

# The Copper Value Chain:

## Production, Transformation, Use, End-of-life

Copper, in its natural mineral form, goes through a series of **concentrating, smelting, refining and shape transformation steps** before it is suitable for use.

Its supply chain can be represented in a simplified manner, as seen in the diagram below, which shows the different steps split into four main areas:

- Physical process of **concentrating** the copper present in naturally occurring ore bodies.
- **Production** of pure copper cathodes via smelting and refining.
- **Transformation** into finished products which can be used directly (e.g. cables and tubes), or semi-finished products which need to be further processed by the downstream value chain (e.g. copper sheets and strip for use in electronic applications).
- **Use** by consumers.
- **End-of-life** solutions involving re-use and recycling.

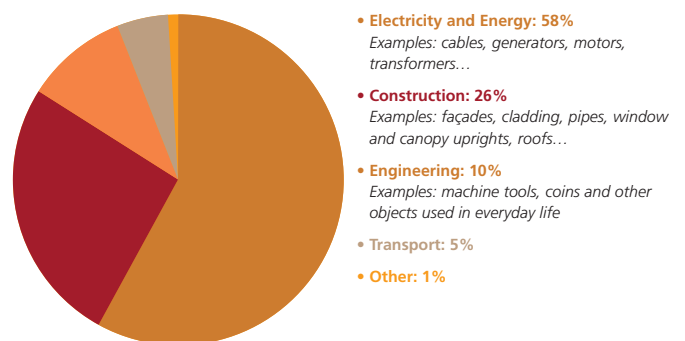
### Facts and figures about...

#### Production

- Since the beginning of the 20th century, European demand for refined copper has grown continuously, from 500 thousand tonnes in 1900 to 23.7 million tonnes in 2007 (up 5% on 2006).<sup>1</sup>

#### Use

- The use of refined copper within Europe breaks down as follows:



#### End-of-life

- Unlike most other materials, copper can be 100% recycled over and over again, with no loss of performance. Copper from recycling is exactly the same as that extracted from a mine.
- Copper recycling includes so-called "secondary" copper, from the collection of products at the end of their life, such as wires and cables, taps, household devices, IT and electronic equipment, plus the direct re-melting of factory waste generated throughout the copper value chain.