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BETWEEN A ROCK AND A HARD PLACE

HOW CO-CREATION CAN FOSTER SCALING UP
THE CIRCULAR ECONOMY

WHAT IS CO-CREATION?

- Co-creation is the creativity shared by two or more people who create something collectively.

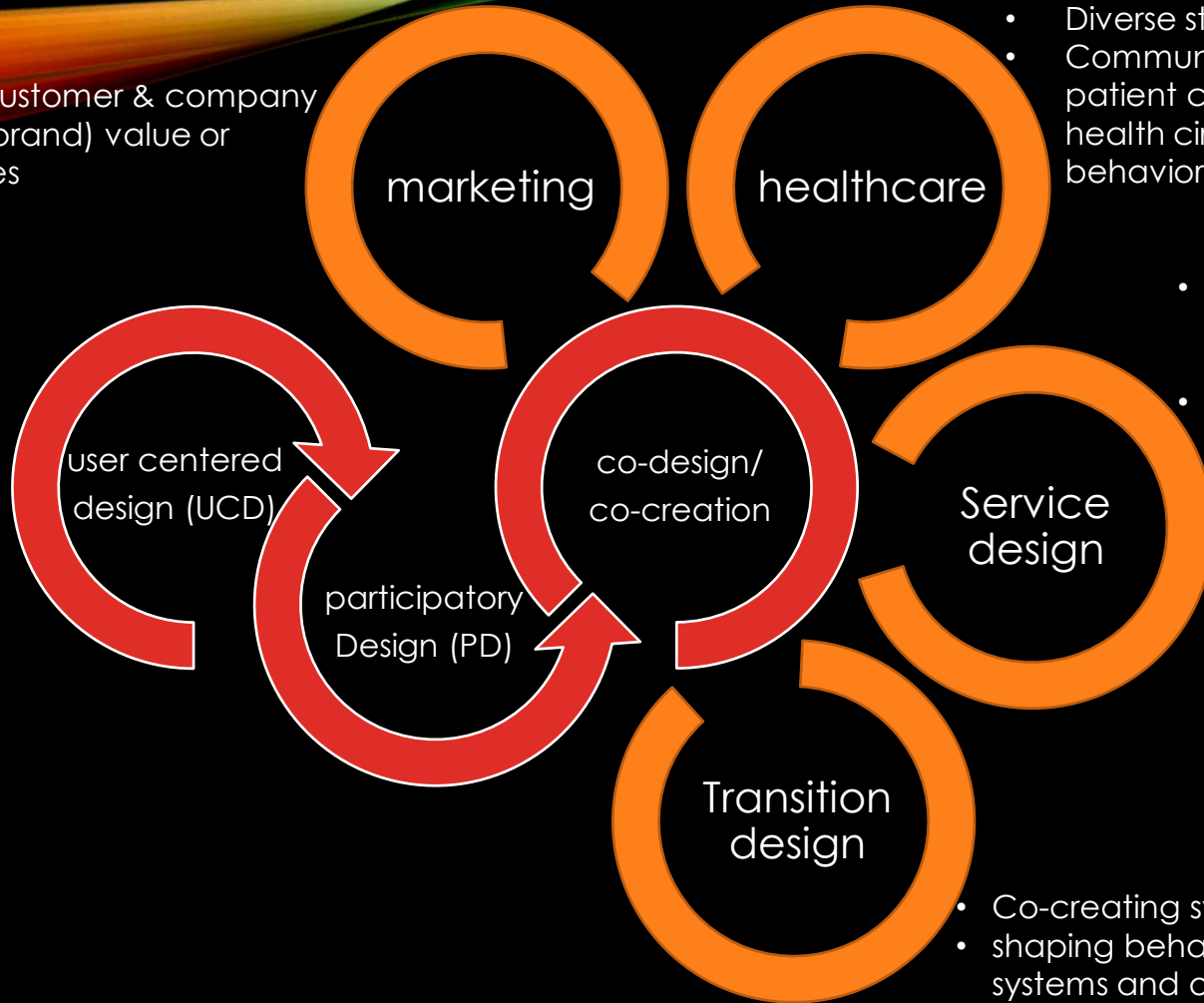


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GOAL OF USING CO-CREATION

- To inspire and inform project/design team
- In the early phases of designing products & service
 - To ensure that they will fit the way they will be used in practice
 - vastly increasing chance of success in the market

