

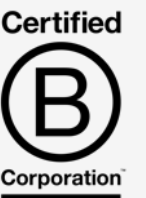
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Eco Modulation : Overview & Economic assessment

TF Eco Modulation – Presentation to European Commission

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16 June 2021



The issues at stake

4. Member States shall take the necessary measures to ensure that the financial contributions paid by the producer of the product to comply with its extended producer responsibility obligations:

(b) in the case of collective fulfilment of extended producer responsibility obligations, are modulated, where possible, for individual products or groups of similar products, notably by taking into account their durability, reparability, re-usability and recyclability and the presence of hazardous substances, thereby taking a life-cycle approach and aligned with the requirements set by relevant Union law, and where available, based on harmonised criteria in order to ensure a smooth functioning of the internal market; and

(c) do not exceed the costs that are necessary to provide waste management services in a cost-efficient way. Such costs shall be established in a transparent way between the actors concerned.

 *Wish list*

 *Constraints*

Durability
Repairability
Re-usability



Modelling the impact of life extension on waste generation

Recyclability
Presence of hazardous substances



Assessing the impact of lower recycling costs

...where possible...

Administrative burden of implementation and monitoring

Eco Modulation in other countries

France (2006~)

- Éco-Participation (contribution)
- Bonus and Malus for EEE: different criteria for each appliances

Ontario, Canada (2021~)

- 3 criteria on the products in legislation (IT/CE/Lamps)
- Products meeting the criteria are subject to “discount” of POM weight (lower payments/responsibility)
- Criteria based on recycled content, extra warranty (5% discount each extra year), info/tools on repair/spare parts (10% discount)

Taiwan (1994~)

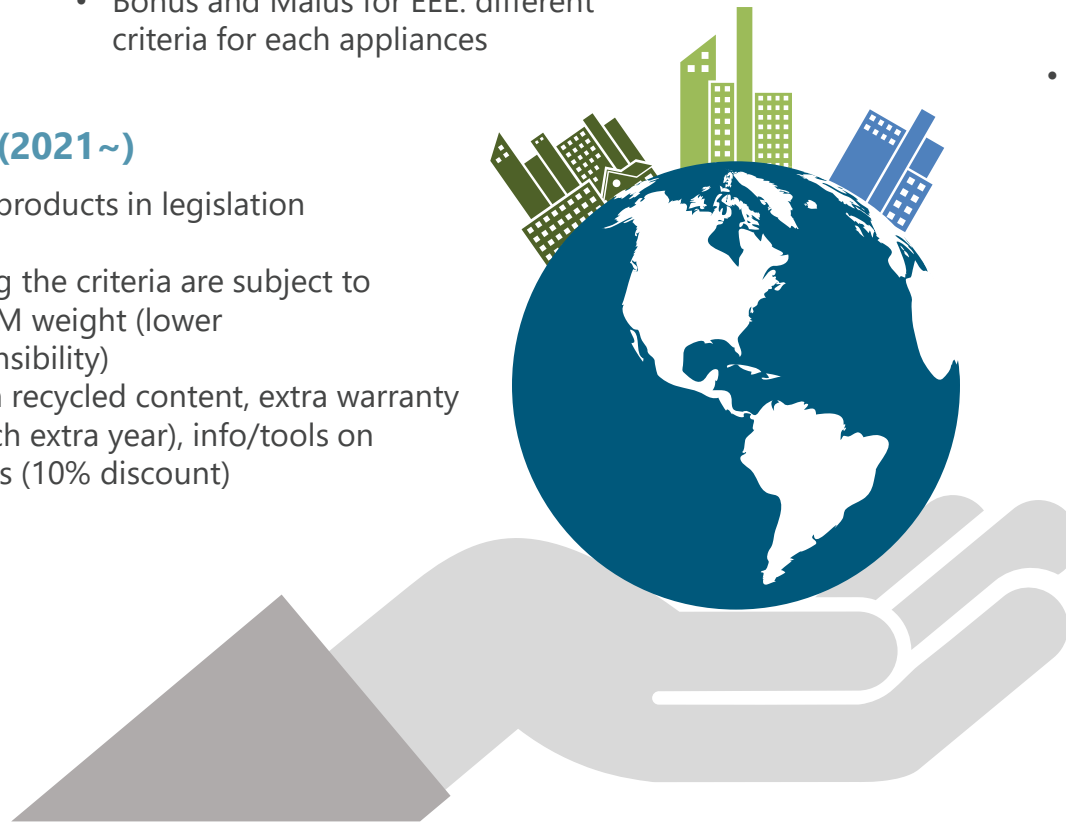
- Green-Mark & 4-in-1 Recycling Program
- Reduced recycling fee for Green-Marked home appliance & IT products
- Recycling funds that subsidize, promote, monitor, and reward waste management

Italy (2016~)

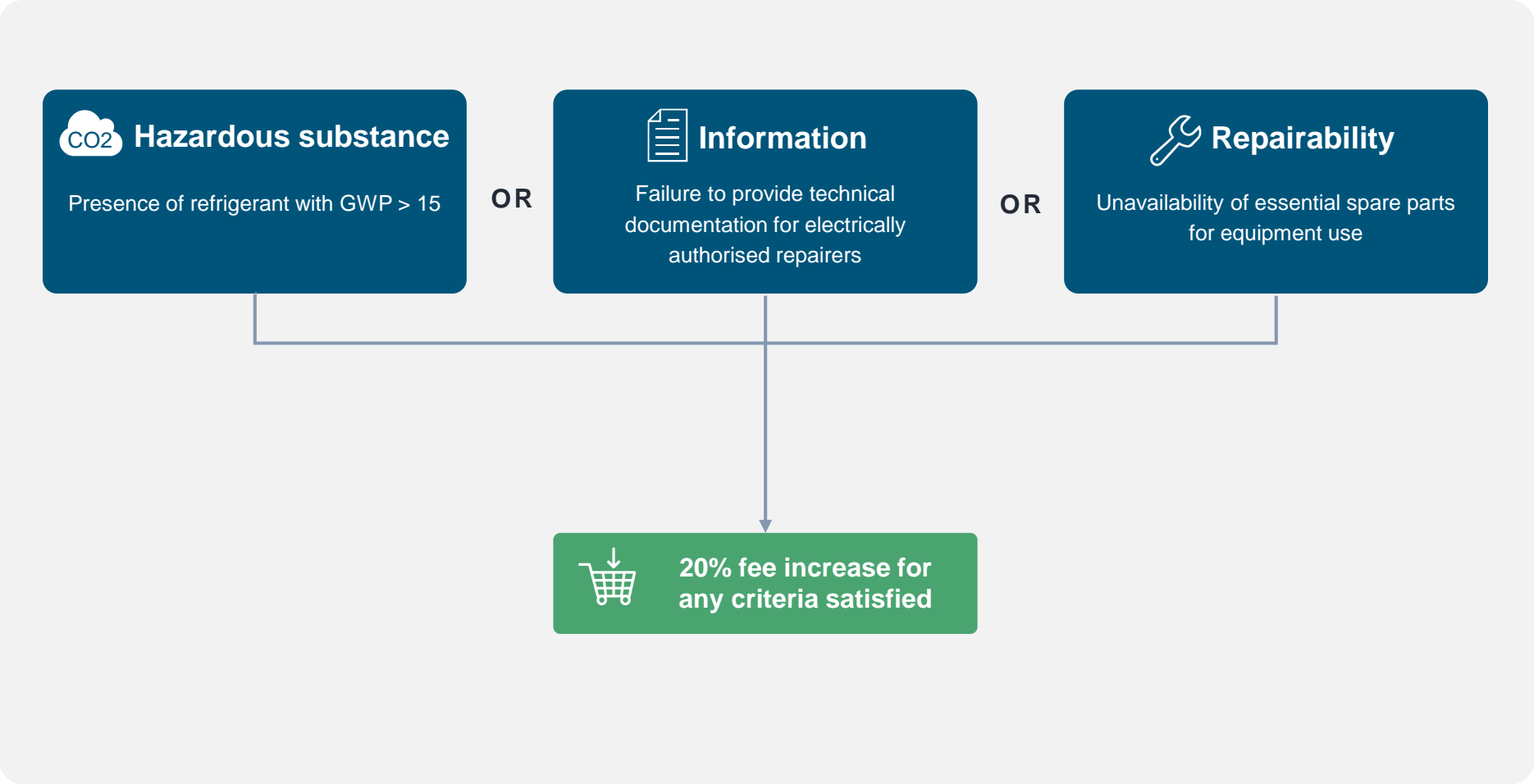
- Voluntary approach
- Criteria based on use of recyclable/biodegradable materials, reduction variety of materials, increase recyclability, reduction HZ substances, optimization disassembly
- Up to 20% discount on POM (valid for 1 year only)

