

# **Il fenomeno della cannibalizzazione dei RAEE: lo scenario Europeo e la situazione Italiana**

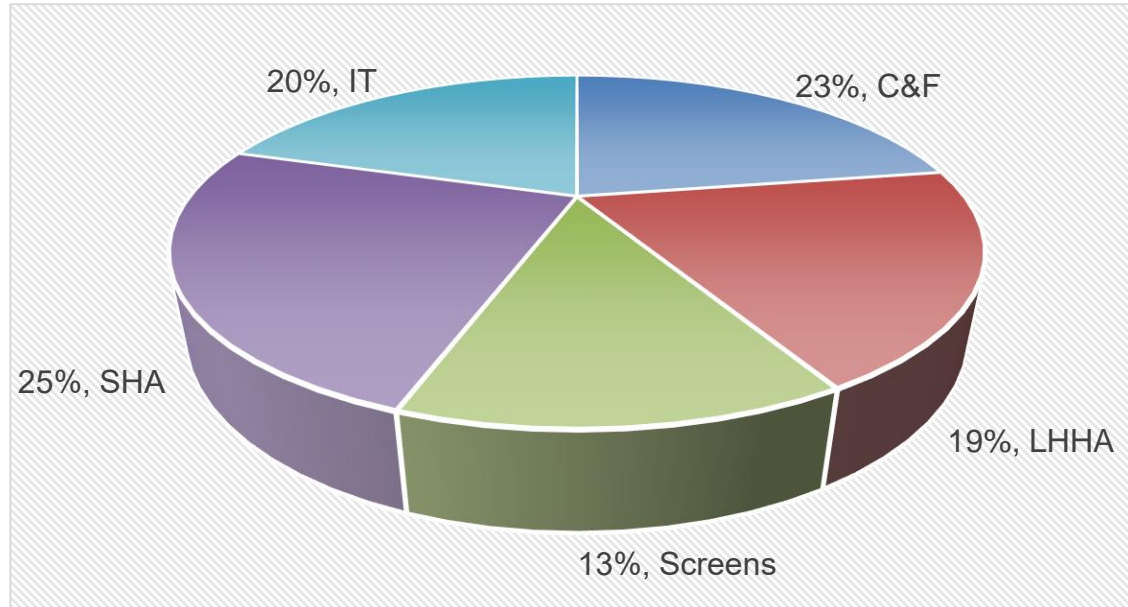
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# Background: UNU-SCYCLE & SOFIES studies

- In 2018 EERA released a report investigating the “Economics of WEEE Recycling”
- Focusing on cost for proper treatment of WEEE
- Analysing the impact on environment and economics related to the quality of material arriving at recycling plant (scavenging)
- Offering recommendations and suggestions to improve collection & recycling of WEEE
- EERA repeated the survey on scavenging in 2019, opening the data collection to non-EERA Members as well
- ASSORAE decided to join the data-collection campaign and the questionnaire was shared with all Members



# Scavenging: Panel, Coverage & Results 2018 at EU level



- **Coverage:** 16 companies, 43 locations across EU
- **Sample:** more than 520,000 t
- **2018** operations

# The effects & implications of scavenging at EU level

- Scavenging is happening and it's not negligible.
- In great majority of cases is happening after collection from final users
- Few common trends are seen
  - Compressors and motors.
  - Batteries.
  - PWB & HDD
  - Cables and Copper dominated components (jokes, radiators,...)
- Effects on environment are relevant
  - CFC/HCFC (Cat.1), Mercury emissions (Cat.3)
  - Dissipation CRM due to missing components (PWB, HDD, ...) & impossibility to achieve economies of scale and channelling materials
- We observe variations from year to year and also from company to company
  - This is why cannot be accounted for precisely by recyclers when quoting services and losses might occur



# Environmental impact of scavenging of compressors

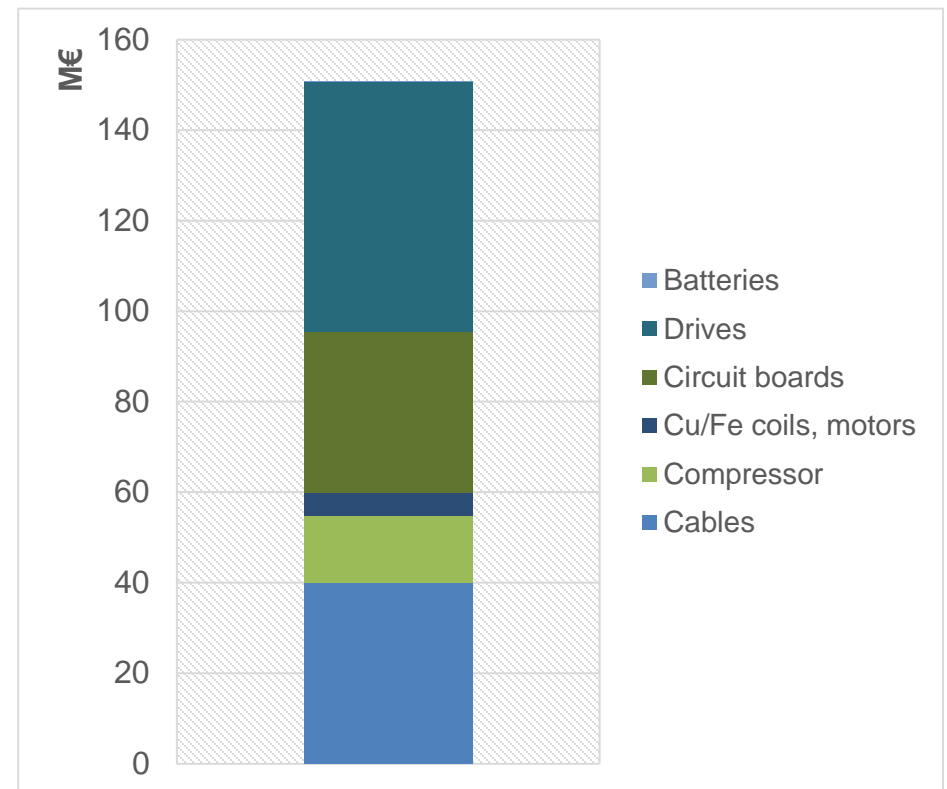
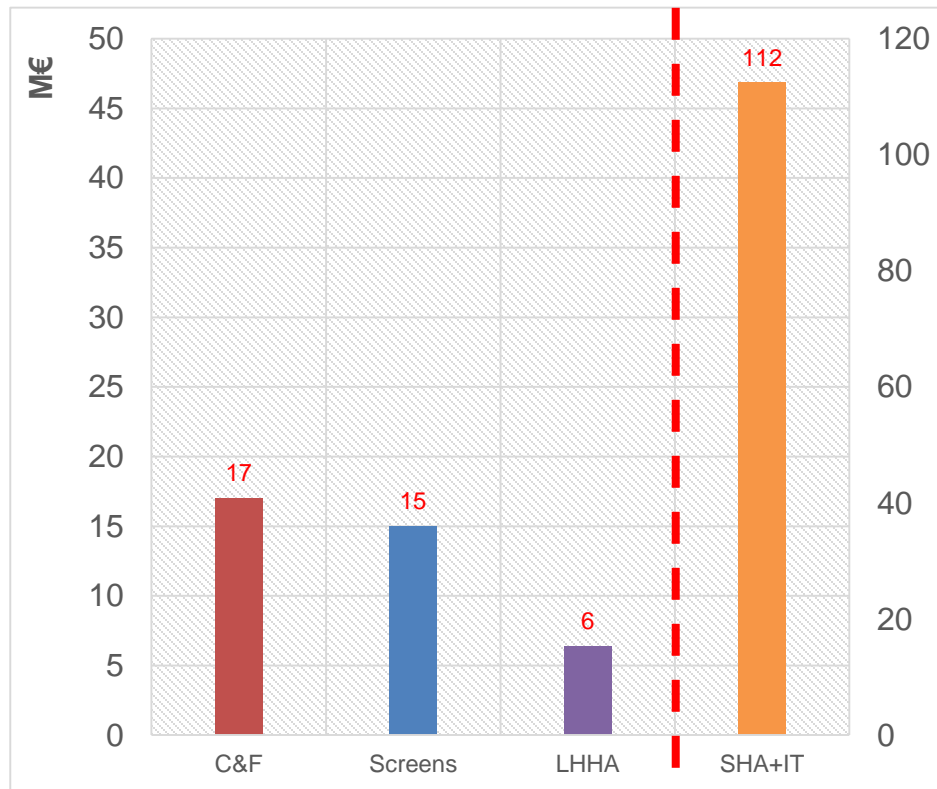
**Scavenging causing emissions of 3.6 Mt CO<sub>2</sub> eq**



