

REVITALISE

REycling of low **V**alue components using high purity pre-treatment, **direct** recycling **And** green hydrometallurgical approaches for recycling of **Lithium Ion** and **Sodium Ion Batteries**

Sulalit Bandyopadhyay
Centre Manager, Particle Engineering Centre,
Associate Professor, Department of Chemical Engineering, NTNU



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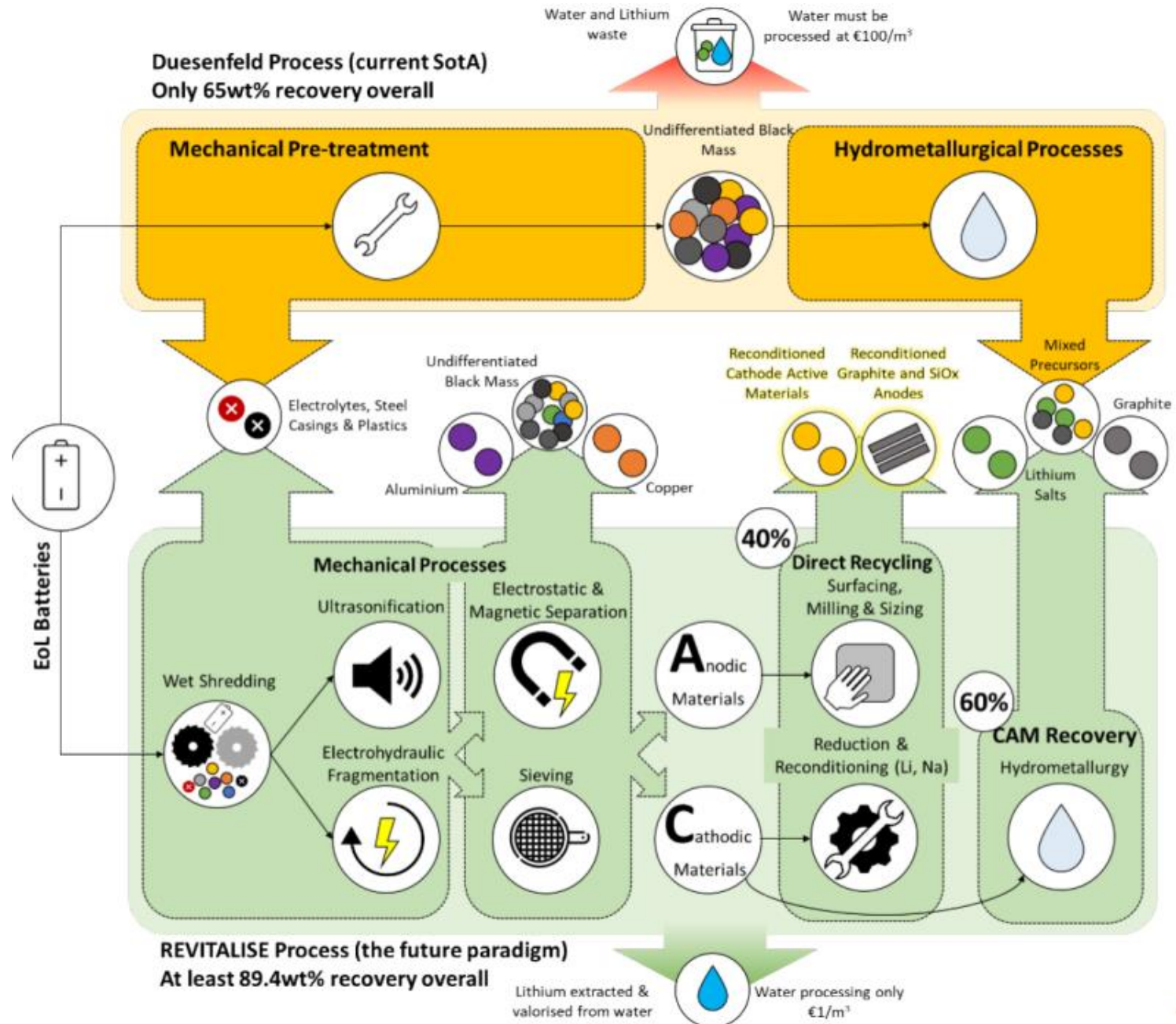
Project Overview

REVITALISE aims to:

- Develop pre-treatment and recycling technologies and cathode regeneration for EV batteries using green, low temperature and direct recycling process.
- Address NMC (High-Ni), LFP and Na-Ion post-production scrap and EoL batteries recycling (lab-scale to large production).
- Develop robust process to deal with heterogenous material input and cross contamination.



Project Overview



Project Partners



NTNU

Norway

Hydro

Watercycle
TECHNOLOGIES

United
Kingdom

UNIVERSITY OF
BIRMINGHAM

REELEMENTS

Germany

Universität
Münster

France

VERKOR

Spain

Iconiq
Innovation

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Technology Centre of Catalonia



Goals

Developed process will result in:

- 40% active materials reconditioned, using green, low temperature, direct recycling with optimized re-lithiation and re-sodiation.
- Remaining 60% active materials recycled, using low temperature/green-solvent based Hydrometallurgy to achieve battery level purity materials and intermediate high-value compounds.
- Overall >89.4wt% of LiBs recovered, with rates for Co, Ni, Li, Cu: resp. 95%, 95%, 75% and 95% by 2030.
- All water waste streams remediated, enabling safe discharge to environment without additional processing.



REVITALISE Team

