



Introduction to Circular Economy

Part 3. Circular product use, sharing, and reuse: examples of practices and policies

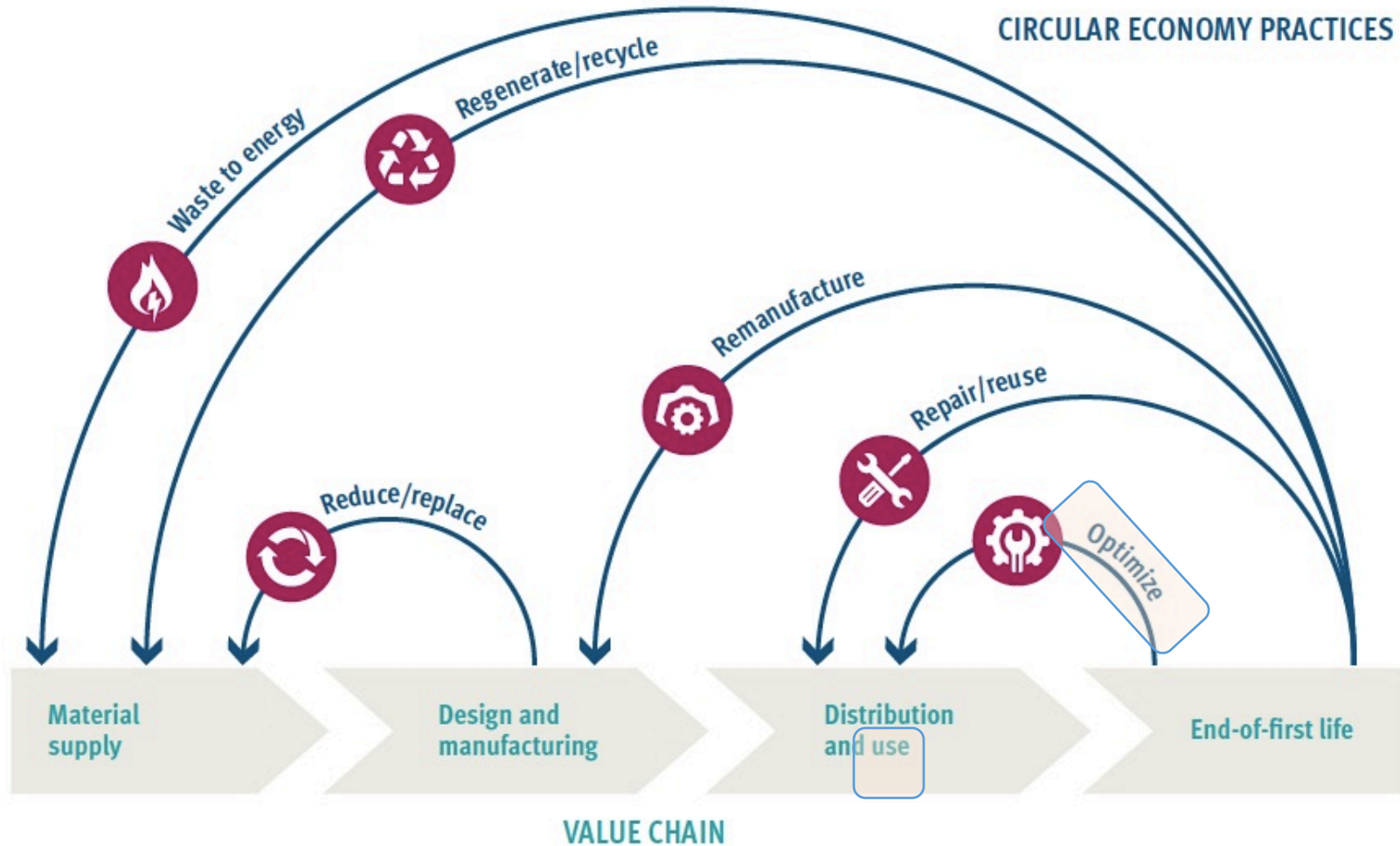


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CE strategies implemented during use

