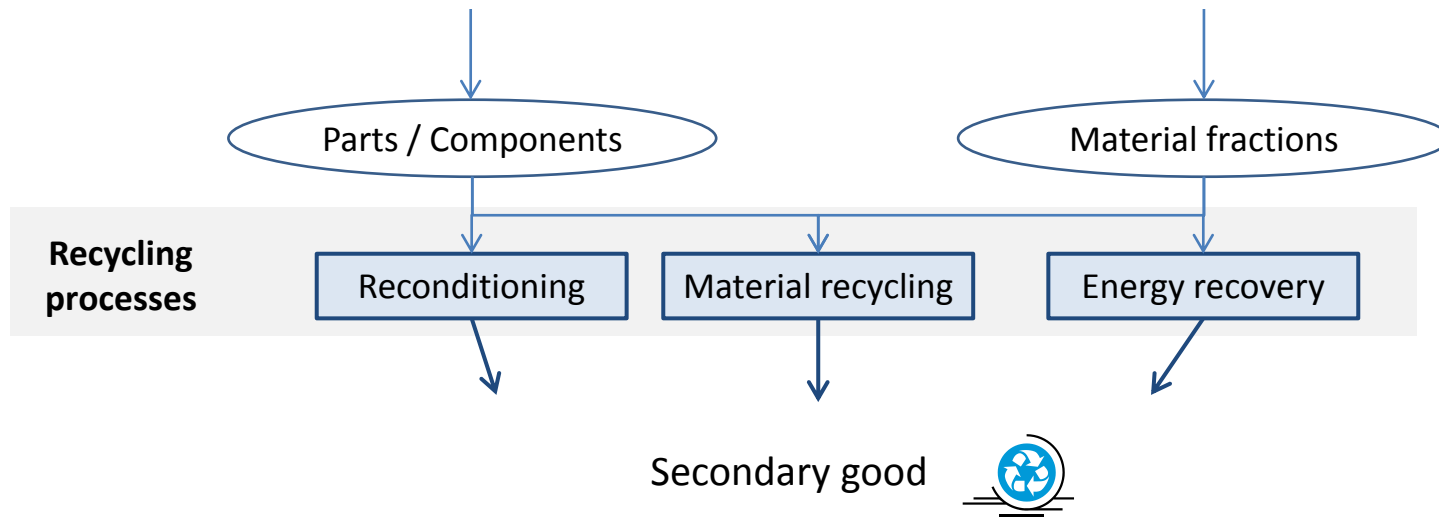


Recycling Processes

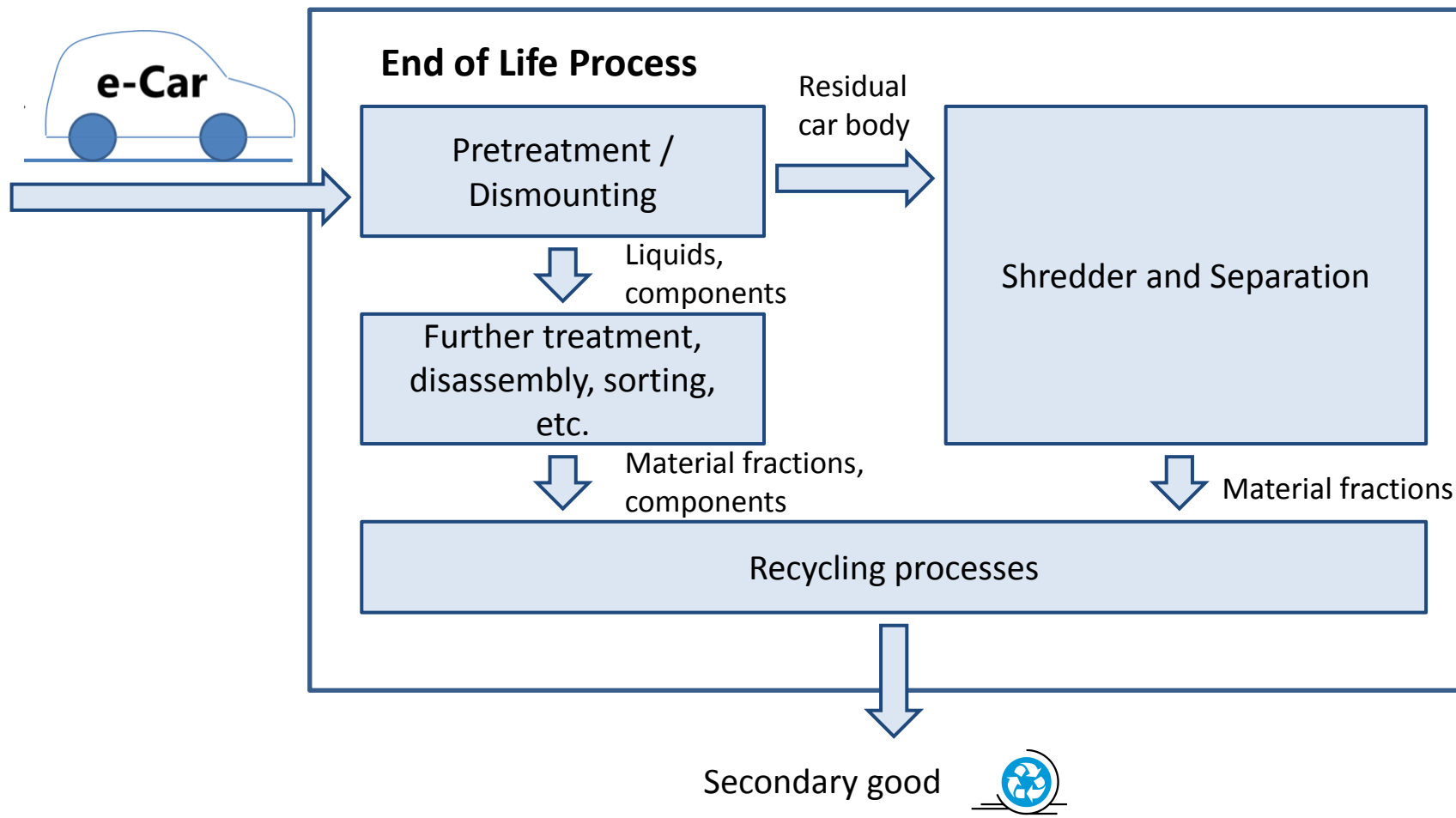


Recycling Processes

- The components, parts and material fractions from the different paths are sent to their specific recycling treatment to recover the secondary good.



