COMET TRAITEMENTS

CRITICAL RAW MATERIALS – RECYCLING SOLUTIONS

COMET GROUP / COMET TRAITEMENTS

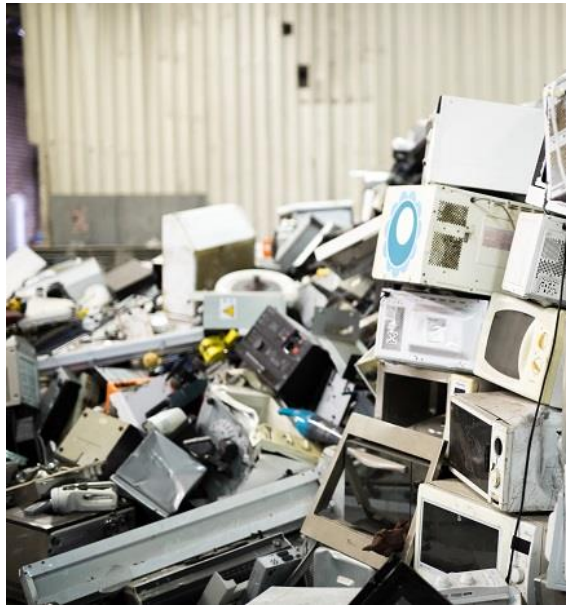
COMET GROUP :

- 400 staff, 400 M€ Turnover
- Comet Sambre : 2 shredding sites, Charleroi (3,000 hp) and Mons (7,000 hp)
- 1,200,000 To/y of wastes – 800,000 To/y metallic scraps

COMET TRAITEMENTS : Shredder Residue processing and recovery

- Created in 2002
- 8 production units : Post Shredder Technology
- Treatment capacity : 350 000 To/y
- Staff: 130
- R&D team: 15 + 11 external researchers work on Comet projects

FEEDSTOCKS



COMET GROUP : URBAN MINING

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Fluids, tires, batteries, catalysts, airbags, etc

Dismantling

Shredding

Magnetic separation

Air succion

Steel Industry (Electric Arc Furnace)

