

Circular Copper

Sustainability without
Waste

May 26th 2021

Who / What / Why

Our purpose is responsibly sourcing the commodities that advance everyday life

Glencore is a leading integrated producer and marketer of commodities, with worldwide activities in the production, processing, refining, third party procurement, storage and transport of those products



Metals & Minerals

- Cu Copper
- Ni Nickel
- Fe alloys Ferroalloys
- Fe Iron Ore
- Co Cobalt
- Zn Zinc/Lead
- Al Aluminium



Energy

- Coal
- Oil



Marketing



Recycling

60
commodities

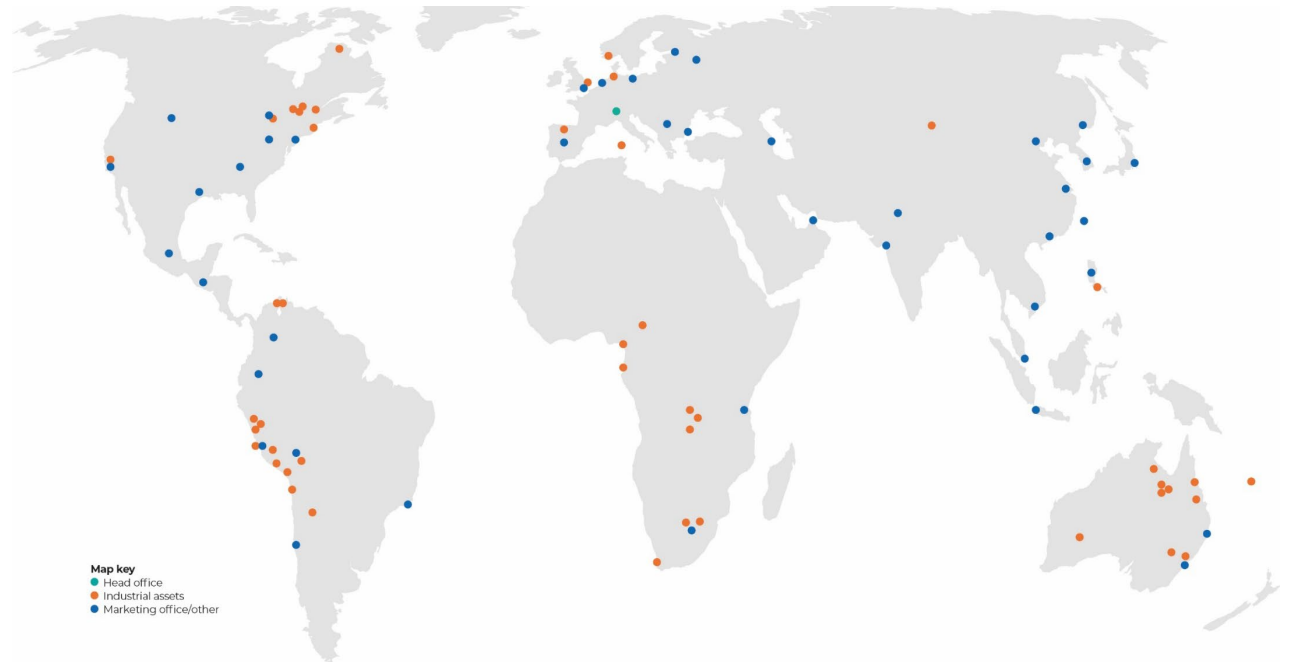
c.150
sites

\$215 bn
revenue

35
countries

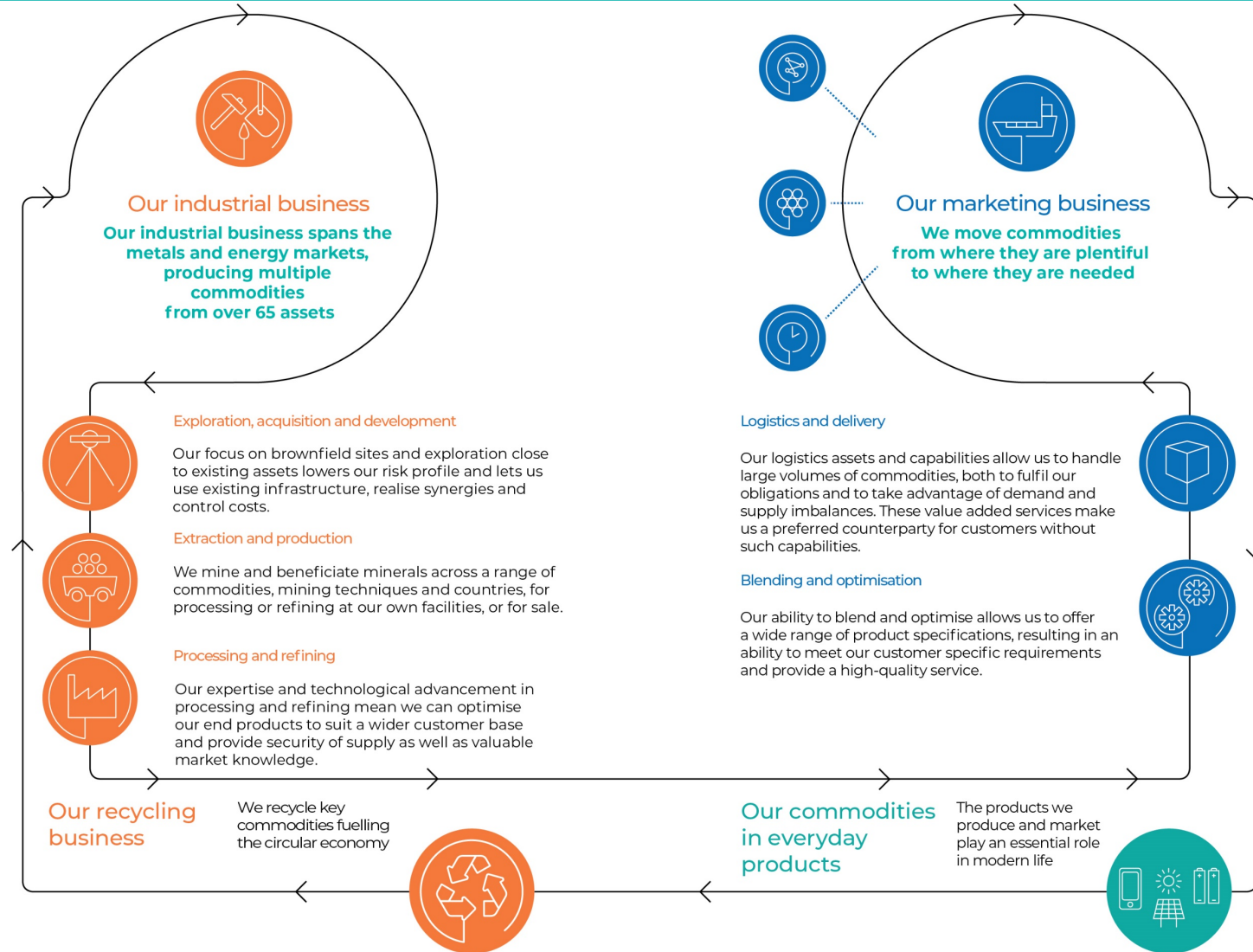
30+
marketing
offices

\$11.6 bn
adj. EBITDA



Our business model

Fully integrated supply chain, from industrial assets, to marketing, all the way to the customer... and back!