**Equal to removing 1.9 M cars**

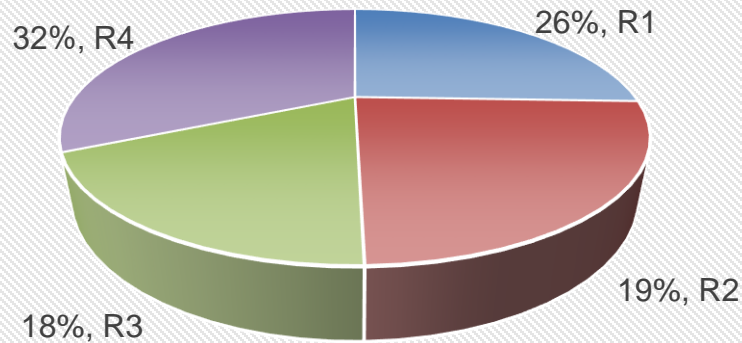
# Estimations of economic losses due to scavenging 2018

- What if we consider the total amount of WG in Europe?



# The situation in Italy

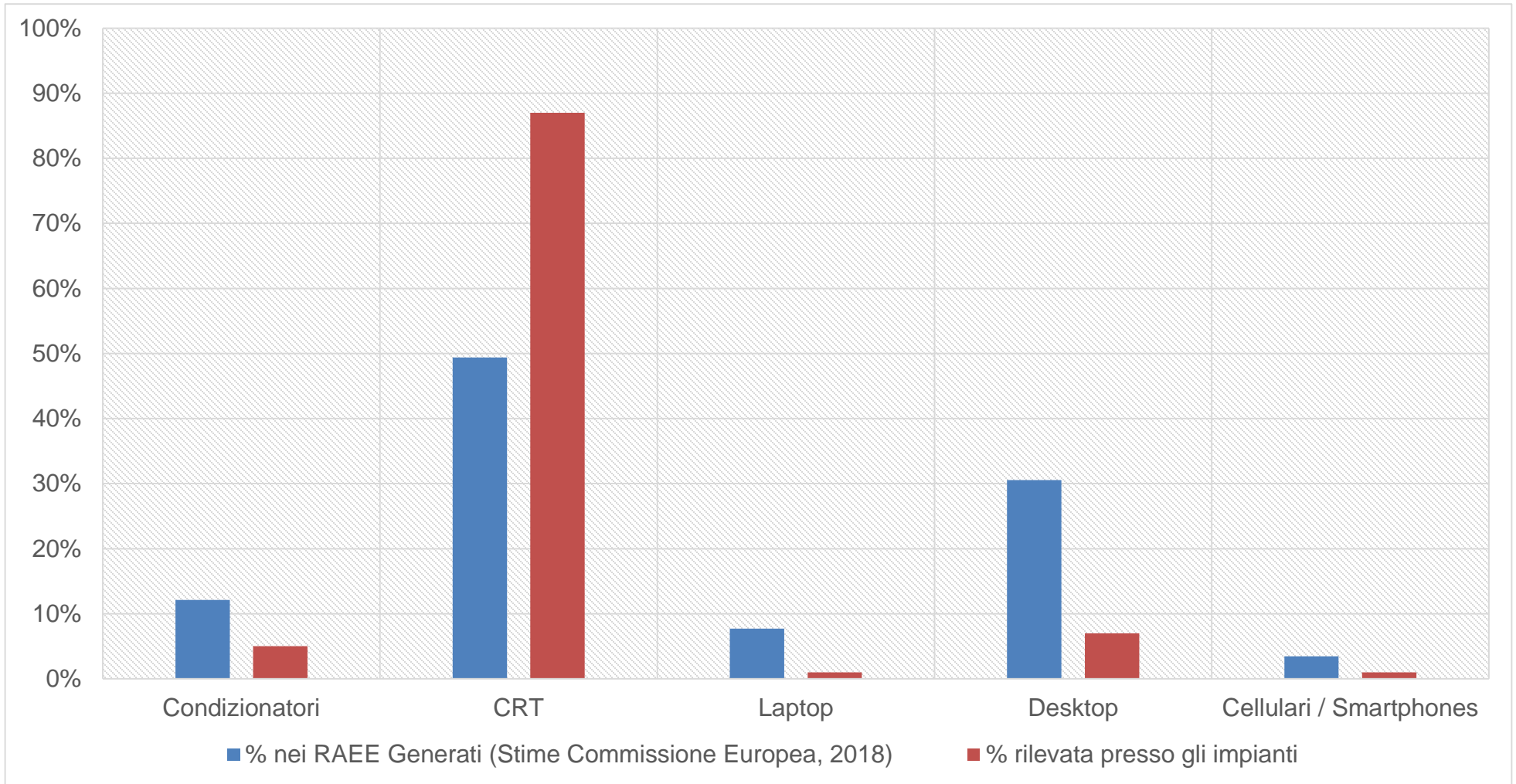
# Scavenging in Italy: Panel, Coverage & Results 2018



