



PROJECT TEESGOLD
BUILDING THE UK'S FIRST
E-WASTE REFINERY

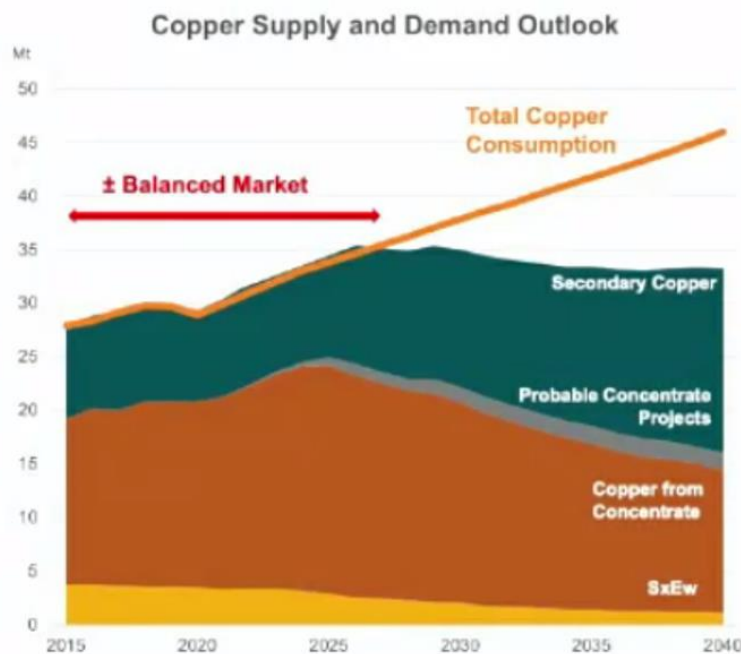
KEY MESSAGES

- E-Waste is an increasing problem globally and in the UK
 - Global copper demand to increase 5-fold by 2040 which can't be satisfied from “dirty” primary production
 - TeesGold will be the first e-waste refinery in the UK processing 25,000 tonnes of e-Waste and extracting copper and precious and valuable metals (Ni, Ag, Au, Pd)
 - CAPEX of £115m, 50 high value direct jobs and over 100 in the supply chain
 - A key link in the circular economy and reducing CO₂ by up to 90%
 - Independence from overseas supply chain of critical raw materials
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A CRITICAL CHALLENGE FOR THE UK

- *“e-tsunami”* House of Commons Environmental Audit Committee report 26 November 2020
 - *“Out of 500,000 tonnes of WEEE, appr. 150,000 tonnes ended up in landfill”* House of Commons Environmental Audit Committee report 26 November 2020
 - *“throwing away valuable metals... are not recovered from WEEE in the UK”* Material Focus report “Contributing towards a circular economy utilising Critical Raw Materials from Waste Electricals”, July 2021
 - *“exposed to the supply chain of critical raw materials”* Green Alliance report November 2021
 - *“should be getting as soon as possible to a position where we process all our waste at home and end all waste exports”* Sir James Bevan, Chief Executive of the Environment Agency, July 2022
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INSATIABLE COPPER DEMAND



- Copper demand expected to grow to 5x times the current production:
 - Global copper production in 2020 was 24.4m tonnes
 - By 2040 an additional 121m tonnes will be required
 - 30m additional tonnes for household and urbanisation
 - 42m additional tonnes for electric vehicles
 - 49m additional tonnes for power generation and transition

Examples of WEEE feed-stock



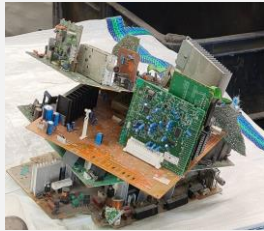
Low Grade Cables



Copper Granules



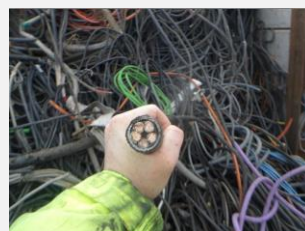
Electric Motors



TV Boards



SDA Fines



SWA Wire



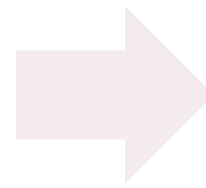
Copper Armatures



Circuit Boards



Cable plugs



Products



Copper cathodes 99.99%



High-purity (LME-grade) precious metals granules (Au, Ag, Pd)



Marketable slag



Nickel sulphate

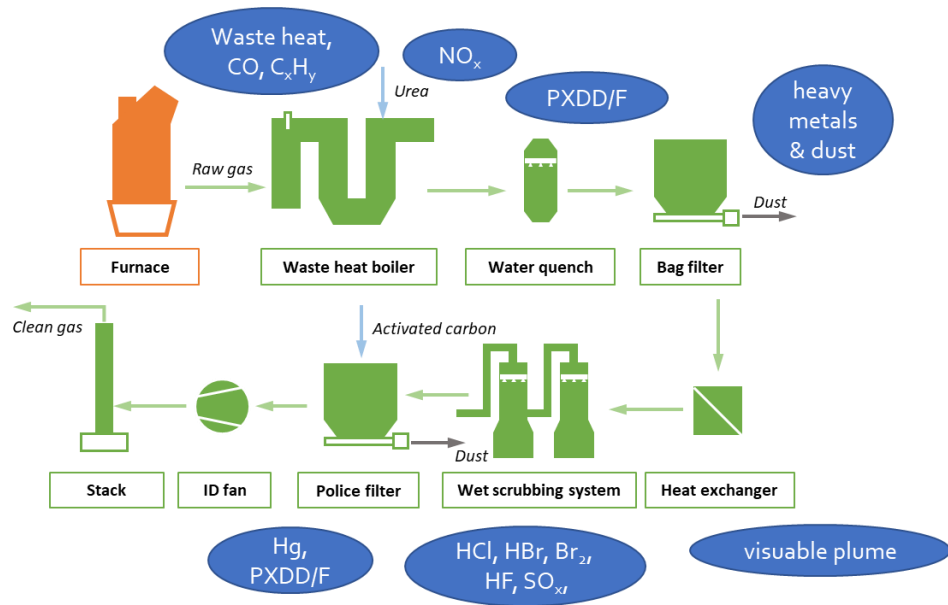


TWO DISTINCT AND CONSECUTIVE PROCESSES

Tried and tested technologies used world-wide

Increased efficiency by applying three patented innovations

STATE OF THE ART OFF-GAS TREATMENT



- Plant to exceed current EU and UK regulations
- 1/3 of PP&E is state of the art environmental technology and off-gas treatment
- Environmental concept based on three pillars:
 - Closed loop processing
 - Maximise energy efficiency
 - Multi-stage treatment of exhaust gases and waste water



ESG CREDS

- Carbon reduction in production
- Carbon reduction in transport emissions
- Reduction of waste and recovery of high value materials
- Renewable energy
- Reduction in demand for Natural Resources
- Creation of High Value Employment

Every tonne of copper mineral concentrate produces over 200 tonnes of waste rock and slurries

The processing of one tonne of ore requires 1.2m³ of water

CONSORTIUM OF EXPERIENCED DEVELOPERS

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Capital

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GmbH

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Environment

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