

Vad är det som hindrar recirkulation?

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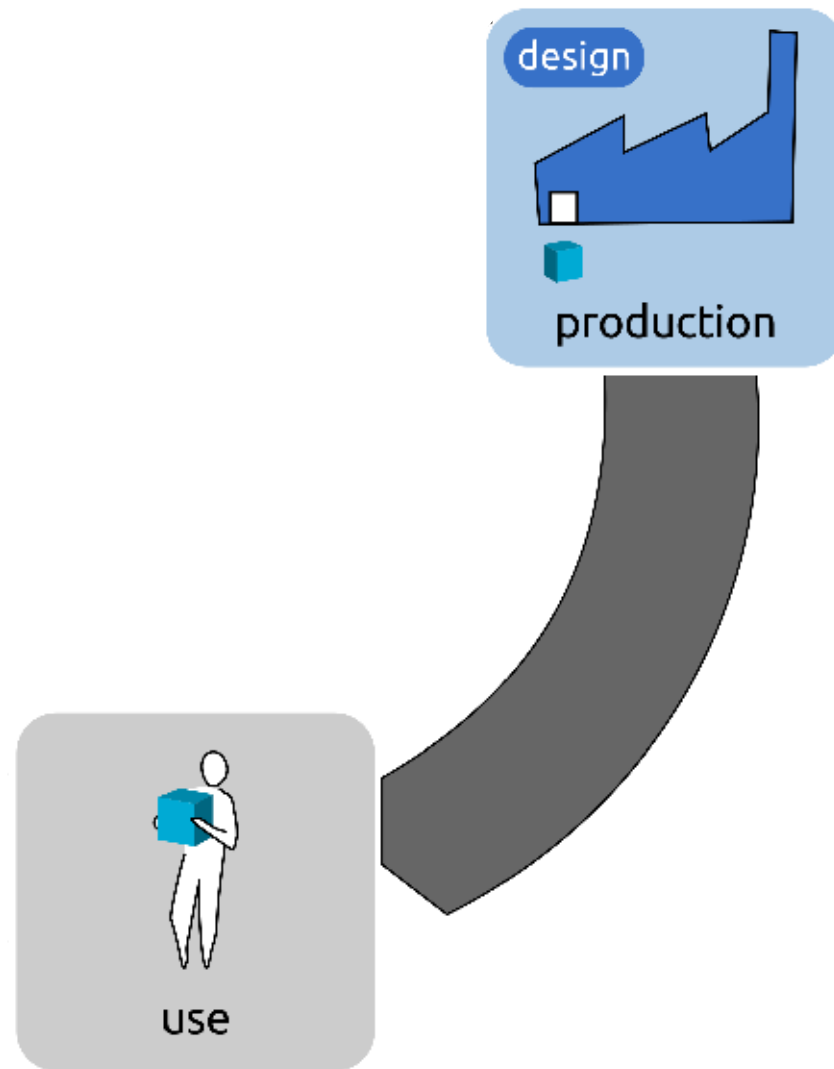
Designing out Waste
Exploring barriers for
material recirculation

