

# CIRCULAR DESIGNS IDEATION PACK

*helps you to envision product  
and service concepts that can  
enable circular consumption*

**A USE2USE DESIGN TOOL**

The *Circular Designs Ideation Pack* is part of the *Use2Use Design Toolkit* created by Dr. Anneli Selvefors and Dr. Oskar Rexfelt at Chalmers University of Technology. The toolkit includes five mind-expanding packs designed to boost product circularity. They aid development of products and services for circular consumption processes.

Learn more about the toolkit and how to design for Use2Use at [www.use2use.se](http://www.use2use.se).

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AN INTRODUCTION

## WHAT IS THE CIRCULAR DESIGNS IDEATION PACK?

Circular consumption processes entail different activities, decisions and everyday challenges compared to linear consumption. The practicalities and challenges of circularity can mean that people find transferring products from use to use inconvenient, time-consuming, or otherwise undesirable. They can also contribute to the complete disruption of a circular flow. Addressing such aspects through design is thus essential if we are to develop new products and services better suited to circular consumption. This tool will highlight a number of design opportunities for making products and services fit for circular consumption.

The *Circular Designs Ideation Pack* comprises a set of 38 design strategy cards highlighting opportunities to design for Use2Use. It provides trigger questions and inspirational design examples to stimulate discussion, support ideation activities and spark new ideas.

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AN INTRODUCTION

The *Circular Designs Ideation Pack* can be used either on its own or after using the *Circular Journeys Exploration Pack* and the *Multiple Use-Cycles Exploration Pack*, which are also part of the *Use2Use Design Toolkit*. Using the explorative tools beforehand is beneficial as they'll give you a better understanding of which design challenges to focus on. Each strategy card, however, has a short introduction describing typical design challenges. These will help you get acquainted with the design challenges that may be addressed with the strategies.

The tool can be used by anyone involved in the ideation process but has been specially developed for designers, user researchers, business strategists, product managers and product developers.

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#### HOW TO USE THE TOOL

### GETTING STARTED

Start off by discussing the main aim of the ideation session. You may want to identify ways to improve an existing product so that it fits better with a circular service; develop a new circular service through which you can offer your product; or envision completely new product or service concepts. Keep your aim in mind throughout the ideation session and remember that, even though the design strategy cards and examples may highlight opportunities for either product or service design, a particular design challenge can often be addressed by both.

Before you start ideating, it is also good to reflect on which design challenges related to circular consumption you want to address. If you have used the explorative Use2Use tools, the *Circular Journeys Exploration Pack* and *Multiple Use-Cycles Exploration Pack* before, you might already have identified a number of challenges that you wish to focus on. If not, you can use the design strategy cards to get acquainted with different design challenges and choose the ones most relevant to your organisation.

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#### HOW TO USE THE TOOL

### IDEATING CIRCULAR DESIGNS

Depending on what design challenges you want to address and your aim with the ideation session, different design strategy cards will be relevant to you. You can choose to use the design strategy cards you find most relevant, or start off with all the cards and exclude any irrelevant ones as you go.

Use the design strategy cards to explore how you can support circular consumption. You can ideate based on the main questions presented on the cards to identify unique ways to address the associated design challenges. You can also get inspiration from the more specific questions and design examples provided on each card, which highlight particular “hows”. Ideate as you see fit; you can sketch, share and brainstorm ideas with others.

### WRAPPING UP

Discuss your main ideas and their key benefits. Document any design concepts you want to continue developing in future sessions, or which you want to evaluate for possible further investigation.

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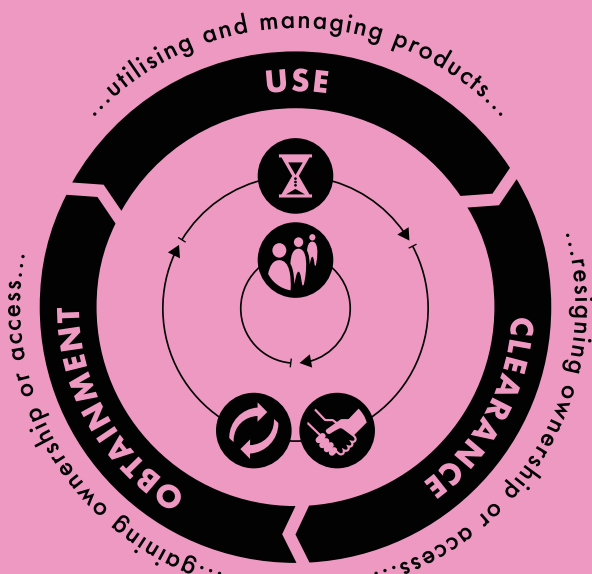


## THE CIRCULAR DESIGNS IDEATION PACK

– A PART OF THE USE2USE DESIGN TOOLKIT –



### OVERVIEW OF DESIGN STRATEGIES



The tool focuses on four main design strategies to consider when aiming to make circular consumption processes more attractive to people: *Design for Extended Use*, *Design for Multiple Use-Cycles*, *Design for Exchange*, and *Design for Circular Match-Making*. A short description of each strategy is provided on the back of this card. Overall, the four main design strategies highlight a variety of design opportunities. These are elaborated upon and exemplified in the deck of cards.

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### OVERVIEW OF DESIGN STRATEGIES



#### DESIGN FOR EXTENDED USE

This strategy addresses design challenges associated with a product's reduced utility, attractiveness and need-fulfilment over time.



#### DESIGN FOR MULTIPLE USE-CYCLES

This strategy addresses design challenges arising when products are repeatedly circulated from use to use. It highlights design opportunities to make each new circular consumption process relevant and attractive to people, in spite of diverse user needs, shortened use-cycles and long product histories.



#### DESIGN FOR EXCHANGE

This strategy addresses design challenges related to people's obtainment and clearance processes (the process of product exchange). For instance, it highlights design opportunities for addressing practicalities associated with handling (pre-used) products before and after use, assessing pre-used products and circular offers and re-activating products stuck in disuse limbo.



#### DESIGN FOR CIRCULAR MATCH-MAKING

This strategy addresses design challenges related to interactions between two subsequent users. It emphasises opportunities to help people communicate, trust each other and make and compare deals.

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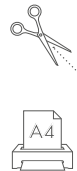
OVERVIEW OF DESIGN STRATEGY CARDS

## DESIGN FOR EXTENDED USE



A number of design challenges emerge when products are used for an extended period. Increased use will mean increased wear and tear. Not only might this diminish a product's utility, it may also make it less attractive to its user(s). A product's utility, attractiveness and potential to fulfil user needs may also decrease over time. This might be due to technological shifts and the emergence of new user needs; people being more inclined to get new products to replace ones they deem obsolete. To ensure that people can and want to go on using a product for an extended period, the product (and any associated services) can be designed using the Design for Extended Use strategy.

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OVERVIEW OF DESIGN STRATEGY CARDS

## DESIGN FOR EXTENDED USE

THESE STRATEGY CARDS WILL HELP  
YOU CONSIDER HOW TO:



- 1 ensure that a product's performance does not decline over time
- 2 ensure that a product's aesthetic qualities resist deterioration
- 3 cater for different aesthetic preferences
- 4 ensure that a product stays complete
- 5 ensure compatibility with other products following technological shifts
- 6 help people get general information about a product
- 7 help people keep a product in good condition
- 8 help people restore a product to good condition
- 9 help people upgrade a product
- 10 help people develop meaningful emotional bonds

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### DESIGN CHALLENGE

*If a product is used for an extended time, its performance may deteriorate or be weakened by a large number of users. Reduced performance will make the product less useful and hence less relevant to obtain or pass on to others.*

## HOW CAN YOU ENSURE THE PRODUCT'S PERFORMANCE DOES NOT DECLINE OVER TIME?



Can you use materials and components that don't degrade with time?

Can you use materials and components that resist wear and tear?

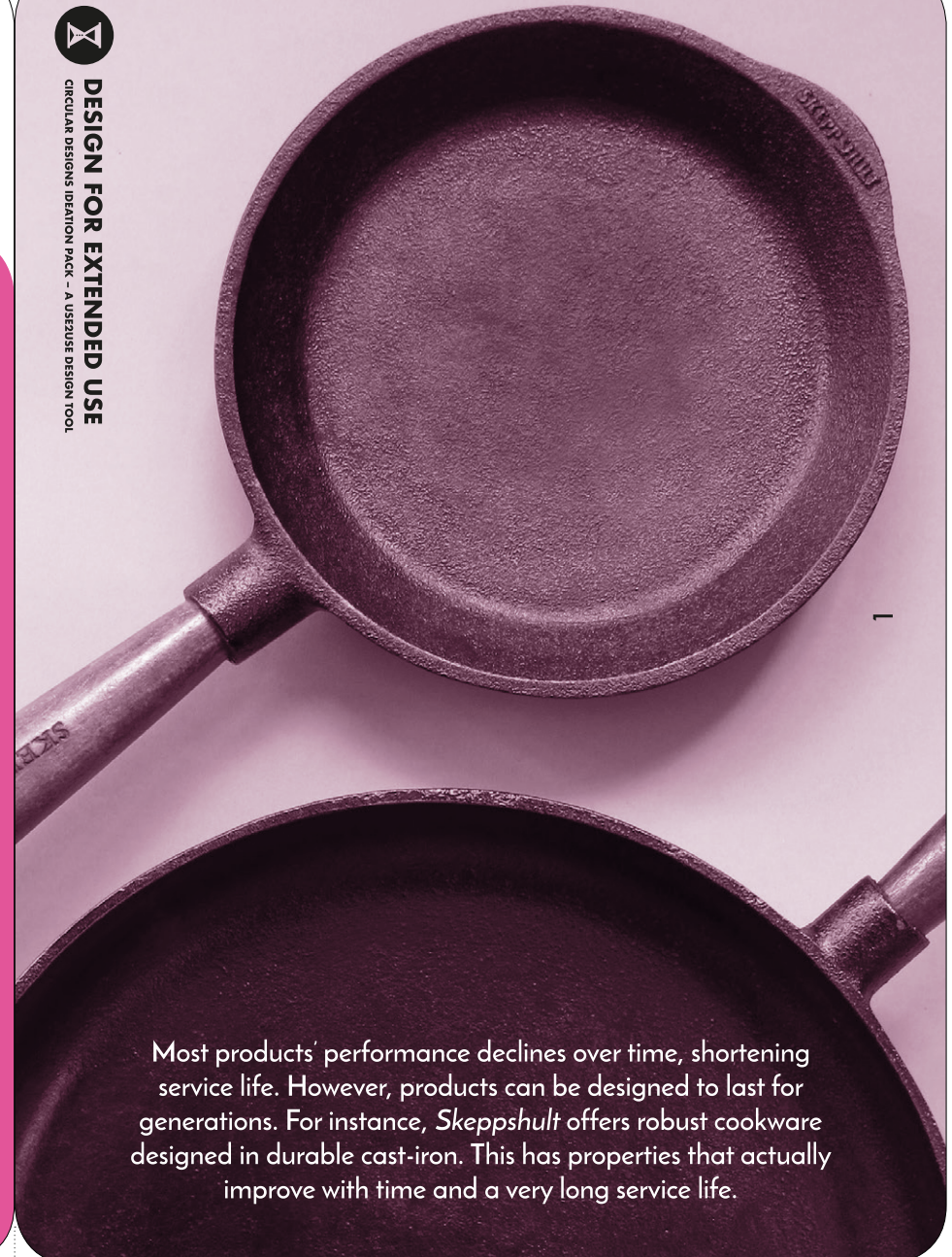
Can you make the product structure and architecture robust enough for long-term use?

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### DESIGN FOR EXTENDED USE

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Most products' performance declines over time, shortening service life. However, products can be designed to last for generations. For instance, *Skeppshult* offers robust cookware designed in durable cast-iron. This has properties that actually improve with time and a very long service life.





### DESIGN CHALLENGE

*When a product is used for an extended time its appearance may shift due to degradation or wear and tear. This may make people less likely to acquire and use pre-used products.*

## HOW CAN YOU ENSURE THE PRODUCT'S AESTHETIC QUALITIES RESIST DETERIORATION?



Can you use materials and finishes that don't degrade with time and resist wear and tear?

Can you use materials and finishes that can be kept in good condition?

Can you use material and finishes that age gracefully and become more appealing?

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DESIGN FOR EXTENDED USE  
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Products that have become worn from extensive use risk being seen as less appealing. However, for some products, extensive use can increase their aesthetic qualities. For instance, many people consider that *Brooks'* leather bicycle saddles with copper rivets become more beautiful and comfortable after extensive use.

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### DESIGN CHALLENGE

*If a product no longer matches current fashions or people's aesthetic preferences, they may refrain from obtaining it, using it, or passing it on to others. This will render it aesthetically obsolete.*

## HOW CAN YOU CATER FOR DIFFERENT AESTHETIC PREFERENCES?



Can you make the product aesthetically appealing despite fashion trends?

Can you enable adjustment of the product's appearance to suit differing preferences?

Can you enable transfer of the product to someone who finds it aesthetically appealing?