South Korea (2003~)

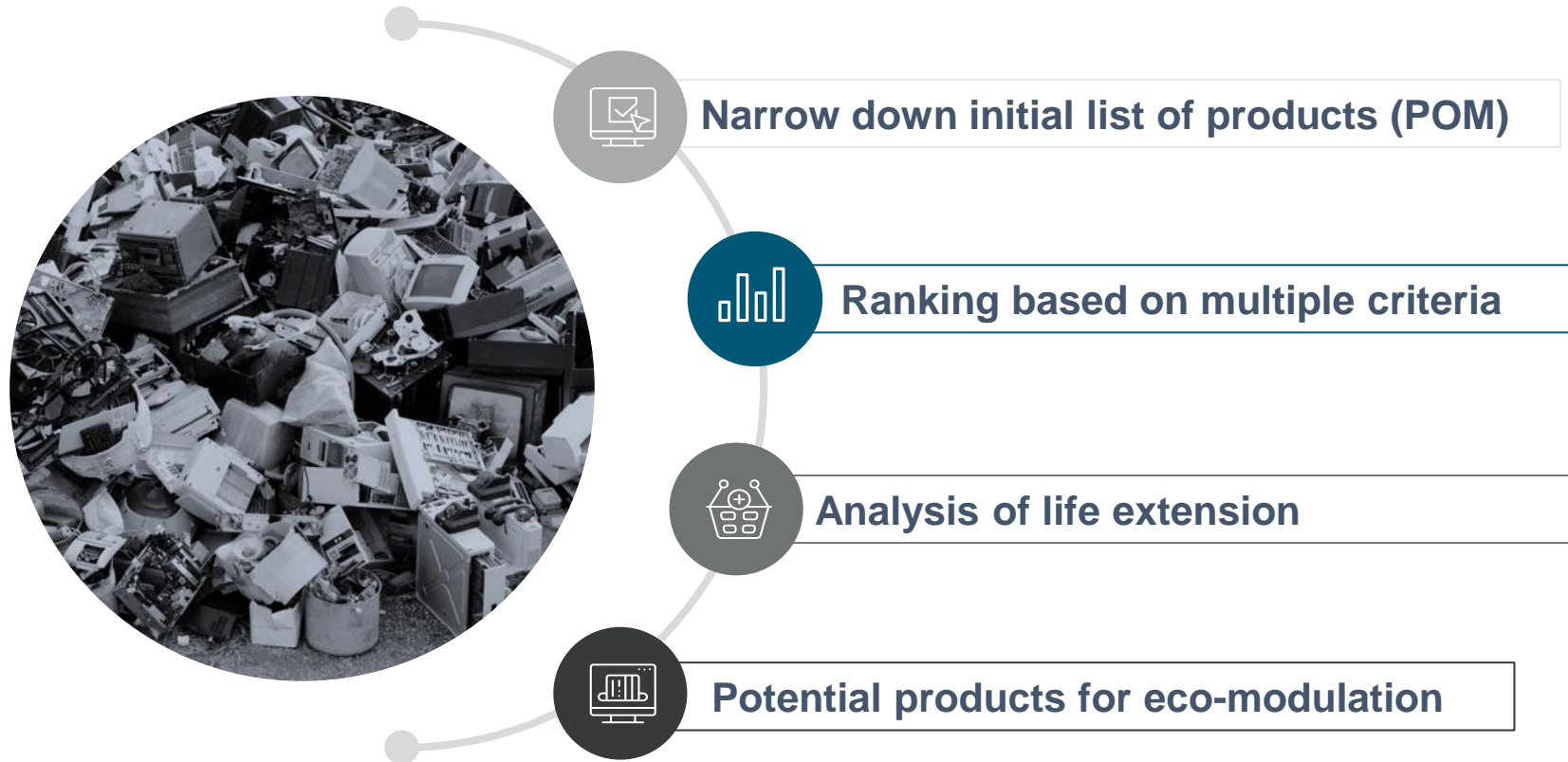
- Obligation target of E-waste recycling: 7.04kg/person
- Malus of additional recycling fee (+15 to 30%)