Light Shredder Residues

Heavy Shredder Residues

350 000 t/y

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Sorting

Shearing, hand-cutting

SHREDDER RESIDUES VALORISATION

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97,8%

Minerals and Glass

→ Technical sand

Foam, wood…

Catalytic cracking
→ Hydrocarbon

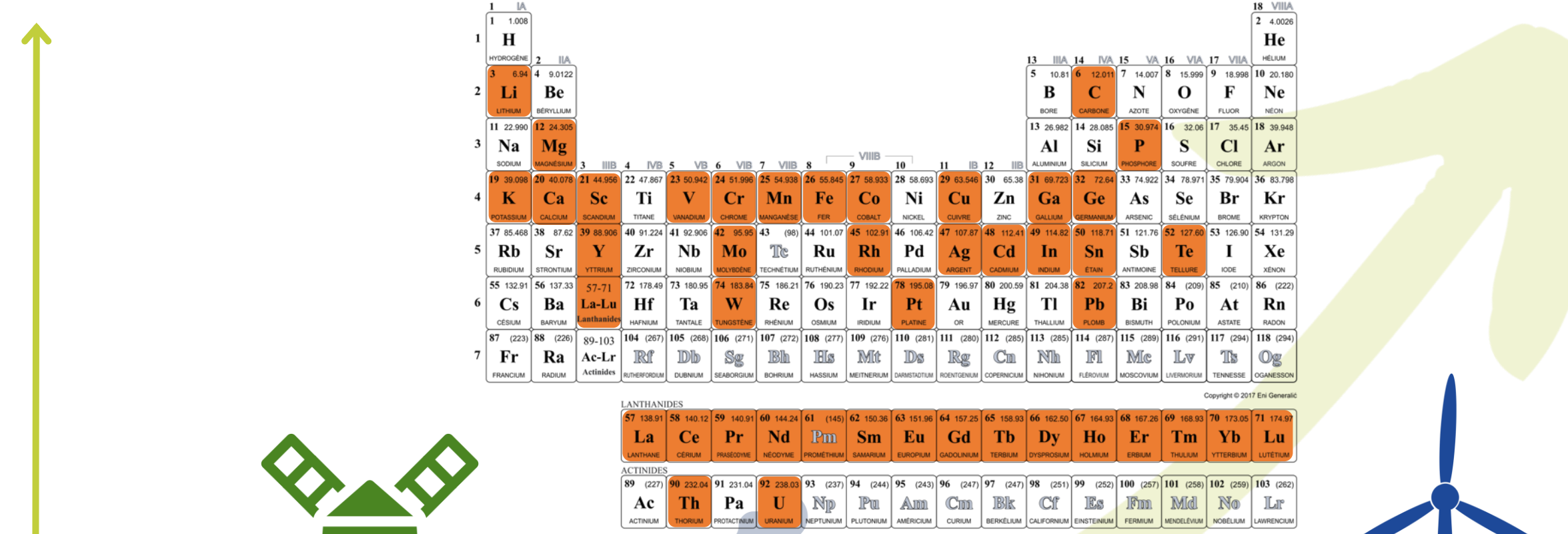
Plastics Upcycling

Non-ferrous metals

Robotized sorting Hydrometallurgy

Cu, Al, Zn, CRM : Co, REE, …

ENERGY TRANSITION & RAW MATERIALS



1700

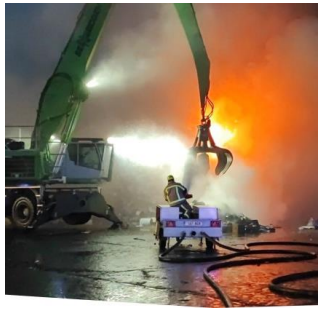
1800

1900

2000

COMET TRAITEMENTS / RECYCLING INDUSTRY

- Recovery of Secondary Raw Materials from End of Life Vehicles, WEEE, E-mobility, photovoltaic panels,…
- Optimize the purification vs the economic value
- Challenges:
  - New feedstocks



  - Increasing complexity of the raw materials
- Contribute to the EU circularity needs (keeping Critical Raw Materials inside EU)

COMET TRAITEMENTS : R&D

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Regional : **Reverse Metallurgy R&D cluster**

MULTIPICK	Industrialization of a smart robotized sorting line of metal scraps
BIOLIX	Development of a hydrometallurgical plant for copper recovery and purification
CISTEMEEC	Setting up the circularity of the future e-Mobility value chain
ECWALI	Aluminium & Steel smart robotized sorting
PLANUM	Dismantling and valorisation of EoL aircrafts
REMADE	Valorisation of recycled metal scraps in powder metallurgy applications
ECuME	Li-Ion battery recycling
PUR4UP	Upcycling PP3 waste plastics in water sanitation application
PUREZINC	Purifying zinc from zorba waste stream
PURSILICON	Valorisation of silicon recovered from EoL PV panels in batteries applications
PHOENIX	Development of a pyrolysis plant for ultimate plastic waste fraction
SOLARCYCLE	setting up the EoL PV recycling value chain

European

LIFE PlasPLUS	Recycling of high-quality secondary thermoplastics and recovery of critical raw materials (antimony)
MMAtwo	Second generation Methyl MethAcrylate
morpho	Aeronautics Smart Multimaterials Structures. Recovery of carbon fibre from composites by pyrolysis
SALEMA	Substitution of Critical Raw Materials on Aluminium Alloys for electrical vehicles
RESiLEX	Recovery of silicon from EoL PV pannels
peacoc	Precious metal recovery from waste streams. Ag from EoL PV Panels
CROCODILE	Recovery Of Cobalt from waste streams : batteries, metallic waste, …
EBRA	Platinum Group Metal recovery from catalytic converters

COMET TRAITEMENTS & CRM

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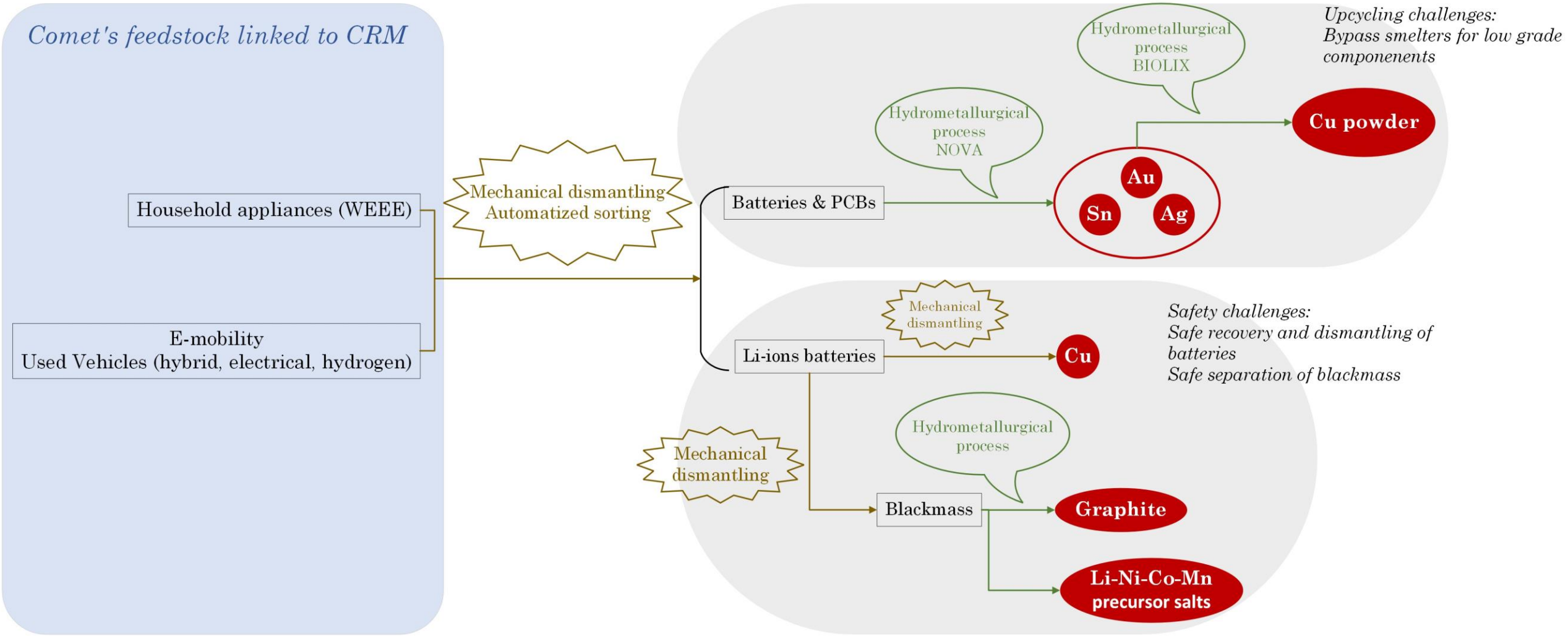