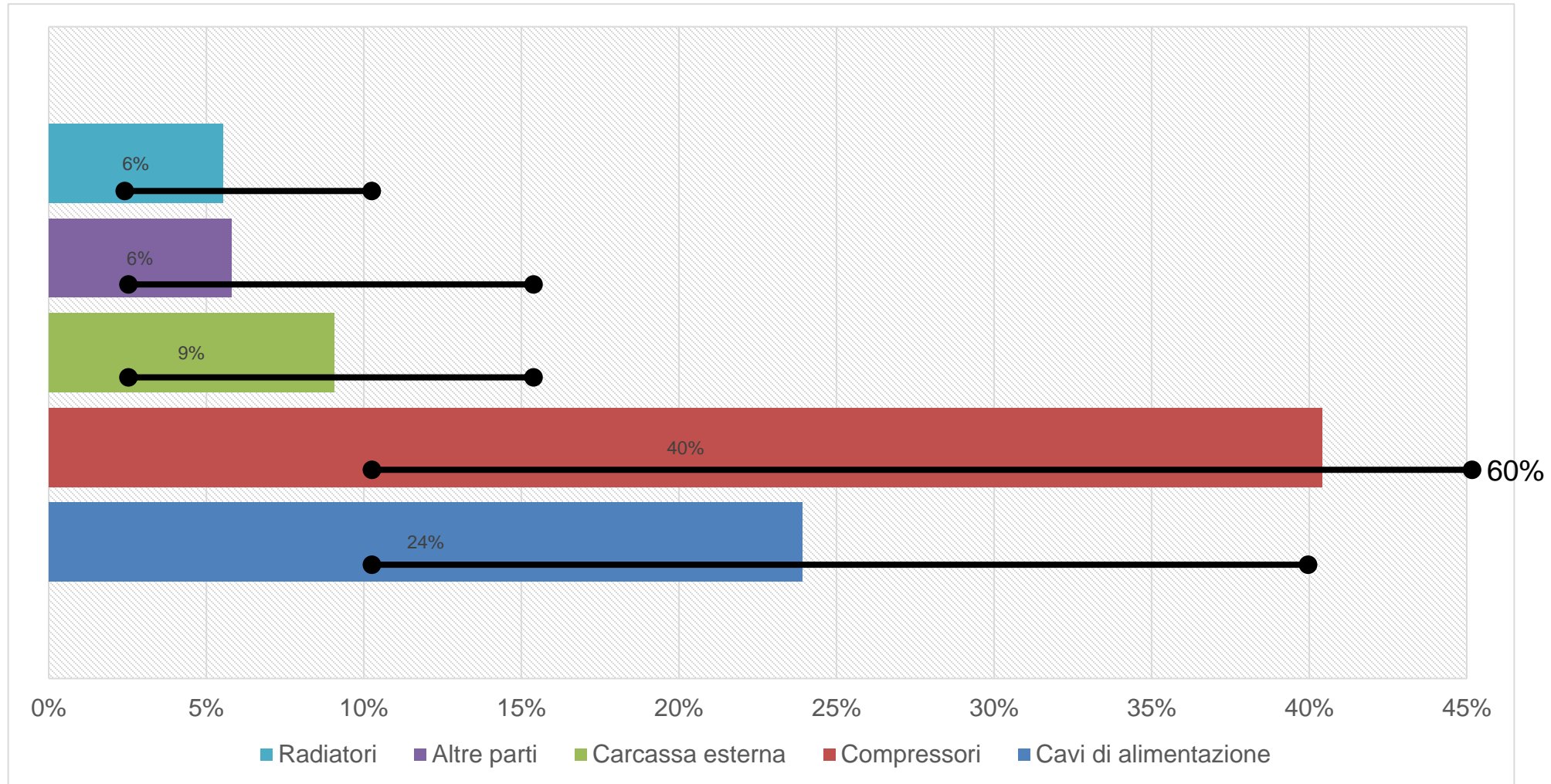
- **Coverage:** 6 companies, 9 locations across Italy
- **Sample:** more than >200,000 t
- **2018** operations



