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CIRCULAR ECONOMY IN THE REPUBLIC OF MOLDOVA:
CHALLENGES OPPORTUNITIES AND PARTNERSHIPS

Scaling the ZERO WASTE HIERARCHY: Rethink, Redesign, Reduce and Reuse

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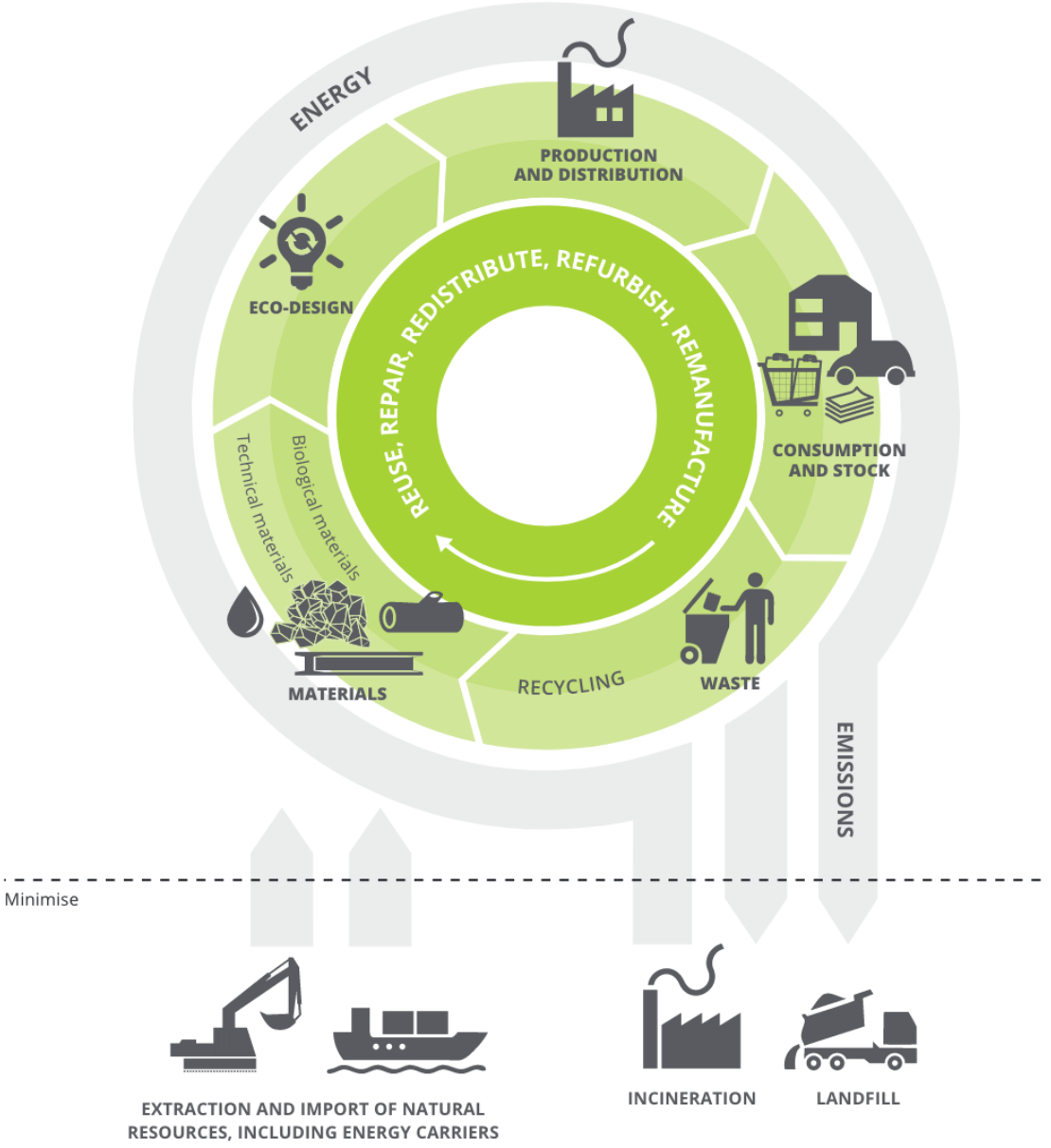
Circular Economy goes beyond incremental improvements

– it´s a radical re-organization of value chains!