Example France: Refrigerators & Freezers

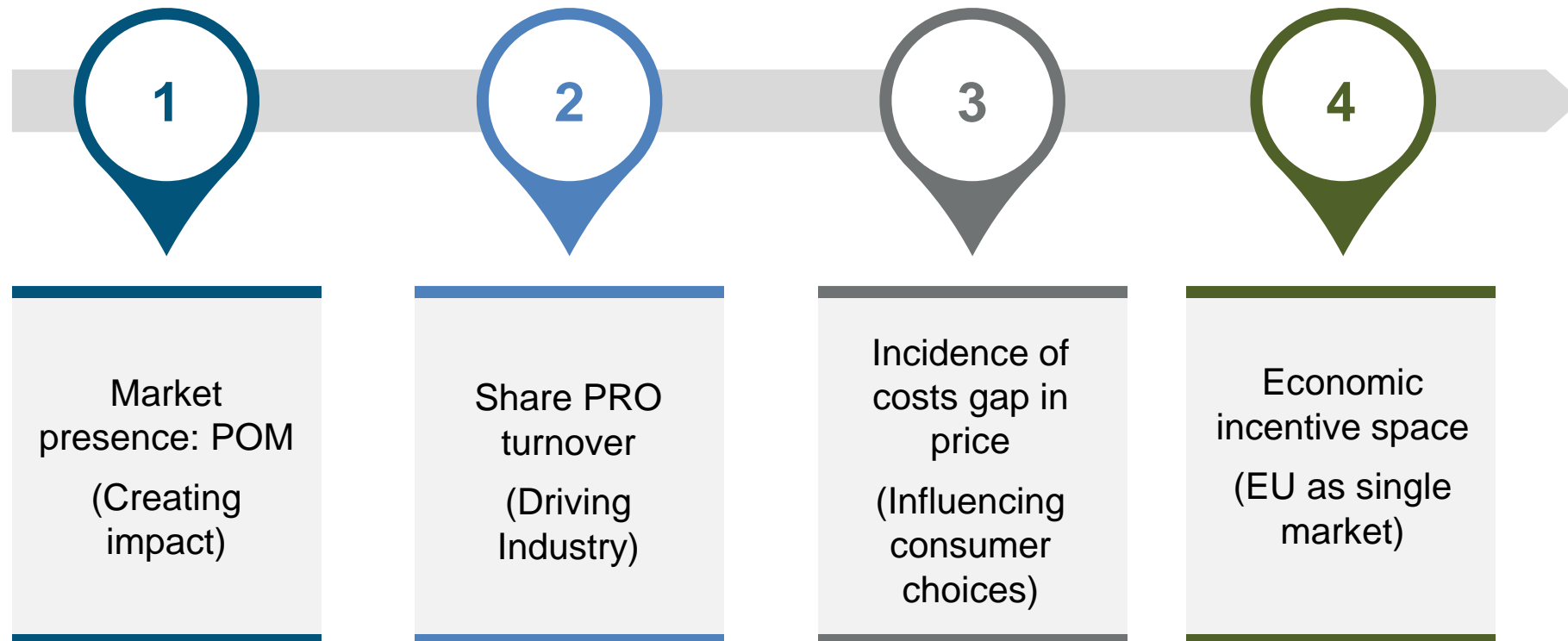


Steps to define potential products for eco-modulation



Criteria for ranking products for eco-modulation

Highest rated products considering a point-based scale



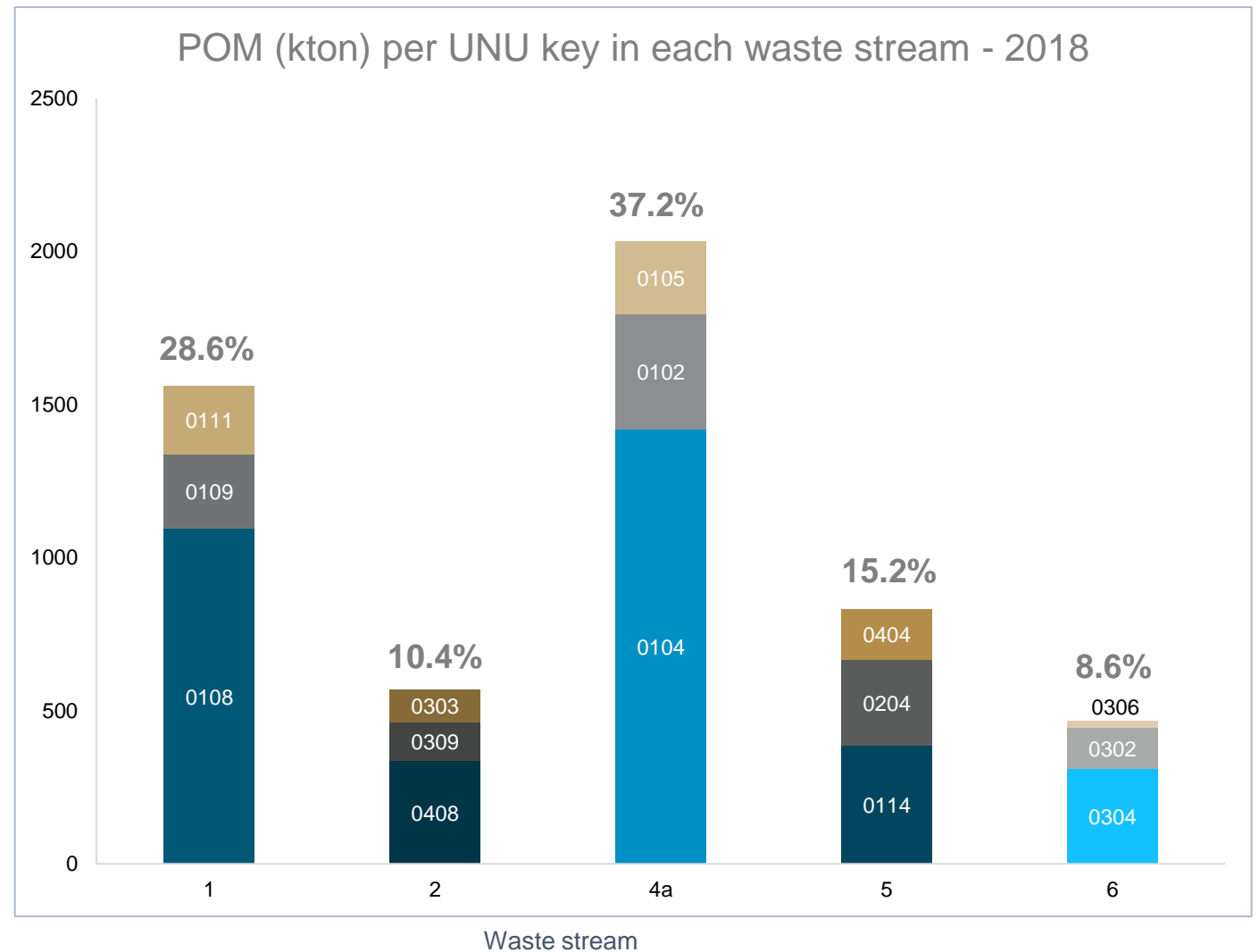
Initial list of 15 products: market penetration (POM)

UNU Key	Product	POM (t) 2018
0111	Air Conditioners	3.3%
0109	Freezers	3.6%
0108	Fridges	16.2%
0303	Laptops	1.6%
0309	Flat Display Panel Monitors	1.9%
0408	Flat Display Panel TVs	5.0%
0105	Dryers	3.5%
0102	Dish washers	5.6%
0104	Washing Machines	21.1%
0404	Video and projectors	2.5%
0204	Vacuum Cleaners	4.2%
0114	Microwaves	5.7%
0306	Mobile Phones	0.3%
0302	Desktop PCs	2.0%
0304	Printers	4.6%

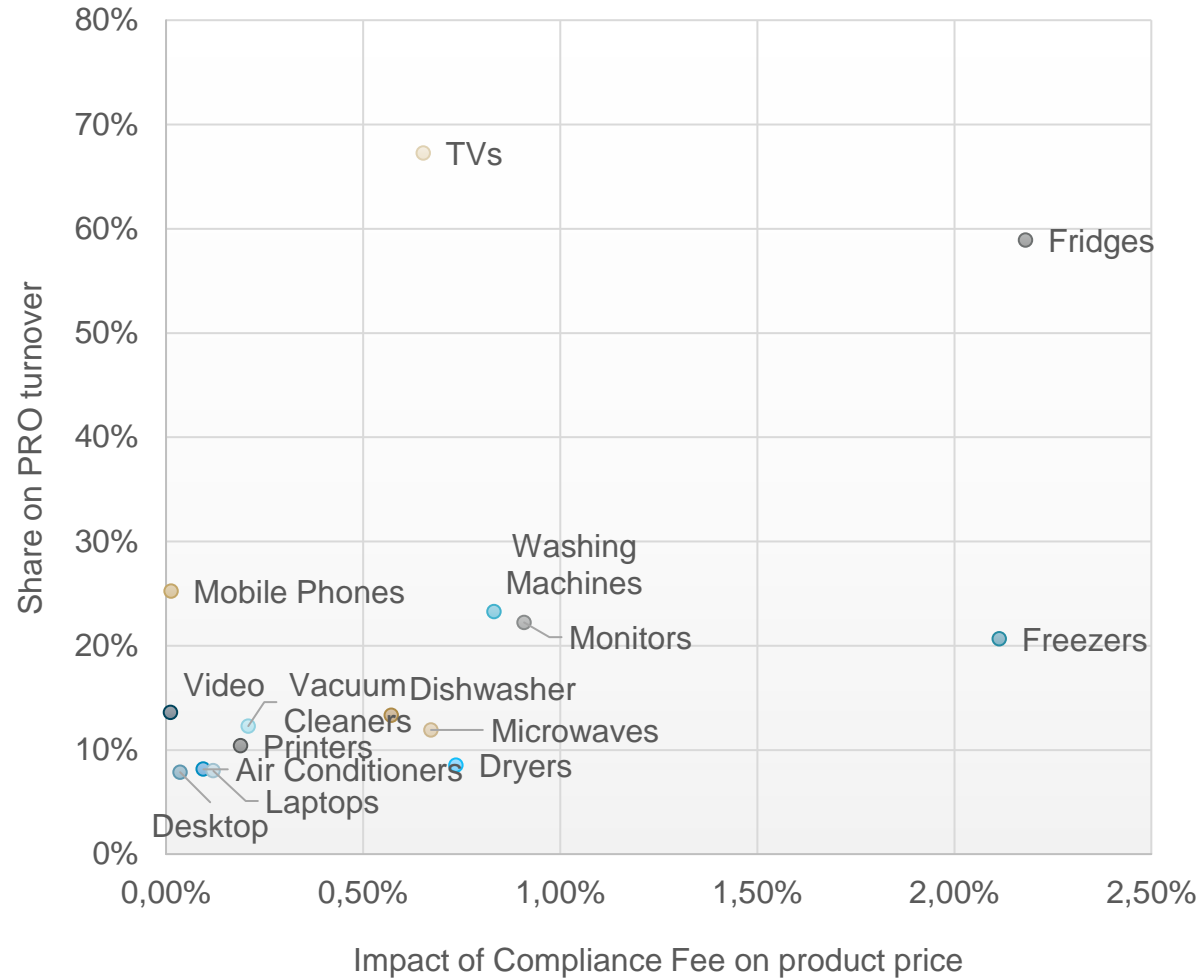
81% of POM (2018)

73% of the WG (2018)