General Process of EoL

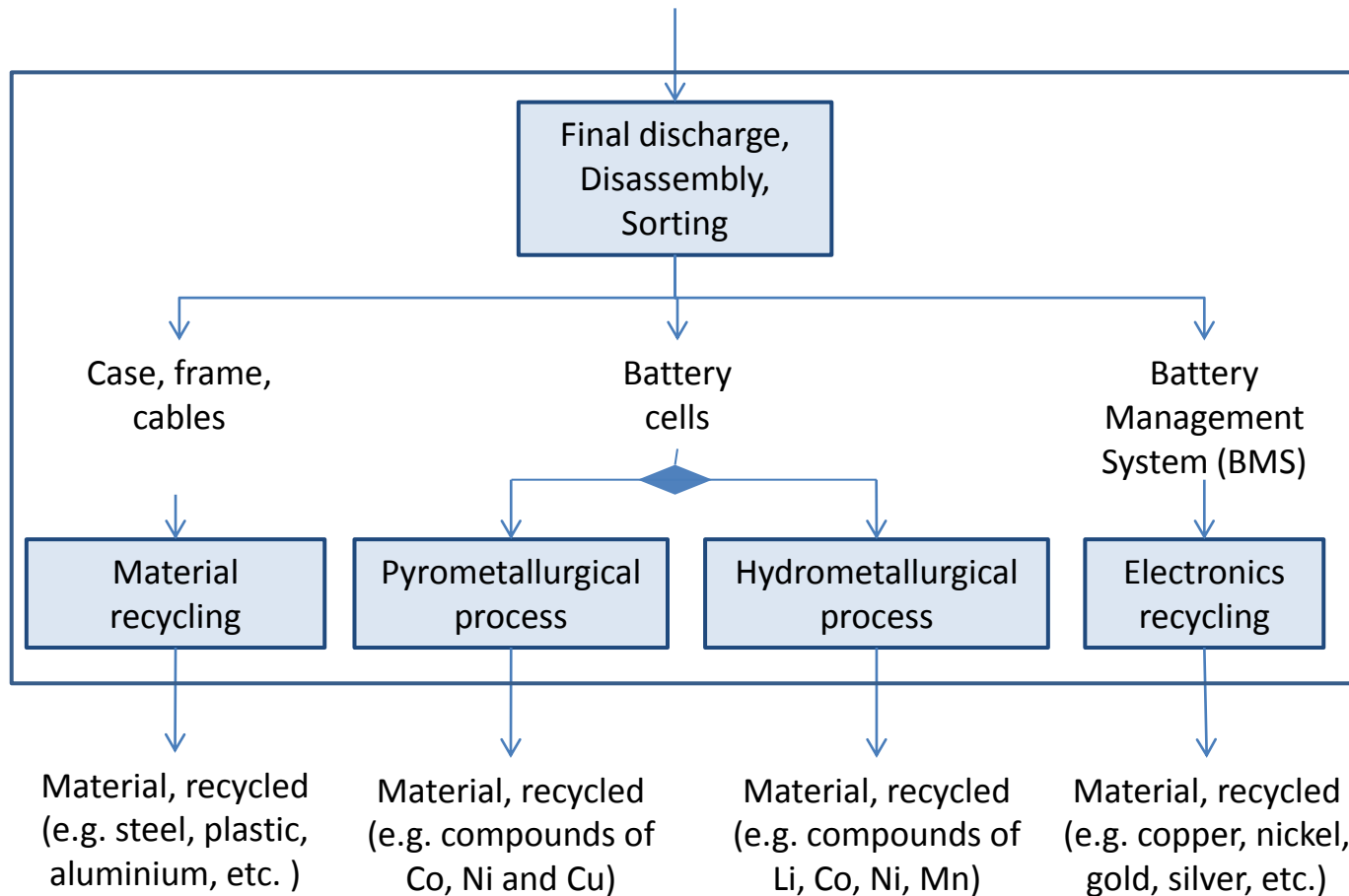


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