Driving the circular economy in the resources sector

By responsibly and safely recycling electronics, and recovering Copper and Precious Metals, we are diverting materials from landfills and minimizing environmental impacts by providing these key commodities a second (or third) life

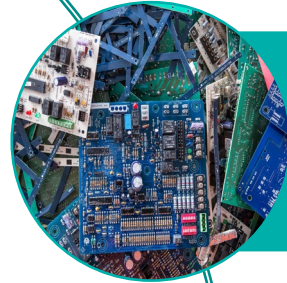
- Recycling for close to 75 years
- Processing electronics was pioneered by our Horne Smelter in the 80s
- Processed more than 1 million tons of circuitry and components from end-of-life electronics
- Last year alone we recovered roughly 27,000 tons of Copper, 132,000 Oz of Gold, 1.3 million Oz of Silver, 16,000 Oz of Palladium, and 5,000 Oz of Platinum from recyclable input feeds
- Copper produced from recyclable sources has c.80% lower emissions vs. mined copper (considering the entire Copper production cycle)
- Helped define and launch the Circular Electronics Partnership for facilitating more circularity in the electronics industry

Glencore is one of the largest processors of end-of-life electronics in the World, and the largest in North America

We recycle a wide range of complex materials

Focused on the difficult to handle materials from the Urban Mine

Electronics



“E-waste is expected to grow from 53.6 MM tons in 2019 to 74.7 MM tons by 2030” – U.N. E-Waste Monitor Report 2020

Copper Scrap



About 1/3rd of US Copper Supply comes from scrap – ISRI 2019 Recycling Industry Yearbook

Smelter Grade



Everything else: residues , copper sludge, slag, skimmings, hydroxides, filter cakes, copper scale, copper oxide, copper filter paper, copper fines, dust, catalysts, etc.

Our ambition is to reduce emissions by 40% by 2035 and to reach net ZERO emissions by 2050



Our Purpose

To responsibly source the commodities that advance everyday life.



Our Ambition

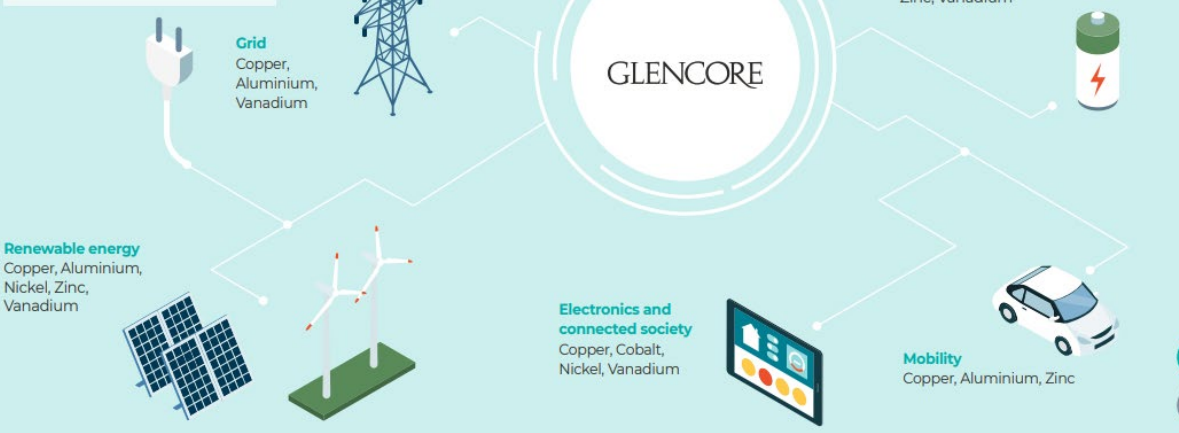
To become a net zero total emissions business by 2050



Our Actions

- Managing our operational footprint, Scope 1 and 2 emissions
- Reducing our Scope 3 emissions
- Allocating capital to prioritise transition metals
- Collaborating with our value chains
- Supporting uptake and integration of abatement technologies
- Utilising technology to improve resource use
- Transparent approach

