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Measuring reuse in Flanders: The first reuse mapping study

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8 October 2020



DEPARTEMENT
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WETENSCHAP &
INNOVATIE

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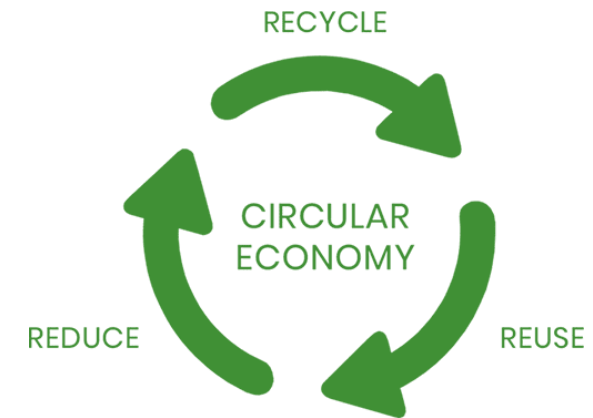
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 **vito**
vision on technology

Introduction

- **Reuse:** Gap in literature
 - 1 of 3 main strategies to enhance CE
- **Hard-to measure “markets”**
 - Accredited reuse centres (Flanders)
 - But various channels: fairs, family exchange, online
 - Important share in total reuse!
 - Magnitude estimations (kg)?
- **Objectives:**
 - Identifying reuse channels
 - Estimating the amount of reuse in Flanders
 - Impacts



Scope and definitions

- **Reuse**

- Owner switch
- Maintain original function
- Without manipulation

- **Household goods**

- No cars or motorised vehicles, houses or buildings

- **Acquiring and discarding**

- Buying or receiving
- Selling or donating



Research plan

- **Map** reuse exchange channels
 - Share of certified reuse network?
- **Estimate** total reuse in Flanders (kg/capita)
 - Based on available data from reuse network
- **Assess** environmental & socio-economic impact



Reuse channels



formal



1. Flemish reuse network
2. Private second-hand shops

informal



3. Online platforms
4. Second-hand fairs
5. Family and friends
6. “For free”, charities








Channel 1. Flemish reuse network





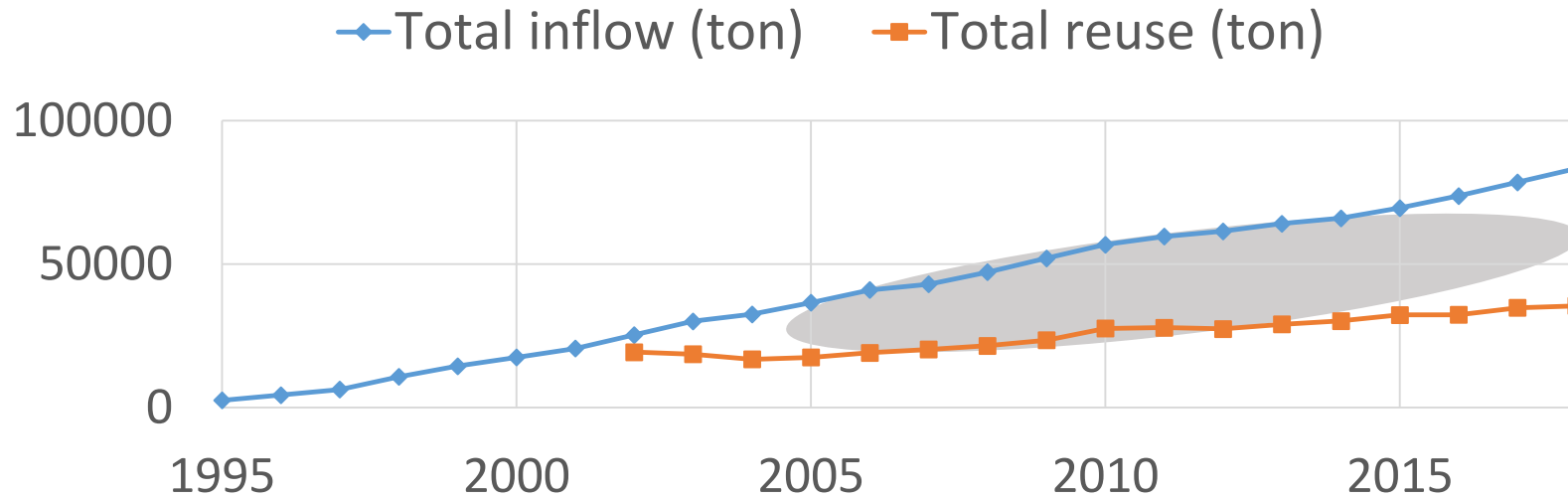
Channel 1. Flemish reuse network

	Inflow (ton)	% Inflow	Reuse (ton)	Reuse/capita	% Reuse	Reuse/inflow
 Furniture	23,098	29%	14,561	2.2 kg	41%	63%
 EEA	17,721	22%	2,315	0.3 kg	7%	13%
 Textile	14,843	18%	3,763	0.6 kg	11%	25%
 Household	24,191	30%	14,345	2.2 kg	41%	59%
 Undefined	1,207	2%	453	0.1 kg	1%	35%
Total	81,162		35,440	5.4 kg		40%