- Between customer & company
- Creating (brand) value or experiences

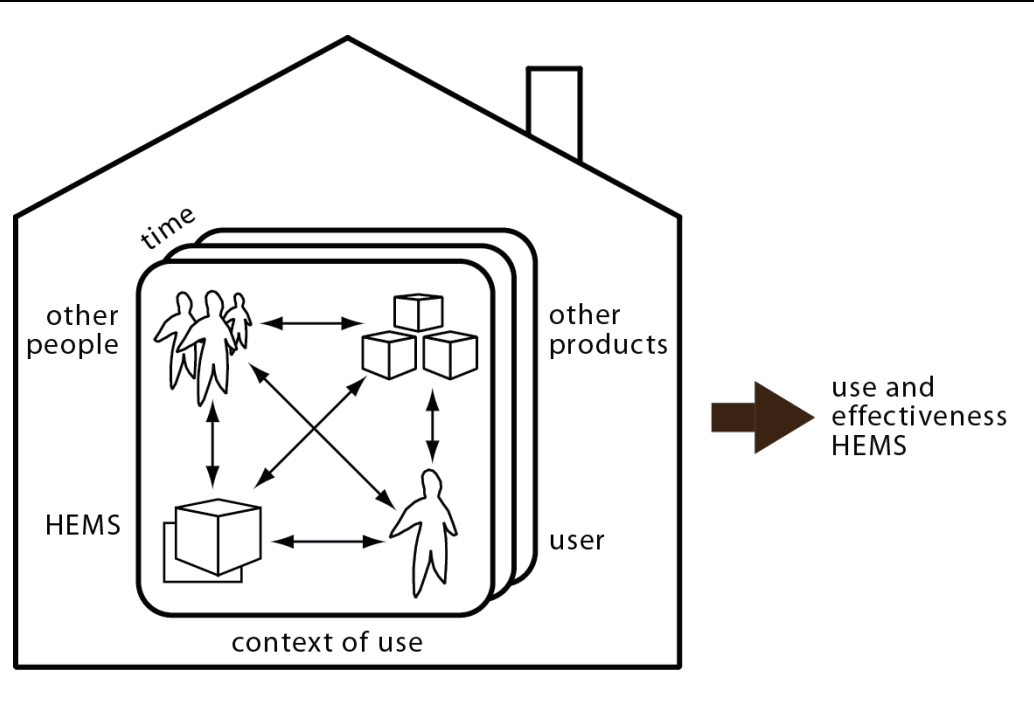


- Diverse stakeholders
- Community engagement in patient care for challenging health circumstances and behaviors

- collaboration or 'co-development' with value chain
- Contribution designers little explored

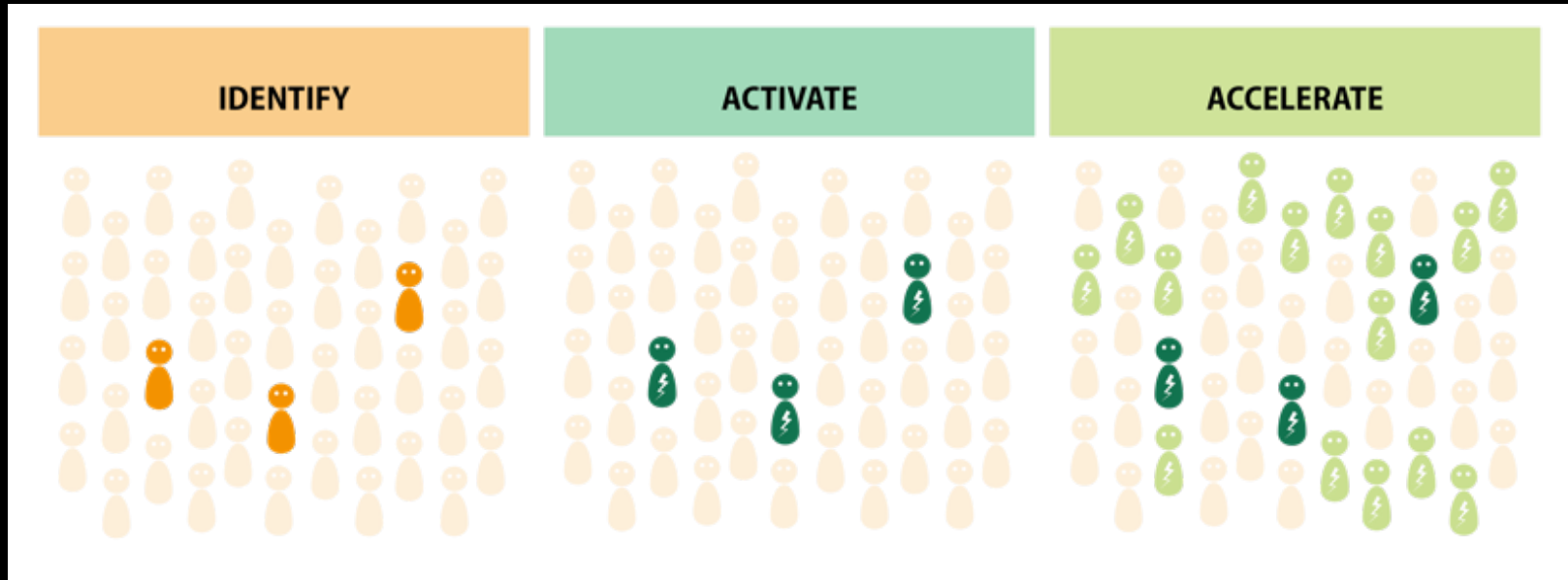
- Co-creating system transformation
- shaping behavior – of people, systems and organizations

PHD - Home Energy Management Systems building comprehensive understanding of use and effectiveness