845 M€ of treatment costs (61% of total)



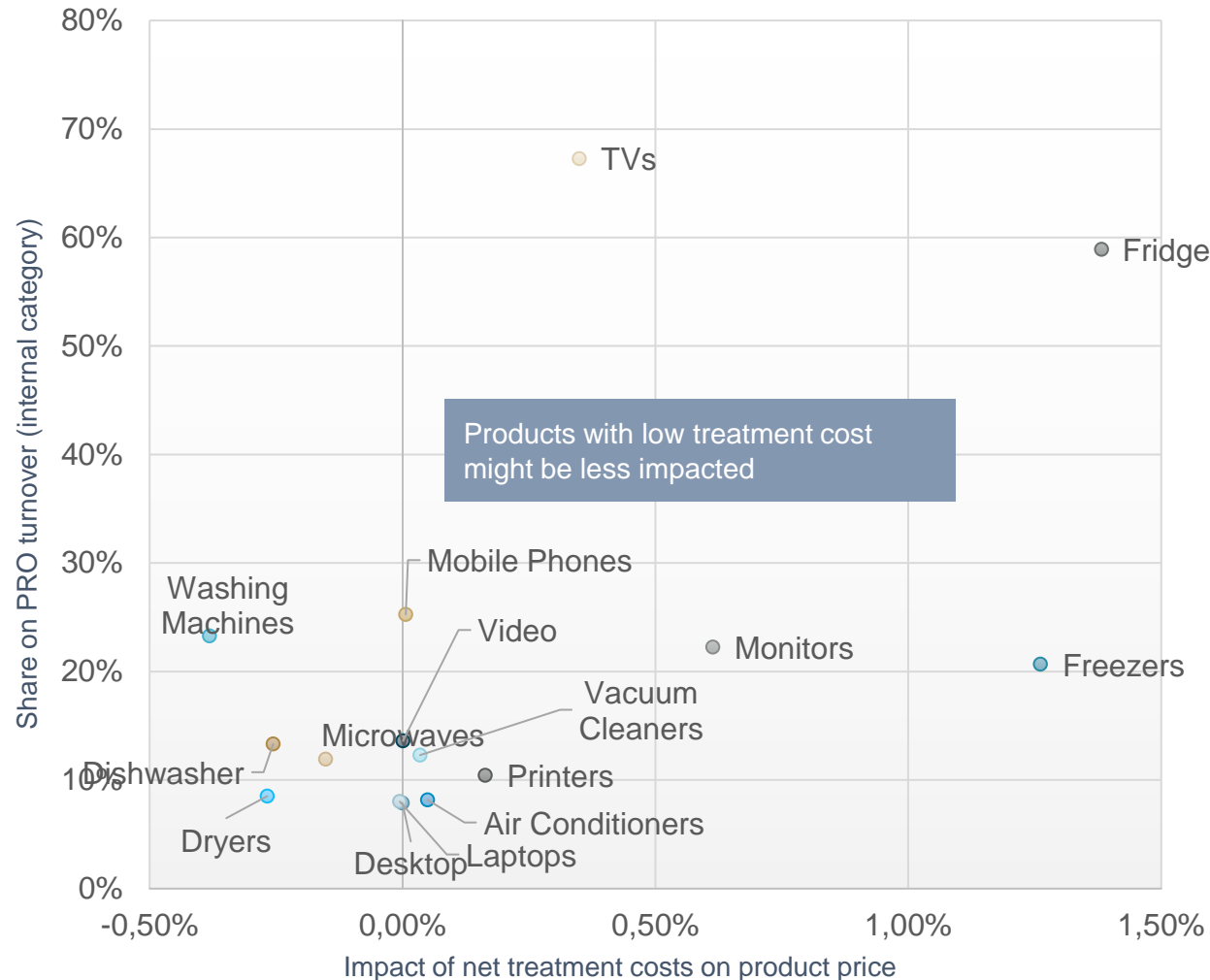
Potential impacts on consumer behavior



- 💡 10 schemes considered across Europe
- 💡 A high share of PRO turnover represents that there is an incentive to do eco-modulation.
- 💡 The higher the impact of compliance fee on product price, the higher the potential impact of eco-modulation on consumer behaviour (*further analysis of price elasticity is required).
- 💡 Ideally, the products with higher potential for eco-modulation would be located on the top right side.
- 💡 Considering a threshold of 2%, for example, only fridges and freezers would be good candidates. If there is an additional threshold of at least 50% of share on PRO turnover, only fridges would be modulated.

Potential impacts on industry behavior

Negative costs indicate a revenue in the process



10 schemes considered across Europe



The higher the impact of net treatment costs on product price, the higher the potential impact of eco-modulation on industry behaviour.

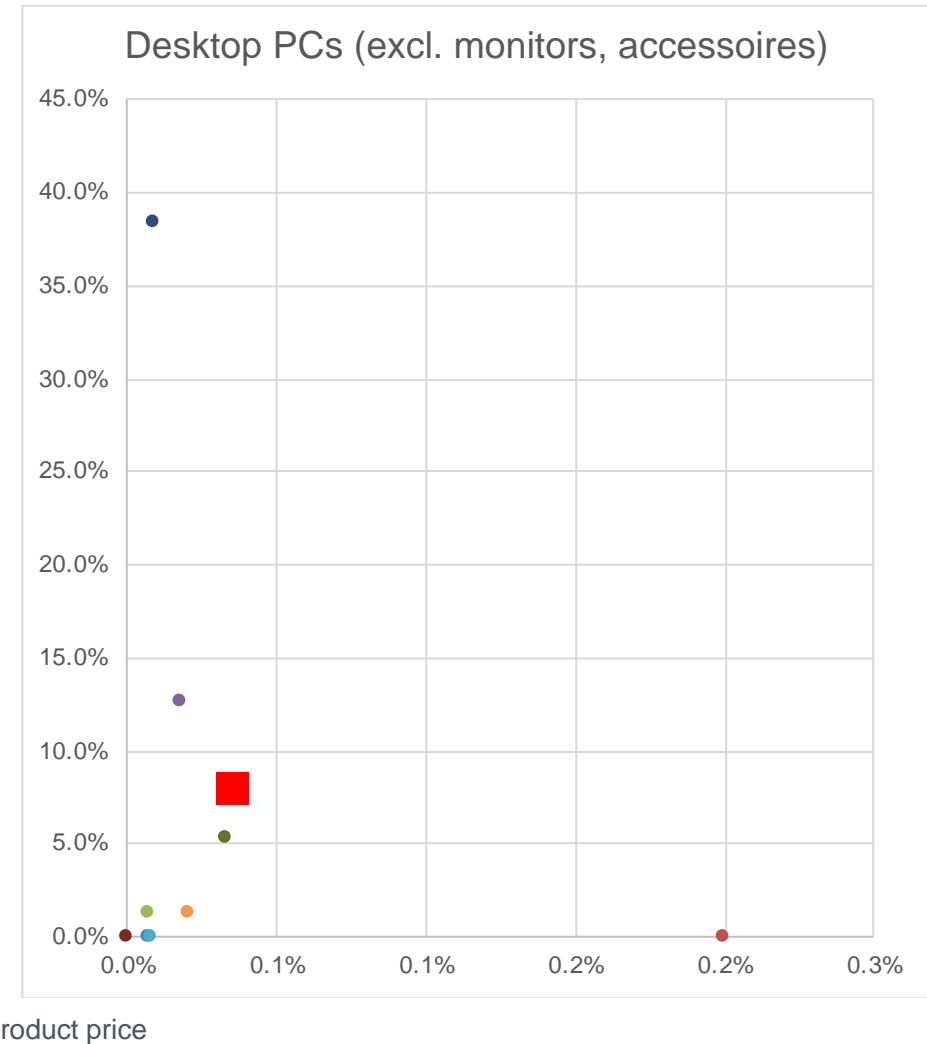
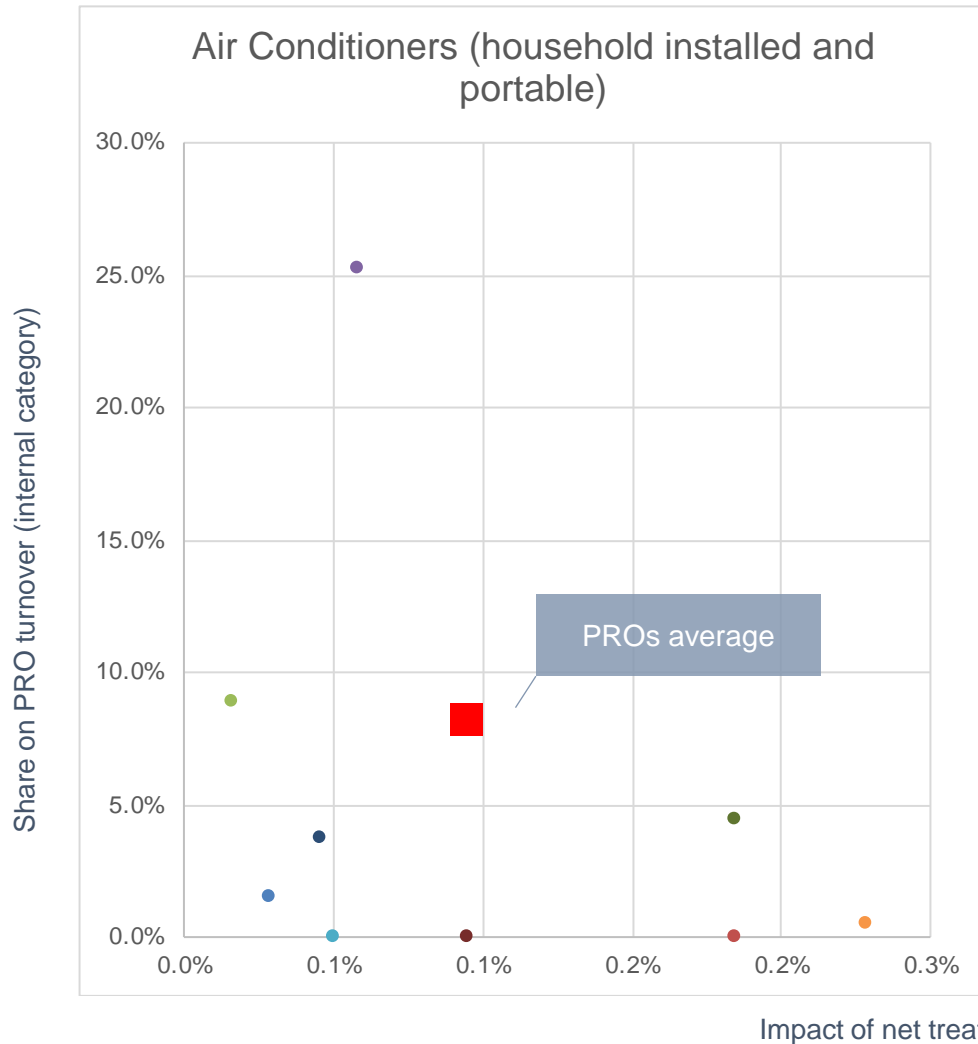