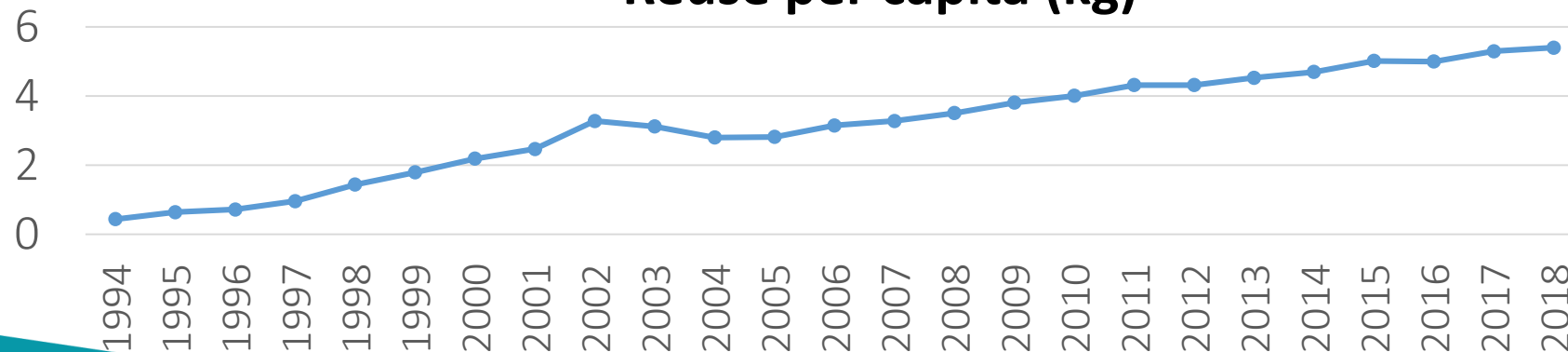


Channel 1. Flemish reuse network

Inflow and total reuse (ton)



Reuse per capita (kg)