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DESIGN FOR EXTENDED USE  
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What people consider a nice-looking product typically varies between users and may also vary over time for an individual user. To make their garments more appealing, Mouli offers jackets with bold designs that are reversible for a more modest, all-black look.





### DESIGN CHALLENGE

When a product is circulated multiple times and used by a long line of people, the risk increases that parts will be lost. This makes the product less useful and less relevant for passing on to new users.

## HOW CAN YOU ENSURE THAT THE PRODUCT STAYS COMPLETE?

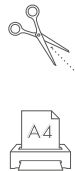


Can you connect all parts together to ensure they can't be lost?

Can you make it easy to find out if any parts are missing?

Can you facilitate replacement of lost parts or provide a replacement service?

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Many products are less useful or less enjoyable with missing parts. The puzzle manufacturer Artbox provides a Missing Piece(s) Replacement Service so people can order lost pieces. People can thus make sure that their puzzles stay useful over time and may not be so disappointed when they assemble a pre-used puzzle for the first time and find a crucial piece missing.







### DESIGN CHALLENGE

*Technical products risk becoming incompatible with newer products following technological shifts. This makes them less useful and hence less relevant to obtain or pass on to others.*

## HOW CAN YOU ENSURE COMPATIBILITY WITH OTHER PRODUCTS FOLLOWING TECHNOLOGICAL SHIFTS?



Can you make the product independent of other technologies?

Can you make the product flexible so it can be adapted to new technologies?

Can you make the product versatile and compatible with multiple other technologies?

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### DESIGN FOR EXTENDED USE

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Products that are in use for a long time run the risk of becoming incompatible with new technologies. To address the fast-paced technological change of LEDs, *The Agency of Design* has designed a modular light bulb with an exchangeable core. This design makes the bulb flexible and allows people to adapt their bulbs easily to future LED technologies without replacing the whole bulb. Courtesy: *The Agency of Design*.





### DESIGN CHALLENGE

*When people obtain a pre-used product instead of a new one, it can be hard to find general information about the model and brand, which can make, say, assessing or repairing the product more difficult.*

## HOW CAN YOU HELP PEOPLE GET GENERAL INFORMATION ABOUT THE PRODUCT?



Can you make it easy to identify the product model and brand?

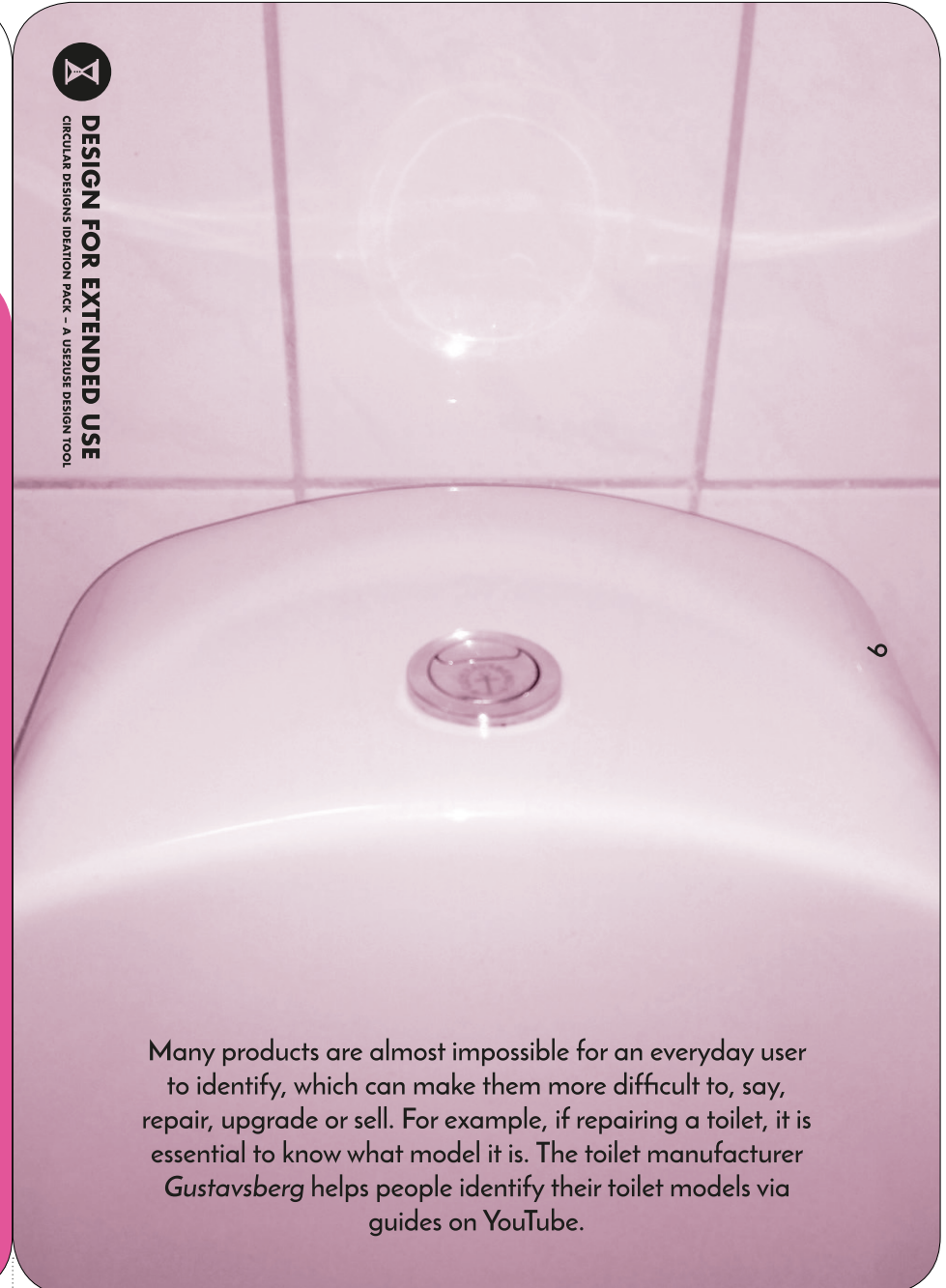
Can you provide an easy way for people to get general information about a product, such as (original) price, how and where it was produced, materials, expected lifetime and where to get spares?

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### DESIGN FOR EXTENDED USE

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Many products are almost impossible for an everyday user to identify, which can make them more difficult to, say, repair, upgrade or sell. For example, if repairing a toilet, it is essential to know what model it is. The toilet manufacturer *Gustavsberg* helps people identify their toilet models via guides on YouTube.







## THE CIRCULAR DESIGNS IDEATION PACK

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### DESIGN CHALLENGE

When a product is used for an extended time it may require maintenance activities to keep its usefulness and functionality from diminishing over time.

## HOW CAN YOU HELP PEOPLE KEEP THE PRODUCT IN GOOD CONDITION?



Can you facilitate cleaning of critical parts, or provide cleaning services?

Can you make it easy to proactively change the most wear-prone parts?

Can you encourage care and careful use by fostering a sense of responsibility?

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DESIGN FOR EXTENDED USE  
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Maintenance typically helps keep products useful over time, but it can be difficult for people to take care of certain products. For instance, a printer and its components can be tricky to keep in good condition since people have limited access to them. To make maintenance convenient and easy, the Canon MG6150 printer offers a set of integrated cleaning programmes.





### DESIGN CHALLENGE

*When a product is used for an extended time, its usefulness and functionality will eventually be reduced. Action will be needed to restore it to good condition.*

## HOW CAN YOU HELP PEOPLE RESTORE THE PRODUCT TO GOOD CONDITION?



Can you make it easy for people to repair or replace broken parts?

Can you provide repair instructions and spares?

Can you provide repair services or blueprints for people to make or 3D-print their own parts?

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Repairs are often needed to restore the usefulness of products but can be tricky for people to carry out by themselves. The mobile phone LG G5 is a good example of a product designed for ease of restoration when the battery is worn out. It only takes the user a minute to change the battery, with no tools needed.







### DESIGN CHALLENGE

*When a product is used for an extended time, its functionality may eventually become outdated and its usefulness reduced, unless it can be updated to current standards.*

## HOW CAN YOU HELP PEOPLE UPGRADE THE PRODUCT?



Can you make the product modular, using standard components to ease the replacement of parts?

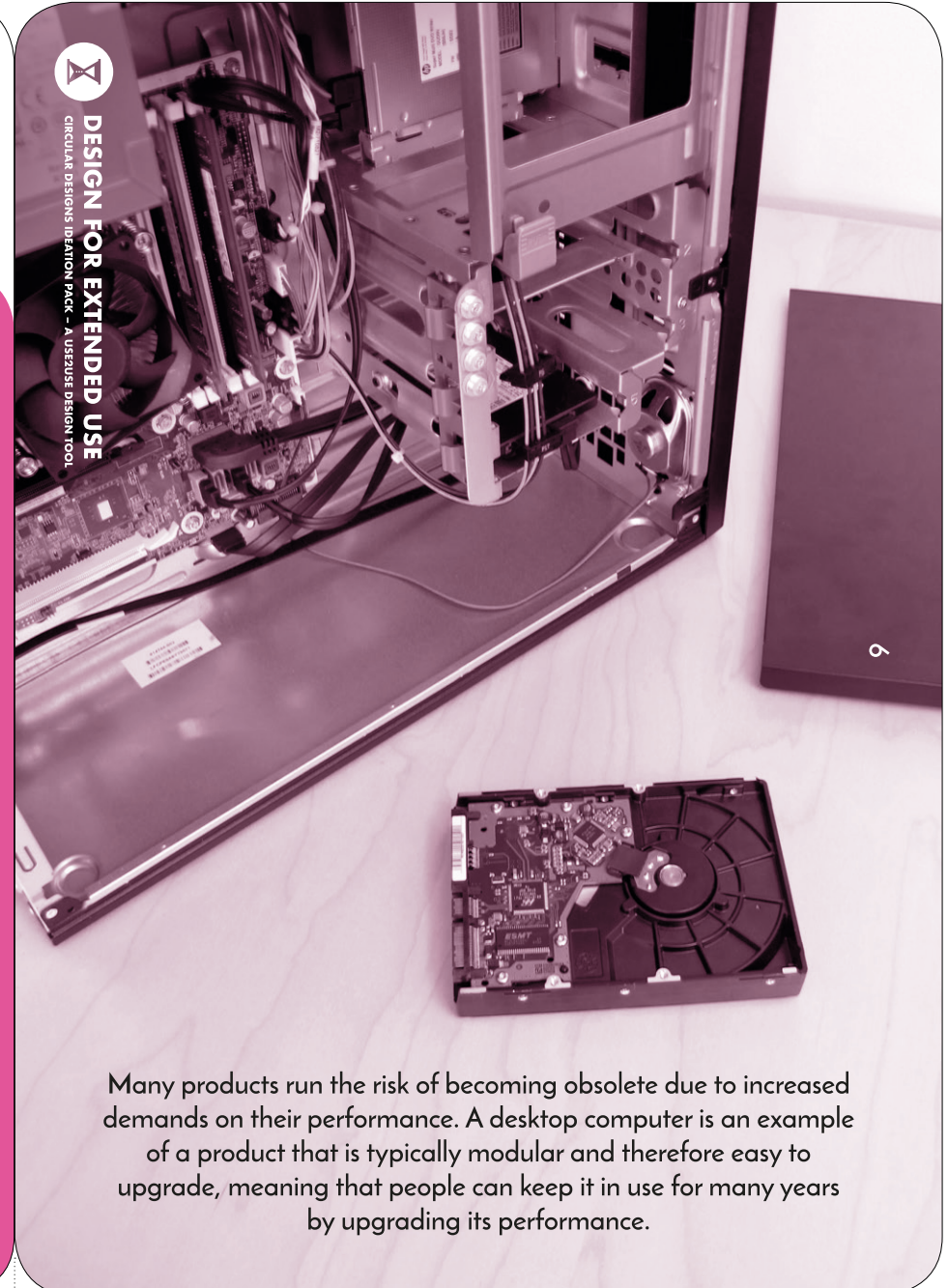
Can you provide easy access to any upgrade parts and help people replace them?

Can you offer the product via a service that caters for any necessary upgrades?

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Many products run the risk of becoming obsolete due to increased demands on their performance. A desktop computer is an example of a product that is typically modular and therefore easy to upgrade, meaning that people can keep it in use for many years by upgrading its performance.





### DESIGN CHALLENGE

People tend to use, appreciate and care for products longer if they have an emotional attachment to them. Emotional attachment can be considered meaningful if it makes people hold onto a product they actually need and use.

## HOW CAN YOU HELP PEOPLE DEVELOP MEANINGFUL EMOTIONAL BONDS?



Can you support emotional attachment by enabling personalisation and customisation?

