Circular Economy and Critical Minerals

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About Erion

The largest nonprofit Producer Responsibility Organization in Italy

- Owned by 2,400 Producers of electrical and electronic equipment and batteries
- 250,000 tons of secondary raw materials recovered in 2019
- 1,8 million tons of GHG avoided emission in 2019
Mining? Urban mining!

We look at products placed on the market, in-stock (in use and hibernated) and generated as waste.

Productivity:

- 1 ton of gold ore: 3 g of gold
- 1 ton of mobile phones: 300 g of gold
The WEEE case

- 54 million tons per year generated worldwide (7.3 kg per capita)
- 44 million tons “lost” or not properly recycled

Efficiency
- EU: 42.5%
- Asia: 11.7%
- Americas: 9.4%
- Africa: < 5%
WEEE: what have we got here?

- Iron (51%)
- Plastics (18%)
- Glass (9%)
- Copper (4%)
- Aluminium (3%)
- Zero/low value fractions (3%)
- Precious metals/CRM (11%)

Source: Erion Recycling Report
Inside your smartphone

> 30 natural elements

In bold: from conflict minerals

Source: European Chemical Society
The EU leads the way

- 12 million tons of e-waste generated per year
- 5 million tons properly collected and recycled

Knowledge is key (PROSUM)

- EU-wide and open-access Urban Mine Platform
- Web portal populated by a centralized database containing all readily available data on market inputs, stocks in use and hibernated, compositions and waste flows
- electrical and electronic equipment (EEE), vehicles and batteries for all EU 28 Member States plus Switzerland and Norway
A circular approach

- Recycling Infrastructure
- Extended Producer Responsibility
- Legislative Framework
- Ecodesign
- Cultural Shift – Consumer Awareness