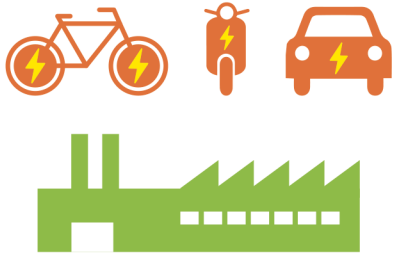


BUILDING SUSTAINABLE MOBILITY: THE FUTURE FOR LIGHT ELECTRIC VEHICLE

SMALL SIZE, BIG IMPACT

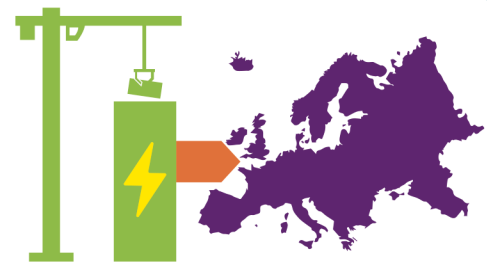
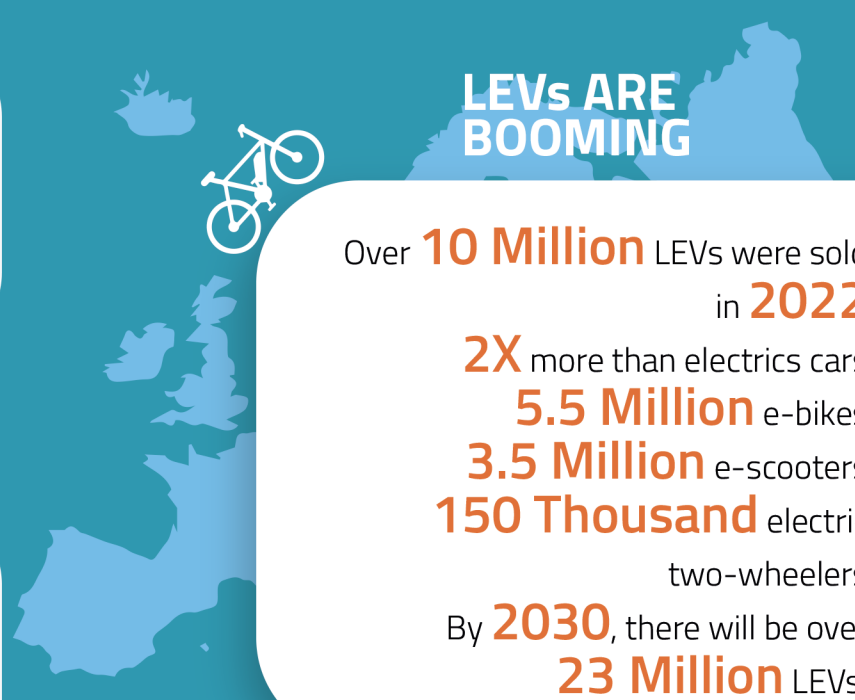


European demand for LEV batteries is set to triple by 2030 and double again by 2040.

This makes LEVs ideal off-takers to ramp up European production of cylindrical cells - a standard, cross-application format that could serve diverse applications beyond e-mobility.

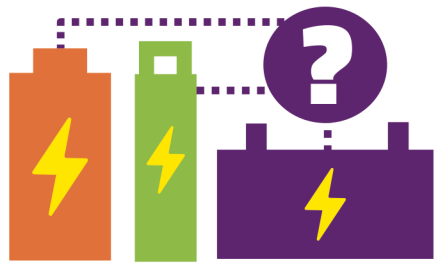
LEVs ARE BOOMING

Over **10 Million** LEVs were sold in **2022**
2X more than electric cars
5.5 Million e-bikes
3.5 Million e-scooters
150 Thousand electric two-wheelers
 By **2030**, there will be over **23 Million** LEVs.