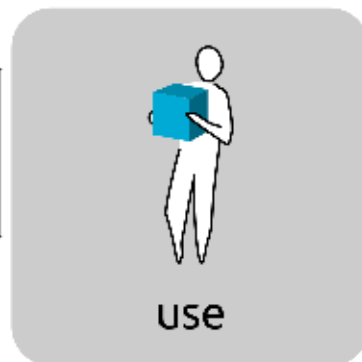
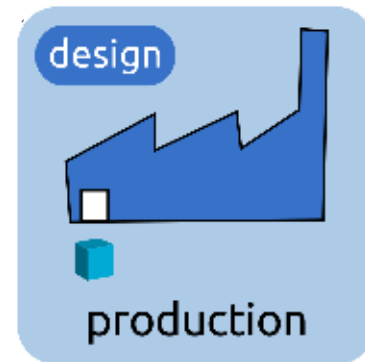
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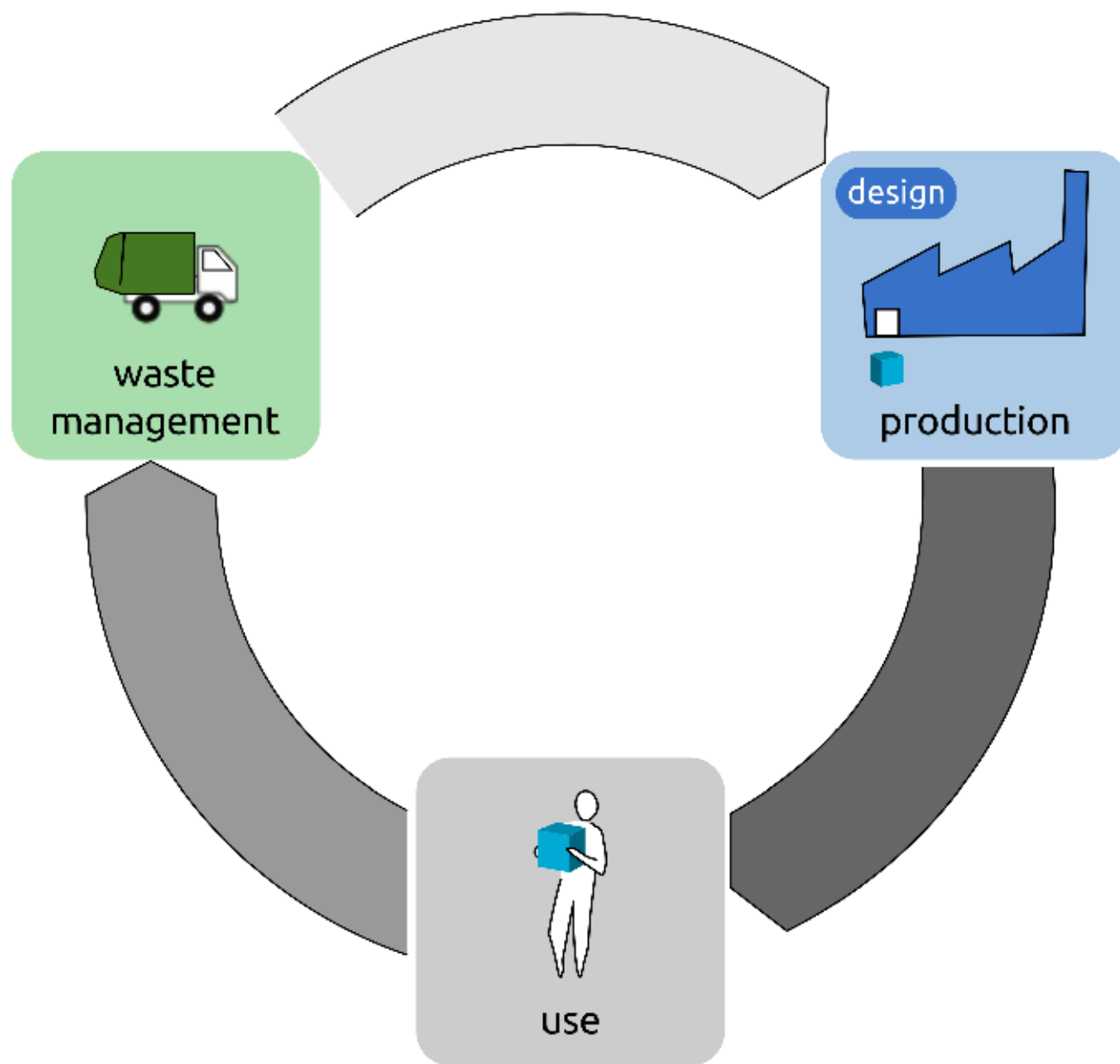
Department of Product and Production Development
CHALMERS UNIVERSITY OF TECHNOLOGY
Gothenburg, Sweden 2018