COMET TRAITEMENTS & CRM

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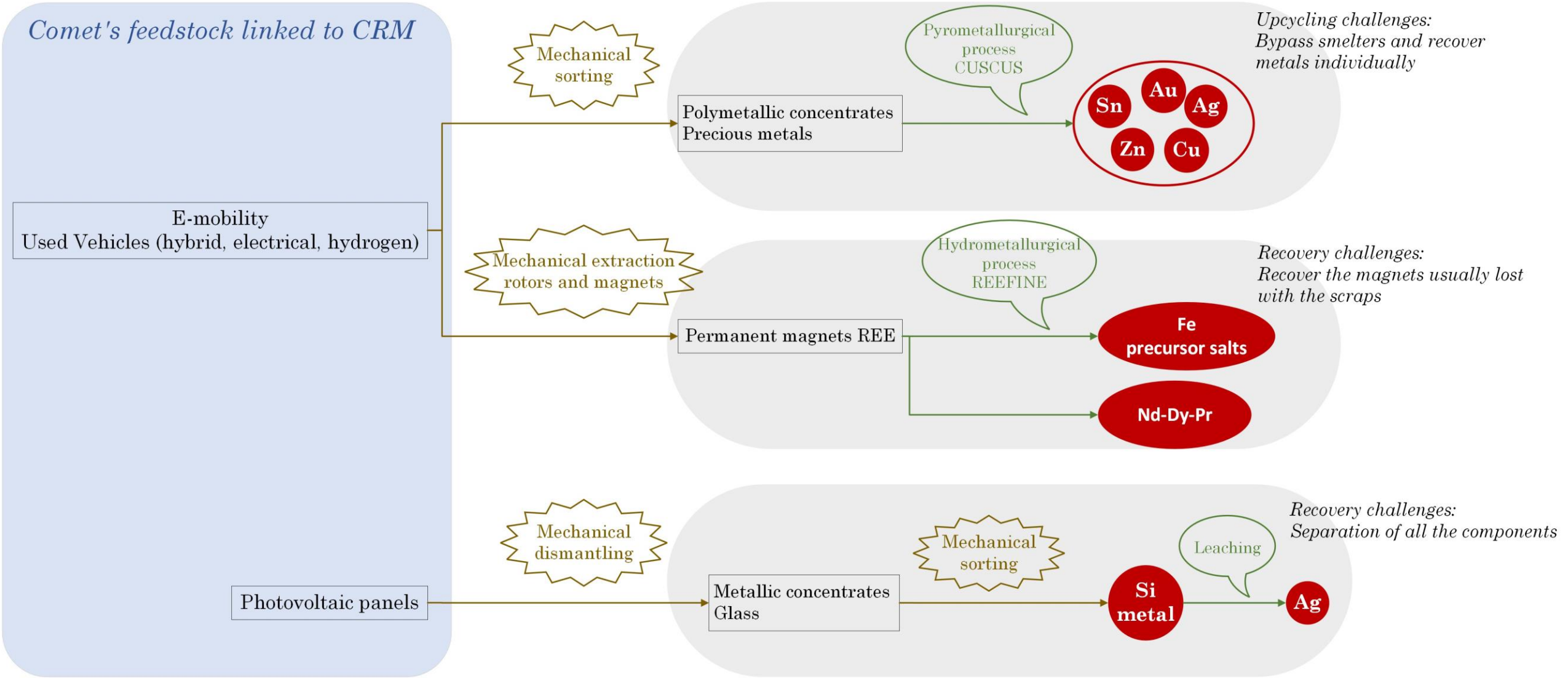

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Thank you

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