Becoming circular: The 10 Rs framework

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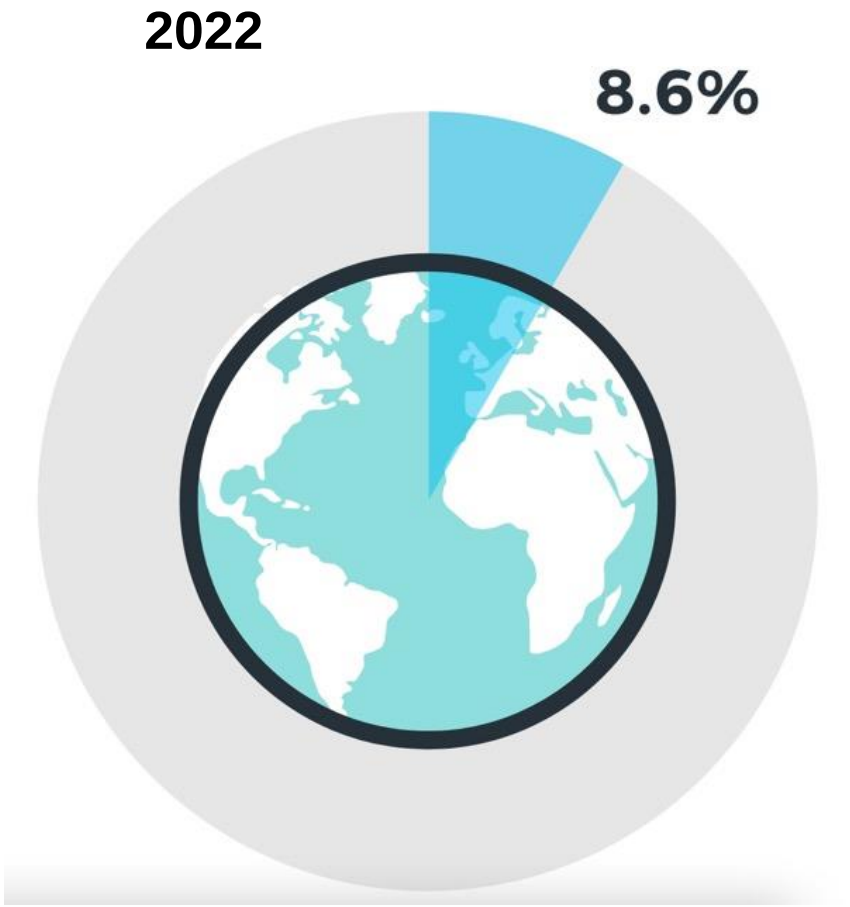
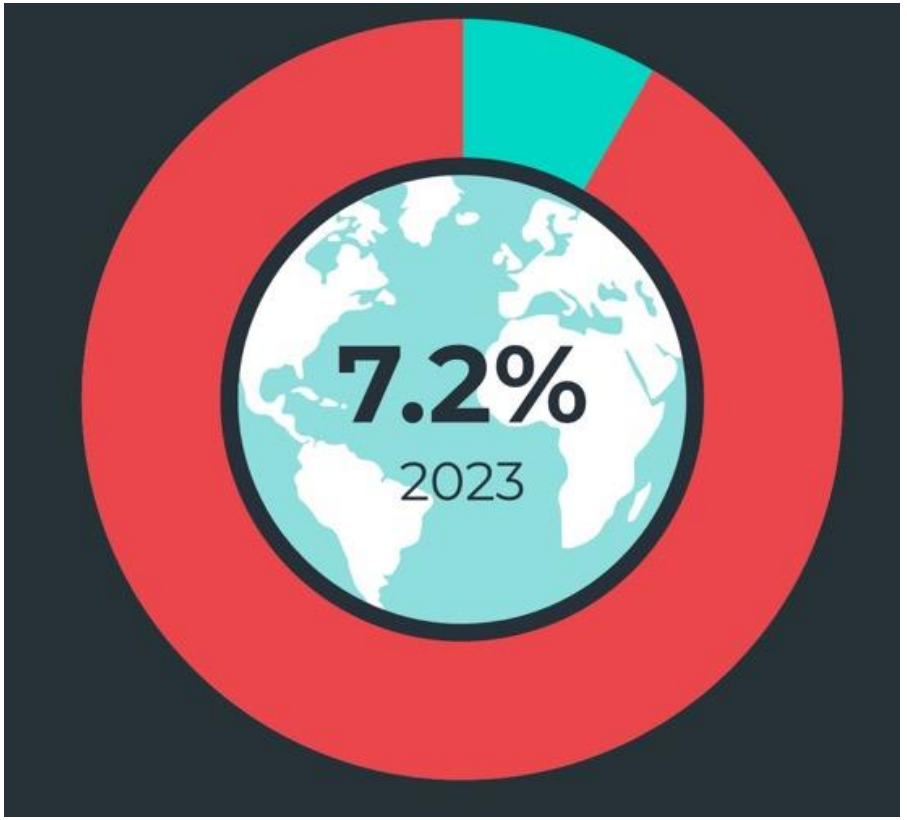
	Strategies	
Smarter product use and manu-facture	R0 Refuse	Make product redundant by abandoning its function or by offering the same function with a radically different product
	R1 Rethink	Make product use more intensive (e.g. by sharing product)
	R2 Reduce	Increase efficiency in product manufacture or use by consu-ming fewer natural resources and materials
Extend lifespan of product and its parts	R3 Reuse	Reuse by another consumer of discarded product which is still in good condition and fulfils its original function
	R4 Repair	Repair and maintenance of defective product so it can be used with its original function
	R5 Refurbish	Restore an old product and bring it up to date
	R6 Remanufacture	Use parts of discarded product in a new product with the same function
	R7 Repurpose	Use discarded product or its parts in a new product with a different function
Useful application of mate-rials	R8 Recycle	Process materials to obtain the same (high grade) or lower (low grade) quality
	R9 Recover	Incineration of material with energy recovery