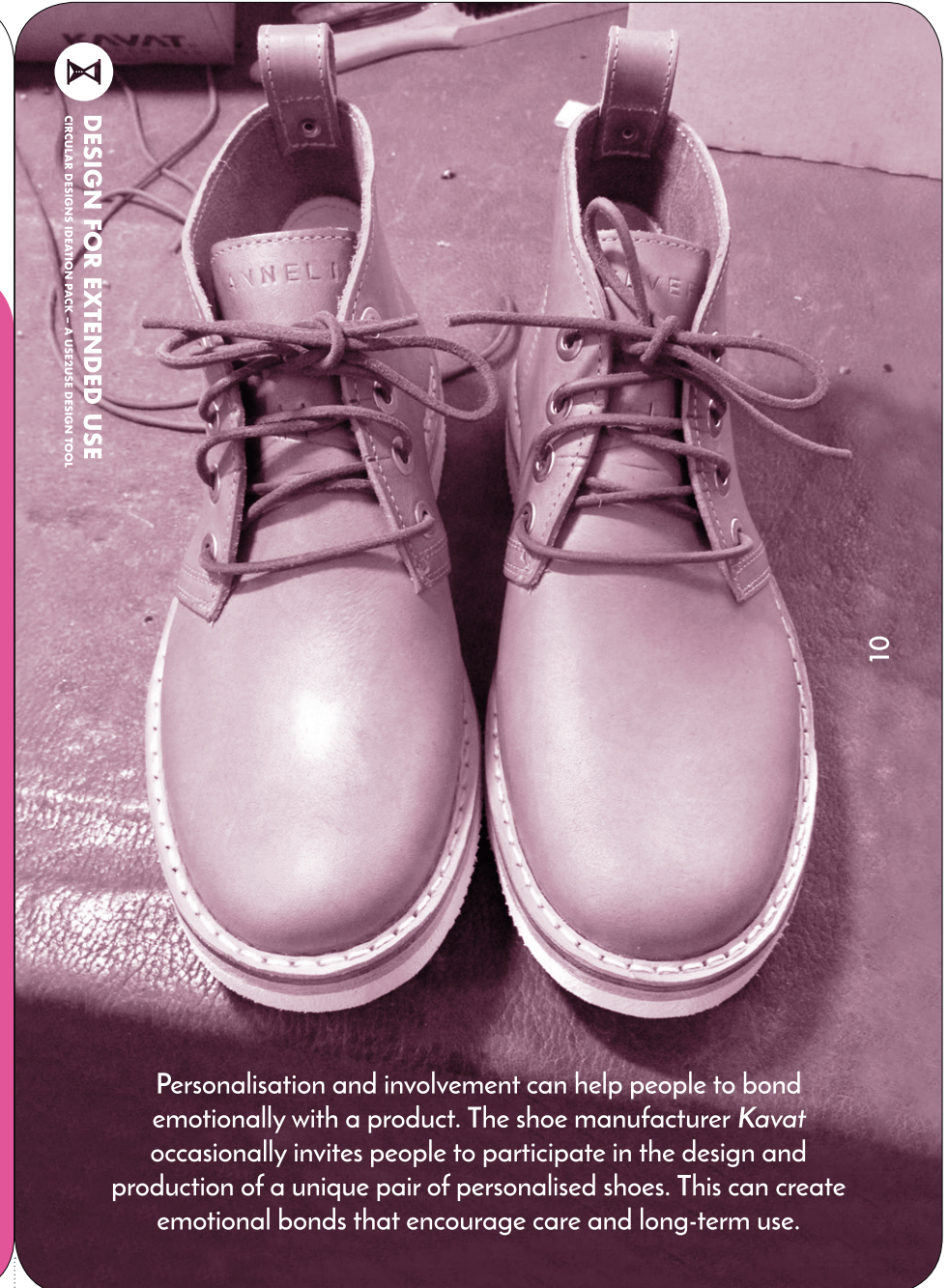
Can you support emotional attachment by inviting people to take part in the development process?

Can you make people form emotional bonds, not to the product itself, but to its functions or associated services?

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DESIGN FOR EXTENDED USE  
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Personalisation and involvement can help people to bond emotionally with a product. The shoe manufacturer Kavát occasionally invites people to participate in the design and production of a unique pair of personalised shoes. This can create emotional bonds that encourage care and long-term use.

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OVERVIEW OF DESIGN STRATEGY CARDS

## DESIGN FOR MULTIPLE USE-CYCLES



When products are circulated from use to use, the number of use-cycles per product increases. This brings about particular design challenges. An increased number of use-cycles will increase the number of consecutive users, all of whom will have different expectations, needs and requirements. An increased number of past users will also increase the risk of potential future users questioning and underestimating a product's condition, quality and value more than they might with other alternatives. An increased number of use-cycles will potentially also result in shortened use-cycles, which will change the demands placed on a product. Such design challenges can be addressed by using the Design for Multiple Use-Cycles strategy. It highlights opportunities to design products and services to be used by (and provide a satisfying user experience for) one, two, ten or even a hundred users.

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OVERVIEW OF DESIGN STRATEGY CARDS

## DESIGN FOR MULTIPLE USE-CYCLES

THESE STRATEGY CARDS WILL HELP  
YOU CONSIDER HOW TO:



- 11 ensure a product is relevant for a diverse user group
- 12 help people get product-specific information
- 13 ensure intuitive use for first-time users
- 14 ensure efficient use for experienced users
- 15 remove undesirable traces of use
- 16 reduce feelings of unease
- 17 increase desirable traces of use
- 18 ensure the environmental benefits of pre-used products are communicated to future users
- 19 make obtaining a pre-used product more enjoyable

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### DESIGN CHALLENGE

Products that are circulated from user to user will be used by a range of people with diverse needs, and very different preconditions, skills and previous experience.

## HOW CAN YOU ENSURE THE PRODUCT IS RELEVANT TO A DIVERSE USER GROUP?



Can you facilitate product modification so that the current user can meet changing needs?

Can you make the product flexible enough to suit a diverse range of users?

Can you facilitate product modification so that new users can adapt it to their needs?

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DESIGN FOR MULTIPLE USE-CYCLES  
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Many products are designed with a rather static view on user requirements, which can make the products less relevant for people with changing requirements or for people with different characteristics. This children's bed from *IKEA* is designed so that people can easily change its length by unscrewing just two screws. Not only does this allow the first user to cater to changing needs over an extended time; it also allows subsequent users to adapt the bed to their preferred length.





### DESIGN CHALLENGE

When people obtain a pre-used product instead of a new one, it can be difficult to get information about that specific item; whether any upgrades or repairs have been carried out and so on.

## HOW CAN YOU HELP PEOPLE GET PRODUCT-SPECIFIC INFORMATION?



Can you make it easy to store product-specific information?

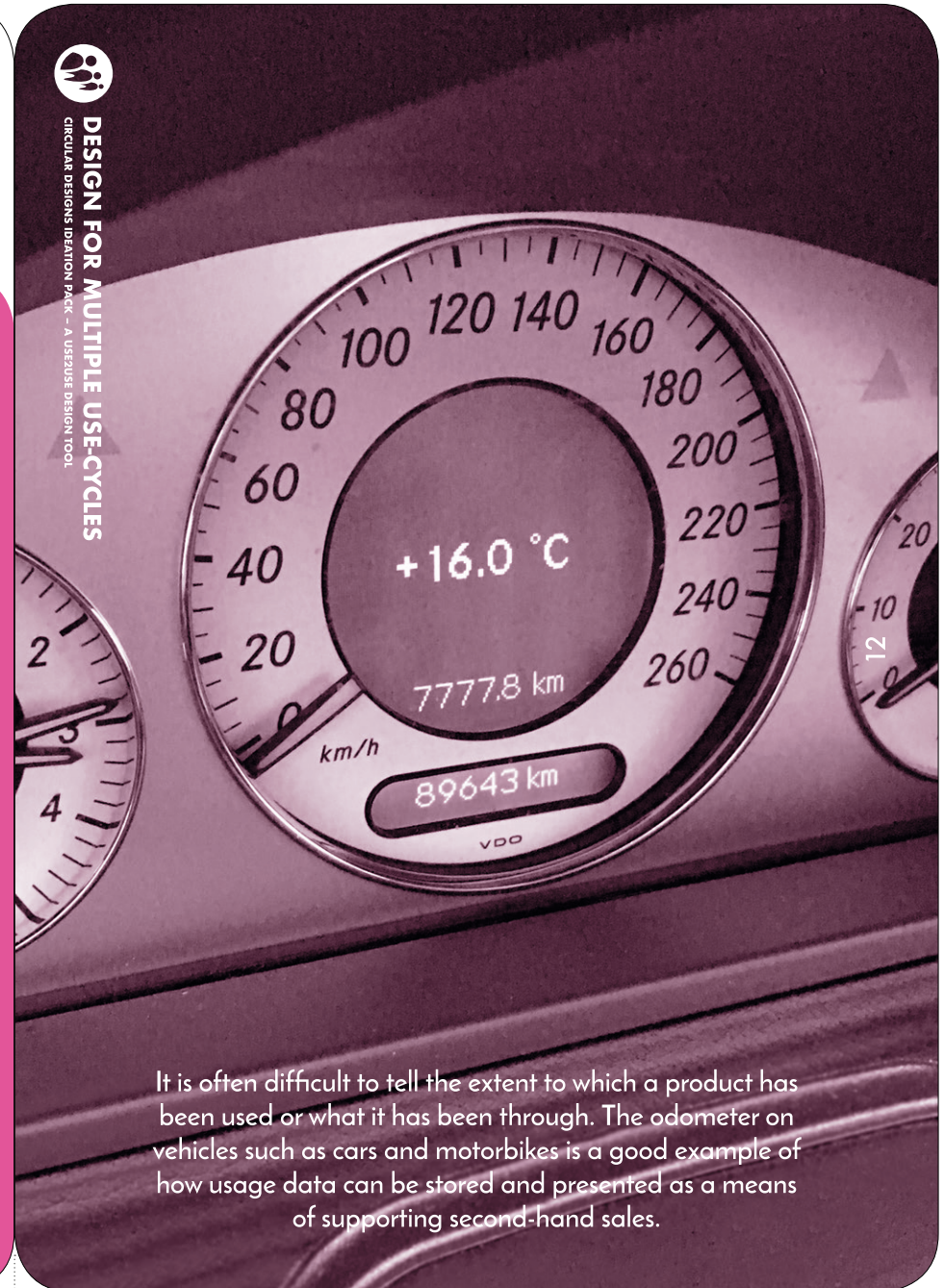
Can you help people access information from previous users?

Can you help people to interpret product-specific information?

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DESIGN FOR MULTIPLE USE-CYCLES  
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It is often difficult to tell the extent to which a product has been used or what it has been through. The odometer on vehicles such as cars and motorbikes is a good example of how usage data can be stored and presented as a means of supporting second-hand sales.







### DESIGN CHALLENGE

When a product is circulated often and used only briefly by each user, it becomes even more important for the product to be easy to understand and use without previous experience.

## HOW CAN YOU ENSURE INTUITIVE USE FOR FIRST-TIME USERS?

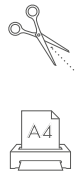


Can you design the interaction sequence so that required actions match people's expectations?

Can you design the interaction sequence so that required actions match people's abilities?

Can you facilitate people's interactions using, say, colour-coding, symbols and instructions?

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People often get frustrated with products that are unintuitive to use and, if many first-time users use a particular product, this problem might multiply. This concept for an outdoor tent, specially designed for renting, addresses this problem by providing easily accessible instructions that can't be lost. This means first-time users will always be able to consult them when pitching the tent. Courtesy: Elin Hagman & Lisa Wendt.







### DESIGN CHALLENGE

When a product is circulated often and used for only a short time by each user, it becomes even more important that people can quickly use the product effectively.

## HOW CAN YOU ENSURE EFFICIENT USE FOR EXPERIENCED USERS?



Can you reduce the number of actions and time required to interact with the product or service?

Can you provide feedback so that people can learn to use the product or service efficiently?

Can you provide the necessary information for people to learn as they go?

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DESIGN FOR MULTIPLE USE-CYCLES  
CIRCULAR DESIGNS IDEATION PACK – A USE2USE DESIGN TOOL



If users only use a product for a short period each time, they shouldn't have to spend a long time setting it up before using it. For instance, to make it easy for people to rent and use their e-scooters, Voi has made it possible to unlock these scooters and get going in just a few quick steps.

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### DESIGN CHALLENGE

*When a product is passed from one user to another, traces of previous use may be noticed. Apart from unhygienic traces, other undesirable traces may also prevent people from obtaining pre-used products or circulate them to others.*

## HOW CAN YOU REMOVE UNDESIRABLE TRACES OF USE?



Can you prevent people from adjusting the product in ways others may not appreciate?

Can you help people eliminate digital traces?

Can you make it easy to remove or change settings and other customisations?

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DESIGN FOR MULTIPLE USE-CYCLES  
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Some traces of use are undesirable for future users. For instance, people usually set up their routers with personal passwords. However, routers can be designed with a reset button that makes the password revert to the original one. This can be printed on the routers so that future users can find it easily.







### DESIGN CHALLENGE

Unpleasant but unwarranted emotions related to, say, hygiene, privacy safety or status may make people refrain from obtaining and using a pre-used product.

## HOW CAN YOU REDUCE FEELINGS OF UNEASE?



Can you eliminate unwarranted feelings by providing information about, say, cleaning procedures or the benefits of pre-used products?