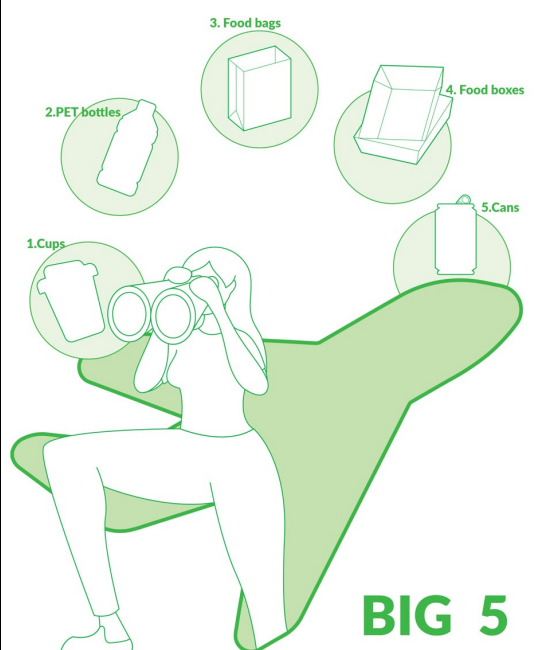


ENRGISED - Fostering energy transitions through social contagion

Role cocreation in transitions



TULIPS - Engaging Stakeholders to Co-create Novel Waste Reduction Schemes And Upcycling Solutions



RECIPSS - Circular Washing Machines As A Service

Co-creating circular business models

Otto (48) Hygiene expert

Household: Lives alone
Motivations: best washing results with lowest environmental burden
Equipment: 9 kg A++ since 1/2 a year. Uses a dryer for all his clothes
Key Characteristics: Hygiene and avoidance of bacterial growth in washing machines is very important to Otto. Another recurring theme is minimizing effort, he saves up laundry to make full loads to minimize the number of times he has to do laundry but also because the environment is becoming a more important topic to him. He never leaves the washing machine on when out of the house due to a bad experience.

My washing machine's personality

"my washing machine is a Swedish titan". "Thor" "A Swedish viking, cold hands, warm hearted. Tough. Does everything without crumbling. Strong"

Let's be honest

Sorting
 Washing
 Rinsing/
 Drying
 Iron
 Folding

waiting for the laundry to be done

"It gives me a bit, whenever my washing machine tells me that my laundry isn't finished successfully. I have had towels and dish cloths after washing and that it's back when you want it to be"

Others do, the laundry

"What is often forgotten is maintenance. It is important to keep your choice in good condition - I do that myself"

"I wash my towels at 90 degrees because then I also keep my washing machine clean inside. If you have a condenser dryer, that heats to 70 degrees so the bacteria will still die, but in a front panel dryer that is why I wash the towels at a high temperature. That has a benefit over the factory one and and the washing machine stays nice and clean."

"We wash aly combination of laundry in the front panel and in a rear of line. White and soft fabrics like silk, cashmere that moment on I control setting everything" (L242)

Clothes go into the washing bin. Before do the laundry, I empty the basket and what I don't want goes into the bin, what do wash goes into the machine"

"It dries a week"

"Really hot drying"

He's completed successfully. I love it. Yes"

Oh oh, it broke down!
What now?

"Does that hold true for everyone? To need a new one quickly? "Yes!" I had an old Zanussi (washing machine). Bearings were broken. If I had the bearings replaced, a year later the machine was broken again... You can get new bearings on a again but if the wash is warm and then the bearings don't quickly wear out again. I paid 300 dollars for it. I could only enjoy it for exactly one year. So, yes, that is also a consideration."

"I notice that I am attached to my new washing machine. So, I think I'm going to try to keep it running as long as possible this time. If something were to happen. And it is a lot of luggage (to place a new machine, you name it... It's such a nice machine, I do not think I would have such a piece again. I think the really wanted this model and got it as part of a test-wash"

Needs

Annex:
"that timer is just accurate"

Machine should be not sensitive to imbalance "the chance that it catches fire is not very big, but I want, if a substance imbalance were to occur" (once had an old washing machine that was thumping the basket from the wall, didn't want to think about what would have happened if he'd been here at that moment"

Desires:
 Autodose to keep washing machine clean

Wants short programs and eco that he can choose himself if he wants to use.

Concise handwashing with less effort if possible. "It would be nice if it didn't even have to do laundry."

Concerns

Collateral damage:
"They always damage the wall or dispenser"

is concerned over hygiene and bacteria growing in washing machine. Now that he has a built-up dryer which does not heat his laundry to above 80°C, he washes his towels at 90°C. Would be happier about having automatic job's washing machine because of the above

Opportunities

No upfront costs: *"I have found it a very good investment. If not about of the one program, but about the new washing machine. That would also be a problem for me now if it breaks down. I know it is not possible, but the cost is then much higher for me, it is better to invest in a new one"*

Decreasing effect of doing laundry (can really recognize) because of the concept of Javes and Koves)

Connected washing machine are mostly an attractive ad gadget.