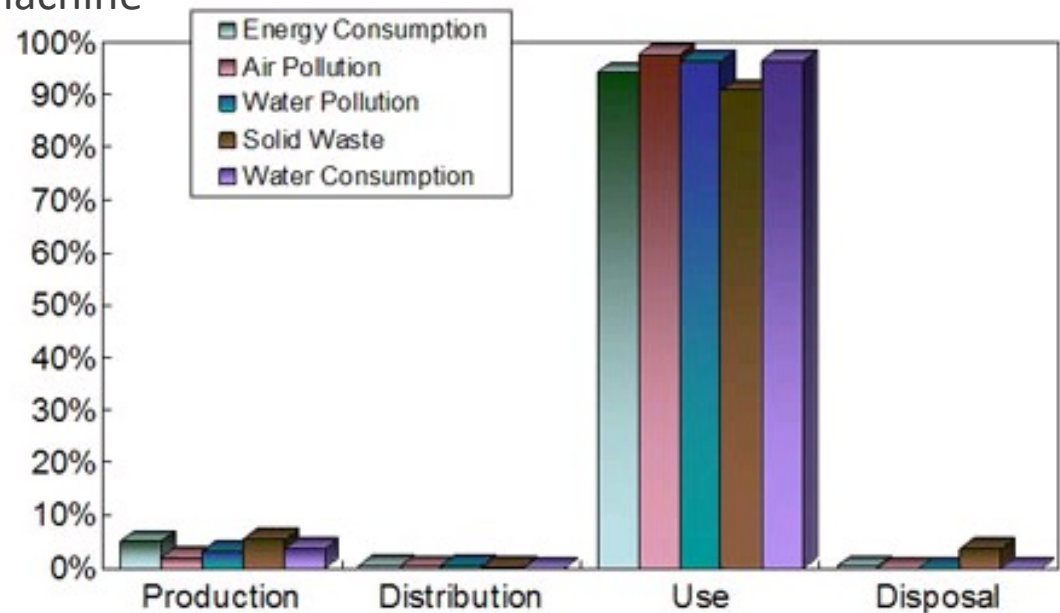
- All three CE strategies can be implemented during use.
- Users can “**narrow**” flows, through:
 - Their purchasing decisions (purchasing products “fit-for-purpose”);
 - Using their products more efficiently.
- Users can “**slow down**” flows, extending the useful life of their products by:
 - Maintaining and repairing their products – dealt with in next presentation;
 - Selling their products for further reuse / purchasing second-hand products;
 - Sharing products (i.e., product sharing schemes – the **sharing economy**).
- Users can help to “**close loops**”, by:
 - Placing their used products in remanufacturing, refurbishing schemes;
 - Correctly using the recycling schemes available to them.

“Narrowing” in use Example of “Fit-for-Purpose” purchases



“Narrowing” in use: Efficient usage: why is this Important?

- For many types of products – especially durable goods – by far the greatest consumption of materials (and generation of pollution) happens during use. So it is critical to ensure proper and efficient use.
- A typical example is a washing machine



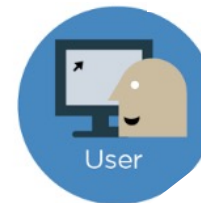
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Issues with Efficient Use of Products

- Poor product design is one issue, i.e., there are inherent inefficiencies in a product during use, or that they are difficult to use efficiently.
 - Often, the cheaper versions of a product are the more inefficient – how can we ensure that lower-income families can have access to efficient products?
- A product may be designed to be efficient during use. But users can nullify all the designed efficiency through incorrect use practices.
 - This requires raising the awareness of users and training them on the proper use of products – what are the most effective ways of doing this?
 - How much should this awareness-raising and training should be left to the manufacturers? How much should governments get involved?
- **NOTE:** In some cases, the best way for a product to be used efficiently is for the manufacturer to operate it for the user – this is the basis of many lease rather than buy models, e.g. Chemical Leasing.

Policies to promote CE approaches during use

- Run awareness campaigns on TV, radio, press, social media, etc.
- Make info available so users can make informed choices (e.g., labeling)
- But teach users to understand the info!