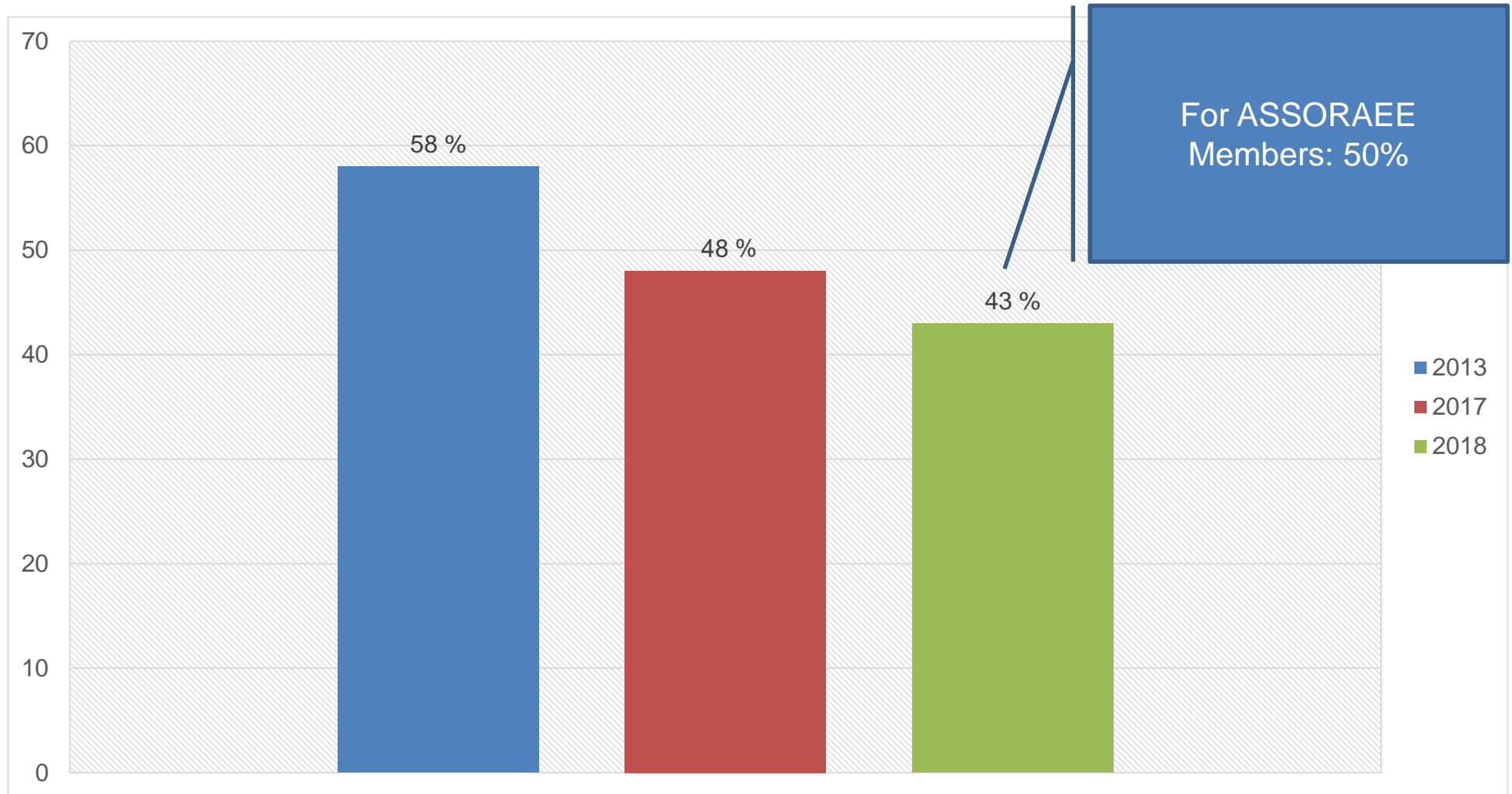
# Scavenging of whole products



# Scavenging level C&F (R1)



# Percentage of CFC containing fridges in the waste stream (EERA)



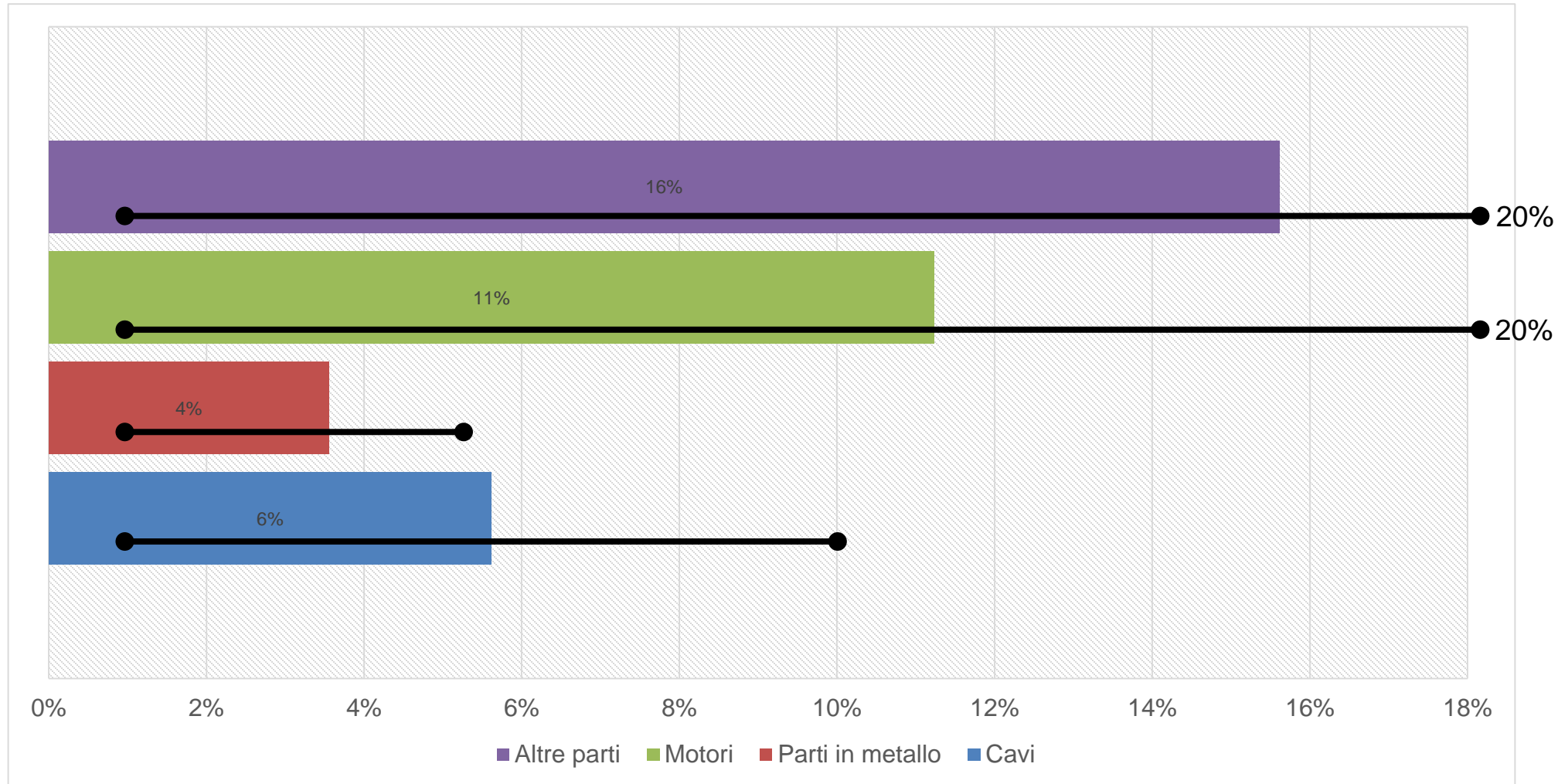
# Environmental impact of scavenging of compressors in Italy