5.4 kg/capita
2018

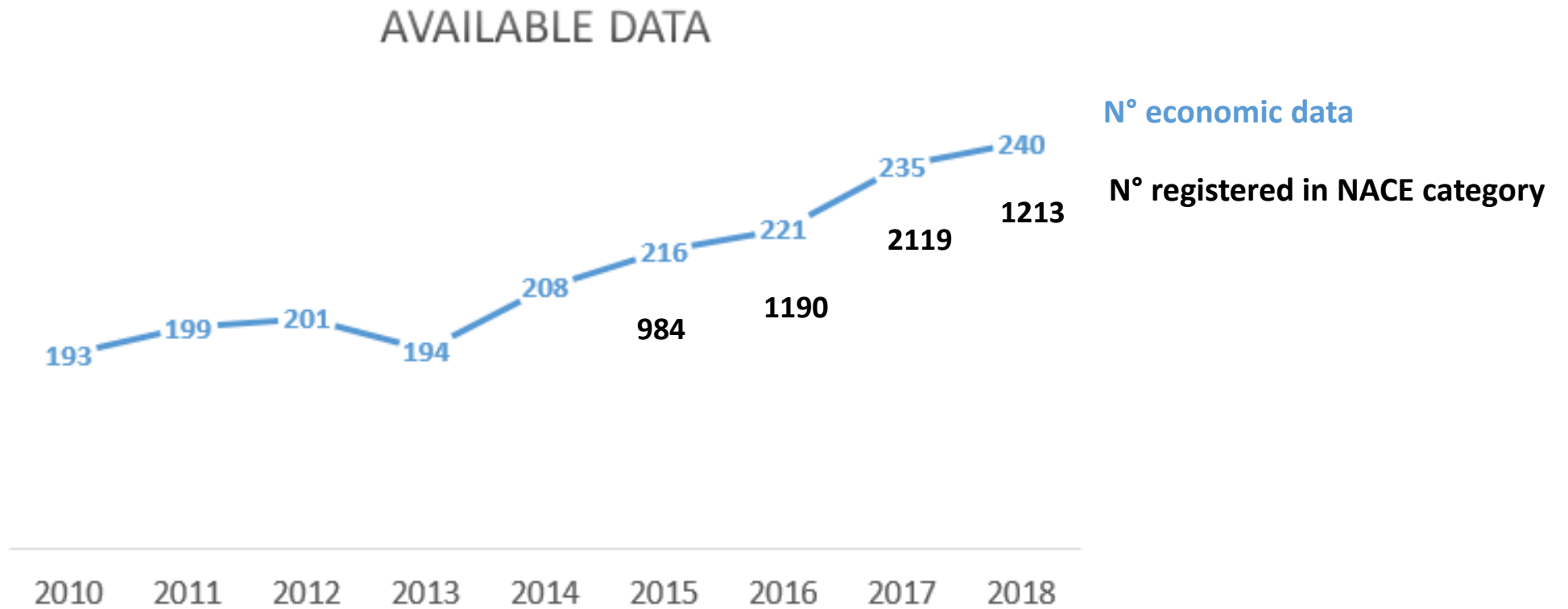


Channel 2. Private second-hand shops





Channel 2. Private second-hand shops



NACE 4779

Retail sale of second-hand goods in stores



Channel 3. Online





Channel 3. Online

- Belgium
 - 47% of second-hand buyers (in 2016)
 - 68% of second-hand sellers (most popular reselling channel in 2016)
 - International
 - Online = fastest growing segment of shopping
 - Second-hand shopping?
- Difficult to get data (private sector)





Channel 4. Second-hand fairs





Channel 4. Second-hand fairs

- No quantification
- Data available from local organizer (*De Gezinsbond*):
 - Around 850 initiatives yearly
 - Peak: 950 initiatives in 2016
- Research on popularity:
 - Visitor increase from 2008 (23%) to 2010 (32%)





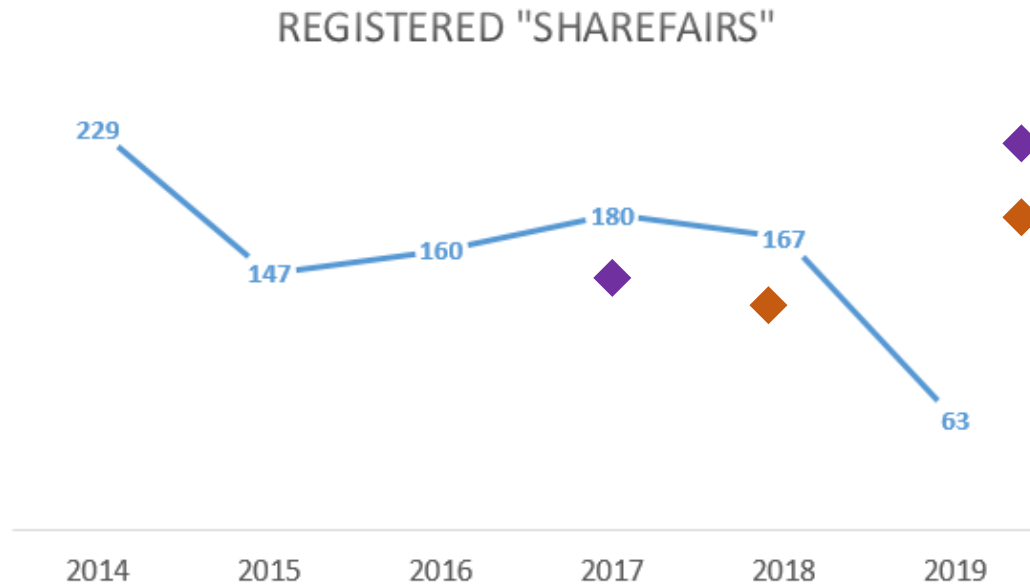
Channel 5 & 6. Family, friends, charities...





Channel 5 & 6. Family, friends, charities...

- Informal “transactions”
- Estimation *Ferm*: “ShareFairs”



- ◆ 1430 boxes (11.4 tonnes)
- ◆ 288 boxes (8 tonnes)



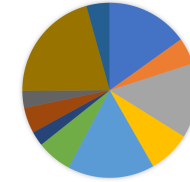
Measurement issues



Research plan

- **Map** reuse exchange channels in Flanders

- Share of certified reuse network?