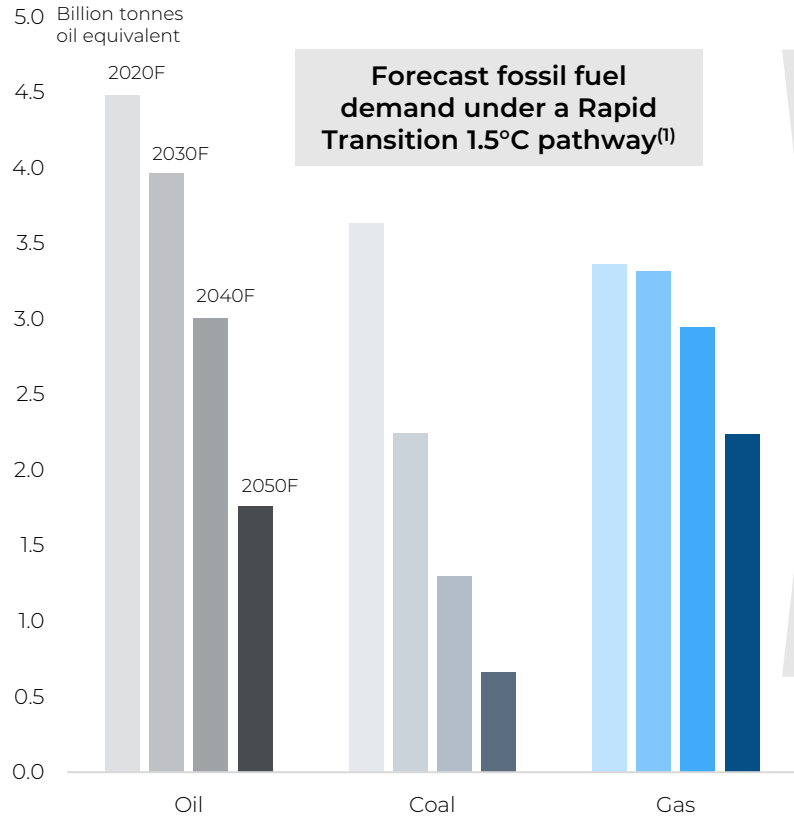
How our metals are contributing to the low-carbon transition



Metal	Glencore production ¹	Global supply ²	Metal	Glencore production ¹	Global supply ²
Copper	1.26Mt	22.6Mt	Aluminium	c.4Mt ³	64.7Mt
Cobalt	28kt	132kt	Zinc	1.16Mt	13.8Mt
Nickel	114kt	2.45Mt	Vanadium	8.7kt	180kt

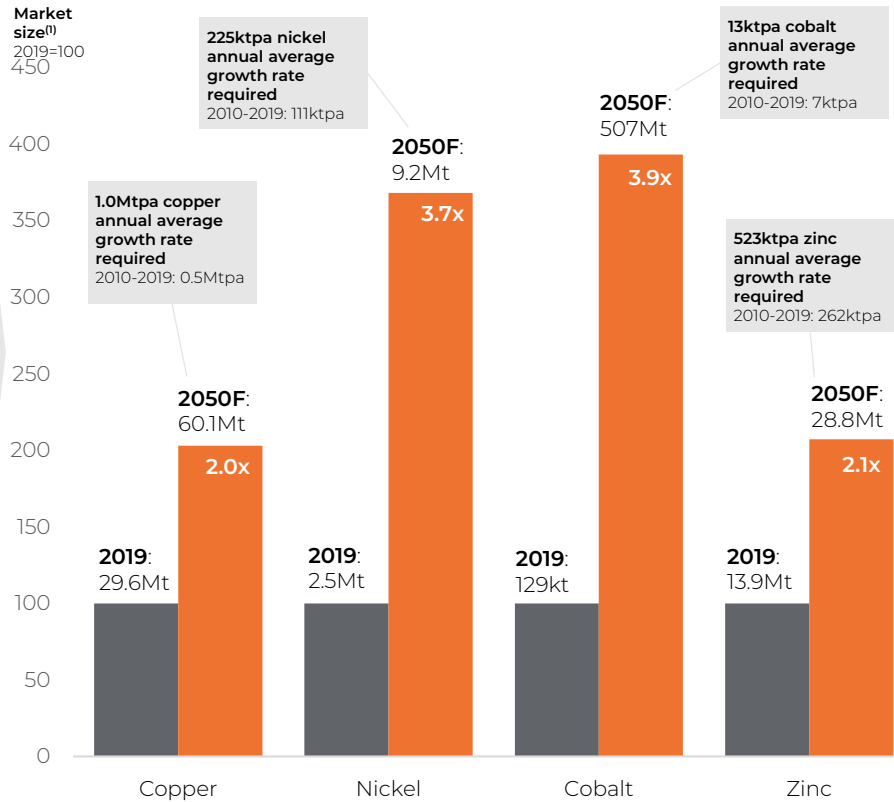
¹ Third Quarter 2020 Production Report, mid-point of 2020 production guidance, Page 17.
² All data 2020 estimates. Sources: Morgan Stanley, The Price Deck – 4Q2020, September 23, 2020; vanadium supply Glencore estimate, coal – IEA Coal 2019 – Analysis and forecast to 2024, assuming 78% of global coal production is steam coal.
³ Data based on 2019 marketed volumes as reported in Glencore Preliminary Results 2019, Page 12. Aluminium marketed volumes reflect non-China traded metal.