Sammanfattning av min
doktorsavhandling

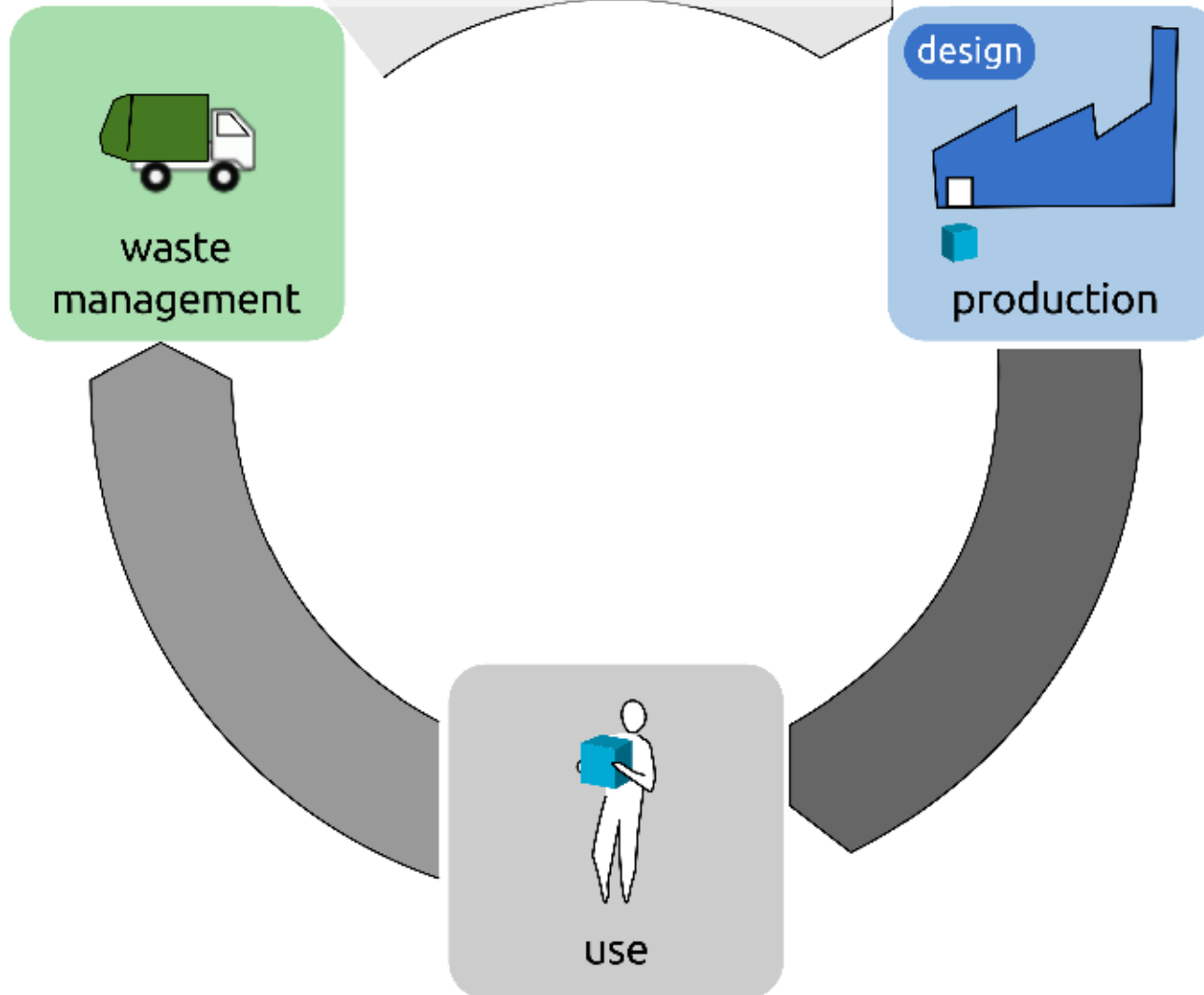
