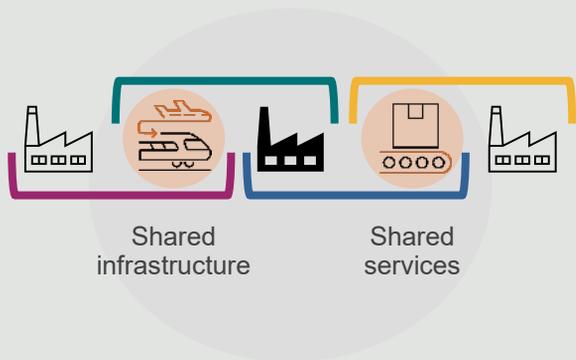


# INDUSTRIAL SYMBIOSIS: THE OPPORTUNITY FROM SHARED INFRASTRUCTURE AND JOINT SERVICES



Industries and authorities must address resource scarcity, climate change, and land use change sustainably. Joining forces in infrastructure and services can overcome these challenges. **The copper industry practices industrial symbiosis to boost operational efficiency in key areas** (e.g., heating, logistics).

Industrial **symbiosis involves valorizing production output and resources by other sectors** (e.g., water, energy) and **sharing infrastructure & services among multiple actors**. This approach offers great potential for the participating sites operating in proximity.

## WHAT ARE SHARED INFRASTRUCTURE AND SERVICES

Industrial symbiosis through shared infrastructure and joint services refers to the **sharing of company infrastructure with other industry players when that infrastructure is used below its designed capacity or the joint provision of services between two or more companies in a coordinated manner, bringing mutual benefit.**



## WHAT ARE ICA MEMBERS DOING?

Engagement in consortia to develop solutions to increase the sustainability of the industries involved in the battery sector



Creation of partnerships to boost recycling and management of electronic devices



Joint ventures and practices to tackle larger industrial issues



Shared facilities to treat specific material streams.



Engagement with universities to test and push the boundaries of Industrial Symbiosis

Using waste heat from pyrometallurgical copper production processes for district heating



Production of biofuel from renewable sources like plants to be used in copper extraction processes



## BENEFITS OF INDUSTRIAL SYMBIOSIS



Cost cuts



Resource use optimization



Increased expertise and collaboration



Enhances sustainability