Giving better insight and control mechanisms:
concerning how to bring the program to an end when the laundry is done to synchronize the washing machine and his schedule is an opportunity. "They have an on and machine in the app. So, how to use the program and if you have a program that I can make a combination of and don't have to heat (can about heat when I get back home that's convenient"

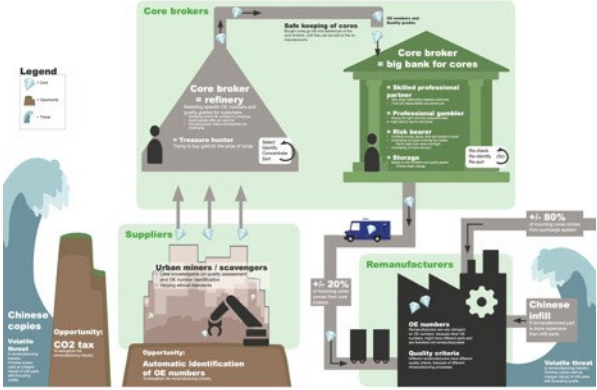
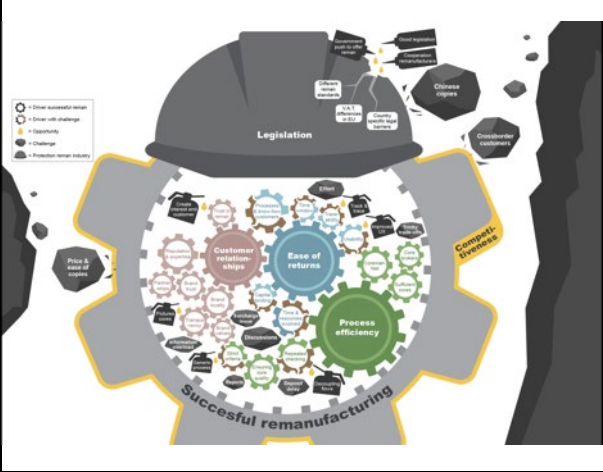
Service that guarantees long-lasting products and therefore reduce the financial and emotional burden on recycling equipment.

Smarter machines and programs: *"This connected program would be great. Now you choose a smart program. I had it if it is not in daily it should be able to detect in the water that could be done in a test"*



RECIPSS - Cocreating Reverse Logistics Platform For Car Parts

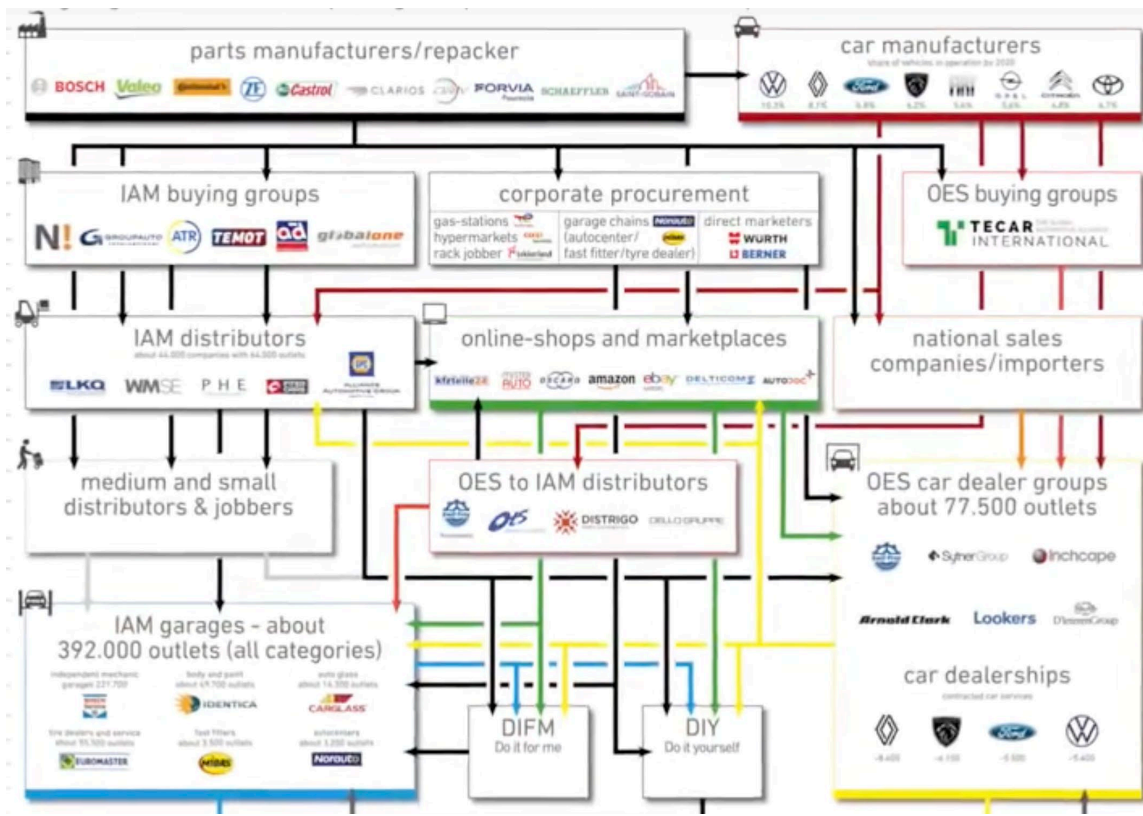
Co-creation in complex value chains





HOW MANY OF YOU OWN A CAR?

