

Enabling the safe & sustainable battery markets

CELLIFE TECHNOLOGIES LTD








About CeLLife

- CeLLife Technologies Ltd is a leading provider of innovative second-life battery cell solutions.
- CeLLife has the most accurate and fastest diagnostic technology on the market to measure, select and balance new or used battery cells on an industrial scale.



The Problem





“Existing mines do not have the reserves to expand to meet future demand, so new projects have to be initiated to meet market needs. One thing remains clear, without decarbonisation through electrification, we cannot hope to meet climate change goals, so these new projects are critical and a fast track to their completion is essential”.

<https://imerysbritishlithium.com/lithium-market/>



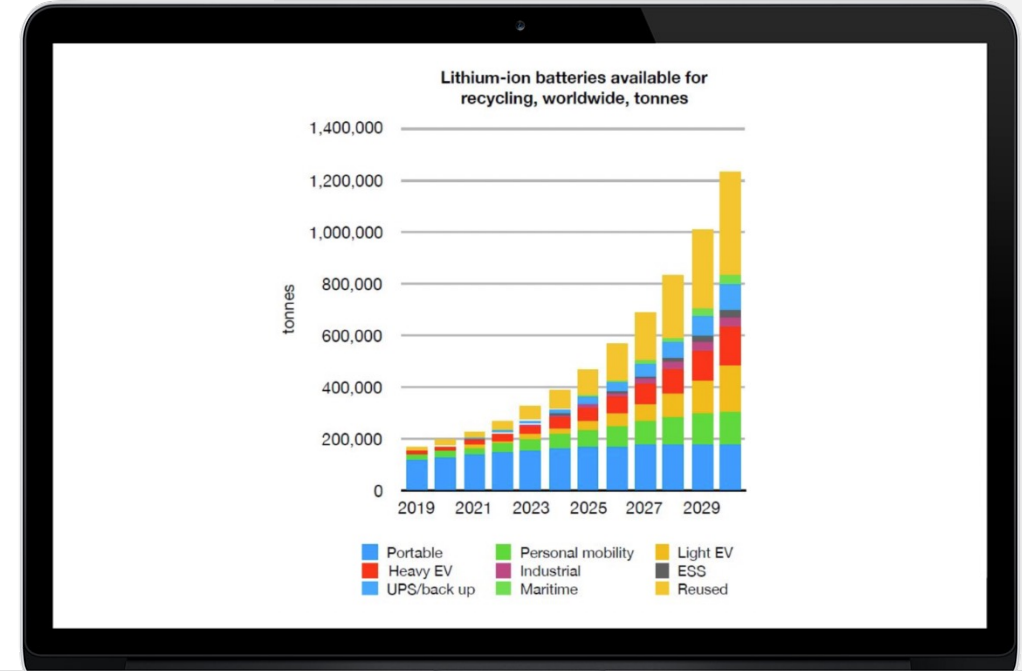
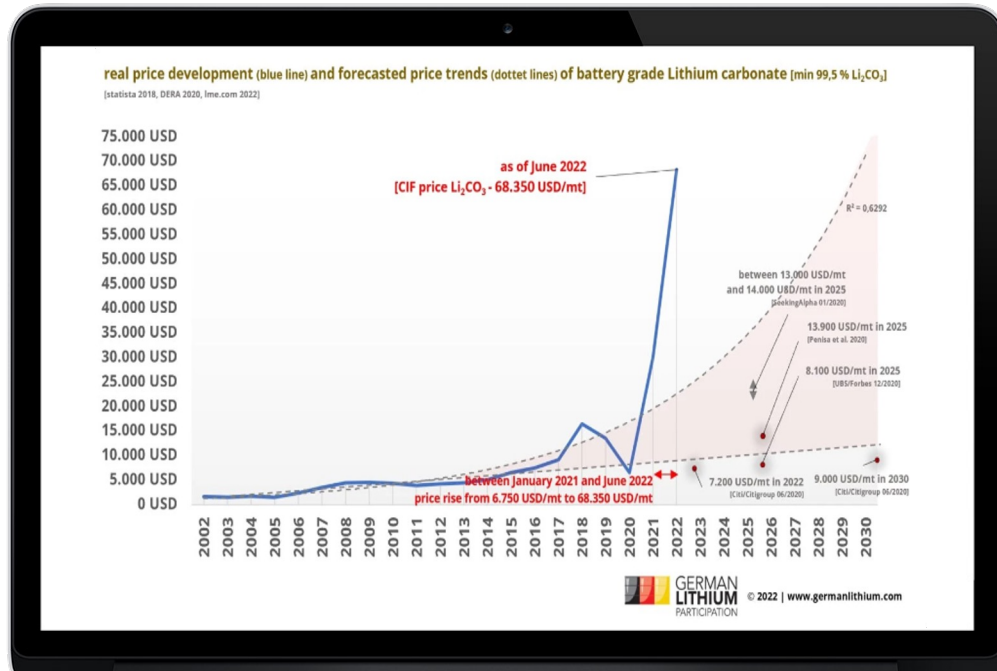
The Environmental Crisis



- The world's raw material resources are insufficient for new batteries, but the solution is **second-life batteries**.
- Current battery recycling is not a solution. **Perfect batteries are crushed into dust.**
- More than **50 % of Li-Ion battery cells could be reused**. A scalable process to find good cells has been missing from the Market.