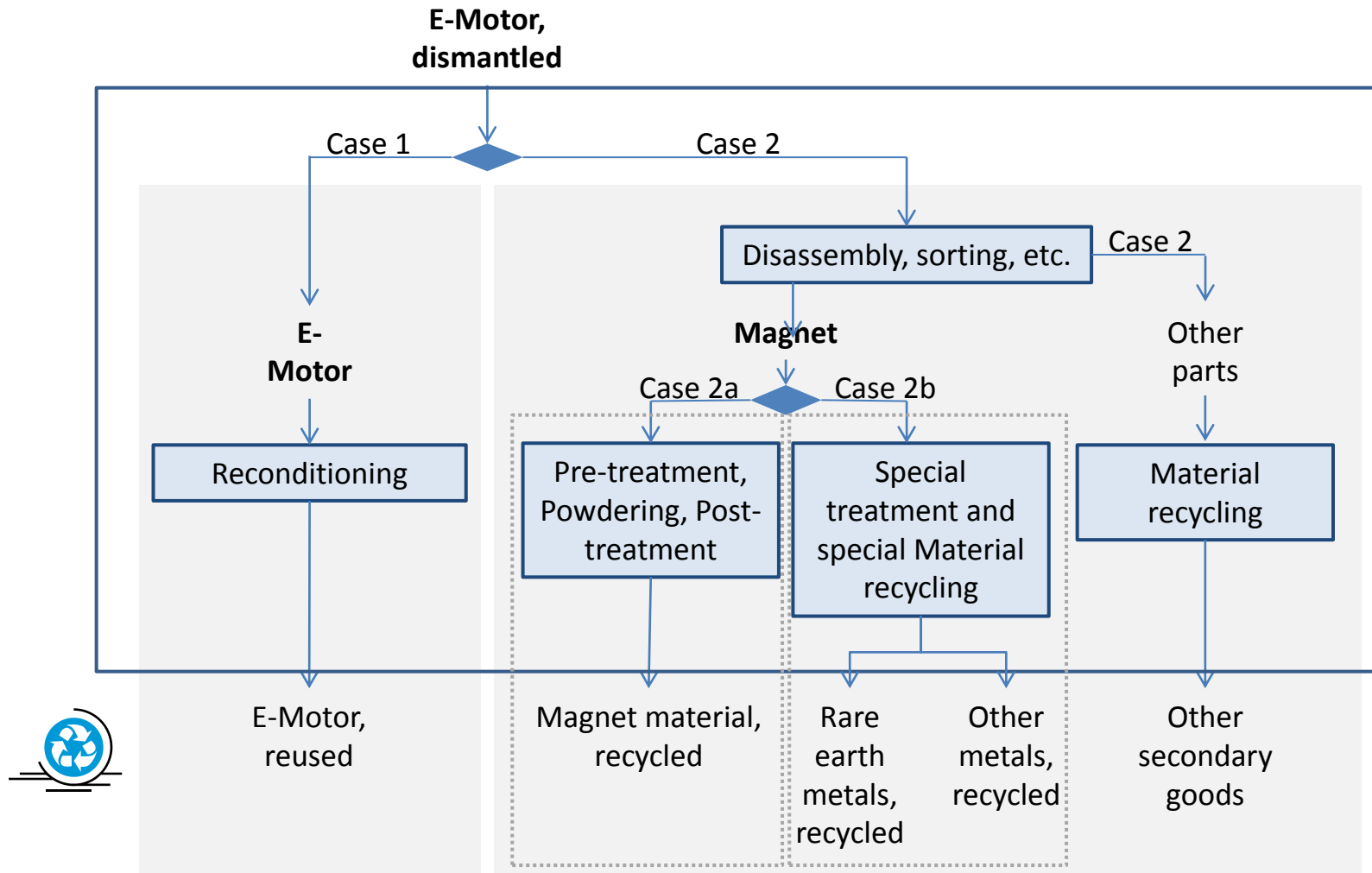
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Battery