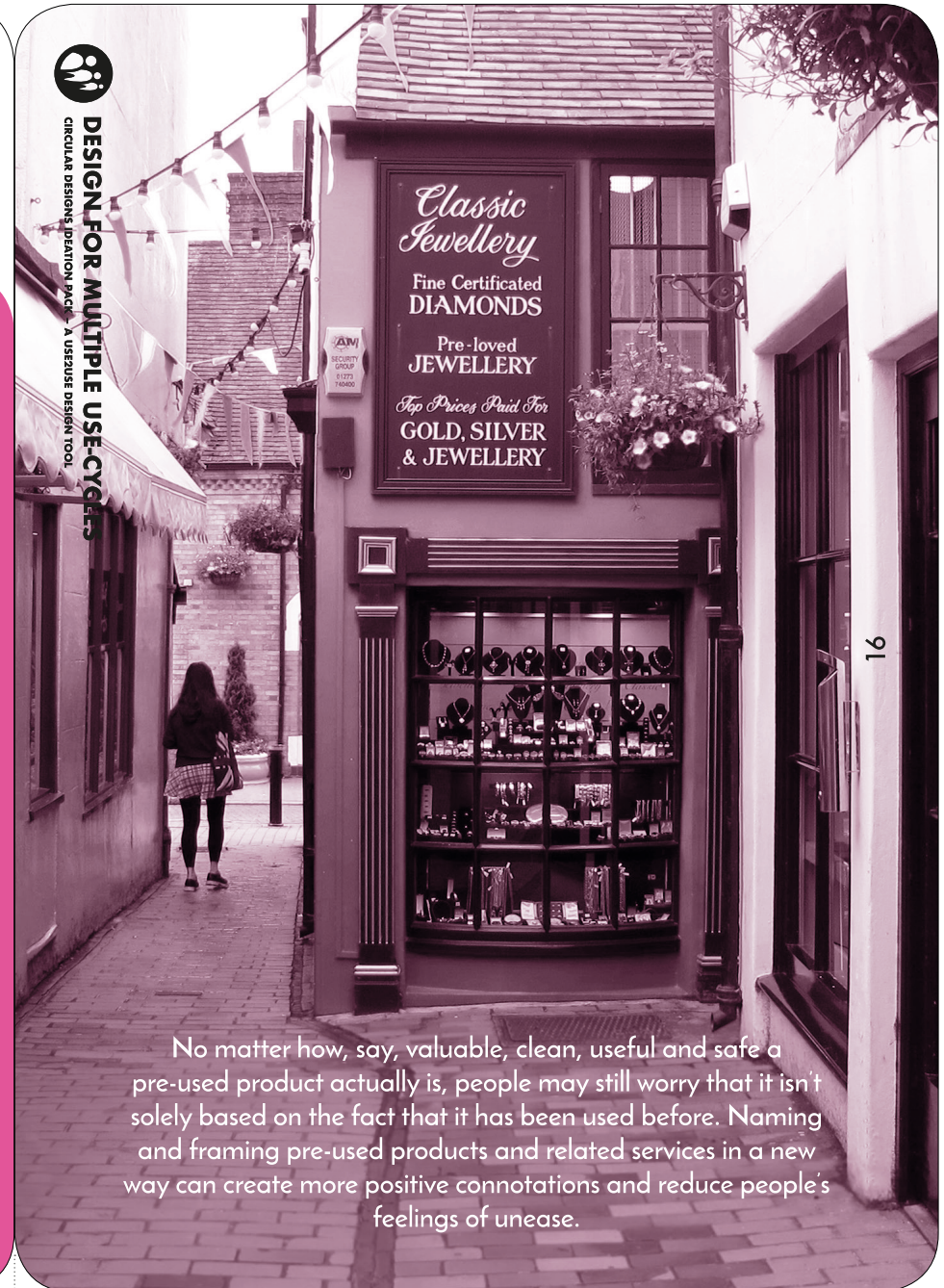
Can you help people focus on pleasant emotions instead?

Can you help people feel that they “own the situation” and are proud of using pre-used products?

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DESIGN FOR MULTIPLE USE-CYCLES  
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No matter how, say, valuable, clean, useful and safe a pre-used product actually is, people may still worry that it isn't solely based on the fact that it has been used before. Naming and framing pre-used products and related services in a new way can create more positive connotations and reduce people's feelings of unease.





### DESIGN CHALLENGE

When a product is passed on from one user to another, traces of previous use may be noticed. Some traces are considered desirable and can make pre-used products more attractive.

## HOW CAN YOU INCREASE DESIRABLE TRACES OF USE?

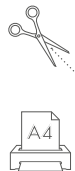


Can you improve the user experience for subsequent users by enabling people to improve, say, the product's functionality?

Can you facilitate such things as tracing a product's history and chronology of use?

Can you enable users to pass on product-related advice, recommendations and information?

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DESIGN FOR MULTIPLE USE-CYCLES  
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A product's history can increase its value for future users. The outdoor manufacturer *Haglöfs* highlights this in its design of the backpack NO:1, which is intended to be handed down from one generation to the next. It includes a tag labelled "for future history" that invites subsequent users to add their names and the years they have used the pack. This makes it possible to follow the backpack's journey from use to use. *Courtesy: Haglöfs.*







### DESIGN CHALLENGE

When a product is circulated and used during multiple use-cycles, its environmental impact across all its use-cycles should be considered. For some products, the environmental impact associated with one use-cycle will decrease as the number of use-cycles increases.

## HOW CAN YOU ENSURE THE ENVIRONMENTAL BENEFITS OF PRE-USED PRODUCTS ARE COMMUNICATED TO FUTURE USERS?



Can you highlight whether and how the environmental impact changes for each use-cycle, or can you help the current user communicate such changes to future users?

Can you provide comparative data that can be used to communicate environmental benefits?

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### DESIGN FOR MULTIPLE USE-CYCLES



While many people may see it as generally environmentally beneficial to obtain pre-used products compared to new ones, they might not have more specific insights. This concept shows how people can be provided with information on how the per-use CO2-footprint of a rental tent decreases with each use-cycle. Courtesy: Elin Hagman & Lisa Wendt.





### DESIGN CHALLENGE

*Obtaining a pre-used product can be experienced very differently compared to acquiring a new product. For instance, browsing and unboxing pre-used products may be deemed less pleasurable.*

## HOW CAN YOU MAKE OBTAINING A PRE-USED PRODUCT MORE ENJOYABLE?



Can you cater for different obtainment styles, such as “hunting for a specific product” or “just browsing”?

Can you make sure all future users feel catered-for?

Can you provide an unboxing experience, not just for the first user but subsequent ones too?

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Obtaining a pre-used product is generally a different (and often a less enjoyable) experience compared to buying a new one. Nevertheless, pre-used products can be offered so as to make the experience just as appealing as obtaining new ones. For instance, the clothing brand *Houdini* hosts second-hand “Reuse” sections in its stores and displays pre-used products in an equally attractive way as new ones.







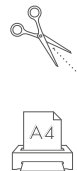
OVERVIEW OF DESIGN STRATEGY CARDS

## DESIGN FOR EXCHANGE



If products are to be circulated use to use, products and services must be fit for circular consumption processes. Since a circular consumption process couples one person's obtainment process with another person's clearance process (through product exchange), one must consider activities and practicalities relating to two users (the current user and the potential future one). For instance, if a product exchange is to take place, the current user may have to decide how to circulate a product and ensure that it's clean before passing it on. The future user, on the other hand, may want to properly assess the pre-used product and the overall offer, and be able to carry out the exchange. Not only may these activities and related practicalities be undesirable, they may also make the exchange process quite challenging for those involved. The Design for Exchange strategy highlights ways to design products and services so they suit the activities and practicalities that everyday circular consumption processes often involve.

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OVERVIEW OF DESIGN STRATEGY CARDS

## DESIGN FOR EXCHANGE

THESE STRATEGY CARDS WILL HELP  
YOU CONSIDER HOW TO:



- 20 facilitate inspection of a product
- 21 help people try a product before obtaining it
- 22 facilitate transportation of a product
- 23 facilitate cleaning of a product
- 24 make it easy to (dis)assemble a product
- 25 facilitate (un)installation of a product
- 26 make it easy to store a product's accessories or other items
- 27 make people consider whether to keep a product or pass it on
- 28 activate people to circulate a product
- 29 help people to emotionally detach
- 30 facilitate unwanted post-clearance activities

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## THE CIRCULAR DESIGNS IDEATION PACK

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### DESIGN CHALLENGE

When people obtain a pre-used product or pass a product on to others, they may need to inspect its condition, completeness, quality and cleanliness.

## HOW CAN YOU FACILITATE INSPECTION OF THE PRODUCT?

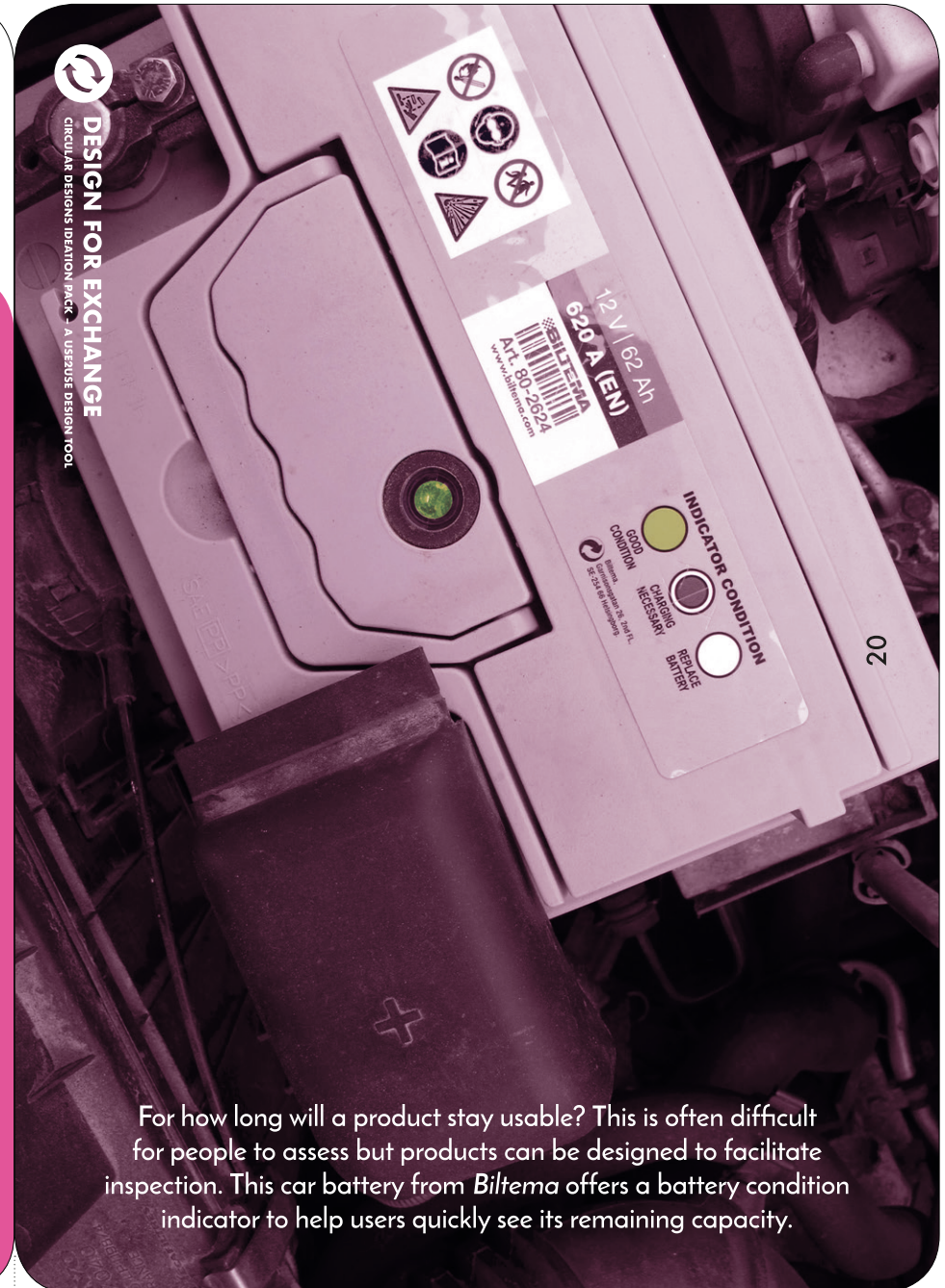
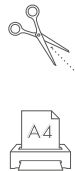


Can you make inspection easy, perhaps by providing an overview, easy access to critical components and eliminating the need for tools?

Can you make it easy to identify and diagnose potential problems without extensive knowledge?

Can you provide an inspection and guarantee service?

A USE2USE DESIGN TOOL



For how long will a product stay usable? This is often difficult for people to assess but products can be designed to facilitate inspection. This car battery from *Biltema* offers a battery condition indicator to help users quickly see its remaining capacity.







### DESIGN CHALLENGE

When considering obtaining a pre-used product, it can be difficult to assess whether it's worth having. This may be all the more important, as prior use may make a pre-used product different from a new one.