Decarbonising energy demand ...

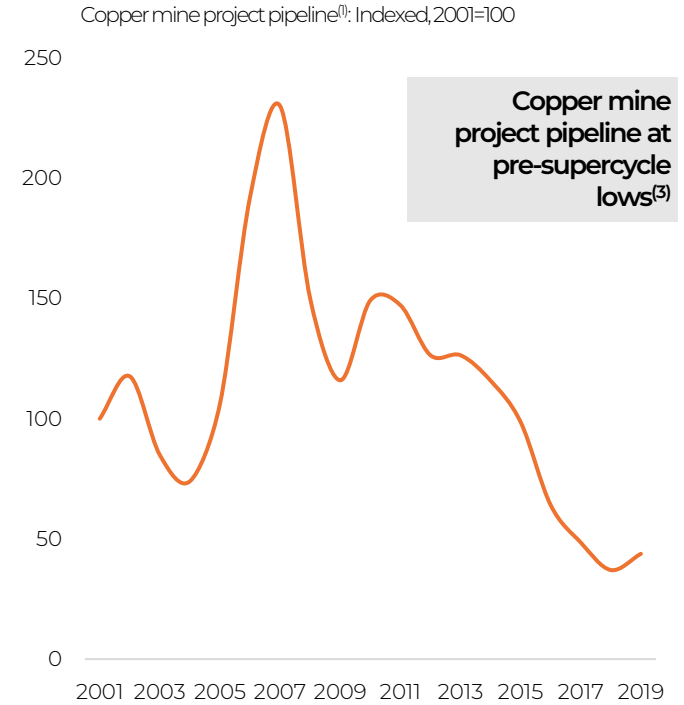


... needs significant metals supply growth ...

Forecast commodity demand under a Rapid Transition 1.5°C pathway



... from a sector that has seen limited investment and subsequent new resource discoveries