- **Estimate** total reuse in Flanders (kg/capita)

- Based on available data from reuse network



- **Assess** environmental & socio-economic impact





Additional survey study

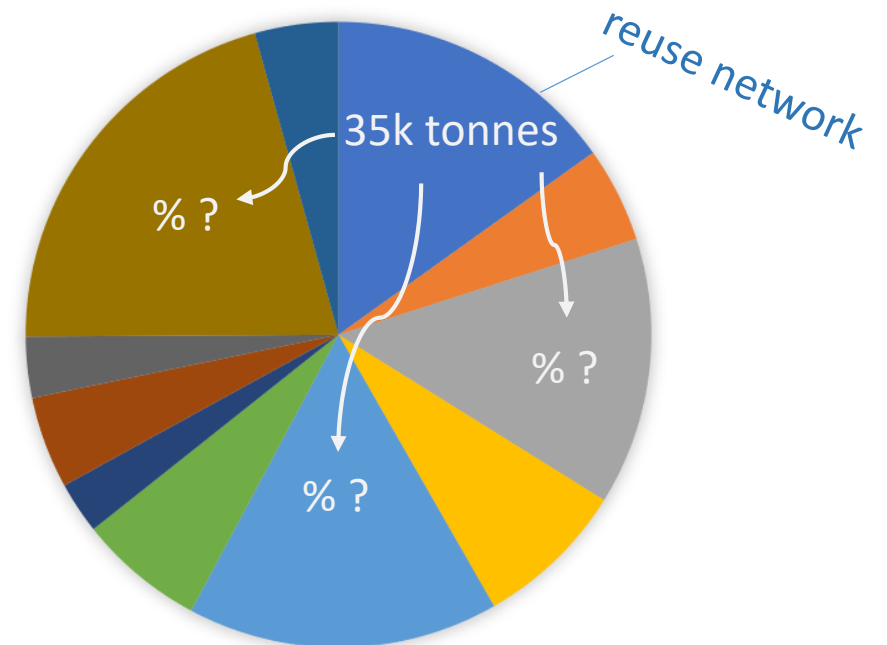
- Fall of 2019, *iVox* platform (supported by OVAM)
- 15-minute survey
- 1,500 Flemish respondents
 - **Representative:** gender, age, education level

➤ General idea:

- Data from **reuse network**
- Ratio with other channels

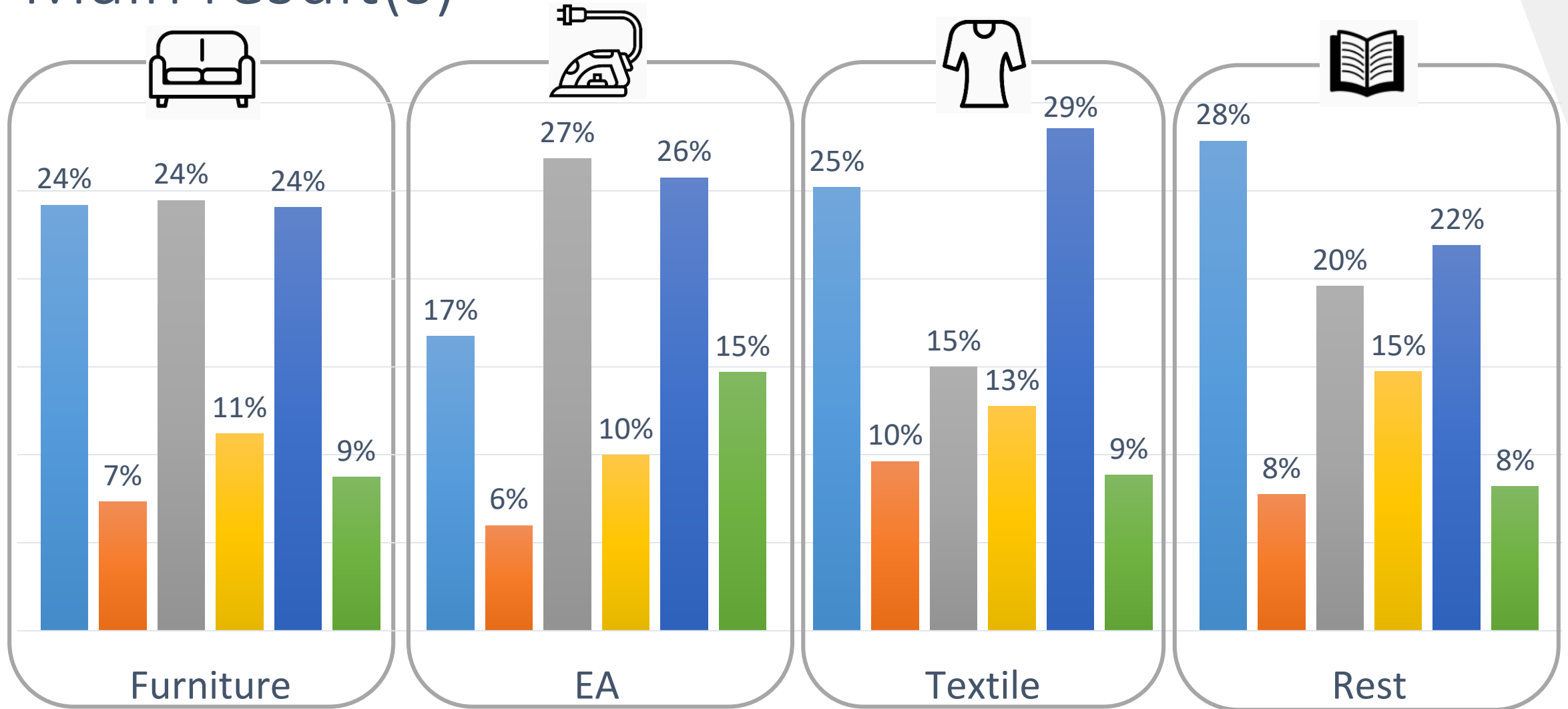
➤ Extrapolate

Total reuse = X tonnes?





Main result(s)

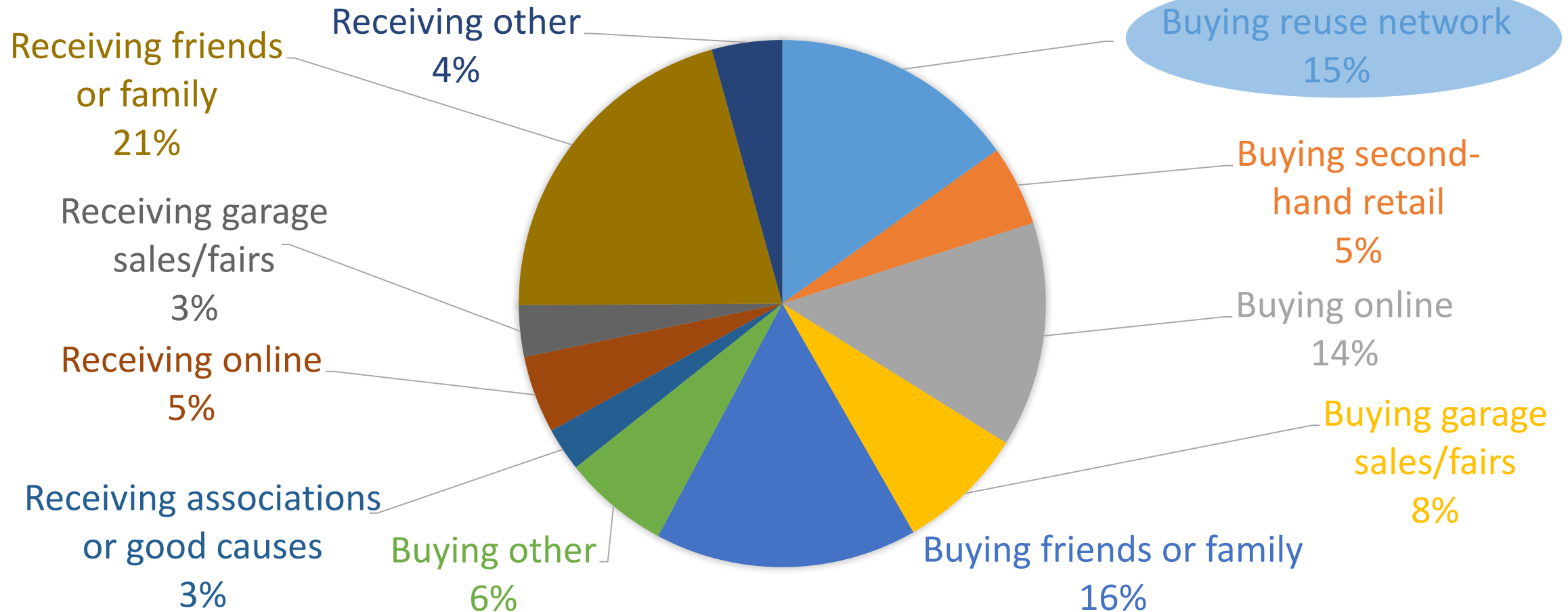


■ Reuse network ■ Second-hand retail ■ Online ■ Garage sales/fairs ■ Friends or family ■ Other

Main result(s)