**Scavenging causing emissions of 580,000 t CO<sub>2</sub> eq**

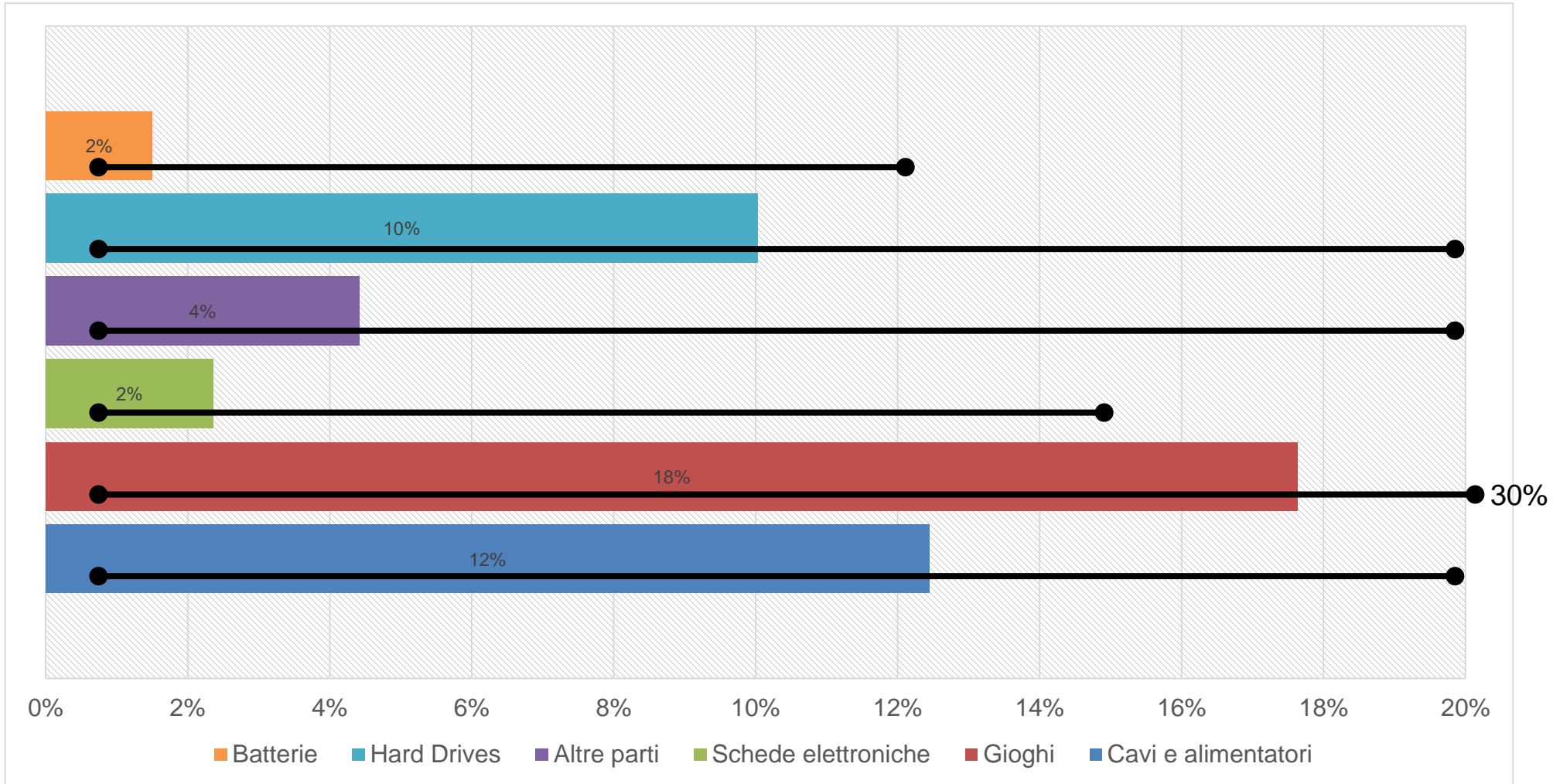


**Equal to removing 300,000 cars**

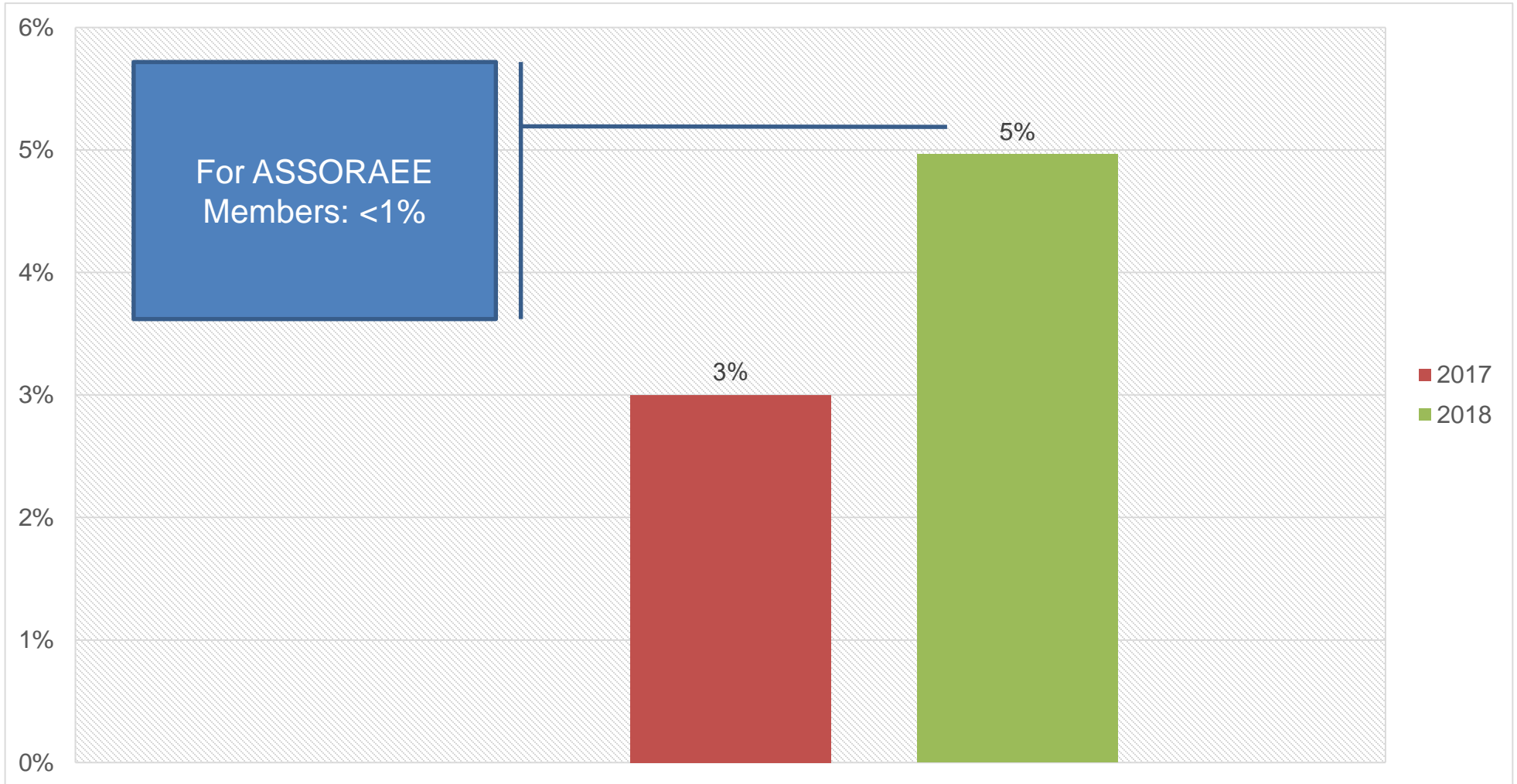
# Scavenging level LHHA (R2)