- How many of you know if a remanufactured part was used during repairs?
- How is a broken part (core) returned to the factory to be remanufactured?



(Re)manufacturers



Trade level 1

• (e.g. IAM and OES buying groups)



Trade level 2

• (e.g. IAM and OES distributors)



trade level [...]



Trade level n

• (e.g. medium & small wholesalers/distributors)

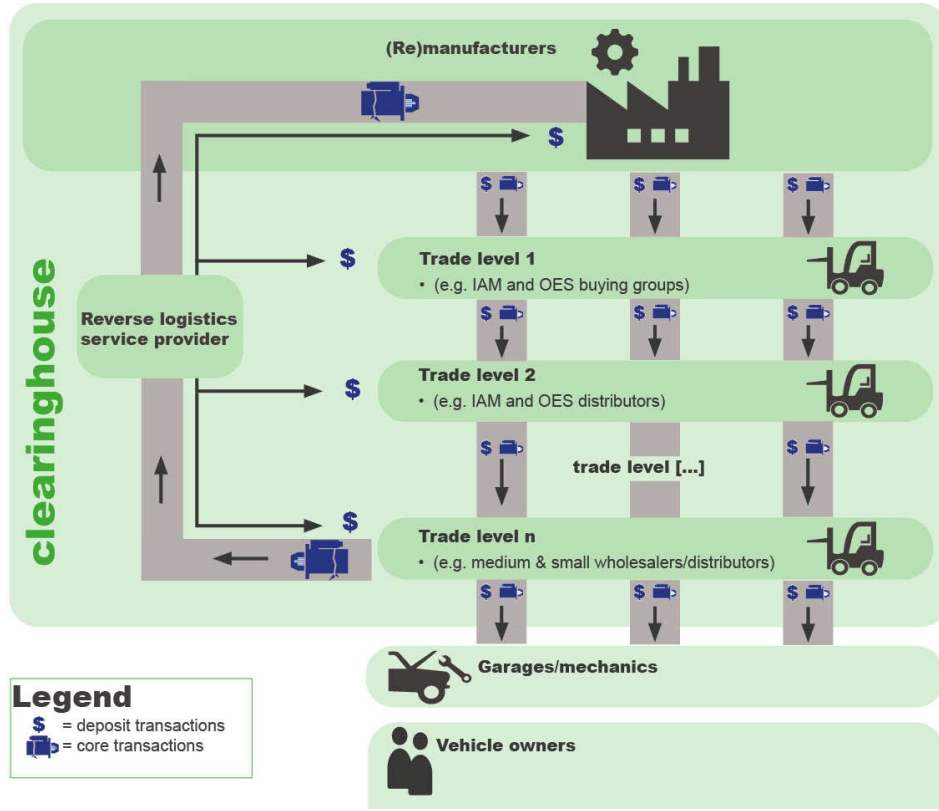


Garages/mechanics



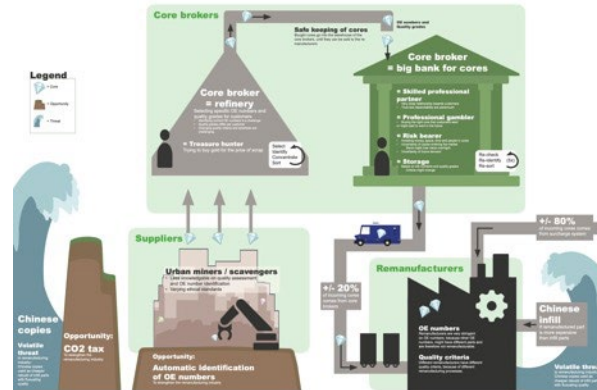
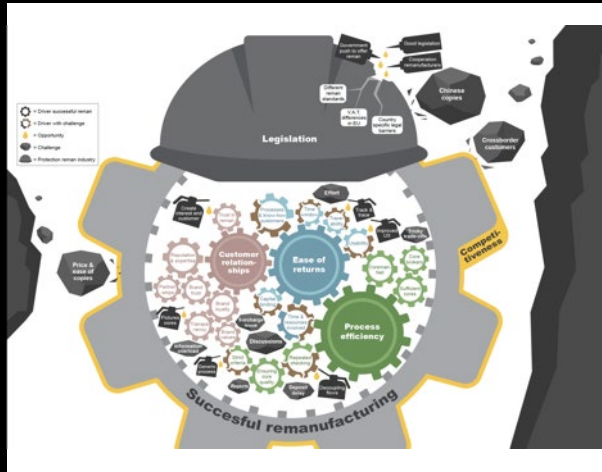
Vehicle owners

Legend
\$ = deposit transactions
🚚 = core transactions



4 Co-creation sessions (Wholesaler, Core brokers, 2 remanufacturers)

8 interviews with garages





KEY ISSUE IN REVERSE LOGISTICS OF WHOLESALER 'X'

Legend

🔑 = Most important points

CORE VALUES OF WHOLESALER

TRANSPARENCY

If they don't receive transparency, they can't give transparency to their customer



NO TRANSPARENCY



"it's not us, so it must be them"

"I would say, don't trust anyone. It is not just us who have that [money loss] problem. It's a problem on the whole market."

