

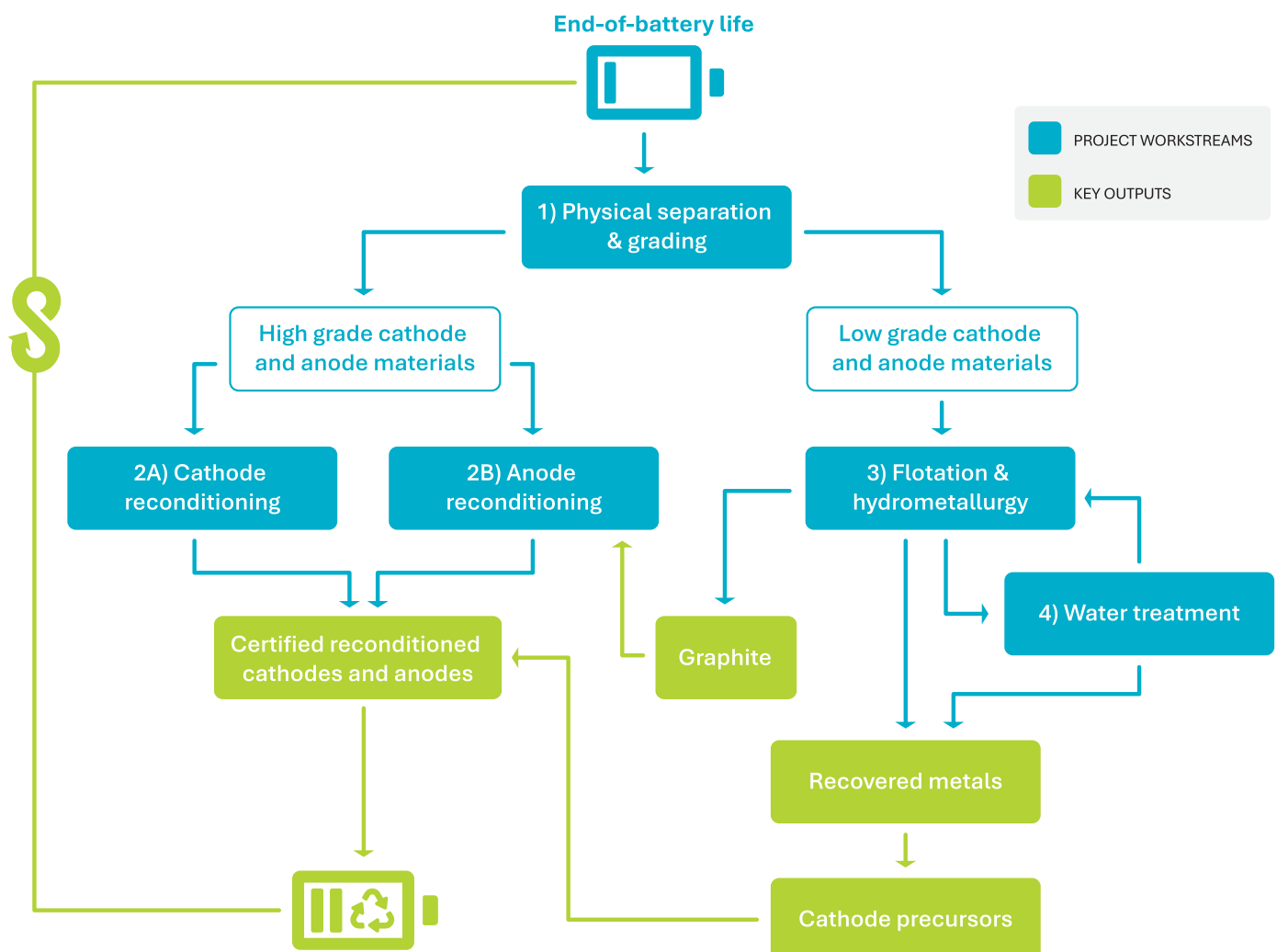
Flexible recycling for a changing battery market

Battery chemistry is not standing still. NMC, LFP and sodium-ion cells are all competing for market share, and the mix reaching recyclers will keep changing over the next decade and beyond. A recycling process built around a single chemistry risks becoming obsolete before the plant is paid off.

89%+

Critical material recovery from end of life batteries

REVITALISE has developed a connected set of processes - sorting and grading, direct recycling, hydrometallurgy and water treatment - that work together to recover 89% or more of critical materials from end of life batteries, with reduced environmental impact, across battery chemistries.



RESULTS IN PRACTICE

- Protects capital investment against future changes in battery chemistry
- Strengthens European critical raw material security by keeping metals and graphite in circulation
- Reduces reliance on primary, mined metals and the carbon footprint that comes with them

PAIN POINTS ADDRESSED

- Uncertainty over which chemistries to invest in recycling capacity for
- Risk of high CAPEX plant becoming obsolete as battery technology changes
- Pressure to meet recycled content targets under the Batteries Regulation

THE TECHNOLOGY STACK

- Sorting and grading
- Direct recycling of electrode materials
- More sustainable hydrometallurgy for both:
 - A) Lithium-ion
 - B) Sodium-ion chemistries
- Membrane based water treatment for lithium recovery
- Machine learning to accelerate process chemistry selection

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Distinct battery chemistries tested

€1.2m

Project funding

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Recycling approaches integrated with essential pre-processing



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