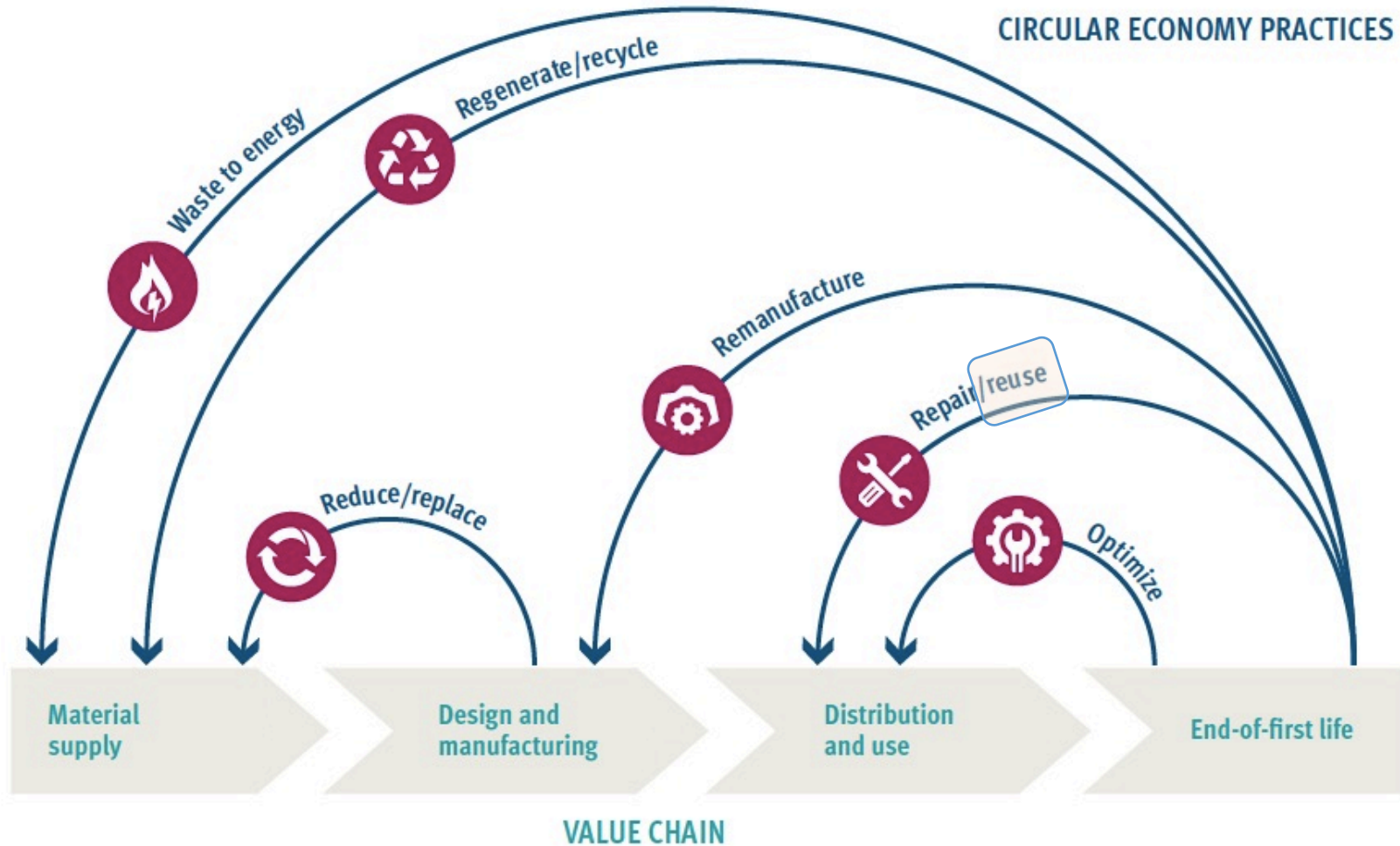


- Reduce product taxes (VAT, sales tax) or tariffs on “CE friendly” / green products;
- Raise taxes on non-green products

NOTE: these policies mostly focus on influencing purchasing decisions and pushing for greater efficiency.

Other aspects of household behaviour are covered later.