More than 95% of batteries for e-scooters and e-mopeds are coming from outside the EU, 70% for e-bikes

On-shoring LEV battery production would ensure a more comprehensive approach to sustainable mobility and strategic autonomy.



There are hundreds different battery pack designs, sizes, and connectors serving the LEV market, making it harder to build a circular value chain.

LEV battery pack design need to be built for easy repurpose, reuse, and recycling. Standardisation could simplify this process and increase its efficiency.

New battery technologies will be vital to making LEVs a more attractive and viable alternative mode of transport when focusing on three key factors: costs, safety, and performance.

RESOURCE EFFICIENT MOBILITY

2020

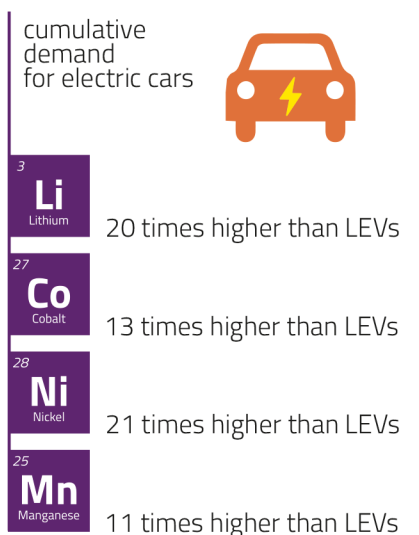
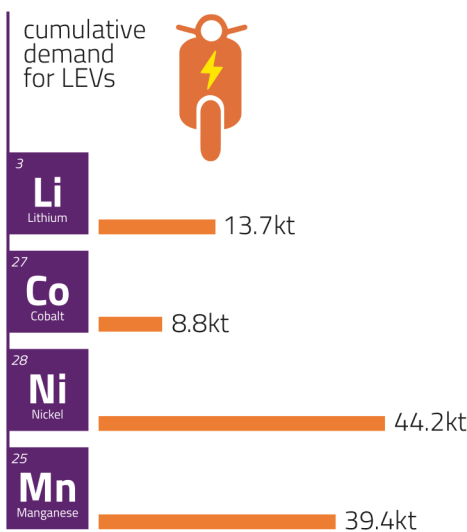
In 2020, the tonnage of new LEV batteries was 10 times smaller than electric car batteries, but almost 3 times more LEVs were sold.



2030

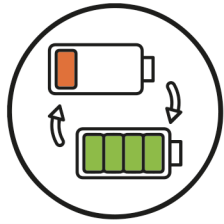


LEVs can meet a substantial portion of urban mobility needs, making the same trips with smaller batteries and far fewer critical materials than electric cars.



BUILDING SUSTAINABLE MOBILITY: THE FUTURE FOR LIGHT ELECTRIC VEHICLE BATTERIES

Light electric vehicles offer a sustainable alternative to traditional transportation, requiring fewer critical materials for their batteries compared to larger vehicles. Yet, in Europe, the demand for materials like lithium, cobalt or nickel is expected to skyrocket by 2050. To tackle this, light electric vehicle battery innovations aim to reduce resource dependency and strategic vulnerabilities while promoting increased circularity..



BATTERY DESIGN

Improve battery pack design to enable safer repairs and to make recycling easier.



BATTERY MANAGEMENT SYSTEM (BMS)

Promoting a battery passport with transparent data on remaining capacity.

INCREASING THE REPAIRABILITY

Enabling third-party repair shops to replace single cells and electronics.



SKILLED LABOUR

Provide specific training and formation for handling and repairing complex LEV battery packs.



RECYCLING

Demanding minimum recycled material, a future recycling fee and ensuring a European recycling supply chain.



R&D FOR NEXT-GEN BATTERY TECH

Leveraging European leadership in battery research, development and innovation to increase autonomy, battery charge and lifetime.



BATTERY PRODUCTION

Emphasising the importance of addressing the carbon footprint of manufacturing in the EU.