35k tonnes
= 5.4 kg reuse/capita



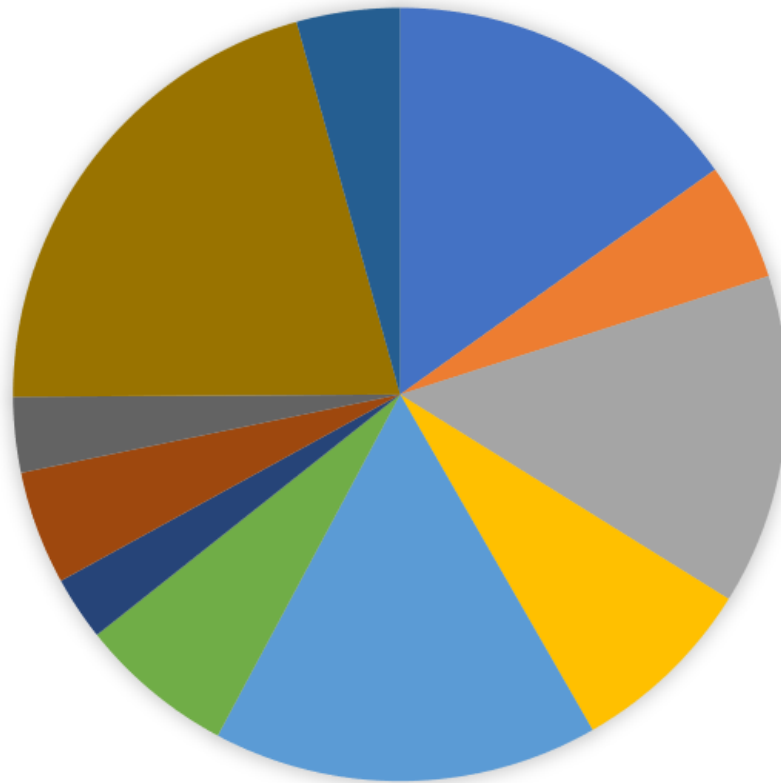
Main result(s)



Total reuse? 100%

= 222k tonnes
= 33.8 kg reuse/capita

instead of
5.4 kg/capita



35k tonnes
= 5.4 kg reuse/capita

15%



Main result(s)



Total reuse? 100%

= 222k tonnes

= 33.8 kg reuse/capita

instead of
5.4 kg/capita

	Reuse/capita	
Furniture	14.9 kg	
EEA	3.2 kg	
Textile	3.7 kg	
Household	12.1 kg	
Undefined	12.1 kg	
Total	33.8 kg	

➤ Use this number for magnitude of Flemish reuse!