Ideally, the products with higher potential for eco-modulation would be located on the top right side.

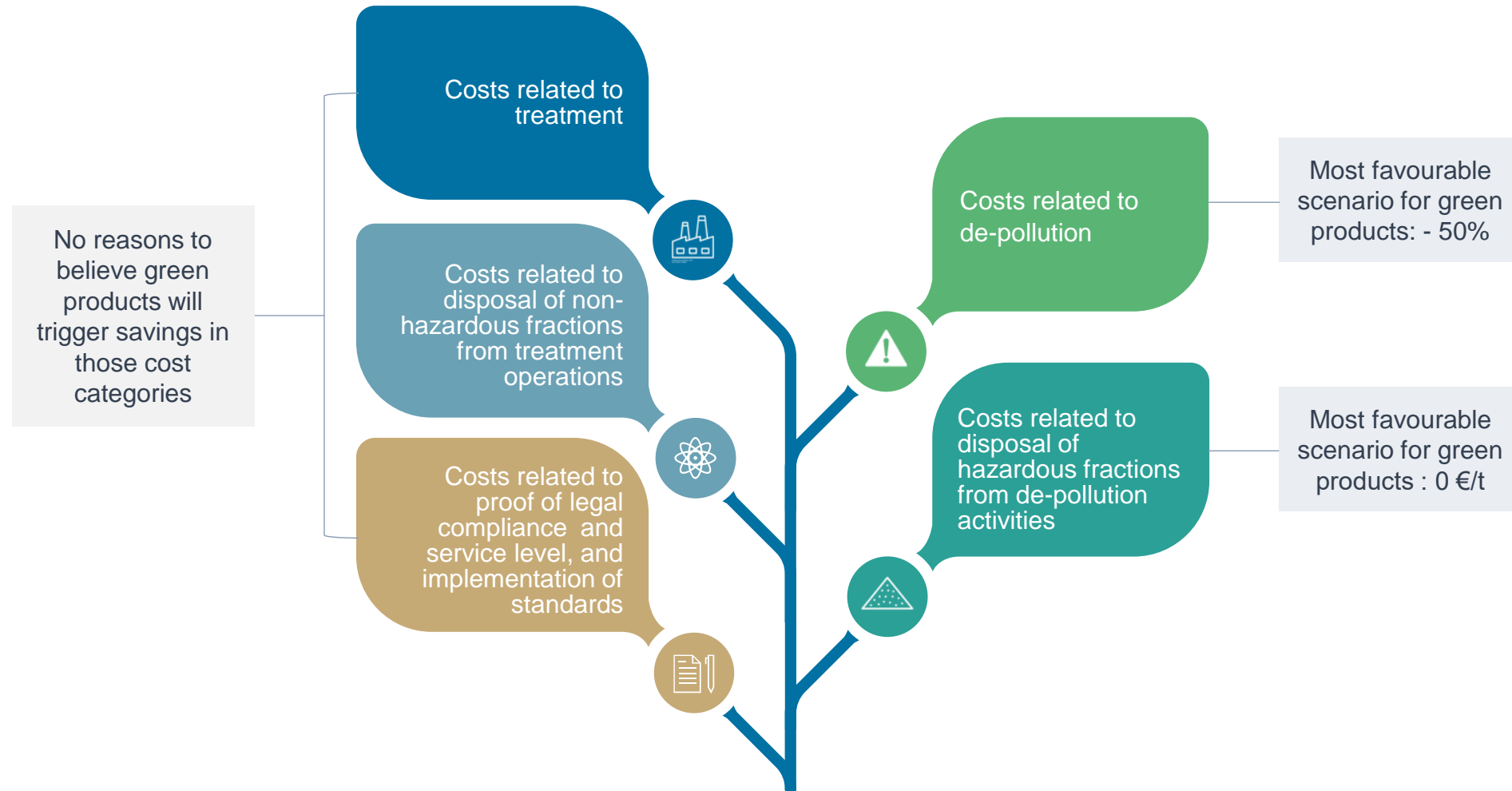


Considering a threshold of 1%, for example, only fridges and freezers would be good candidates. If there is an additional threshold of at least 50% of share on PRO turnover, only fridges would be modulated.