Cost of raw materials & The waste problem



BY 2030: 200 000 TONS OF LI-ION WASTE PER YEAR (EU)
 - 10 000 TRUCKLOADS



The Solution



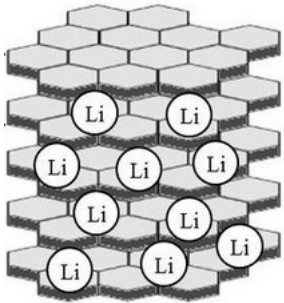
Why CeLLife has a Winning Formula for Battery Industry?



Measures

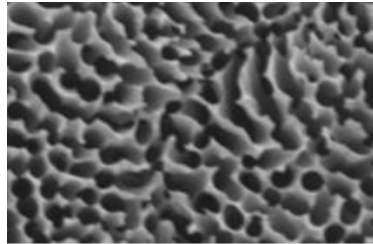
Analyzes

Affects



Atomic Scale

- Electric Potential
- Diffusion
- Charge transfer



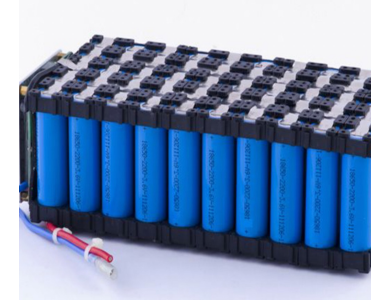
Nano/Microscale

- SEI/CEI growth
- Lithium plating
- Mechanical Degradations
- Electrolyte Wetting



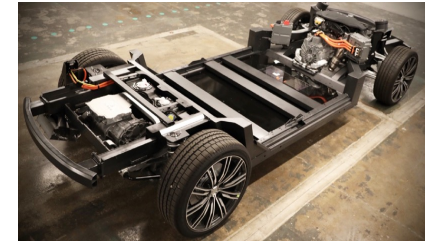
Cell

- Capacity fade
- Impedance Rise
- Performance Heterogeneity
- Heating



Module

- Cell Variations
- Unbalance
- Thermal Gradients
- Unbalanced Cell Stress



System

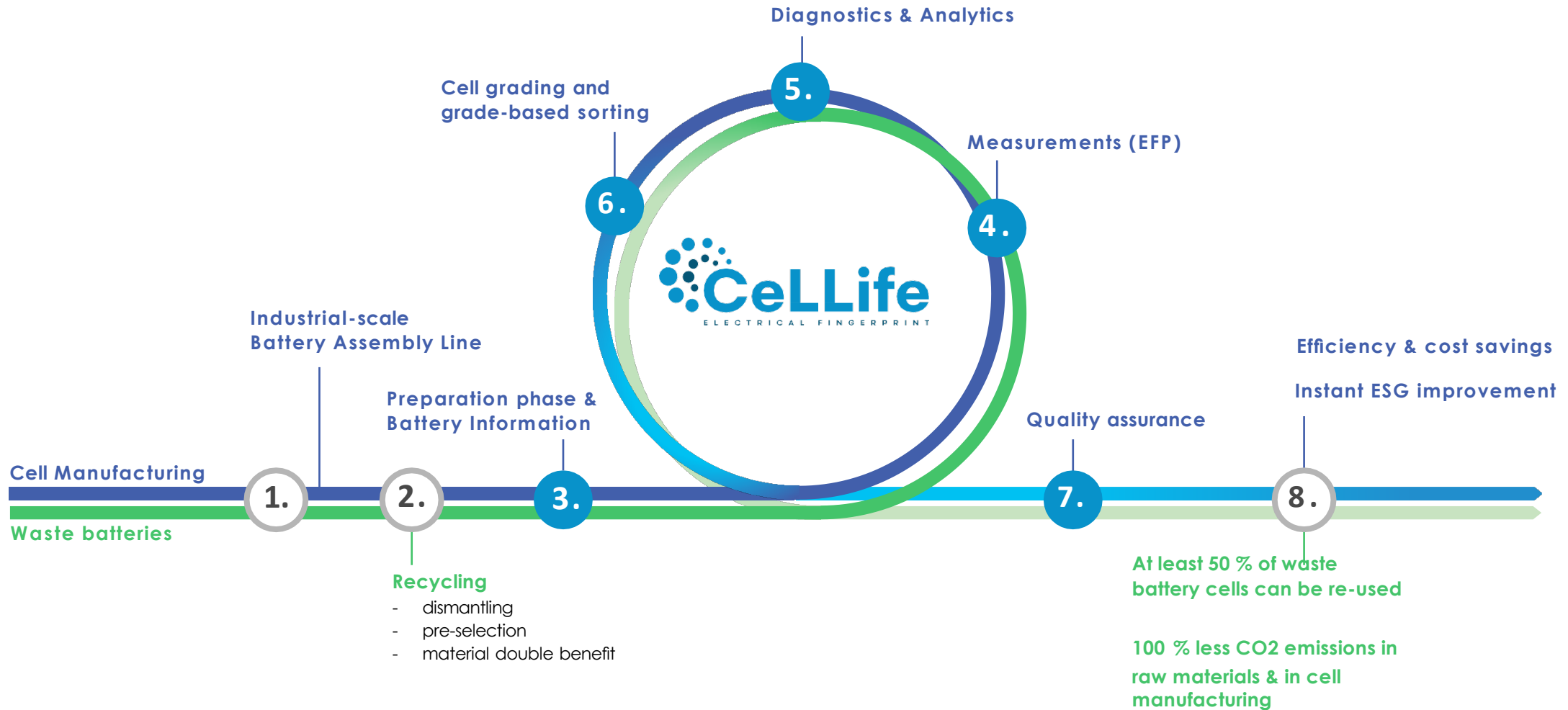
- Safety
- Efficiency
- Power Decay
- Thermal Management

The Process





Refurbish & Recycling Process



Thank you.