Impressive opportunities: But how circular are we actually?

We will not be able to recycle our way out of this challenge!





Source: Circularity Gap Report 2022

Option 1: Reuse

Re-usable packaging – the sustainable alternative

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2040		Business-as-usual	vs.	System Change Scenario
A more sustainable and circular plastic industry	Plastic demand after R&S	3,651k tons		2,054k tons
	Fossil-based plastic production	3,321k tons		1,212k tons
	Incineration	2,212k tons		601k tons
	Recycling	1,492k tons		1,595k tons
	GHG	17.2Mt CO_{2eq}		10.2Mt CO_{2eq}
	Mismanaged plastic	65k tons		41k tons
At no trade off for society	Cost	781mn EUR		-130mn EUR
	Jobs	44.5k jobs		45.1k jobs

Source: Systemiq 2021

Option 2: Reduce

Increase the share of recycled materials

CO_2 intensity factors of virgin (primary) vs. recycled (secondary) production routes (global averages) Figure 5

Source: Material Economics 2021

Option 3: Redesign

A circular economy will require better products!

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Making sustainable products the norm in Europe

Our current 'take-make-replace' economic model depletes our resources, pollutes our environment, damages biodiversity and drives climate change. It also makes Europe dependent on resources from elsewhere. This is why the EU is moving to a circular economy model, based on more sustainable products.