## HOW CAN YOU HELP PEOPLE TRY THE PRODUCT BEFORE OBTAINING IT?



Can you help people try the product, to see if it fits them physically, fits other products they use and fits in their home?

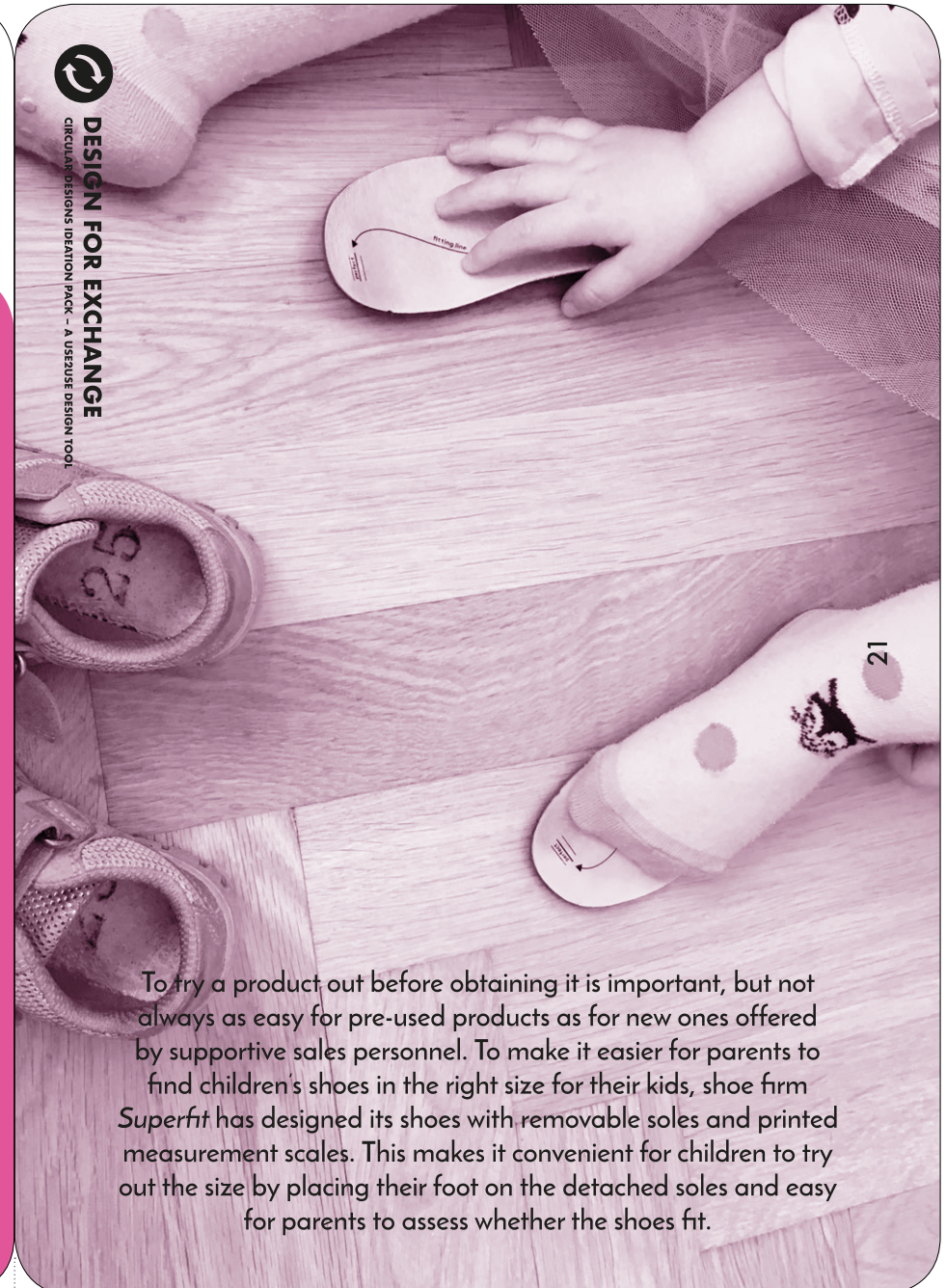
Can you help people try the product to assess whether they can use it?

Can you help people experience the product using all relevant senses?

A USE2USE DESIGN TOOL



DESIGN FOR EXCHANGE  
CIRCULAR DESIGNS IDEATION PACK – A USE2USE DESIGN TOOL



To try a product out before obtaining it is important, but not always as easy for pre-used products as for new ones offered by supportive sales personnel. To make it easier for parents to find children's shoes in the right size for their kids, shoe firm Superfit has designed its shoes with removable soles and printed measurement scales. This makes it convenient for children to try out the size by placing their foot on the detached soles and easy for parents to assess whether the shoes fit.





### DESIGN CHALLENGE

Passing a product on or obtaining a pre-used product normally involves transportation-related activities. These can be undesirable and inconvenient and make people less likely to circulate products.

## HOW CAN YOU FACILITATE TRANSPORTATION OF THE PRODUCT?



Can you decrease the effort and resources needed by, say, optimising the product's shape, volume and weight, or enabling temporary adjustments during transport?

Can you provide a service to handle transportation-related activities which people find undesirable and inconvenient?

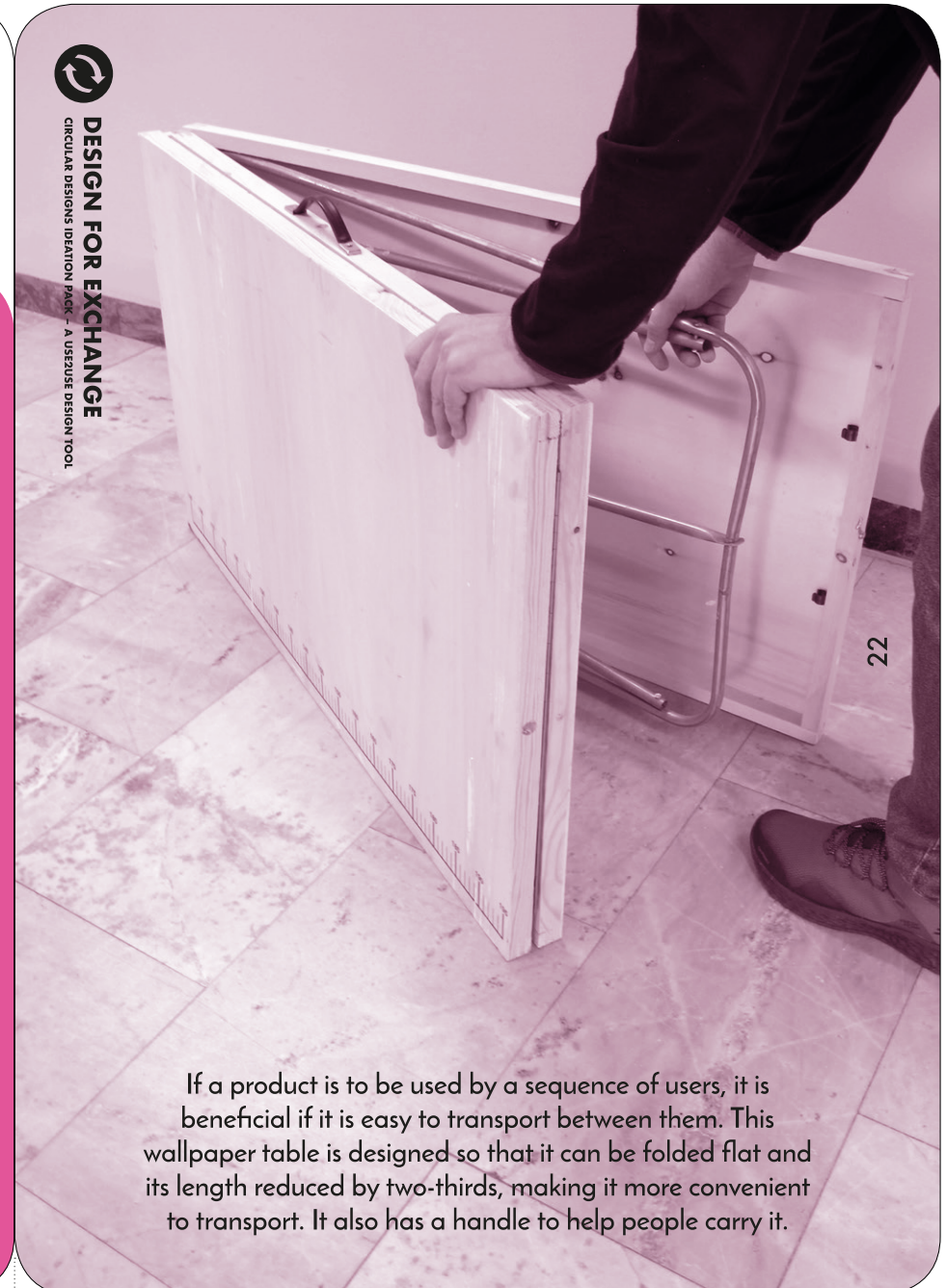
Can you make it easy to package the product to protect it during transport?

A USE2USE DESIGN TOOL



### DESIGN FOR EXCHANGE

CIRCULAR DESIGNS IDEATION PACK – A USE2USE DESIGN TOOL



If a product is to be used by a sequence of users, it is beneficial if it is easy to transport between them. This wallpaper table is designed so that it can be folded flat and its length reduced by two-thirds, making it more convenient to transport. It also has a handle to help people carry it.







### DESIGN CHALLENGE

When a product is circulated often, the risk of it becoming unhygienic increases. It is therefore even more important for the product to be easy to clean.

## HOW CAN YOU FACILITATE CLEANING OF THE PRODUCT?



Can you ensure the product doesn't become unhygienic or is easy to clean, perhaps by using certain materials, avoiding sharp corners and explaining how to clean it?

Can you make it possible to remove critical parts for thorough cleaning?

Can you provide a cleaning service?

A USE2USE DESIGN TOOL



DESIGN FOR EXCHANGE  
CIRCULAR DESIGNS IDEATION PACK – A USE2USE DESIGN TOOL



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If products are to be exchanged between people, cleaning may be needed. However, cleaning a product thoroughly can be difficult. This hairbrush from *The Body Shop* is a good example of how thorough cleaning can be made easy. Thanks to its detachable parts, people can wash each part individually and re-assemble them into a clean-as-new hairbrush.





## THE CIRCULAR DESIGNS IDEATION PACK

– A PART OF THE USE2USE DESIGN TOOLKIT –



### DESIGN CHALLENGE

*When a product is circulated from one user to the next, it may have to be dismantled for transport and then reassembled for use.*

## HOW CAN YOU MAKE IT EASY TO (DIS)ASSEMBLE THE PRODUCT?

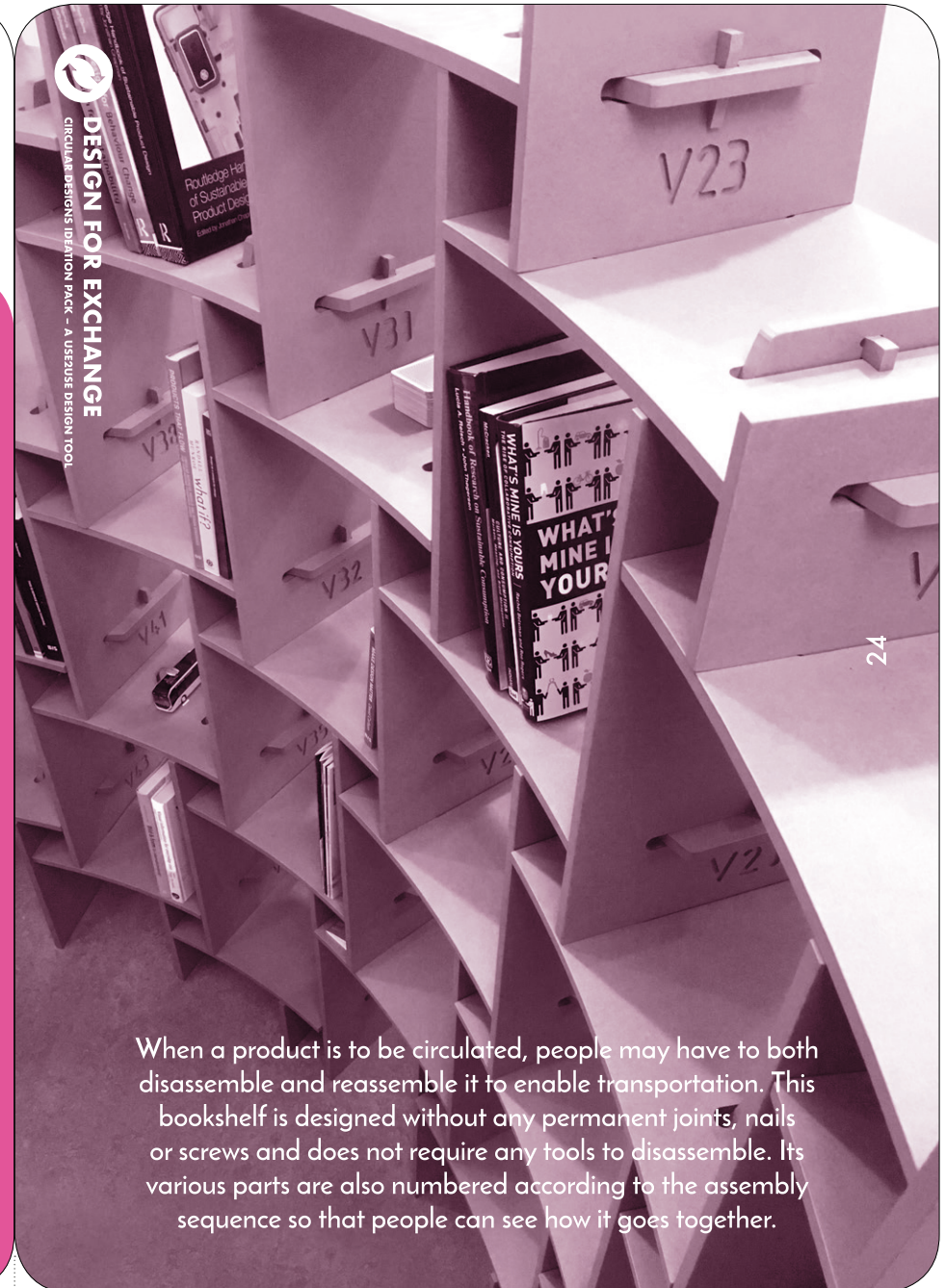
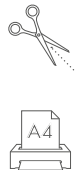


Can you avoid permanent joints and limit the number and variety of fasteners?