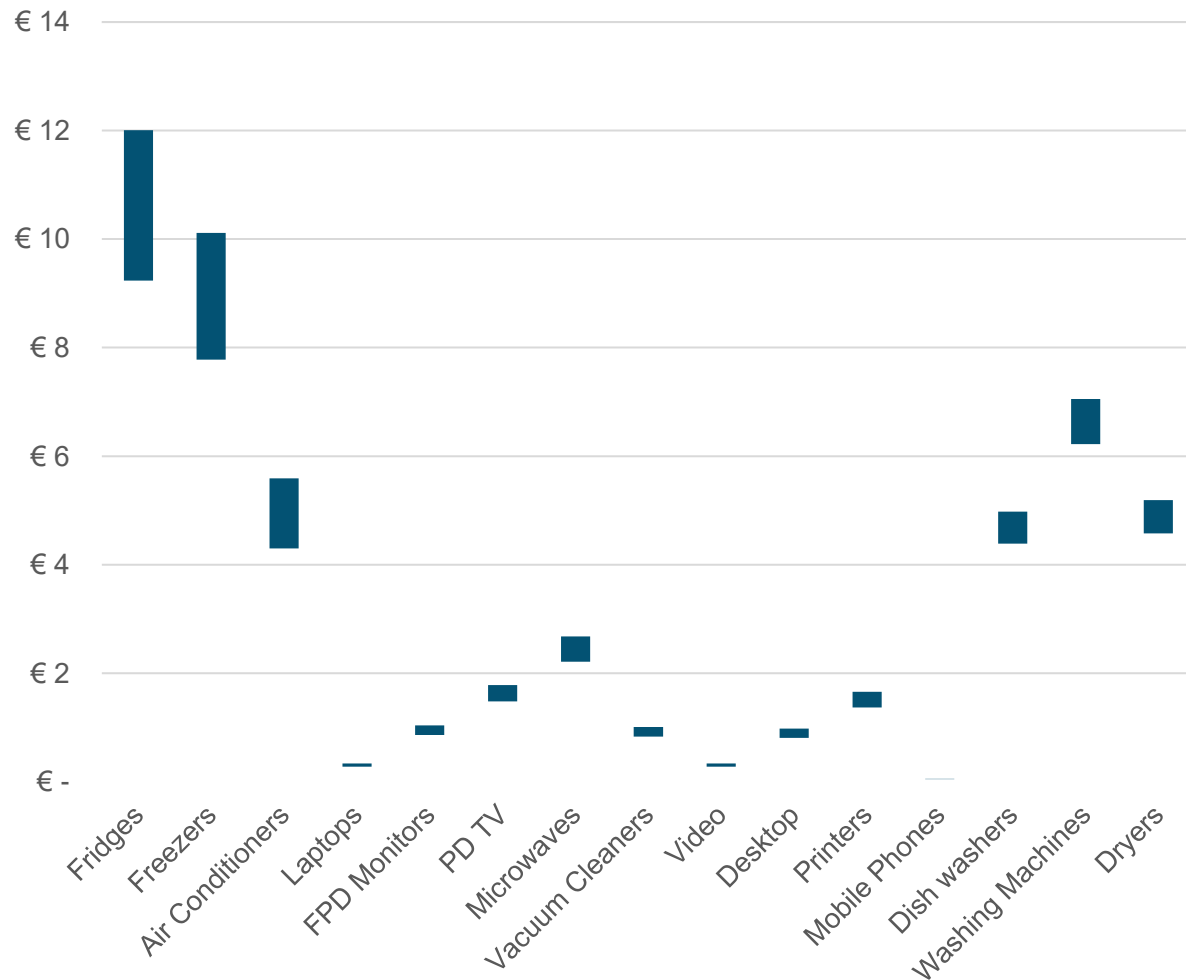
Analysis per product to determine PRO averages



Are Greener Products leading to treatment cost reduction?



Are Greener Products leading to treatment cost reduction?



💡 It was calculated the reduction in recycling costs considering the average costs from EERA and a scenario of green products* costs

💡 The higher the variation in costs, the biggest the space to fee modulation.

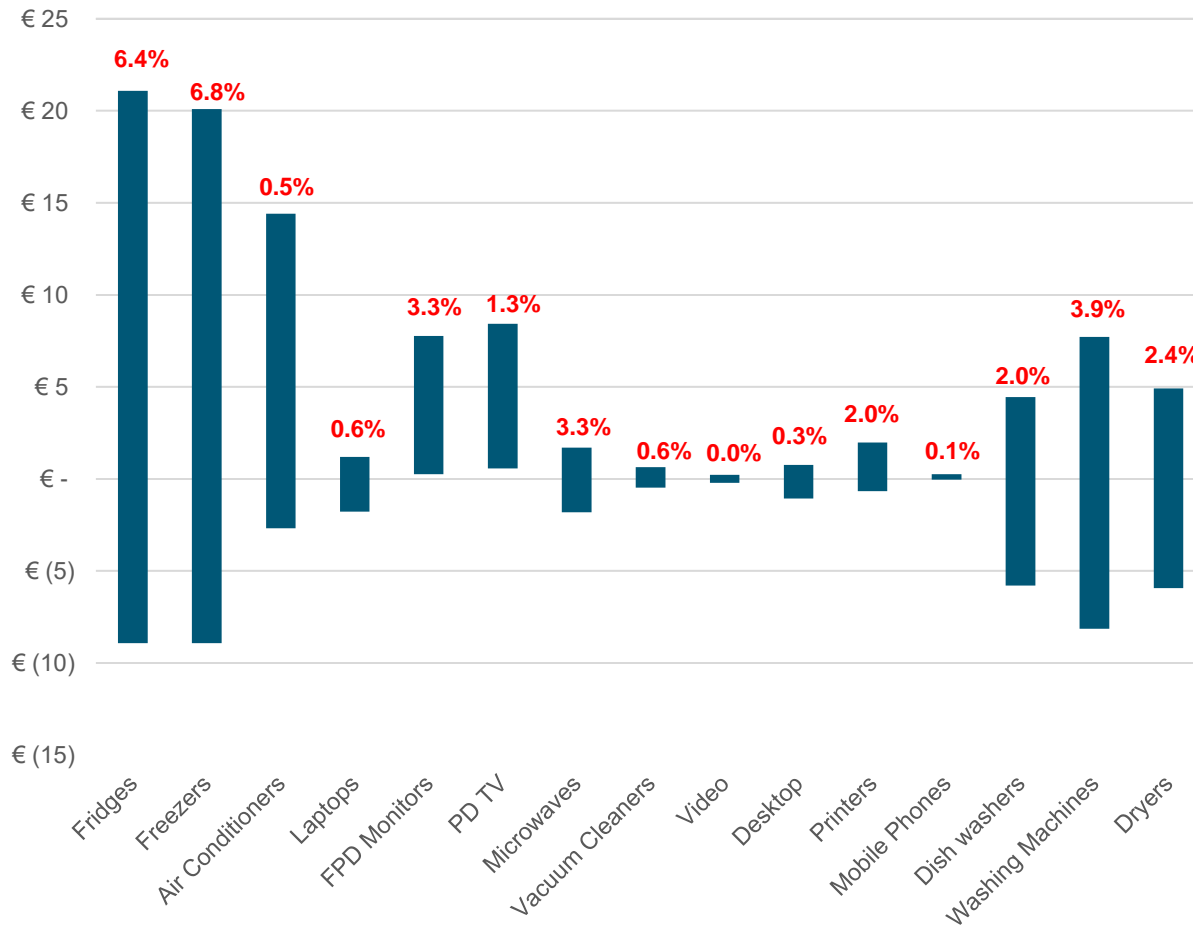
💡 Fridges, freezers and air conditioners have the biggest space

💡 Some appliances have “structural cost” hard/not possible to reduce (e.g. PUR in TEE, CFC/HCFC still in return streams,...)

💡 Cost for sorting out “green” products to exploit the actual benefits might be much higher compared to benefits (e.g. no-one is sorting out CFC/HCFC fridges to treat differently from HC)

*Green products recycling costs calculated considering cost reduction in depollution (50%) and hazardous waste disposal (100%)