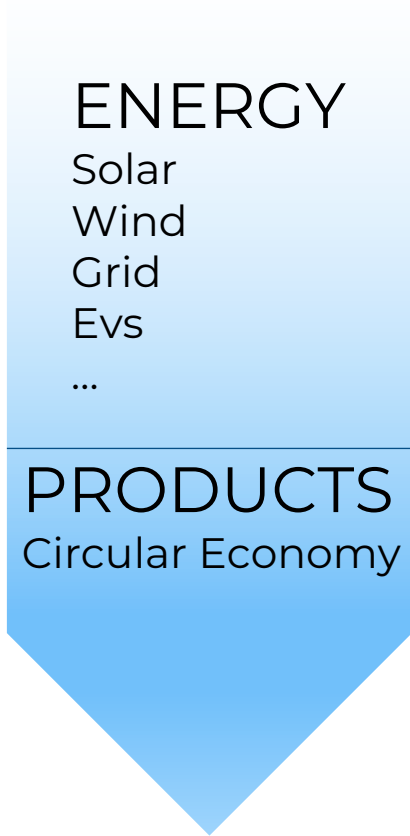
(1) Glencore modelled estimates under a Rapid Transition (IEA SDS) scenario (+1.5°C). (2) Glencore modelled annual average change in demand from 2020 to 2050 under a Rapid Transition (IEA SDS) scenario (+1.5°C). Refer slides 43, 44 and 45 of the Investor Update 2020 – 4 December 2020. Copper demand includes post-cathode secondary materials (3) Copper mine project pipeline comprises the maximum annual production volume of projects categorised as highly probable and probable by WoodMackenzie's copper long-term outlooks from 2001 to 2019, indexed change from 2001.

Net Zero needs Copper, and Circular Copper increases Copper supply sustainably

Decarbonization is not possible without Copper

Total Emissions 2021

2x increase in refined Copper demand = 1 mm tpy new tons



Why Copper is Key for Electrification?⁽¹⁾

- Ductility
- Electrical conductivity
- Thermal conductivity
- Low reactivity

Sustainably recycled Copper from waste = more supply at lower emissions

Net ZERO by 20250

(1) Copper is the new Oil, Goldman Sachs, 13 April 2021

We need a paradigm shift to be able to accelerate the Circular Economy

It won't drive itself!

Where we are

Linear thinking creates mismatched ambitions

Regulatory frameworks focused on deterring movement of waste

Post consumer waste keeps increasing

"Waste"

Where we need to be

Circularity aligns goals
Big Tech > OEMs >
Consumers > Recyclers
> Smelters

Facilitate movement of waste for sustainable recycling and recovery of metals

Increase capacity for responsible and sustainable recycling

"Post Consumer Resources"

What is Glencore doing?

Helped define and launch the Circular Electronics Partnership

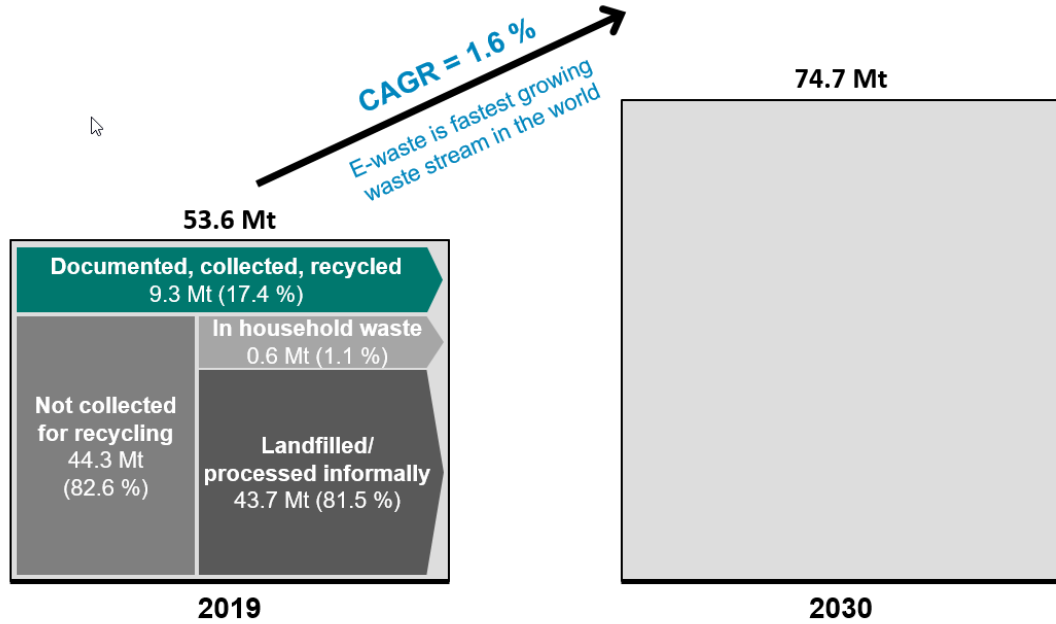
Working with international organizations and policy makers to raise awareness