Can you decrease the time and effort needed for (dis)assembly, perhaps by reducing the number of parts or indicating the required actions (and their sequence) on the parts?

Can you make (dis)assembly easy without tools or using only standard tools?

A USE2USE DESIGN TOOL



When a product is to be circulated, people may have to both disassemble and reassemble it to enable transportation. This bookshelf is designed without any permanent joints, nails or screws and does not require any tools to disassemble. Its various parts are also numbered according to the assembly sequence so that people can see how it goes together.

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### DESIGN CHALLENGE

*A product that requires installation prior to use can be hard to circulate unless people are able to install, uninstall and reinstall the product. This becomes more important with each exchange.*

## HOW CAN YOU FACILITATE (UN)INSTALLATION OF THE PRODUCT?



Can you make (un)installation easy and quick  
to do without extensive knowledge?

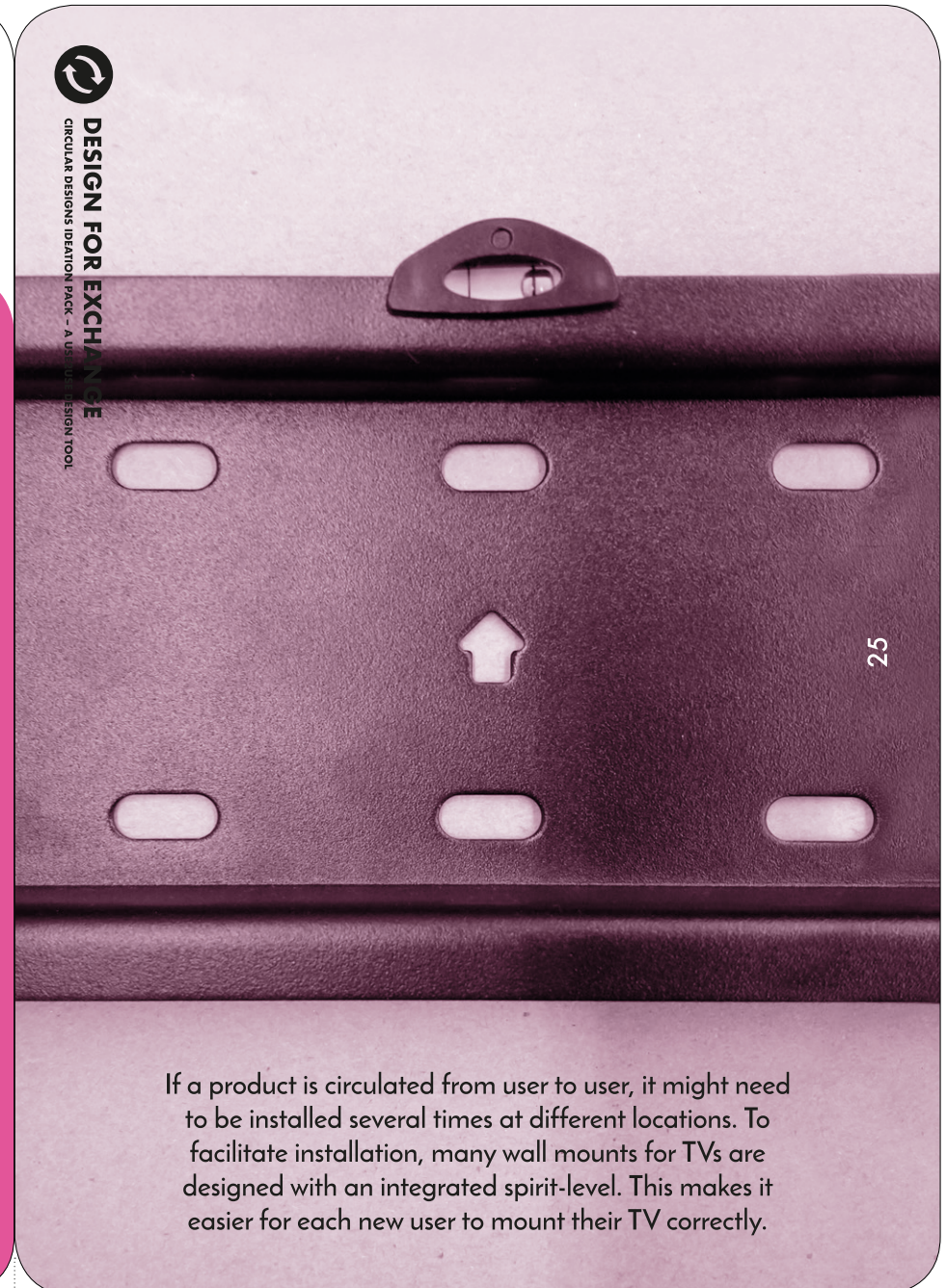
Can you provide easy-to-follow (un)installation  
instructions which can't get lost?

Can you offer an (un)installation service?

A USE2USE DESIGN TOOL



DESIGN FOR EXCHANGE  
CIRCULAR DESIGNS IDEATION PACK – A USE2USE DESIGN TOOL



If a product is circulated from user to user, it might need to be installed several times at different locations. To facilitate installation, many wall mounts for TVs are designed with an integrated spirit-level. This makes it easier for each new user to mount their TV correctly.







### DESIGN CHALLENGE

Obtaining a pre-used product may be less appealing to people if any of its accessories or other related items (such as packaging, manual, original receipt) are missing.

## HOW CAN YOU MAKE IT EASY TO STORE A PRODUCT'S ACCESSORIES OR OTHER ITEMS?



Can you provide accessories that can be easily stored with the product?

Can you offer the product without packaging, with easy-store packaging, or with temporary packaging for the product exchange?

Can you provide digital manuals and receipts that are easily accessed?

A USE2USE DESIGN TOOL



DESIGN FOR EXCHANGE  
CIRCULAR DESIGNS IDEATION PACK – A USE2USE DESIGN TOOL



When obtaining a pre-used product, people generally prefer the product to come with its manual, packaging, or receipts. To make it easy for people to keep track of important documents, the Volkswagen Golf comes with a specific folder in which documents can be kept. The car is also designed with a specific compartment in which the folder can be stored for safekeeping.





**THE CIRCULAR DESIGNS IDEATION PACK**  
– A PART OF THE USE2USE DESIGN TOOLKIT –



**DESIGN CHALLENGE**

*People seldom consider whether or not they still need and use a particular product, nor do they typically consider whether the product can help someone else fulfil their needs.*

**HOW CAN YOU MAKE  
PEOPLE CONSIDER WHETHER  
TO KEEP THE PRODUCT OR  
PASS IT ON?**



Can you help people assess their need by providing insight into how often they use the product and what they use it for?

Can you help people assess what life would be like without the product?

A USE2USE DESIGN TOOL



**DESIGN FOR EXCHANGE**  
CIRCULAR DESIGNS IDEATION PACK – A USE2USE DESIGN TOOL



When people don't reflect on whether they still need a particular product, it may get stuck in disuse limbo. However, products can be offered through services encouraging their circulation elsewhere. For example, toasters can be offered to hosts via a service and be designed to complain on Twitter and eventually demand relocation to a new host if they are not used enough.

*Courtesy: Simone Rebaudengo.*

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## THE CIRCULAR DESIGNS IDEATION PACK

– A PART OF THE USE2USE DESIGN TOOLKIT –



### DESIGN CHALLENGE

Many of the products people own lie unused and forgotten in drawers, closets and storage spaces. These products will remain inaccessible resources unless they are passed on to others.

## HOW CAN YOU ACTIVATE PEOPLE TO CIRCULATE THEIR PRODUCTS SO OTHERS CAN USE THEM?



Can the product or service remind or even compel the user to circulate the product?

Can you support potential future users in noticing the product and requesting it?

Can you make users aware of these products by other means, such as helping them clean out their garages?

A USE2USE DESIGN TOOL



### DESIGN FOR EXCHANGE

CIRCULAR DESIGNS IDEATION PACK – A USE2USE DESIGN TOOL



People looking to borrow a product generally don't know what products others have and which of these they are willing to lend. To make more people offer their products to others, this digital inventory app concept is designed to trigger people to mark which of their items they are willing to share. These items become searchable for others who can easily request to borrow them. Courtesy: Patricia Lindborg & Olivia Chalandon.







**THE CIRCULAR DESIGNS IDEATION PACK**  
– A PART OF THE USE2USE DESIGN TOOLKIT –



**DESIGN CHALLENGE**

*Emotional attachment can make people hold on to a product although they no longer need it or use it. This will diminish use of the product and keep people from passing it on to others.*

## HOW CAN YOU HELP PEOPLE TO EMOTIONALLY DETACH?



Can you support emotional detachment by enabling preservation of memories or data?

Can you support emotional detachment by facilitating goodbye rituals?

Can you aid foresight of the product's next use-cycle(s) and the value it will bring others?

A USE2USE DESIGN TOOL



**DESIGN FOR EXCHANGE**  
CIRCULAR DESIGNS IDEATION PACK – A USE2USE DESIGN TOOL

**HH**® 104/4  
**HELLY HANSEN**  
MADE IN CHINA  
FABRIQUÉ EN CHINE  
Name  
2nd KID  
3rd KID  
Designed and developed in Norway since 1877  
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People sometimes hold onto products they no longer need due to emotional bonds. Out-grown children's clothes for example. The nametag on this *Helly Hansen* children's overall is one attempt at encouraging people to circulate the garment to other children that can use it, once the original child has outgrown it.

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### DESIGN CHALLENGE

*When people pass a product on, they may have to deal with unwanted post-clearance activities. This can make them less likely to circulate products.*

## HOW CAN YOU FACILITATE UNWANTED POST-CLEARANCE ACTIVITIES?



Can you help people make good in the home, such as repairing walls where furniture was secured?