# Scavenging level Screens (R3)

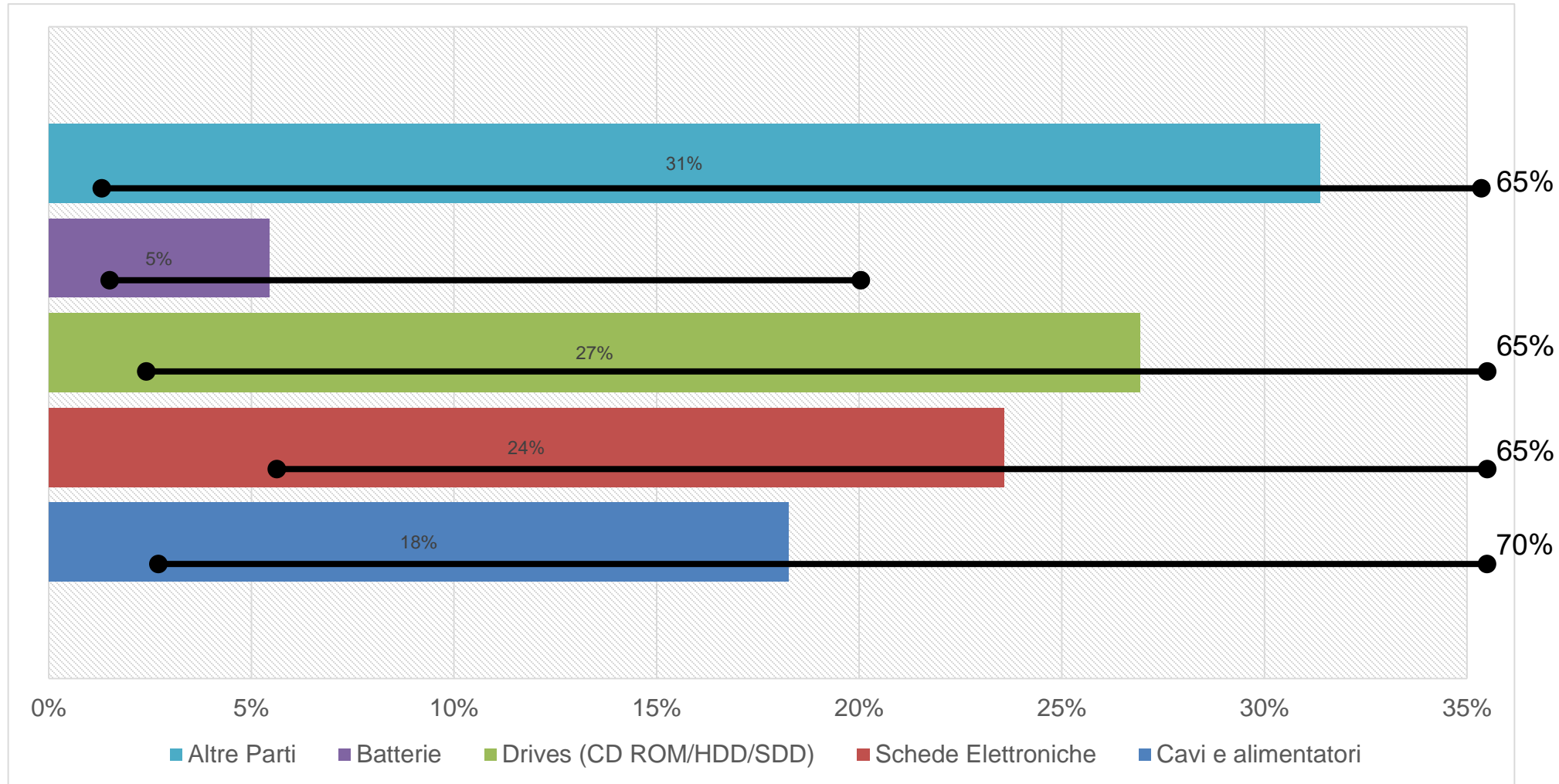


# Share of Laptops and Tablets in the Waste Stream (EERA)

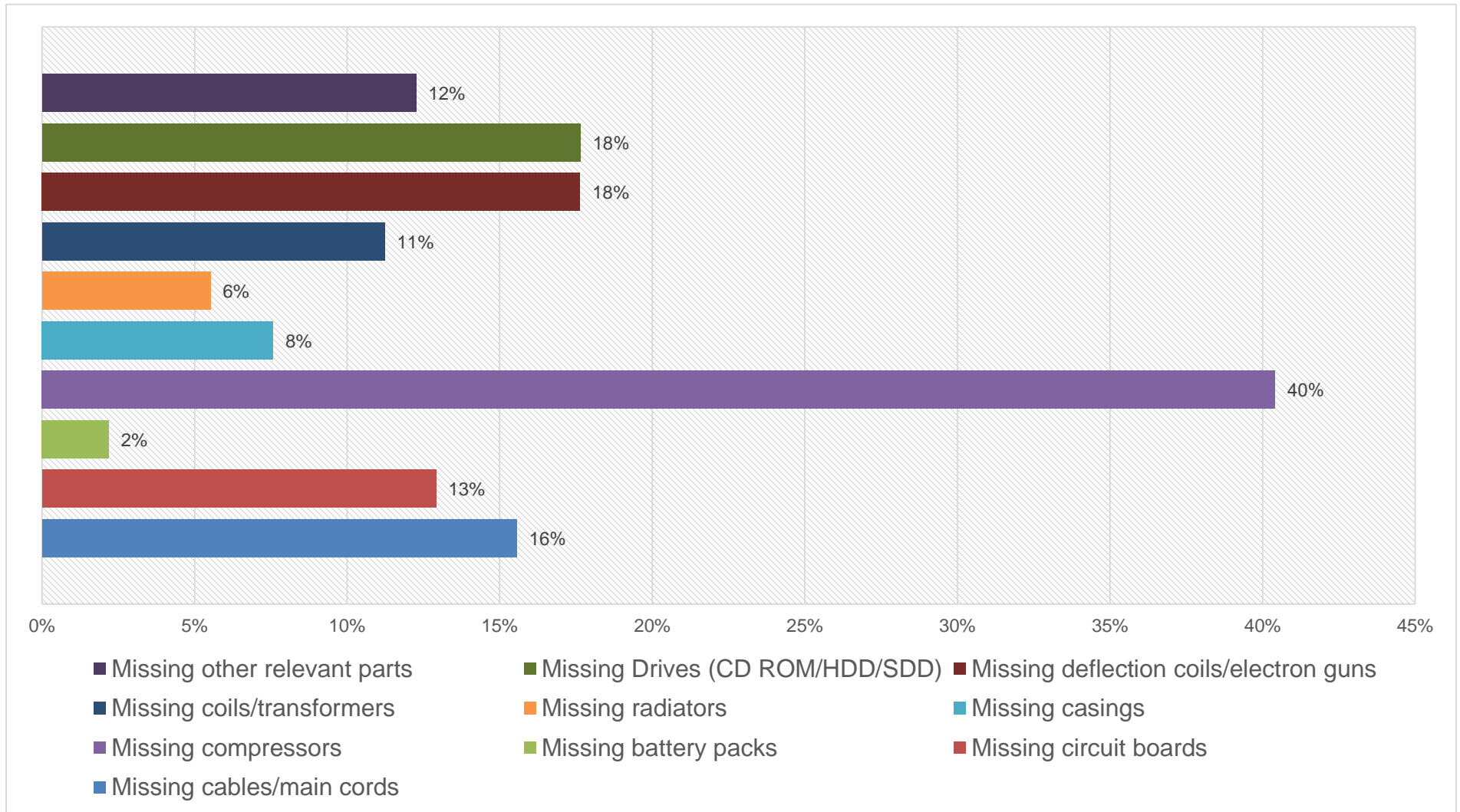