Other results



Reuse behaviours



Reasons for second-hand

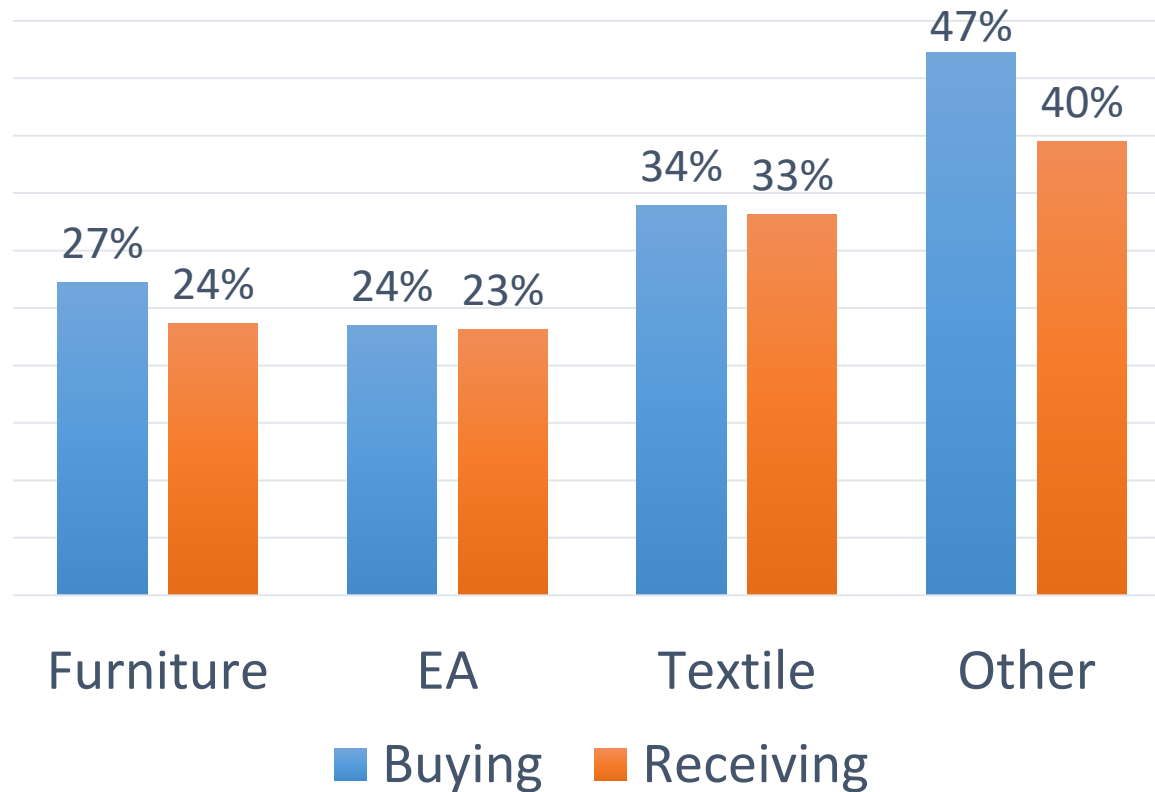


Environmental behaviours and attitudes



Reuse behaviours

% sample participating in reuse past year



Total: 65.2%



Reuse behaviours



- 80% of 18-35 year olds
- 70% of 35-54 year olds
- 49% of 55+ year olds



- 62% of men
- 69% of women



- Less in 3 highest vs. lowest income (< 999 EUR)

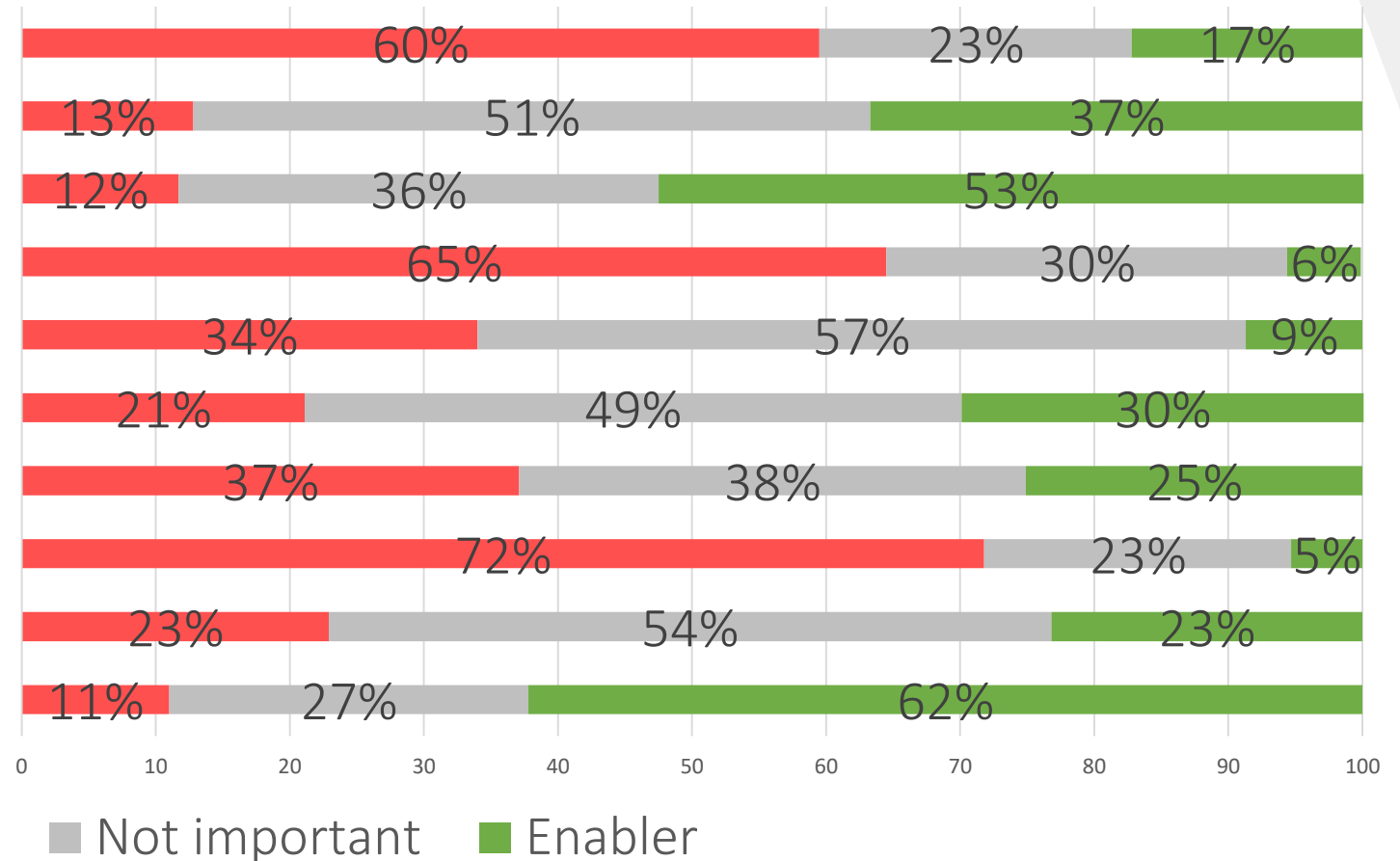


Not important



Reasons for second-hand

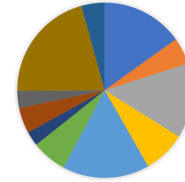
- Expected quality
- Social and local aspect
- Sustainable consumption, environment
- Risks
- Contractual terms
- Ease
- Familiarity with second-hand
- Hygiene
- My lifestyle
- Price





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- **Assess** environmental & socio-economic impact





Environmental impact?