REMANUFACTURING CRITERIA

- Brand-related
- Original OEM
- Infill
- Etc.

OVERVIEWS

- Inflow/outflow cores
- Cash balances cores
- Detailed overview rejects
- Time limits supplier

STICKER/LABEL ON THE BOX

Including part number, order number

Currently to improve internal processes

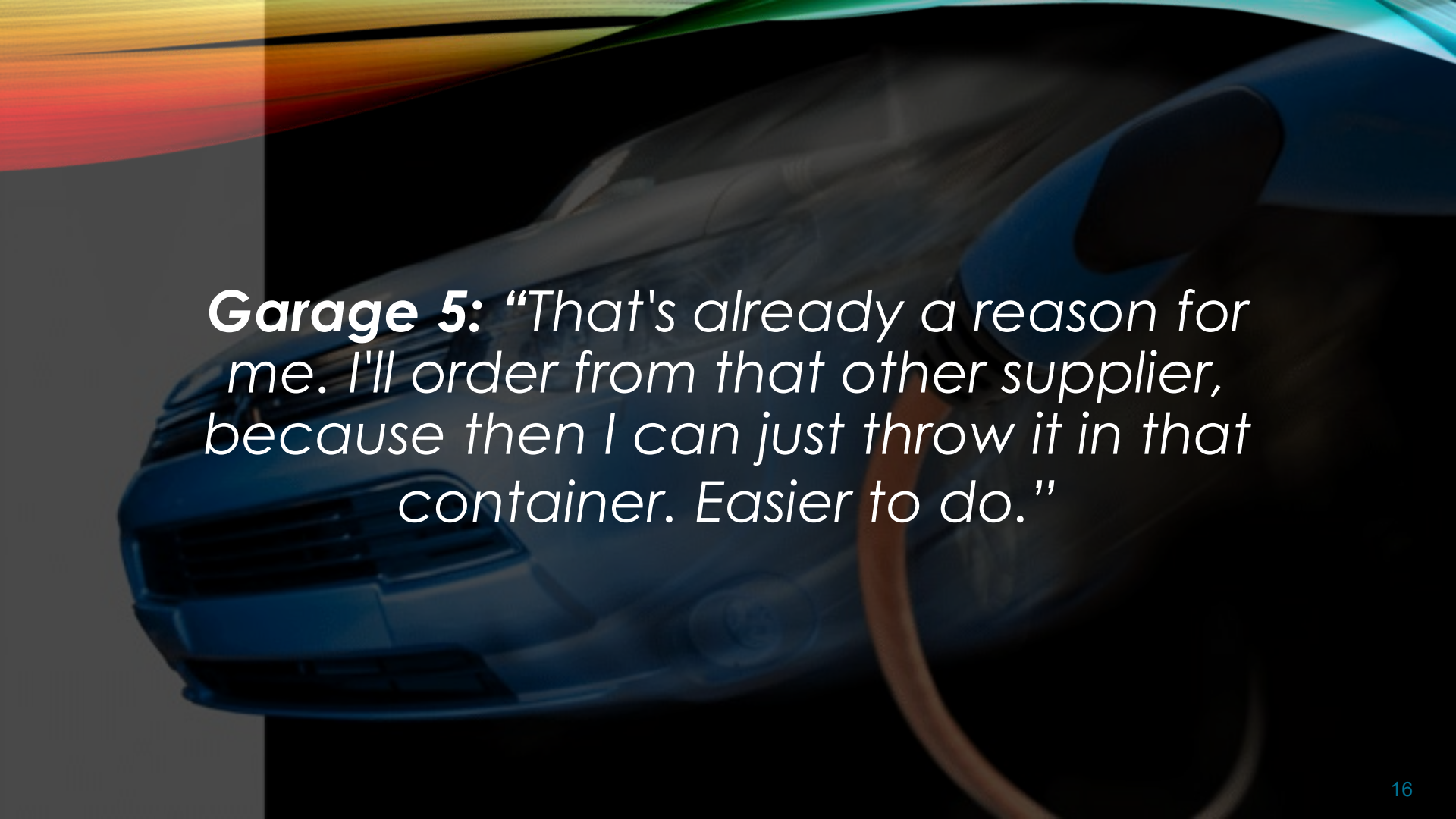
- Psychological effect of being checked
- Clearly visible which cores have been checked