Increasing our Recycling capacity worldwide

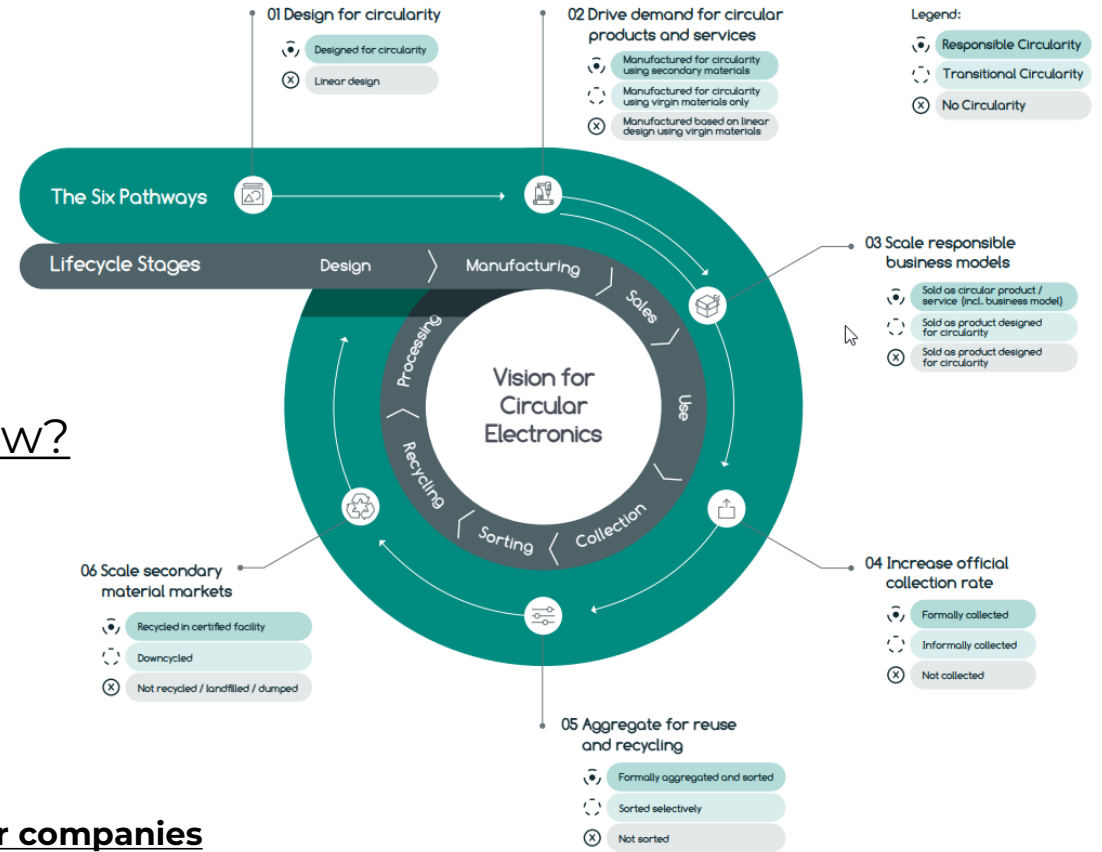
Deploying technology to recover Copper from a wide spectrum of difficult to process materials

Through 2020, we shaped the foundation for a new partnership through a vision and a roadmap
80+ Contributors, 30+ companies, 7 organizations

What are we trying to solve?



How?



Partner organizations



Member companies