- Environmental gains:
 1. Diverting goods from waste stream
 2. Preventing production new goods

➤ Second-hand because...



Additional stock?



Prevent acquisition new goods?



Environmental impact?

- Rebound effects
- “Replacement rate”
 - Acquisition **second-hand** prevents acquisition **new**



Environmental impact?

- **Replacement rate?**

- Mean: 28%
 - 3.6 second-hand goods replace 1 new
- Impact only 1/4th ?

- **Additional stock?**

- 29% respondents:

second-hand shop = “a place where you can find additional things you would not have bought otherwise”



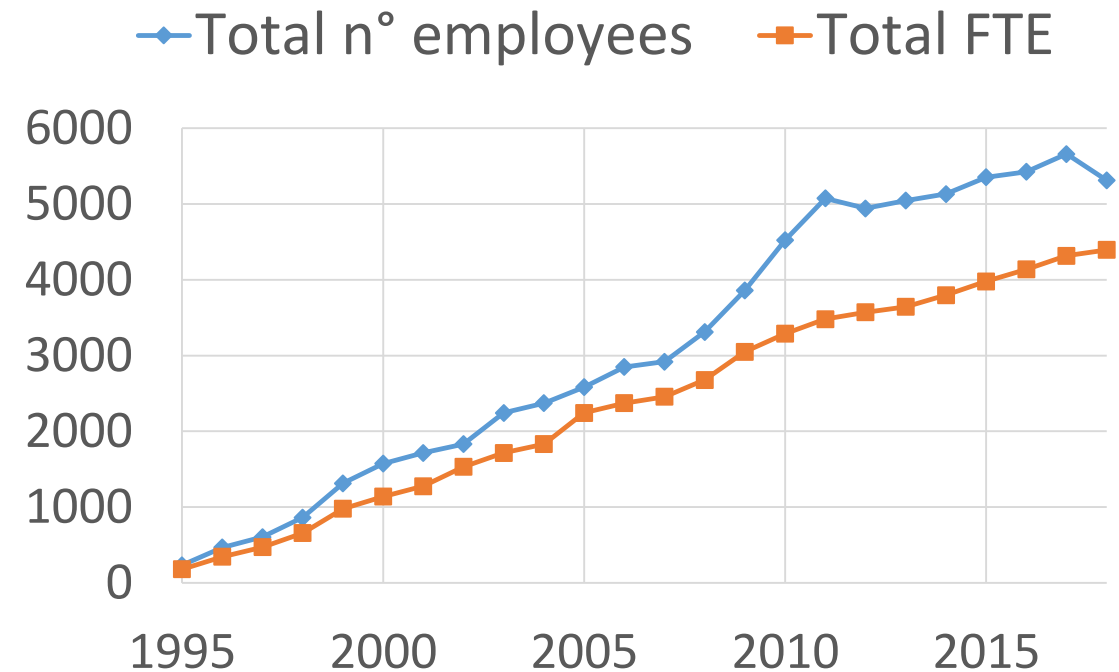


Economic impact?

- Second-hand retail
 - Regular economy

- Reuse network
 - Social economy
 - 12,000 EUR return/unemployed person
 - 5311 employees (4395 FTE)

- 40% of revenue subsidised



Social impact?

- Financial factors?

“When I would buy new, I would have difficulties to make ends meet at the end of the month”

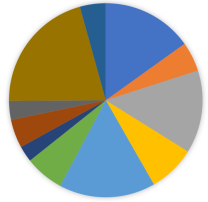
- 35% disagree
 - 33% tend disagree
 - 14% tend agree
 - 9% agree
- 23% price crucial role!

- Social economy: reuse network

- Corona: poverty?



Take-home



Mapping channels?

- Division formal and informal reuse channels



Magnitude reuse?

- Reuse of 33.8 kg/capita (instead of 5.4 kg/capita)



Environmental impact?

- Replacement rate



Socio-economic impact?

- Regular and social economy
- Availability low-priced goods



Thank you! Reuse!

Questions?

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Acknowledgments

Circular Flanders; Public Waste Agency of Flanders (OVAM);
Flemish Department of Economy, Science & Innovation (EWI)
Herw!n; Gezinsbond; Ferm; Recupel; Netwerk Bewust Verbruiken;
quality by Gem Designs from the Noun Project



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