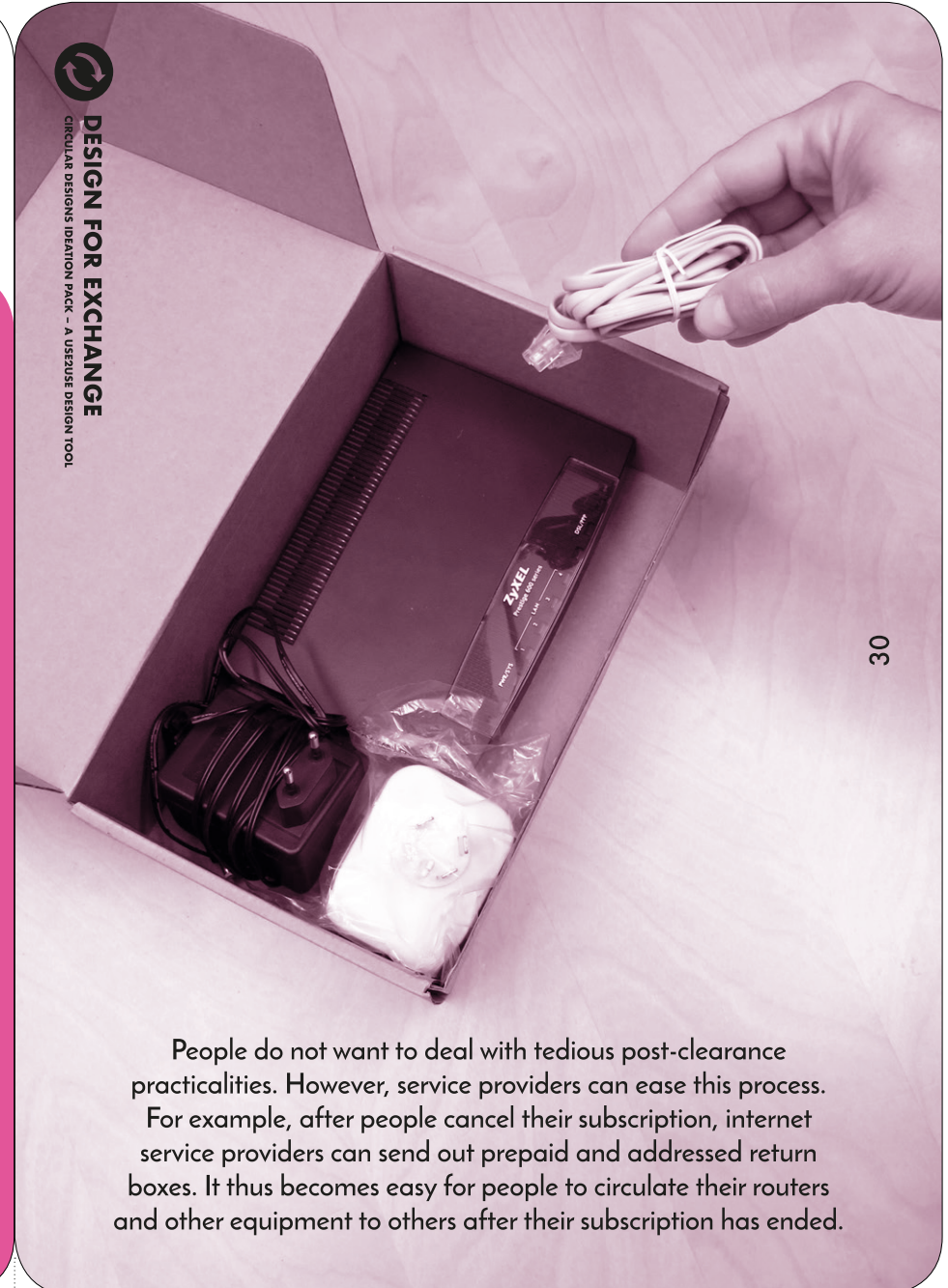
Can you facilitate the necessary administrative tasks, once a product has been passed on?

Can you help people to pass on associated products that are useless post-clearance? For example, selling a roofbox after a car has been passed on to someone else?

A USE2USE DESIGN TOOL



DESIGN FOR EXCHANGE  
CIRCULAR DESIGNS IDEATION PACK – A USE2USE DESIGN TOOL



People do not want to deal with tedious post-clearance practicalities. However, service providers can ease this process. For example, after people cancel their subscription, internet service providers can send out prepaid and addressed return boxes. It thus becomes easy for people to circulate their routers and other equipment to others after their subscription has ended.





OVERVIEW OF DESIGN STRATEGY CARDS

## DESIGN FOR CIRCULAR MATCH-MAKING



If products are to be transferred from one user to the next through a product exchange, people must be able and willing to connect and interact. For instance, they will need to communicate, discuss and compare offers, make and sometimes cancel deals and synchronise the exchange with others. Hence, both the current user and any future ones must engage in a number of activities that may or may not be facilitated by exchange agents. Not only may people find it hard to connect with others, they may also experience conflicts or lack of trust when trying to do so. The strategy Design for Circular Match-Making addresses such design challenges and may be used to design products and services to enable two subsequent users to connect and interact.

A USE2USE DESIGN TOOL

OVERVIEW OF DESIGN STRATEGY CARDS

## DESIGN FOR CIRCULAR MATCH-MAKING

THESE STRATEGY CARDS WILL HELP  
YOU CONSIDER HOW TO:



- 31 help current and potential future users to connect
- 32 help people compare obtainment opportunities
- 33 help people compare clearance opportunities
- 34 help people make deals with each other
- 35 make a product exchange accessible to people
- 36 build trust between everyone involved in the product exchange
- 37 avoid conflicts arising during the exchange process
- 38 help people cancel a deal

A USE2USE DESIGN TOOL







### DESIGN CHALLENGE

*A product not being used could be circulated to someone else who needs it. However, it often doesn't happen, as it's difficult for both current and potential future users to link up.*

## HOW CAN YOU HELP CURRENT AND POTENTIAL FUTURE USERS TO CONNECT?



Can you make people wanting to pass on a product aware of potential future users?

Can you make people needing the product aware of those who could provide it?

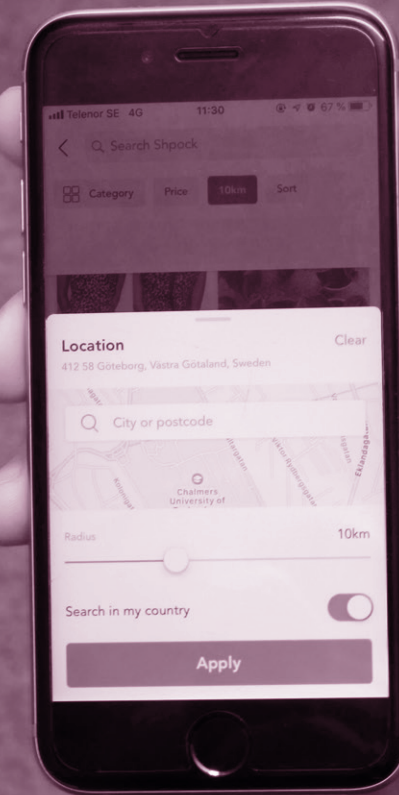
Can current channels be improved upon, to help people compose offers/requests, or can new channels be introduced?

A USE2USE DESIGN TOOL



### DESIGN FOR CIRCULAR MATCH-MAKING

CIRCULAR DESIGNS IDEATION PACK – A USE2USE DESIGN TOOL



People wanting to obtain a certain pre-used product and those wanting to clear the same product often have a hard time finding each other. To make it easier for current and potential future users to connect, the second-hand sales service *Shpock* helps current users make their offers visible by putting up digital ads free of charge and without time-limits. *Shpock* also helps potential future users to sort ads based on their location, thus making it easier for people to identify ads in their neighbourhood.

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## DESIGN CHALLENGE

When people want to obtain a particular type of product, they can often choose between many different obtainment opportunities. Deciding on a suitable alternative can be very difficult and may prevent people from obtaining a pre-used product.

# HOW CAN YOU HELP PEOPLE COMPARE OBTAINMENT OPPORTUNITIES?



Can you make it easy to assess activities and practicalities associated with different ways of obtaining a product, such as buying, renting or borrowing it?

Can you make it easy for people to compare different channels which may enable them to obtain the product in a certain way? For example, buying it on eBay, Facebook marketplace, or Craigslist?

Can you make it easy for people to compare different products offered through a specific channel?

A USE2USE DESIGN TOOL



## DESIGN FOR CIRCULAR MATCH-MAKING



Assessing pre-used products and associated deals is often challenging. To help people compare different alternatives, the second-hand car dealer Kvdbil puts together a rich description of the vehicles it auctions out. It inspects, photographs and grades the cars to make it easier for people to assess and compare their benefits and drawbacks.







### DESIGN CHALLENGE

When people no longer want a particular product, they can choose between many different clearance opportunities. Deciding on a suitable alternative can be very difficult and may prevent people from circulating a product.

## HOW CAN YOU HELP PEOPLE COMPARE CLEARANCE OPPORTUNITIES?



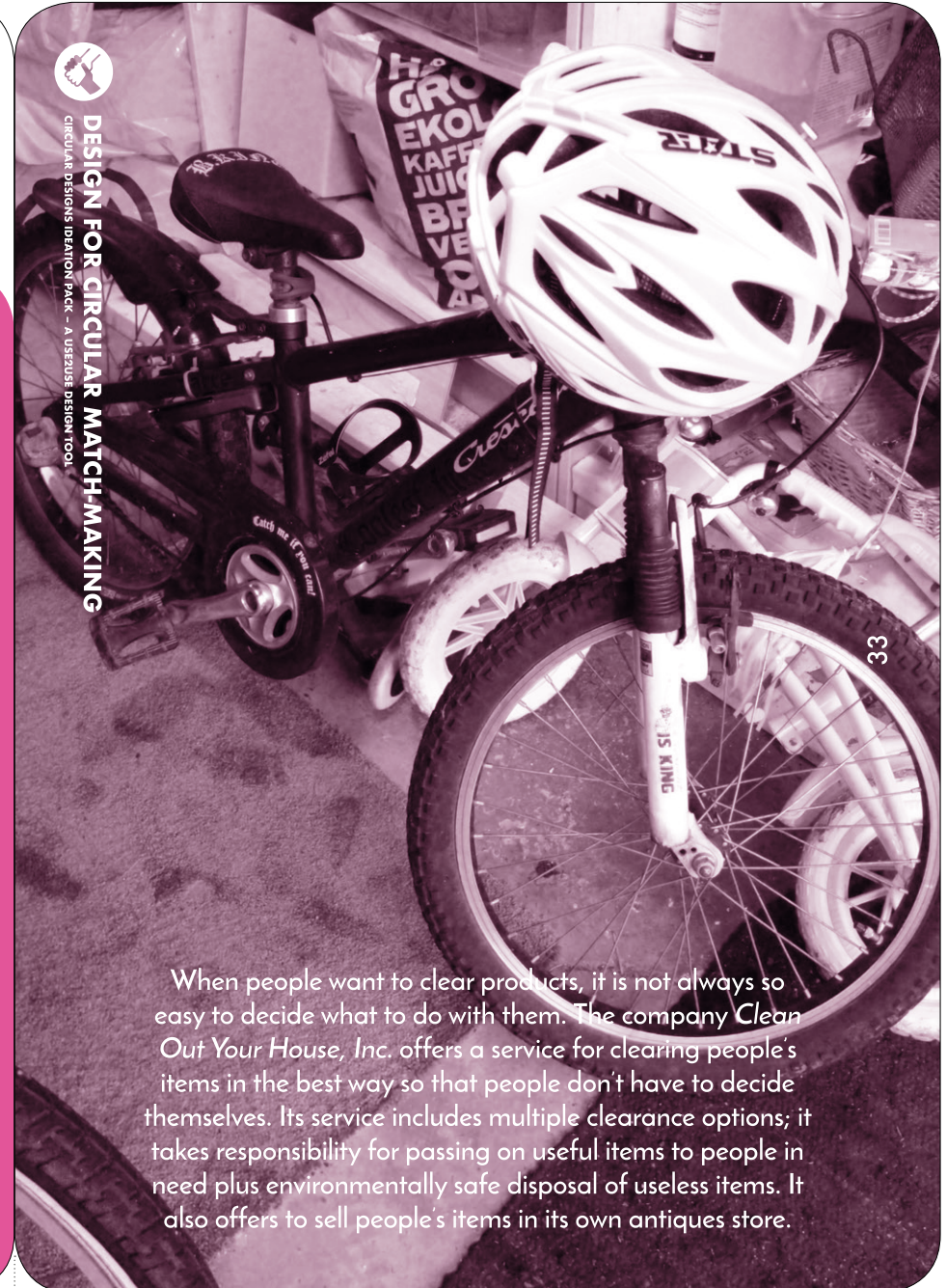
Can you make it easy to assess activities and practicalities associated with different ways of circulating a product, such as selling, trading or giving the product to charity?

Can you make it easy for people to compare different channels to help them circulate the product in a certain way, such as selling on eBay, Facebook Marketplace, or Craigslist?

A USE2USE DESIGN TOOL



DESIGN FOR CIRCULAR MATCH-MAKING  
CIRCULAR DESIGNS IDEATION PACK – A USE2USE DESIGN TOOL



When people want to clear products, it is not always so easy to decide what to do with them. The company *Clean Out Your House, Inc.* offers a service for clearing people's items in the best way so that people don't have to decide themselves. Its service includes multiple clearance options; it takes responsibility for passing on useful items to people in need plus environmentally safe disposal of useless items. It also offers to sell people's items in its own antiques store.







### DESIGN CHALLENGE

Setting up a product exchange deal, such as agreeing on terms and planning the exchange, can be difficult for both the current user and the future one. This may make them both less likely to carry out the exchange.

## HOW CAN YOU HELP PEOPLE MAKE DEALS WITH EACH OTHER?



Can you make it easy for people to communicate and discuss a deal?