30 March 2022
#EUGreenDeal

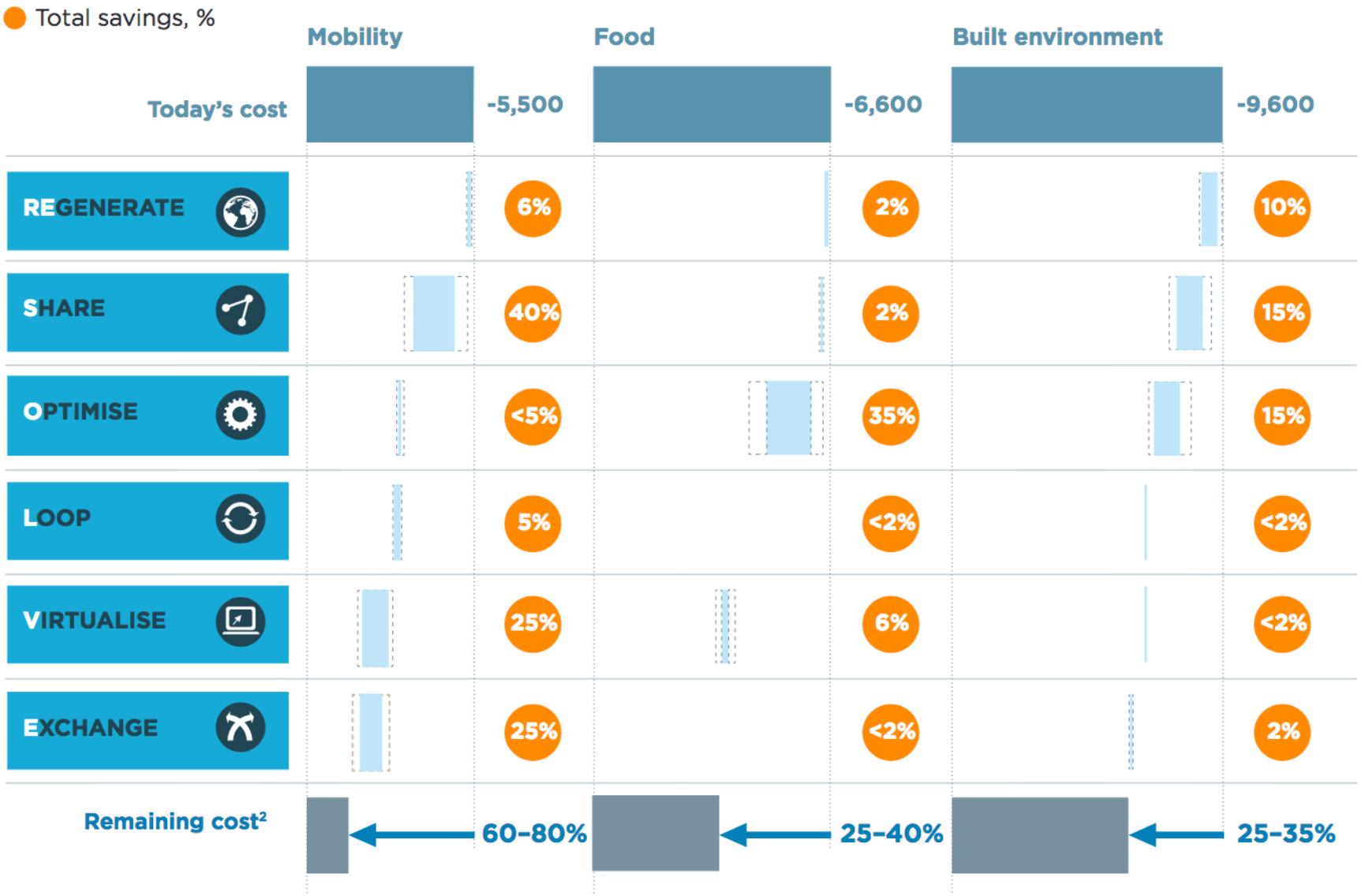
Key actions for circular and sustainable products:

- Make products greener, circular and energy efficient through **ecodesign requirements**
- Improve products **environmental sustainability information** for consumers and supply chain actors by introducing **Digital Product Passports**
- **Prevent destruction** of unsold consumer products
- Promote **sustainable business models**
- Set mandatory requirements for **green public procurement**