Ideally the sticker would also improve external processes

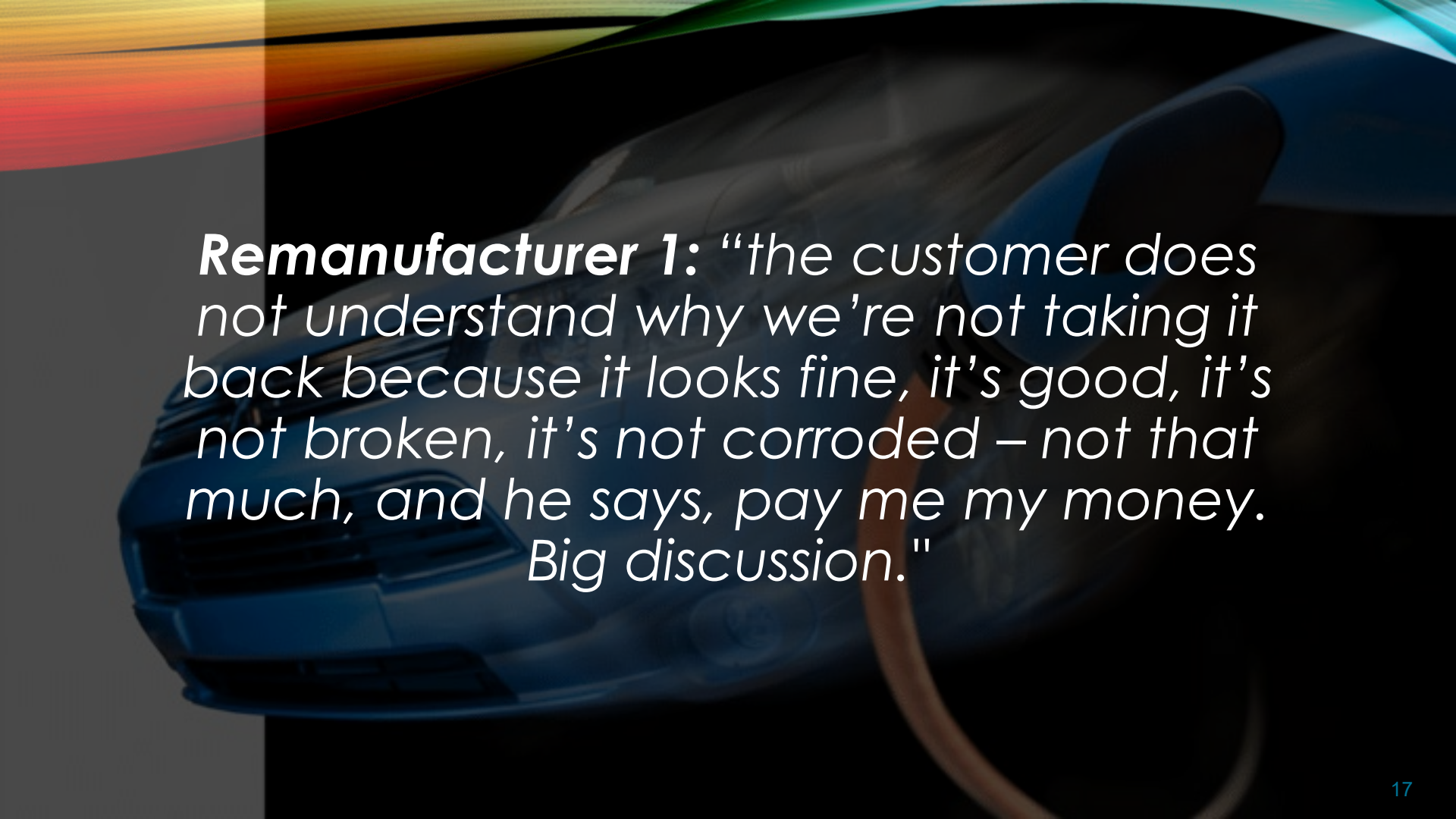
- If remanufacturer rejects core, sticker can be used to trace back, thereby helping to reduce losses and improve internal processes

BEST

- include the reverse logistics in SAP, so everything is in SAP from when 1st deposit is paid to final refund.
- have criteria in techdoc



Garage 5: *“That's already a reason for me. I'll order from that other supplier, because then I can just throw it in that container. Easier to do.”*



Remanufacturer 1: “the customer does not understand why we’re not taking it back because it looks fine, it’s good, it’s not broken, it’s not corroded – not that much, and he says, pay me my money. Big discussion.”



BENEFITS CO-CREATION IN COMPLEX VALUE CHAIN

- Coming in as independent, Impartial party
- Creating trust
- Game changer in understanding:
 - different perspectives
 - interplay between stakeholders
 - discrepancies in perceptions
 - conflicting interests
- New directions for design → transparency became focal point

CHALLENGES CO-CREATION IN COMPLEX VALUE CHAIN

- making stakeholders aware of the value of their participation
- Competition laws: bringing different stakeholders together to one table
- Have company listening in to gain empathy vs. allowing participants to speak freely
- Time-intensive process
- Online vs in-person sessions



COLLABORATION

- New PhD
- Looking for case studies
 - How co-creation was applied
 - applying co-creation in specific contexts