Impact of treatment cost variation paid by PROs on product price

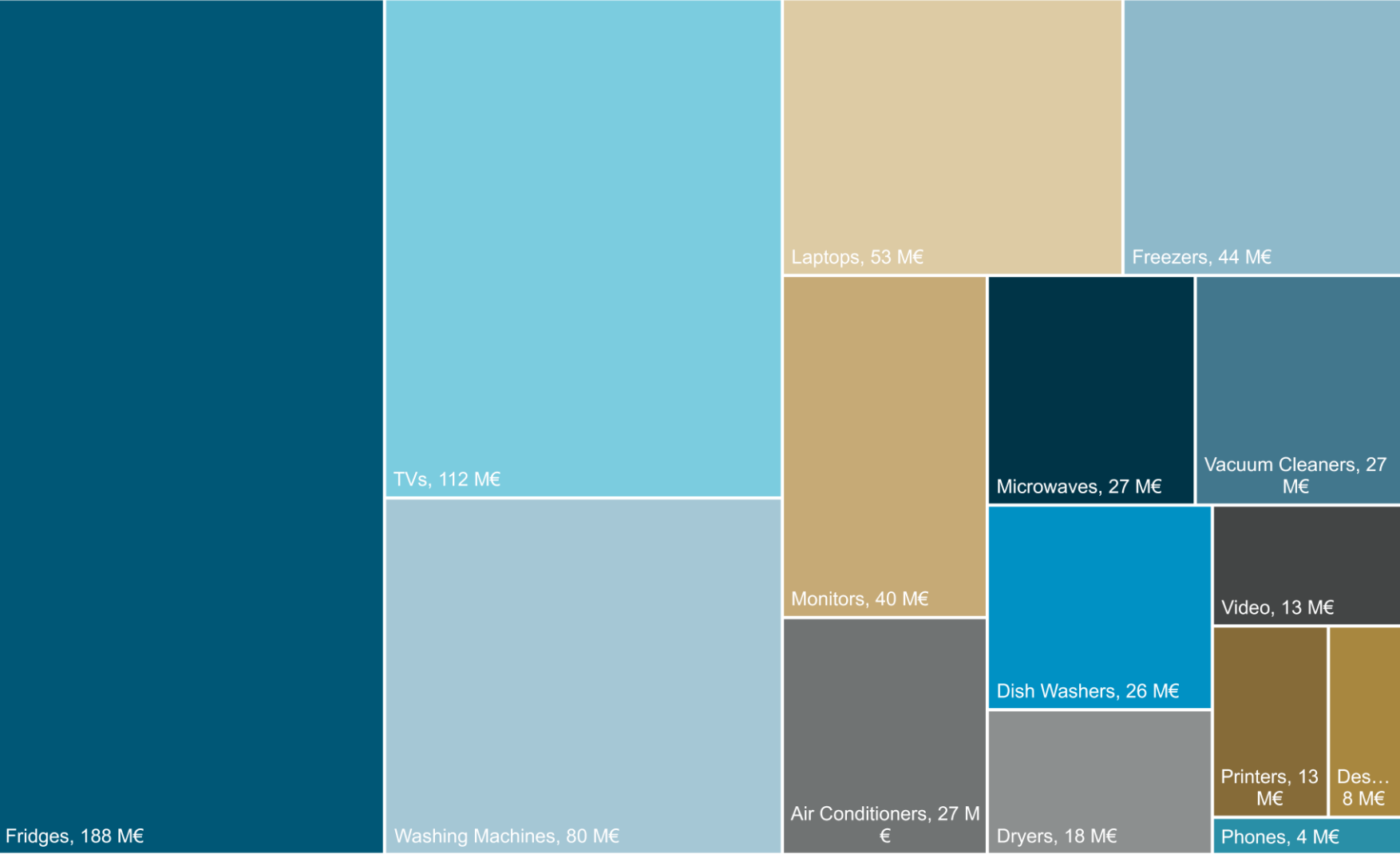


It was calculated the potential variation in recycling costs considering the scenarios of 30% decrease in costs (green products) and 30% increase. Base value is the average reported by schemes.

The higher the variation, the biggest the space for fee modulation. Fridges, freezers, air conditioners and washing machines have the biggest space.

The **percentages** indicate the **incidence** of the total variation (maximum cost – minimum cost) on the average **product price**.

Economic incentive space (100% of compliance fee)



- Is the total amount relevant to business?
- Is the value of eco-modulation comparable to product margins?
- Can the eco-modulation be applied when negotiating distribution channels?

Is there political and operational room to implement Eco Modulation?

Harmonization is KEY

Producers will only implement if harmonized across EU

Simplicity is KEY

- Only one criteria per product, possibly the same across categories
- Clearly auditable

Limited scope is KEY

- Focus only on recyclability & phase out of hazardous substances (e.g. PVC)
- Incentivize recycled content
- Decoupled from real EOL cost savings.

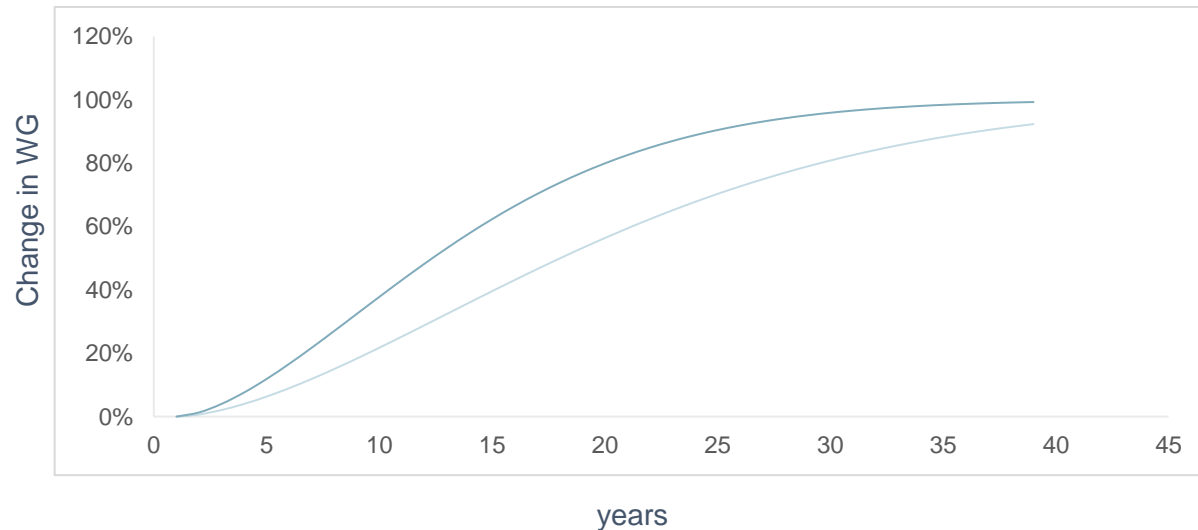
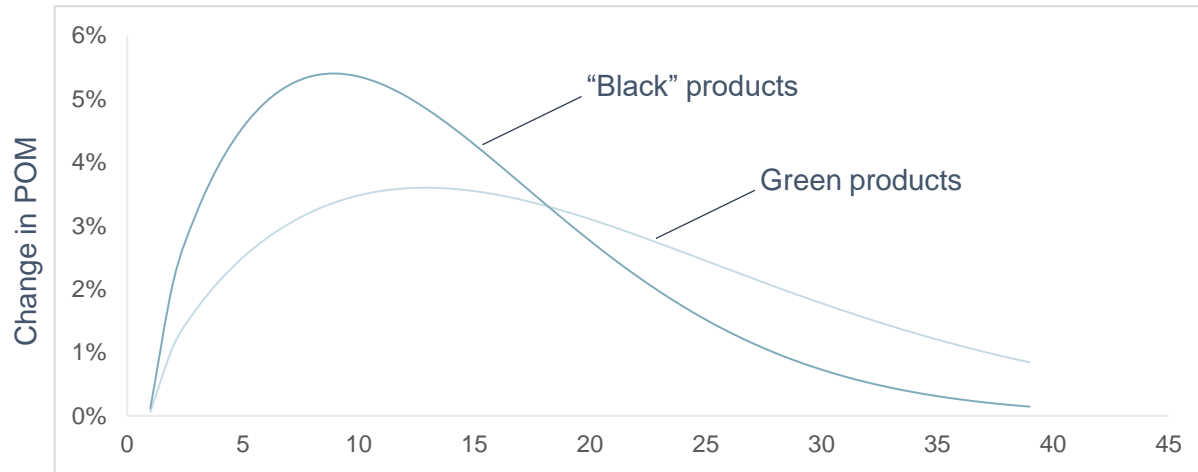
Additionality

The value of the modulation will not be the main trigger, but an additional benefit