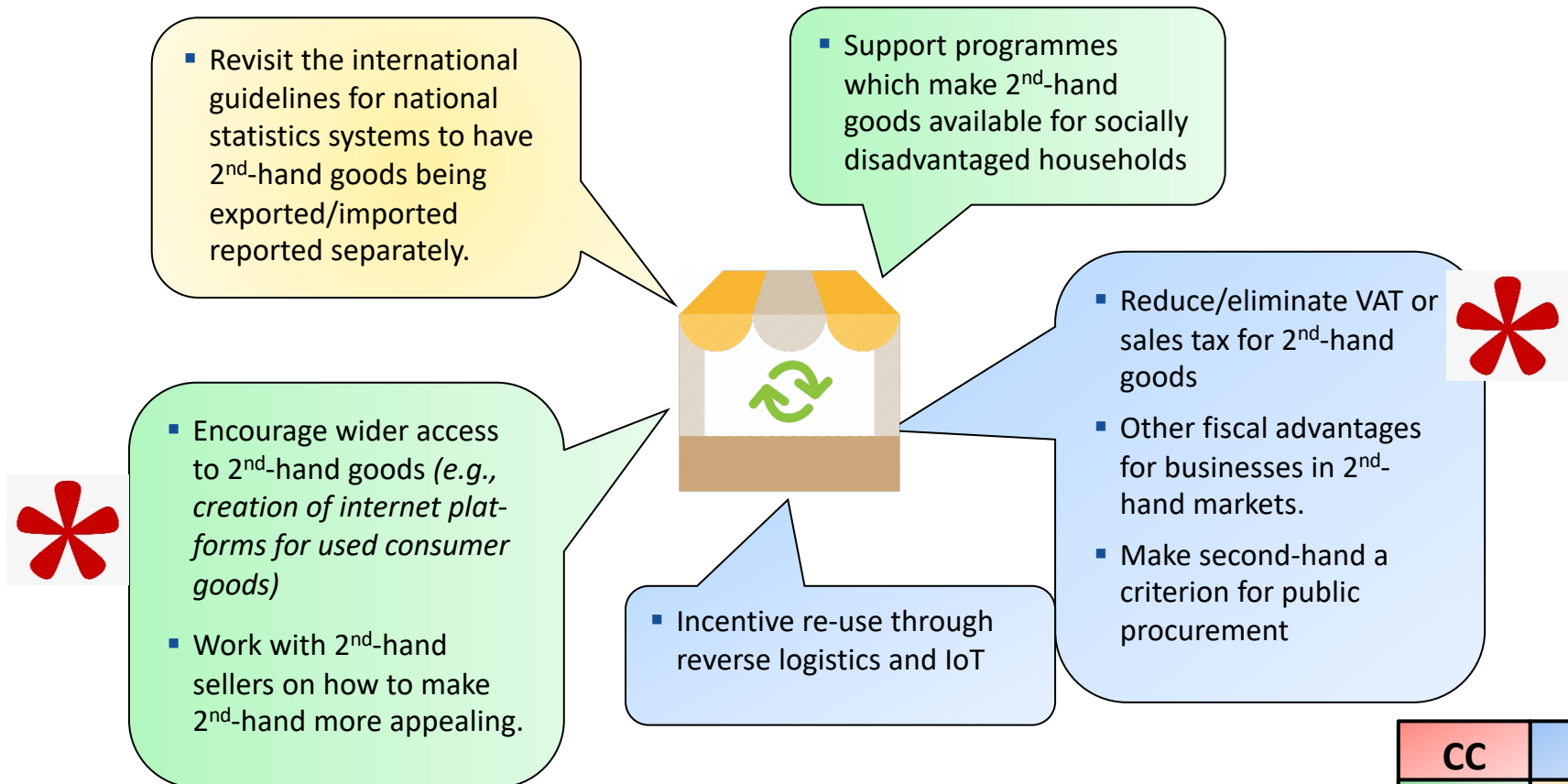
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Reuse: Trade in Second-Hand Goods

- Markets for 2nd-hand goods are well-developed in most countries. Both formal and informal.
- Complex (and expensive) products have well formalized 2nd-hand markets, e.g.: airplanes, medical equipment, real estate, cars. Certain other products have strong 2nd-hand markets, both formal and informal, e.g.: furniture, clothes, books, sporting goods.
- Like new products, 2nd-hand markets are moving onto the internet.
- Barriers to buying/selling second-hand:
 - Buyers' lack of trust in the quality of used products.
 - Where fashions / trends change quickly (e.g., clothes, electronics), used products become obsolescent quickly. Changes to software is particularly problematical.
 - If the price of used products is too close to new products, buyers prefer to buy new.
 - Producers resist 2nd-hand markets because they think it reduces their sales of new products.