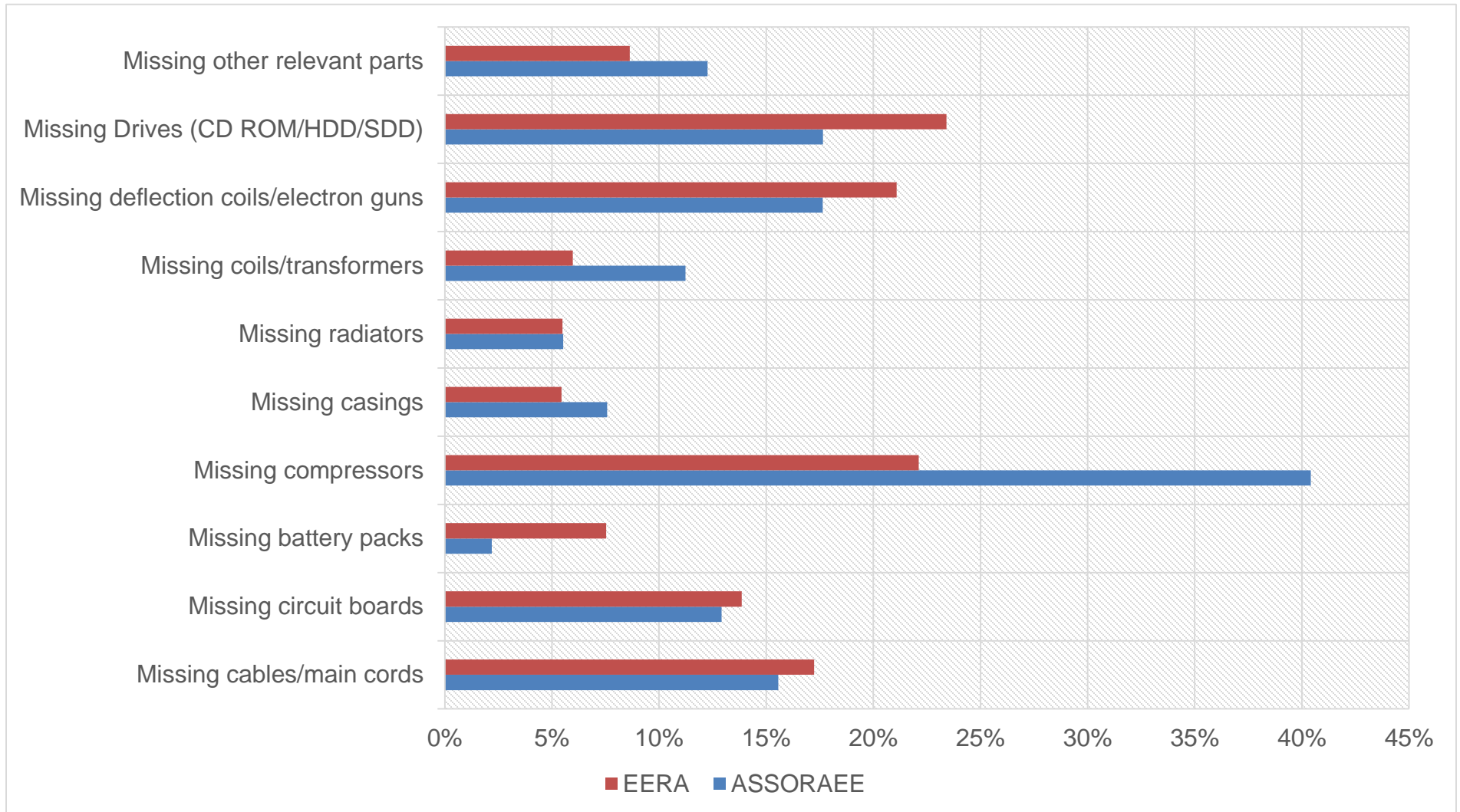
# Scavenging level SHA +IT (R4)



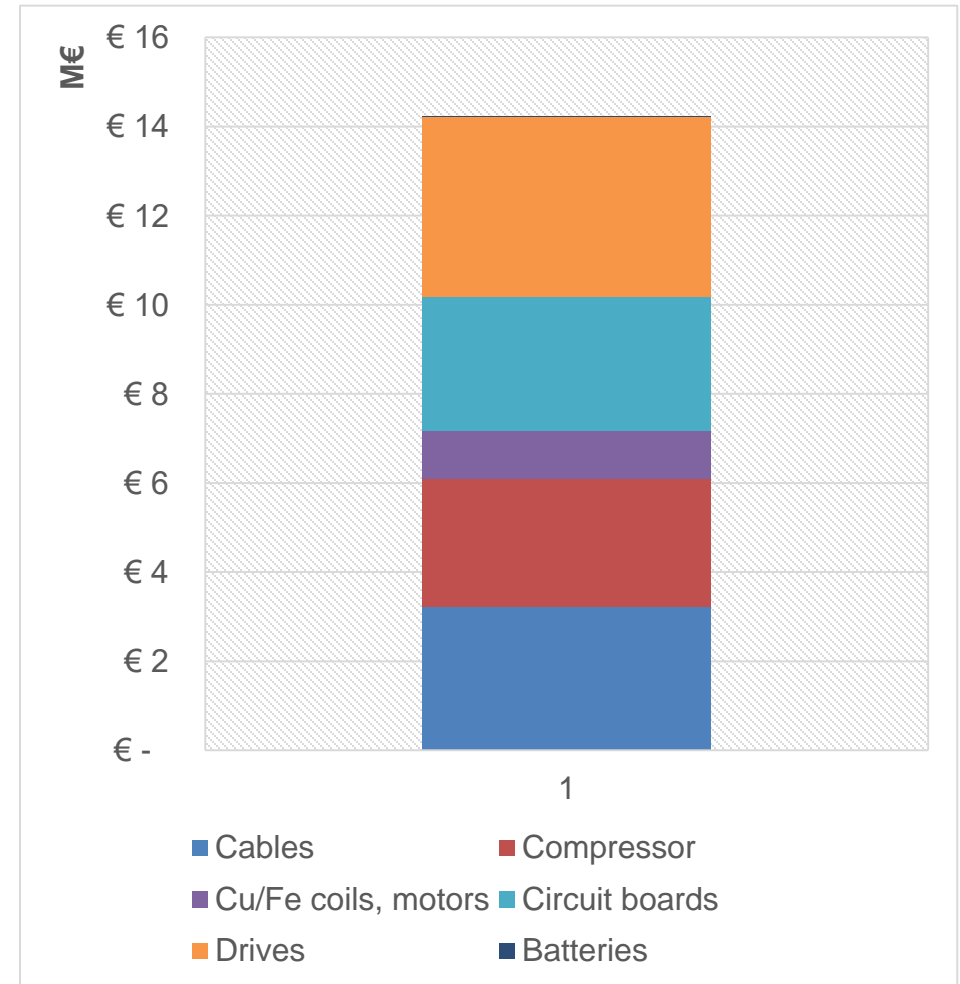
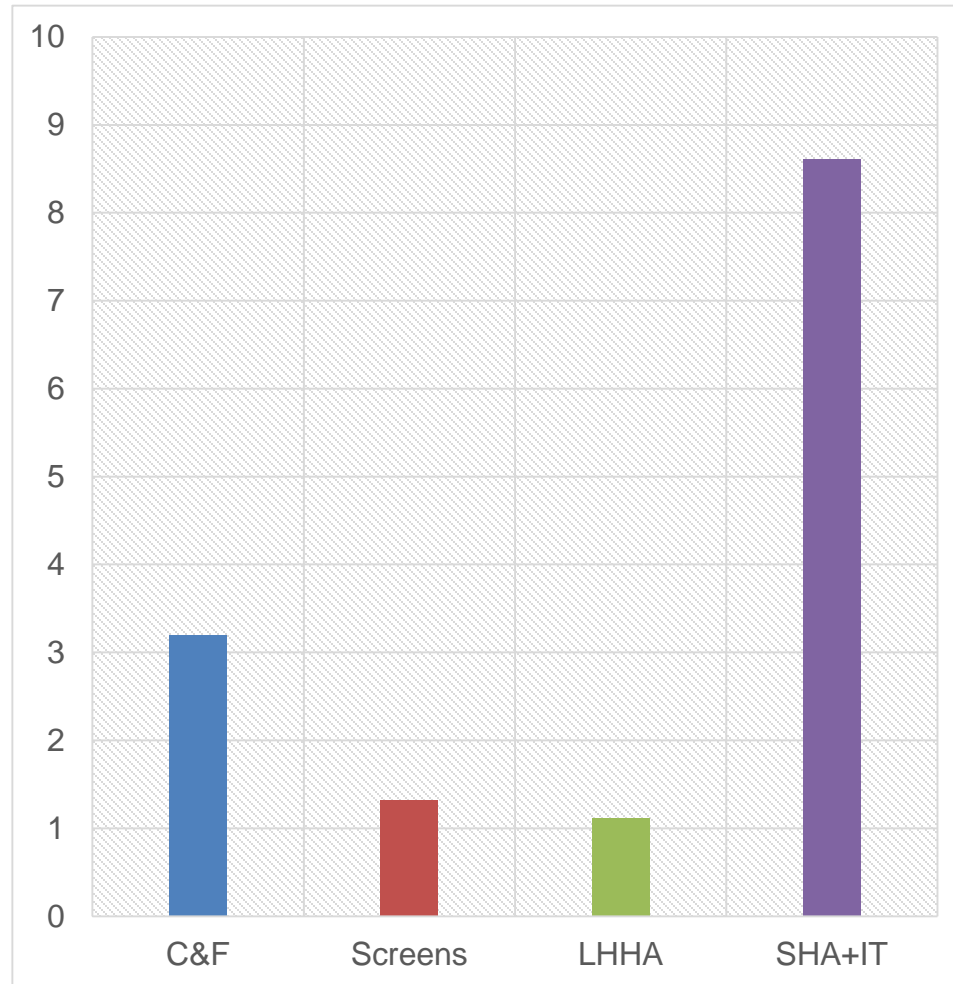
# Overall Scavenging levels in Italy