Li-ion-Battery, dismantled



Electric motor

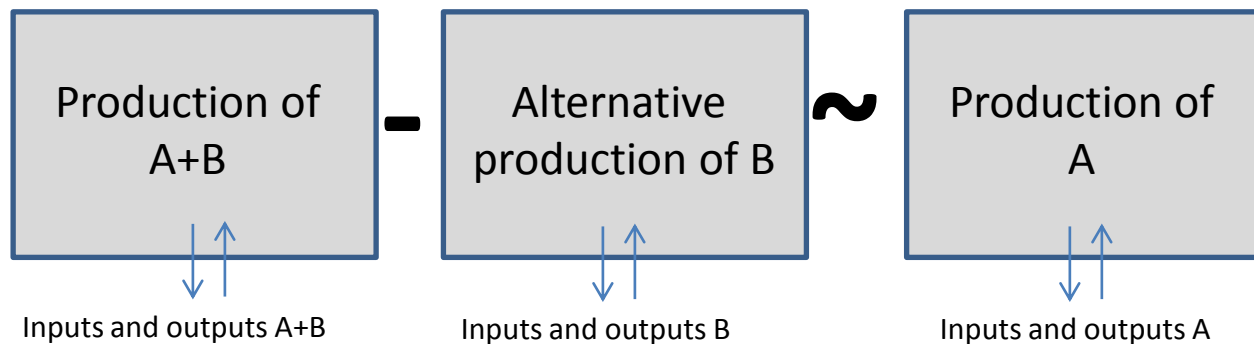


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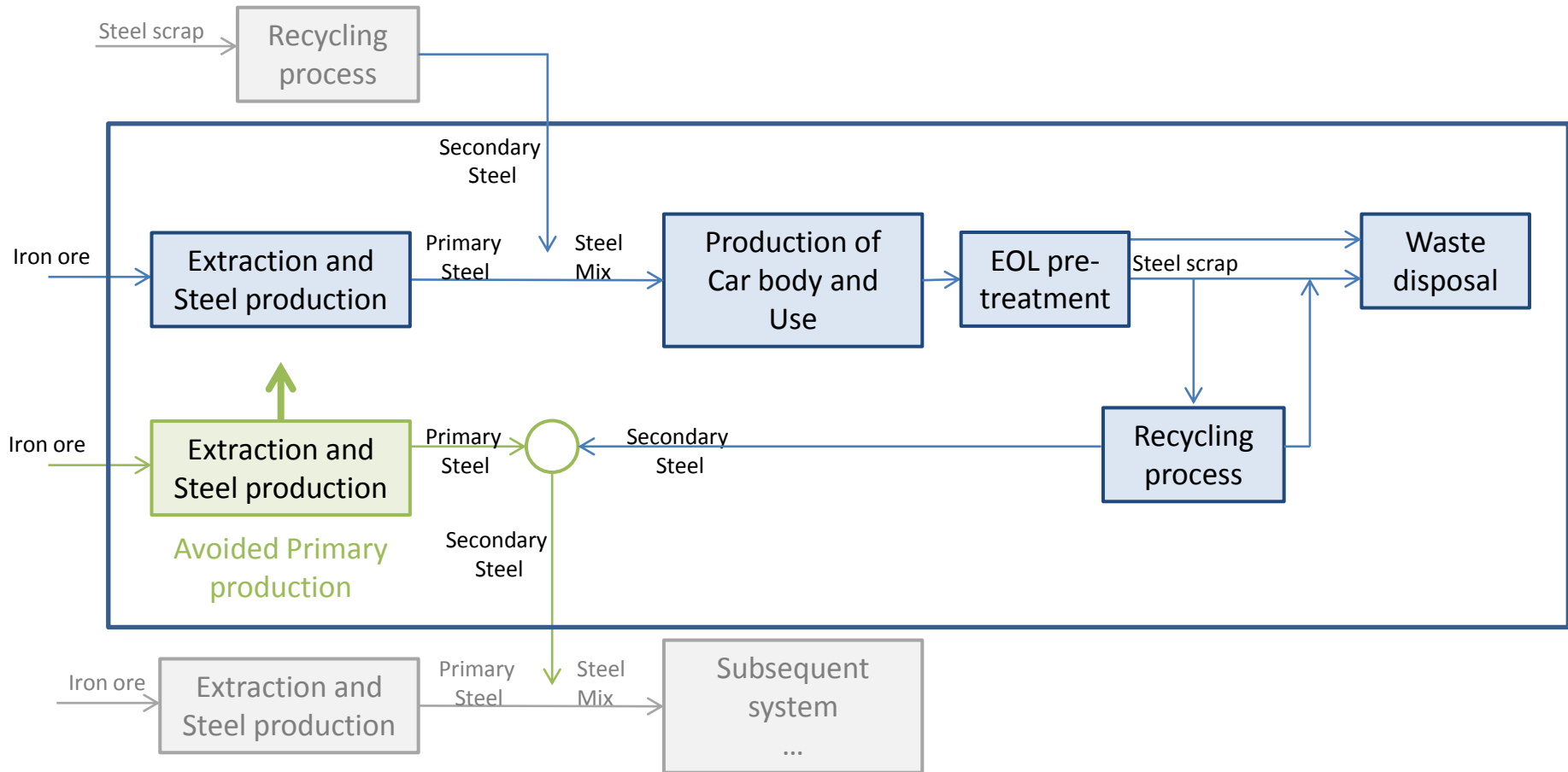
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Multifunctionality

- 1st: Subdivision (including virtual subdivision)
- **2nd: System expansion and substitution**
- 3rd: Allocation



Example of solution of multifunctionality



Multifunctionality

- Consider recycling rate to account for losses
- Consider inherent changes and apply value correction if necessary
- Consider time and place of creation of secondary good
- In Situation A use the average primary route market mix

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Thank you for your attention!

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