LINES OF ENQUIRY

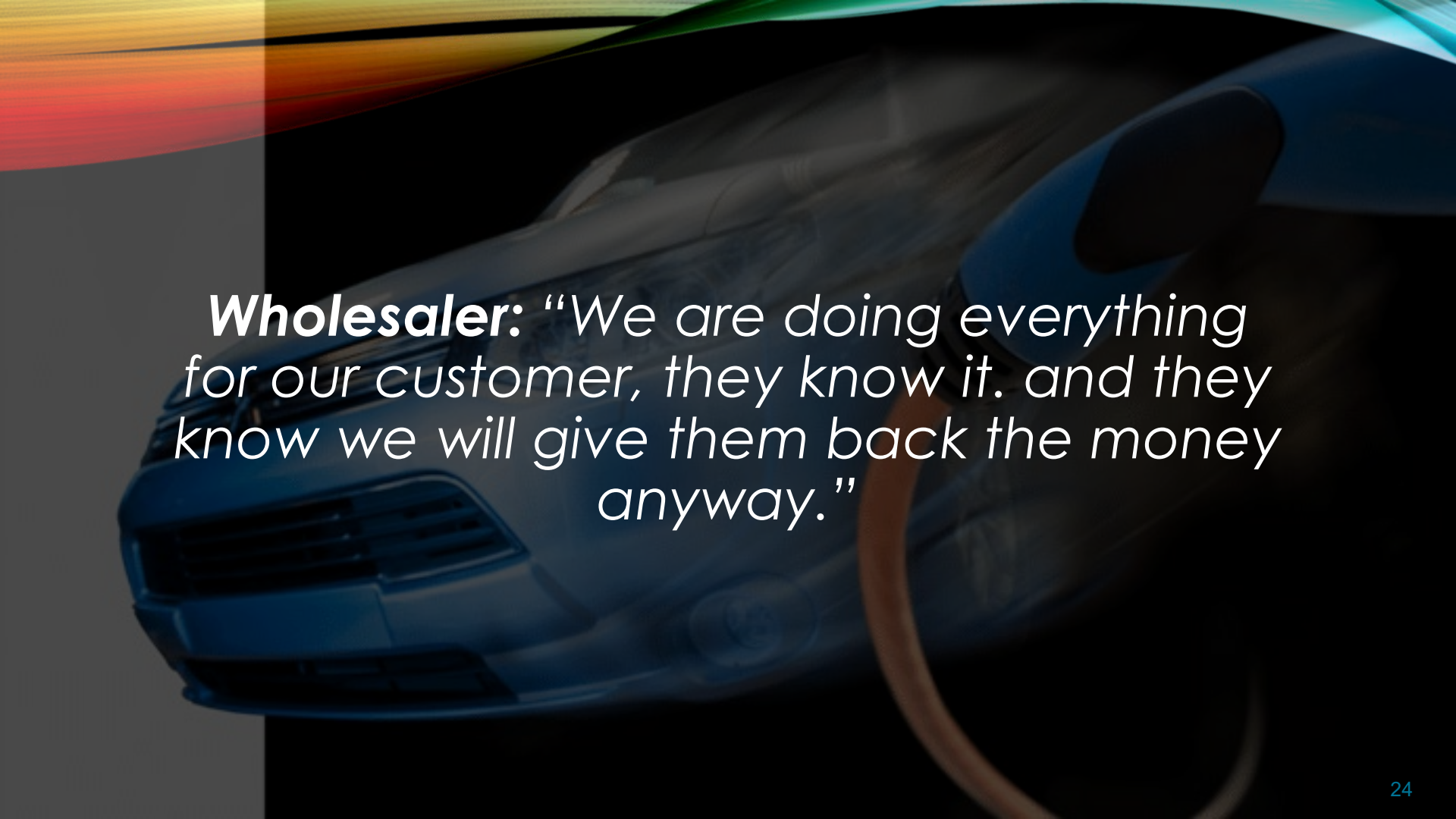
- When and how during the development of circular propositions should co-creation be applied?
- Which stakeholders should be involved in co-creating circular propositions and what qualities should they bring to the process to enhance co-creation's impact?
- How can the governance of co-creation processes contribute to successful outcomes?
- how can co-creation effectively bring together relevant stakeholders in the value chain, including end-users, and align their interests to create new value propositions that promote circularity?



END



Wholesaler: “Basically, you could say: we don’t know anything. Yes really, it’s a black hole. Completely blind flight.”

A blue car is shown from a front-three-quarter perspective, with a quote overlaid on the image. The car is dark blue and appears to be a modern sedan. The background is dark with some colorful, abstract light streaks in the upper left corner. The quote is in white text, with the word 'Wholesaler' in bold.

Wholesaler: “We are doing everything for our customer, they know it. and they know we will give them back the money anyway.”



BENEFITS CO-CREATION IN COMPLEX VALUE CHAIN

- Creating trust

“The co-creation sessions were the door opener for us”
and helped create a “trustful relationship” with the wholesaler



BENEFITS CO-CREATION IN COMPLEX VALUE CHAIN

- Game changer

“[co-creation] “was really a game changer for us to understand really the needs and thoughts of wholesalers in comparison to what we have assumed or imagined.”



BENEFITS CO-CREATION IN COMPLEX VALUE CHAIN

- Understanding interplays

“it was very helpful to have this whole network of stakeholders to understand the interplays, also seeing these discrepancies: Why they clearly disagree in some areas, because they have different interests and different understanding of the whole situation.”



BENEFITS CO-CREATION IN COMPLEX VALUE CHAIN

- New directions

“it took us into other directions in which we were not heading before... The service, and the platform put very much the transparency into focus”



BENEFITS CO-CREATION IN COMPLEX VALUE CHAIN

- Neutral external moderator

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