Policies to promote Trade in 2nd-hand products



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Used goods in International Trade

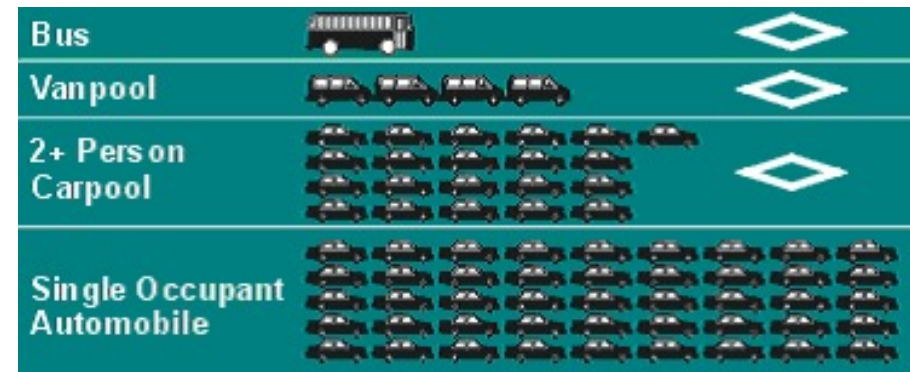
- There is **considerable international trade** in used products.
 - ✓ Many of the complex products are traded internationally;
 - ✓ In the case of cars, there is also a strong international trade in car parts;
 - ✓ Second-hand clothes are also traded internationally.
- Much of this trade is from developed to developing countries.
- Many developing countries have **barriers** to importing second-hand goods:
 - ✓ Licensing requirements;
 - ✓ Special tariff rates;
 - ✓ Special taxes;
 - ✓ Bans on imports.
- The most commonly affected products are cars and car parts, machinery, clothing, medical devices.

Used goods in International Trade

- There are various reasons for these barriers:
 - ✓ Concerns over the health and safety risks of the product;
 - ✓ Concerns that “used products” are actually waste products;
 - ✓ Desire to protect local manufacturers and salespeople.
- Should we encourage or discourage this international trade?

Product Sharing

- During their productive life, many of our products have a very low usage rates.
- Classic case: average power drill is only used 12 minutes over its entire lifetime!
- But even for cars, it is very low:
 - An average European car is parked **92%** of the time. Of the remaining 8%, 1.5% is spent sitting in traffic jams, 1.5% looking for parking, and **only 5%** actually driving!
 - The average European car has 5 seats but carries only **1.5 people** per trip.



Product sharing

- Product sharing has always existed, normally between families and with friends.
- Various new forms of product sharing have sprung up. Their rise has been driven by the Internet, which reduces the “transaction costs”: all the costs, trouble and risks incurred in making an economic transaction. These schemes extend sharing to strangers.
- We have:
 - ✓ Sharing Economy
 - ✓ On-Demand Economy
 - ✓ Product-Service Economy

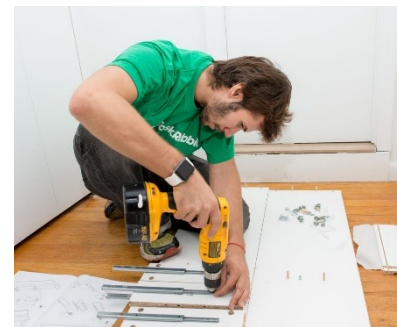
Sharing Economy

- Consumers grant other consumers (who are often strangers) temporary access to under-used physical assets (*idle capacity*), possibly for money.
- Examples: internet-driven car pooling (e.g., through BlaBlaCar) or “true” AirBnB (“I have a spare room. For a fee, I’ll let you use it”).



On-Demand Economy

- In the sharing economy, the product would be used anyway. In on-demand economy, the product is only used when the service is requested.
- People who own under-used products (and have the right skills) offer the services of these products to people who need the services.
- On-Demand Economy is distinguished from a normal service job in that it is usually a second job, or something offered in one's spare time (*this is where there are currently a lot of arguments, with accusations that these are actually often full-time jobs where the organizer of the service avoids paying employment benefits*)
- The classic example is Uber, but there are many others: Deliveroo, TaskRabbit, ...



Product-Service Economy

- A company gives consumers access to a product for a fee while retaining ownership of the product.
- Transportation has many examples, some quite “traditional”: buses, mini-vans, taxis, motor-bikes, car hire companies, ...
- Some are new: car-bike-scooter-motorbike sharing programmes. These are driven by the Internet.



Policies to promote the Sharing Economy

- Put a cap on a sharing activity.
e.g., city authorities allow home sharing for a fixed number of days (e.g., 30, 60 or 90 days).
Difficult to enforce such rules; internet platforms don't give access to user data because of privacy laws, and alternative ways of monitoring don't outweigh the costs involved.



- Make sharing more desirable (e.g., special lanes on motorways for carpooling cars)

- A very recent move for sharing apartments is the proposal that only those apartments where the owner is living can do Airbnb-type sharing.



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Questions?