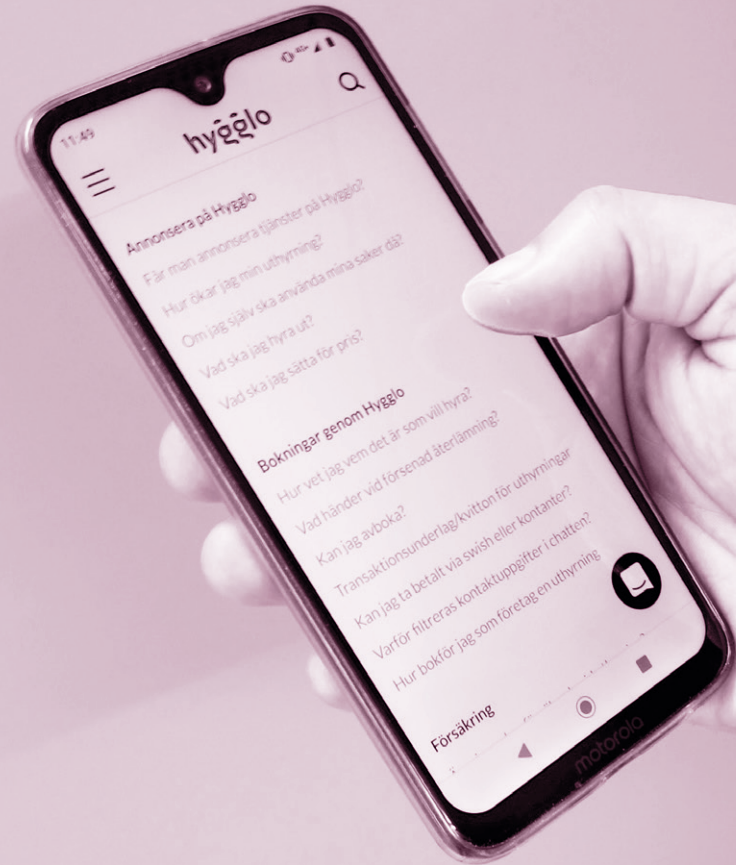
Can you make it easy for people to agree on a deal, perhaps by setting terms, deciding on rules and making responsibilities clear?

Can you make it easy to agree how and when a product exchange should be carried out?

A USE2USE DESIGN TOOL



### DESIGN FOR CIRCULAR MATCH-MAKING



Misunderstandings may occur when people make deals with strangers. To help people avoid misunderstandings when renting products to others, Hygglo provides its customers with a lot of helpful information to support trouble-free deal-making. For example, Hygglo suggests reasonable fees for various types of products and people can choose between different rental terms that define the offer conditions.

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## THE CIRCULAR DESIGNS IDEATION PACK

– A PART OF THE USE2USE DESIGN TOOLKIT –



### DESIGN CHALLENGE

Having to carry out a product exchange at an inconvenient time and location may make people less likely to obtain pre-used products or circulate them to others.

## HOW CAN YOU MAKE A PRODUCT EXCHANGE ACCESSIBLE TO PEOPLE?

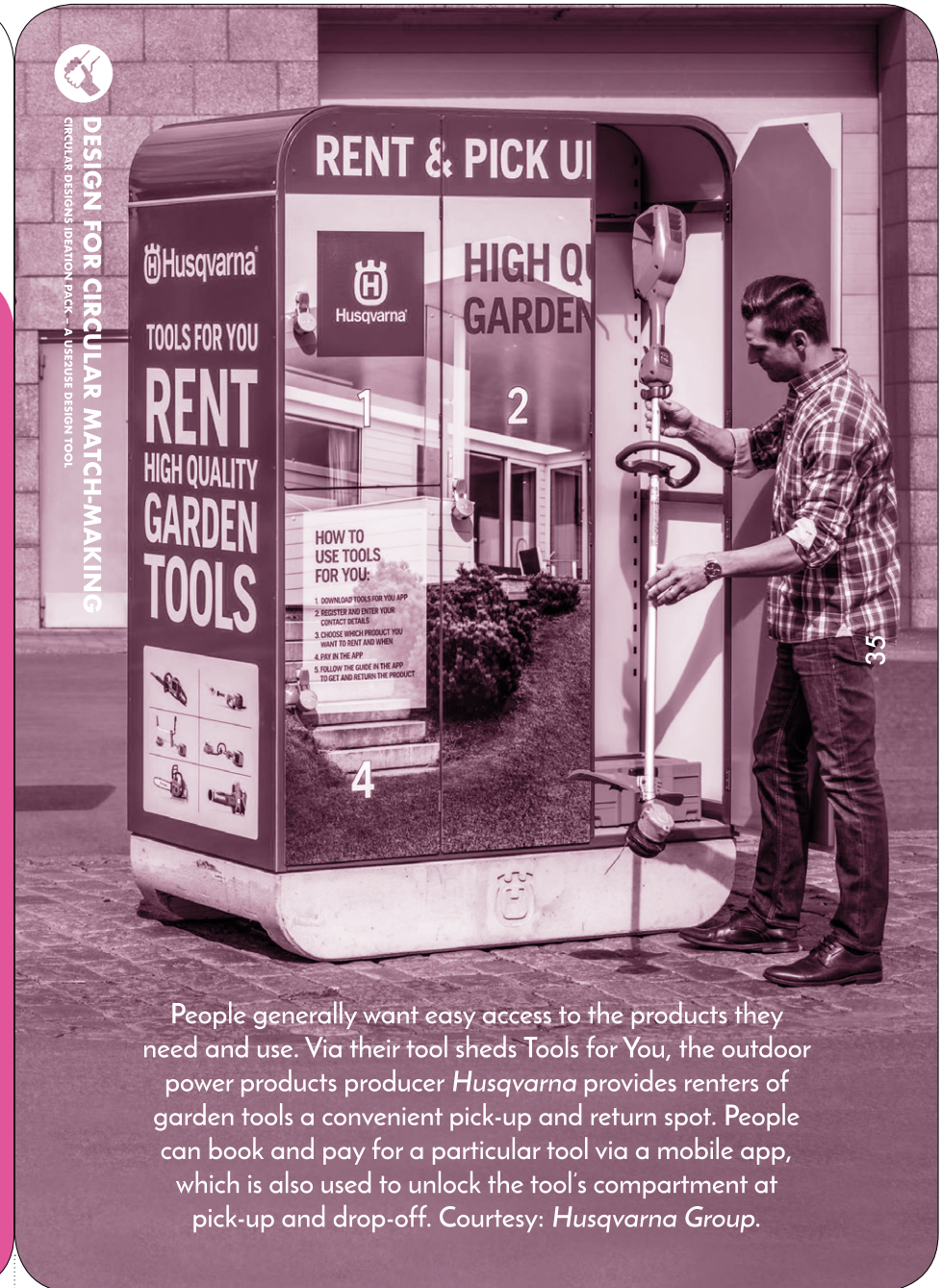
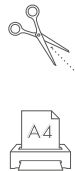


Can you facilitate product exchange at a convenient location for people, such as at home, in their neighbourhood, or at popular hubs?

Can you facilitate product exchange at a convenient time?

Can you help people carry out product exchanges without them having to set up a time and place?

A USE2USE DESIGN TOOL



DESIGN FOR CIRCULAR MATCH-MAKING  
CIRCULAR DESIGNS IDEATION PACK – A USE2USE DESIGN TOOL

People generally want easy access to the products they need and use. Via their tool sheds Tools for You, the outdoor power products producer *Husqvarna* provides renters of garden tools a convenient pick-up and return spot. People can book and pay for a particular tool via a mobile app, which is also used to unlock the tool's compartment at pick-up and drop-off. Courtesy: *Husqvarna Group*.







### DESIGN CHALLENGE

Many circular consumption processes are unfamiliar to people and can be facilitated by less well-established players. Hence, a certain level of trust is needed between everyone involved in the product exchange.

## HOW CAN YOU BUILD TRUST BETWEEN EVERYONE INVOLVED IN THE PRODUCT EXCHANGE?



Can you make it possible to assess the current user, potential future users and any exchange agents involved?

Can you provide an overview of the exchange process and ensure transparency?

Can you support community-building through which people take collective responsibility for the product and its future?

A USE2USE DESIGN TOOL



### DESIGN FOR CIRCULAR MATCH-MAKING

CIRCULAR DESIGNS IDEATION PACK – A USE2USE DESIGN TOOL



Trust is an important factor when people circulate products between themselves. For instance, if a person is selling a pre-used videogame, they might come across as more trustworthy if they first let Video Game Authority inspect and assess the game according to their criteria and then communicate the grading to potential buyers.

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### DESIGN CHALLENGE

*When a product is exchanged, conflicts can sometimes arise between subsequent users or between users and service providers, due to unclear terms, unsafe transactions, disagreements and so on.*

## HOW CAN YOU AVOID CONFLICTS ARISING DURING THE EXCHANGE PROCESS?

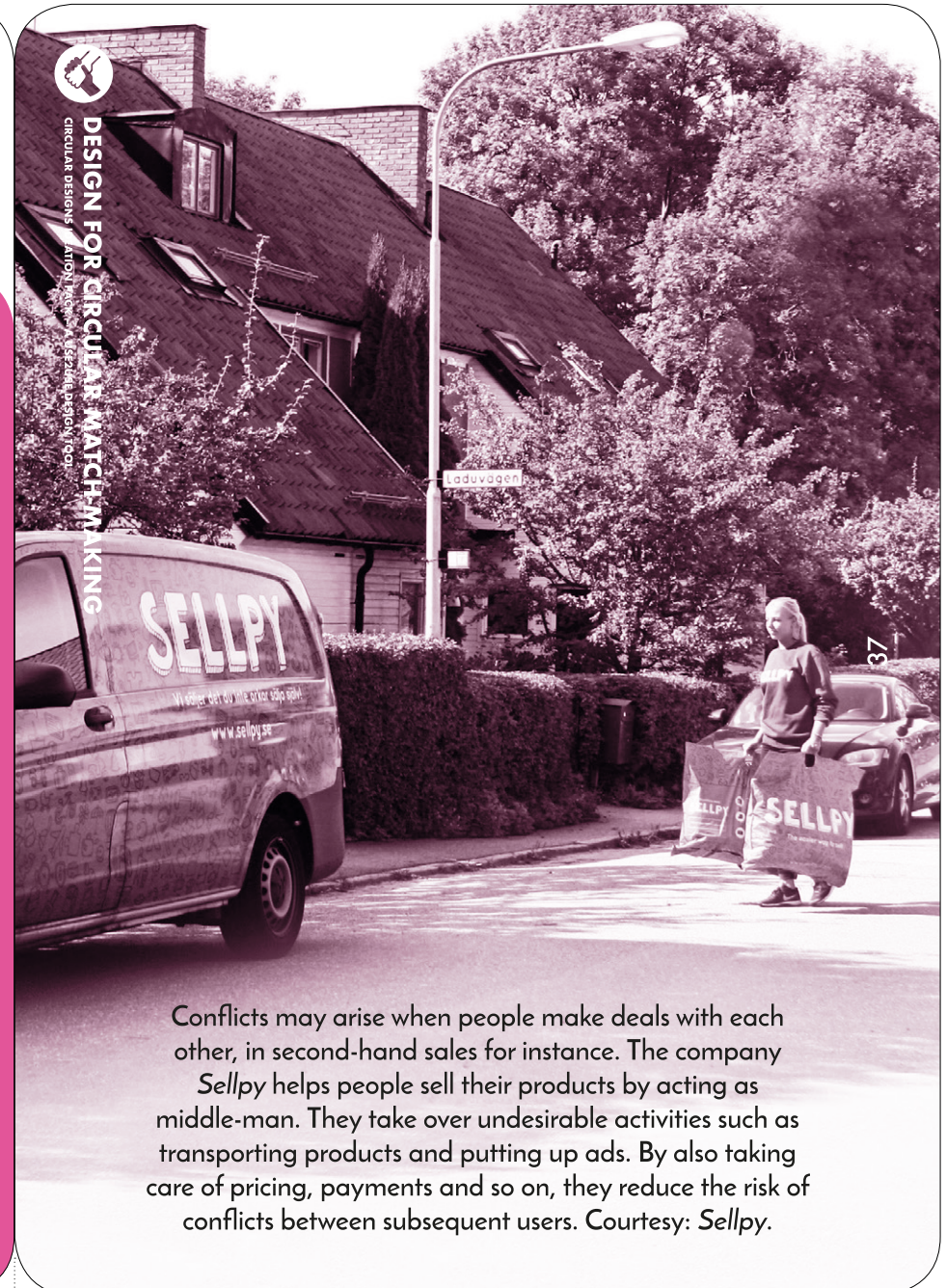


Can you make it easy to verify identities, confirm decisions and provide receipts?

Can you safeguard the transactions associated with a product exchange, such as making/receiving payment and transferring legal ownership?

Can you provide a service that mediates the exchange or takes full responsibility for the exchange?

A USE2USE DESIGN TOOL



Conflicts may arise when people make deals with each other, in second-hand sales for instance. The company **Sellpy** helps people sell their products by acting as middle-man. They take over undesirable activities such as transporting products and putting up ads. By also taking care of pricing, payments and so on, they reduce the risk of conflicts between subsequent users. Courtesy: **Sellpy**.







### DESIGN CHALLENGE

*When obtaining a pre-used product, it is often difficult and sometimes impossible to cancel a deal. This may make people deem circular obtainment alternatives less attractive than linear ones.*

## HOW CAN YOU HELP PEOPLE CANCEL A DEAL?



Can you provide generous conditions for returns and cancellations, or encourage people to do so?

Can you make returns and associated activities hassle-free?

Can you help people trial the product or service in everyday life?

A USE2USE DESIGN TOOL



### DESIGN FOR CIRCULAR MATCH-MAKING

CIRCULAR DESIGNS IDEATION PACK – A USE2USE DESIGN TOOL



When obtaining a pre-used product, people might worry that it does not meet their expectations. To help people ease their worries, pre-used phone retailer *Secondhandphones.com* offers a “14 days change-of-mind return period”.

