

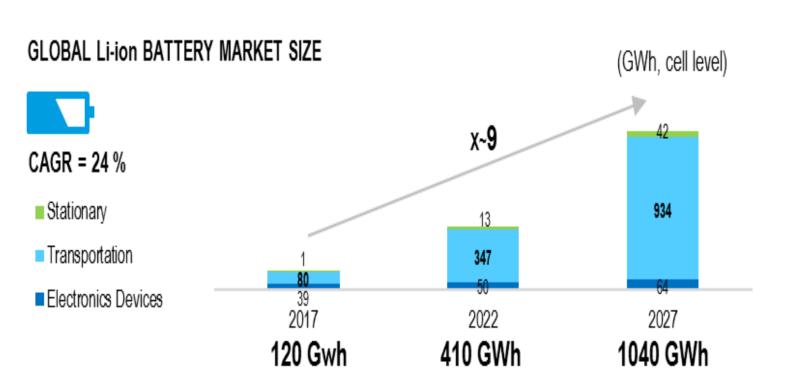


BE-VOLT: First Battery Gigafactory in **Belgium**

PROF. DR. NOSHIN OMAR
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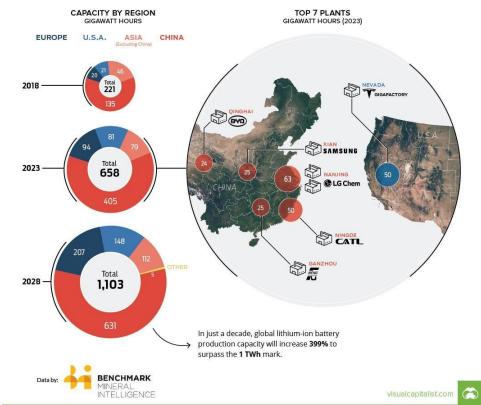
Market





LITHIUM-ION REVOLUTION

Battery production to ramp up dramatically, with the equivalent of 22 Gigafactories online by 2028



Market strategy



- ➤ Modular battery pack designs
- > Suitable for automotive and stationary applications
- ➤ 1,5GWh production capacity







BE-VOLT – 3GWh/year





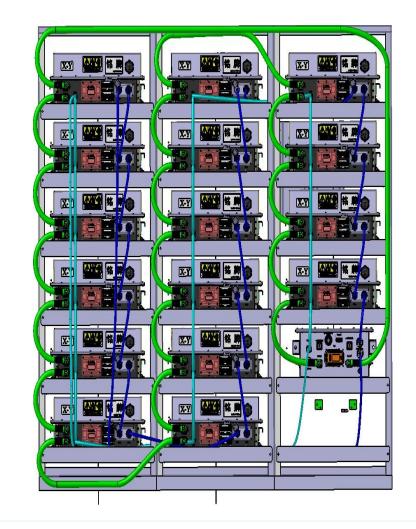
Market – main products



- ➤ Batteries for renewable applications
- ➤ Modular battery packs for small light duty vehicles
- > Batteries for buses and trucks



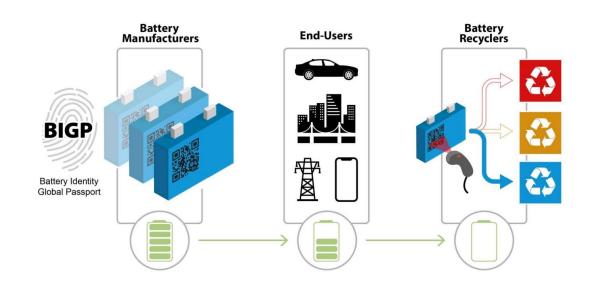




BE VOLT strategy



- Customised battery pack for small series up to 20,000 units/year
- ➤ Short supply chain
- ➤ Integration of automation and digitalisation
- > Short distance to customers
- ➤ Sustainable products with low CO2 footprint combined with battery recycling (battery passport)
- ➤ Offering the required service



ABEE Roadmap



	Generation 0	Generation 1	Generation 2	Generation 3
Anode	Silicon-based (10-20 wt.%)	Silicon-based (30-40 wt.%)	Silicon-based (>40 wt.%)	Lithium metal
Electrolyte	Liquid based	Gel polymer	Solid-state electrolyte	Solid-state electrolyte
Cathode	LFP	High-loading LFP	High-loading LFP/LMFP	High-loading LFP/LMFP
Energy density	190-200 Wh/kg	240 Wh/kg	250-270 Wh/kg	>300 Wh/kg
Timelines	2023	2026-27	2028-29	2030-31
Processing	Wet (anode aqueous; cathode NMP)	Semi-dry (anode aqueous; cathode dry)	All dry	All dry
TRL	6-7	3-4	2-3	3-4

May 30, 2023 7