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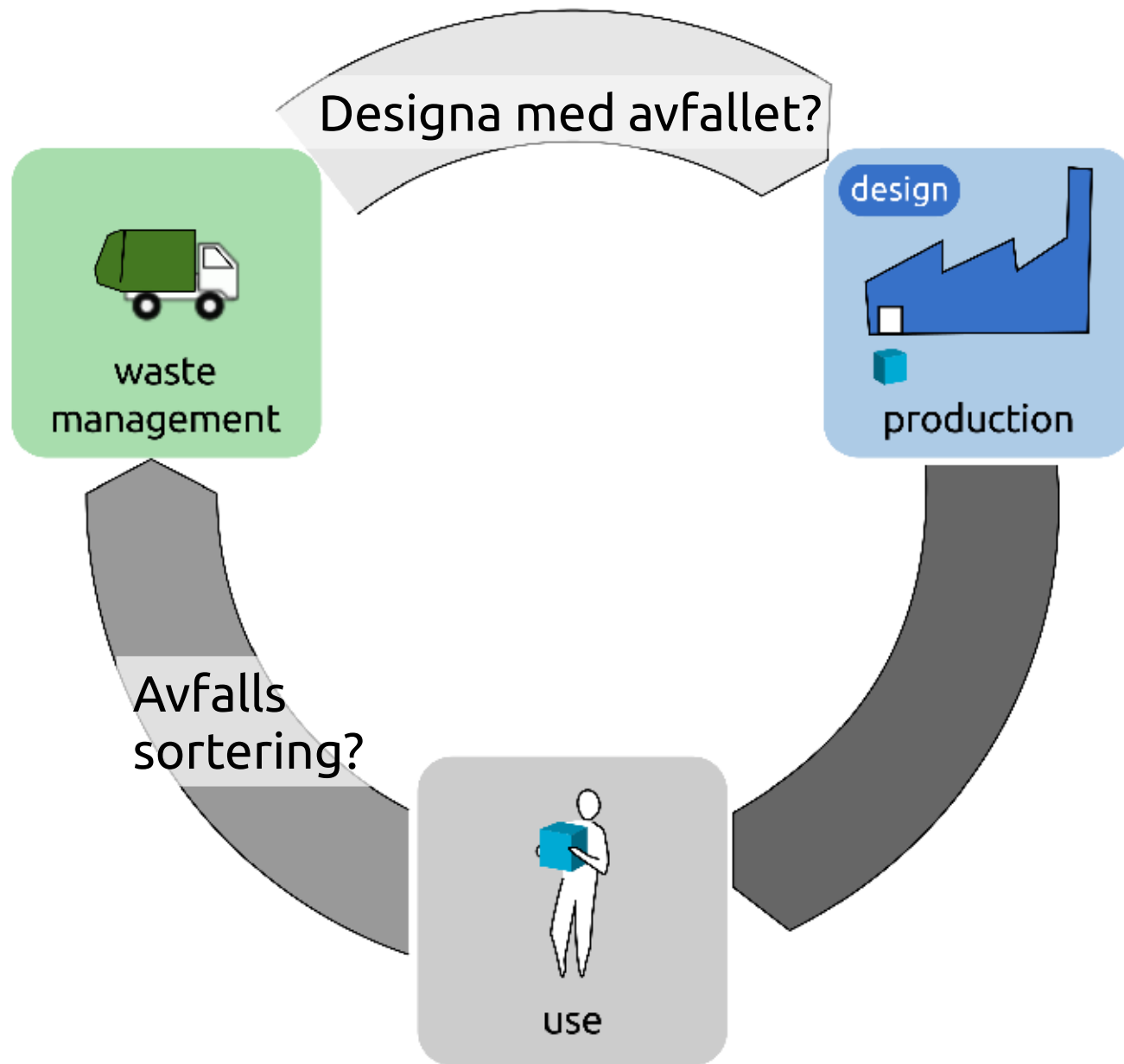