Impact on treatment costs: summary



Impact of life extension : case of washing machines

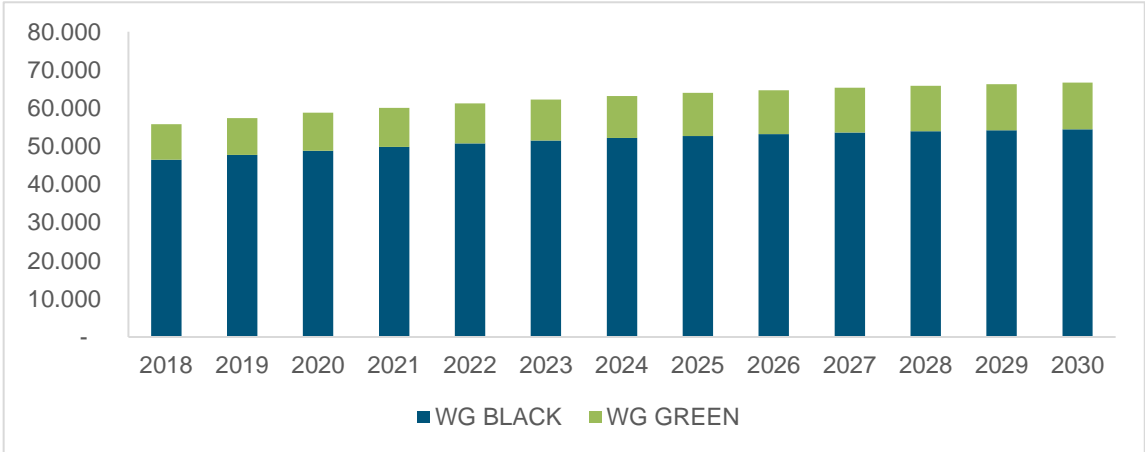
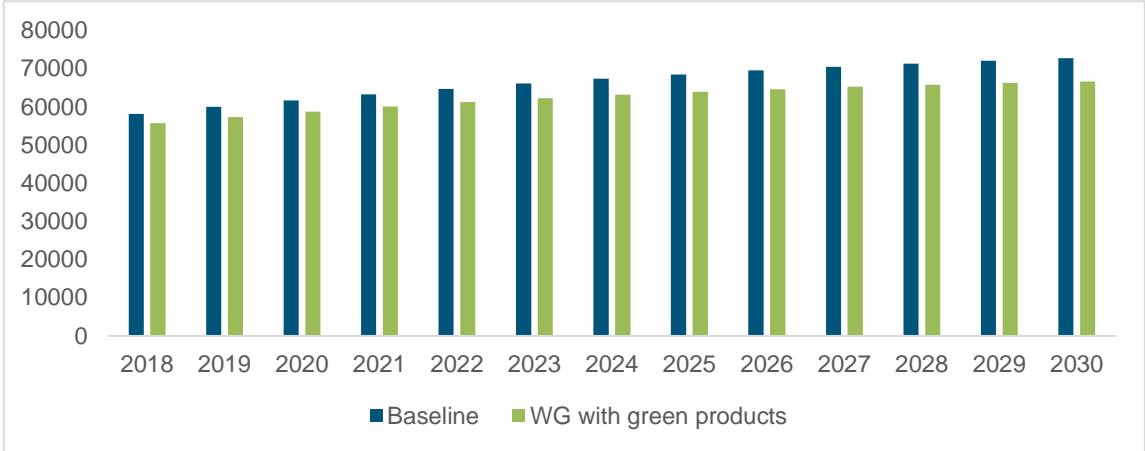


💡 Life extension: e.g. repairability, availability of spare parts, etc.

💡 Assumptions

- Lifetime of green products = 50% longer (e.g. washing machine 19 vs 12 years)
- Share of green products on the market = 20%
- Sales 2018 onwards = constant
- Stock = constant (longer lifespan with same POM would lead to increase of stock = POM reduced as effect of green products)

Changes in WG over time: Washing Machines



- 8% WG in 2030 BUT mainly linked to - 10.5% POM (to keep stock constant)

LESS WG = LESS operational cost BUT also LESS POM and SAME fees to be paid by producer



Refrigerator

- 6.9 % WG in 2030 BUT mainly linked to -11.5% POM (to keep stock constant)



TV

- 8.7 % WG in 2030 BUT mainly linked to -13.5% POM (to keep stock constant)

Impact of life extension (e.g. repairability, availability of spare parts, etc...)

When it comes to repair, **#DontDespair**



205 M
units placed on the
market in 2018



91%
of the requests
actually repaired



€1,9 bn
industry turnover
for repair & service



29.000
business partners in repair
and after-sale services

Costs

Spare parts

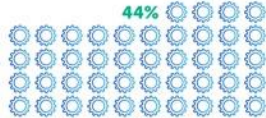
Labour

Transport

Other



Small appliances



Large appliances

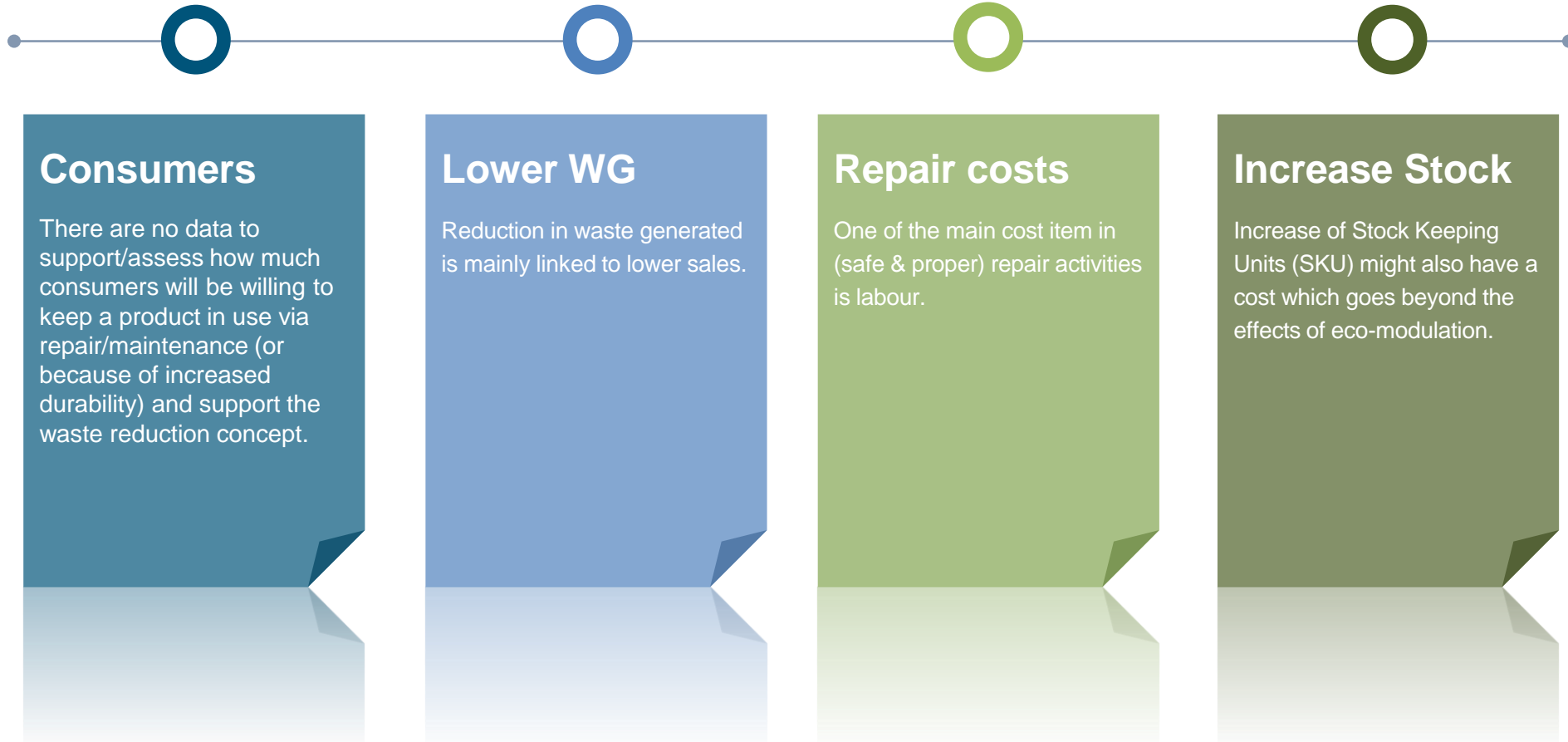


Cooling & Freezing



According to data collected from APPLiA's membership, 91% of the requests to manufacturers for a repair of a product resulted in an actual repair in 2018. Breaking down the cost for repair activities, for large appliances for instance, the biggest chunk is the labour cost, representing 44%; 39% of the average price for a repair is the cost of the spare parts; 16% goes to transport and 1% are listed as other costs.

Impact on life extension: summary



Summary and way forward

1 Eco-Modulation

Discussion is highly political and there are no evidences/facts to prove the effectiveness of measures (eco-design & consumer choices re-orientation).

2 WFD

WFD was amended before the publication of EU Green Deal and particularly the SPI.

SPI 3

Being a more holistic measures, SPI is probably a better vehicle to discuss and include some of the Eco-modulation principles or aims.

PROs 4

A re-discussion of PRO roles might also happen in parallel to understand what role they can play.

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Thank you

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