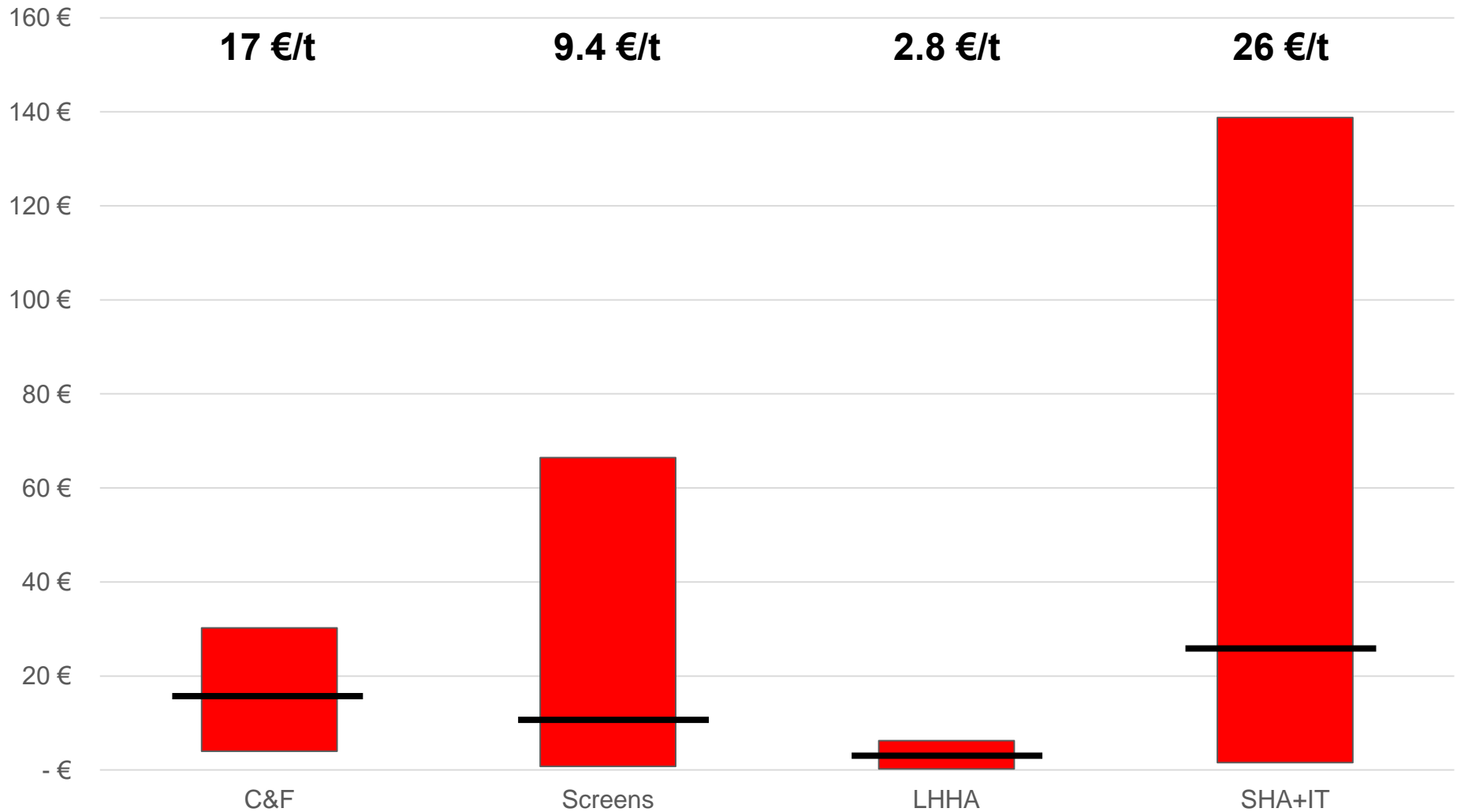
# Scavenging Level: ITA vs EU



# Estimations of economic losses due to scavenging 2018



# Min and Max Scavenging Value (€/t)



# The way forward

**Identificare buone pratiche** operative che limitino la cannibalizzazione e **preservino** la qualità del materiale raccolto, così **come conferito dai detentori** finali ai centri di raccolta e ai punti vendita o ai luoghi di raggruppamento

## Buone Pratiche

**Rendere lo standard europeo per la raccolta (EN 50625-4) vincolante per i centri di raccolta** al fine di controllare maggiormente la qualità del materiale

## Standards

**Prevedere meccanismi di compensazione economica**, anche basati su decurtazioni dei premi di efficienza, tramite un fondo finalizzato al **riequilibrio degli effetti economici derivanti dalla cannibalizzazione**

## Economics

## Organizzazione

**Promuovere ed incentivare il canale di raccolta che passa attraverso i Luoghi di Raggruppamento** della distribuzione che presenta notevoli margini di crescita e **garantisce un materiale** in ingresso agli impianti di trattamento in genere **meno cannibalizzato**

**Thank you!**

**sofies**