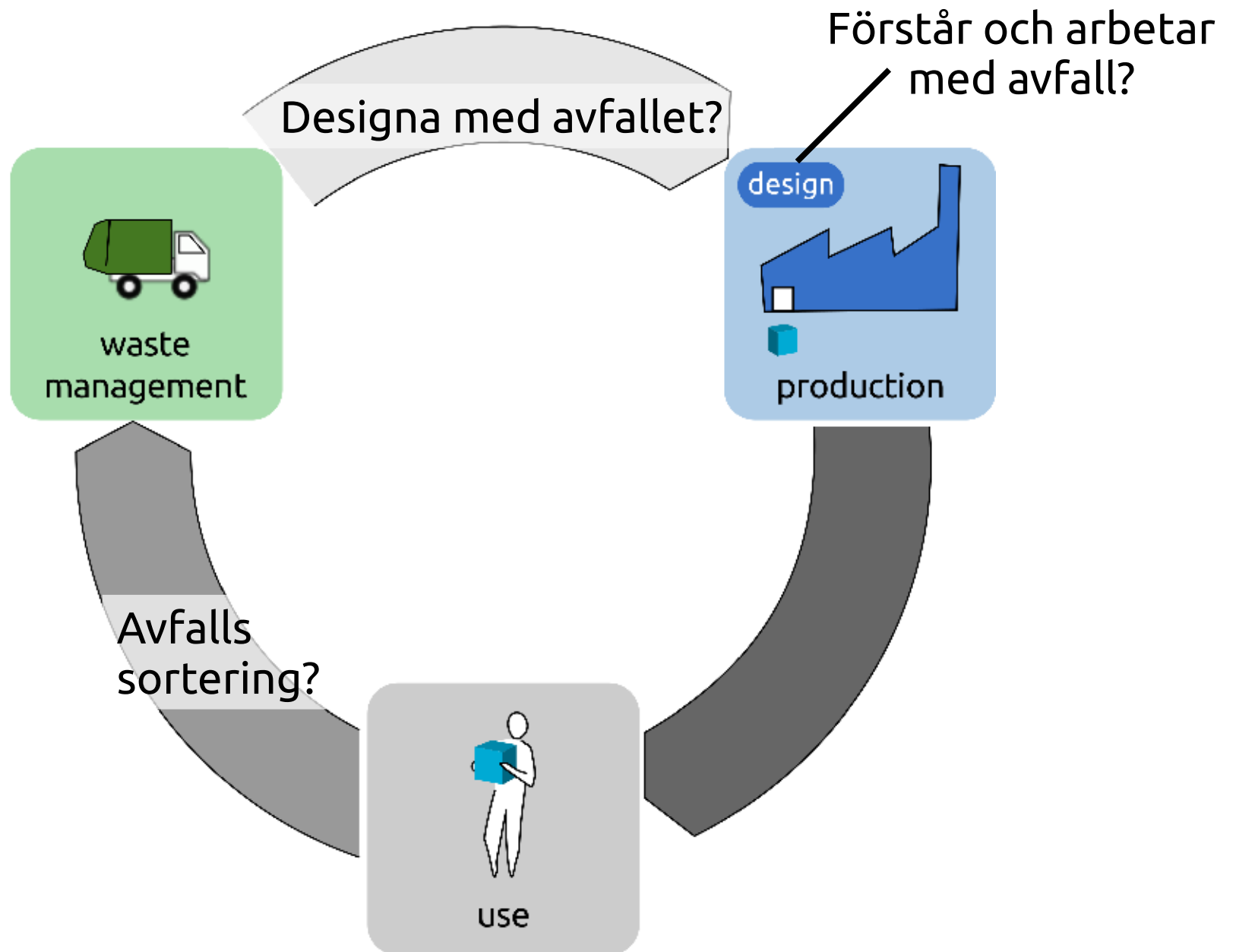




Designa med avfallet?