Option 4: Rethink

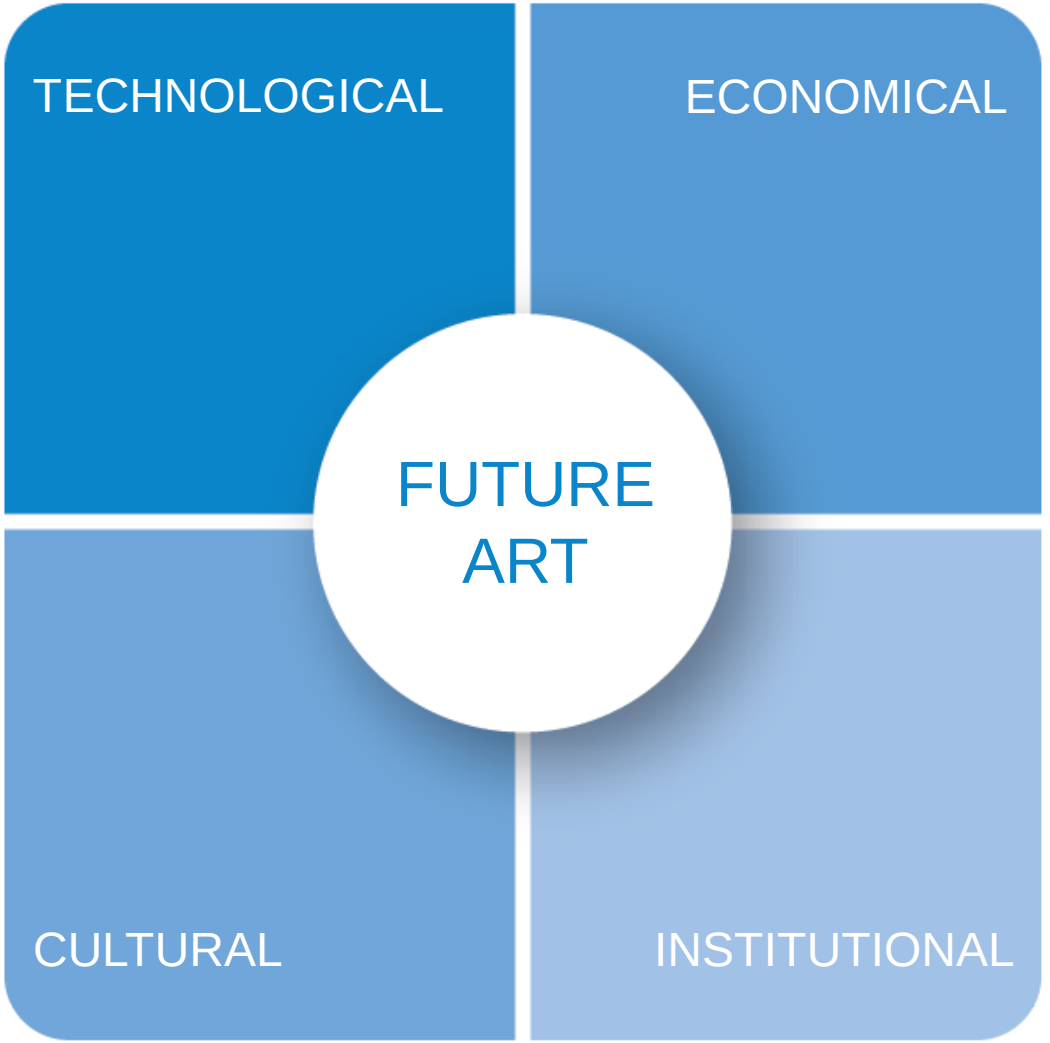
Actual utilization rate of private cars: ca. 1h per day

Total annual cash-out costs per household; EU average 2012, €, improvement potential for 2050[1]



Source: SUN 2018

Circularity
as a multidimensional challenge



Source: Wuppertal Institut/Schneidewind (2018), p. 12

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Thank you very much

for your attention!

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