Designa med avfallet

Avfallssortering



Design & avfall



Underliggande hinder för materialrecirkulation



System complexity

Original picture by Anneli Selvefors

Sustainable waste management (WM) is a complex system that is difficult to understand and thereby develop, given that it takes on so many forms, different solutions and involves such a multitude of actors. Models and frameworks to understand WM exist and are crucial tools in working towards WM improvement. It is important that these tools are spread among all relevant stakeholders, and not only used by WM actors.

Little knowledge of secondary materials



More transparency around what materials products are made of is necessary to allow for recirculation by many actors. This needs to be complemented by good understanding for the materials recirculated, their properties, how to handle eventual impurities, what production processes they can be submitted to and how they are expected to vary with use. For these materials to be adequately separated the categories used for waste sorting should be well understood by all.

Lack of information

Image from flickr, original picture Tom Page

Lack of information is often experienced because there is poor communication among stakeholders. Specially when several actors are involved in a singular project or task it is common to see that they fail to communicate effectively. Effective communication requires that relevant information is transmitted when it is needed, but above all, that it is received and understood by the intended receptor for this information. Often excessive information availability leads to unclear communication.



Undefined responsibilities

Image from Wikimedia commons

In general, it can be said that when several actors are involved in achieving a goal, who should do what, and even who does what might become unclear. Large groups provide anonymity and with shared responsibility there is the possibility of shifting blame to other actors not performing as desired. Since material recirculation is a task involving the entire society, this is bound to happen.

Lack of control

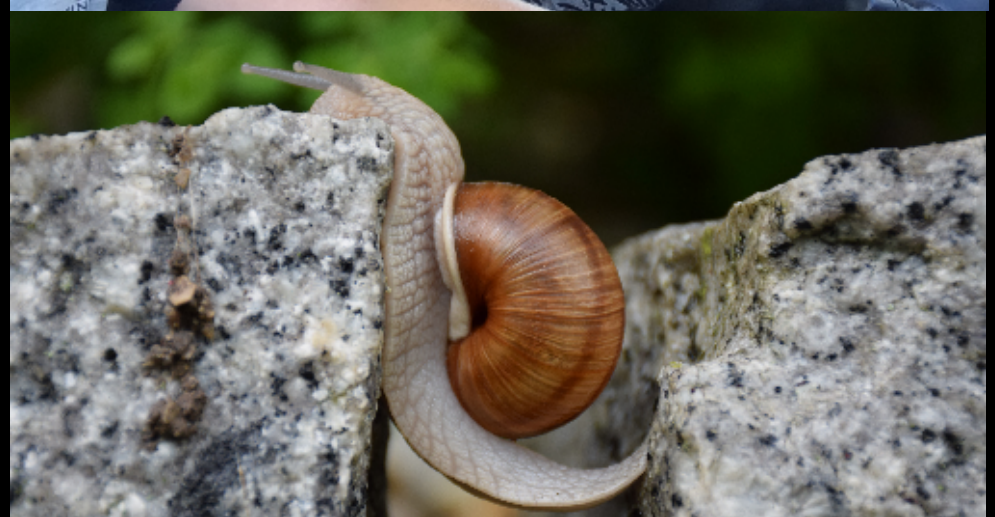


It can be concluded that lack of control appears when there are many actors involved in a task, as do undefined responsibilities. Users are the most unpredictable of stakeholders since they are so many individuals acting independently. Users are practically impossible to control, but they can be influenced. Marketing is a great example of how people's actions can be steered. Influencing people to behave in more sustainable ways should therefore also be possible. This is in general terms what the field of Design for Sustainable Behaviour aims to do.

Requires additional time/effort



Implementing a circular use of materials in society will require more time and effort than simply using materials linearly, mainly because of the inertia we currently have built into the production, consumption and disposal systems. The perception of these additional efforts differ between the participant actors and a clear definition of responsibilities to allocate these efforts, as well as the motivations to justify them for each actor, are unfortunately lacking.



Kan vi göra nånting
åt dessa hinder?

Kan vi göra nånting åt dessa hinder?

Regelverket för
materialrecirkulation

Bättre förståelse
mellan aktörer

