



Maintaining a high value battery industry in Europe – developing the lead battery value chain

In 2018 the EU set out its long-term vision for a prosperous, modern, competitive, climate neutral economy. As a high-growth industry, the lead battery value chain is key to achieving a low carbon economy. It's position as a core part of Europe's industrial base is contributing significantly to the economy, supporting highly skilled jobs in science and engineering and underpinning its growth.

The EU battery manufacturing industry has collectively spent over €2 billion on research and innovation¹ - the majority of these investments contributed to the development of lead battery technologies.



The policy context

More recently a Franco-German manifesto for a European industrial policy fit for the 21st century was published, stating that:

- Europe's future is dependent on an ability to remain a global manufacturing and industrial powerhouse
- Maintaining Europe's economic sovereignty and independence
- Injecting massive investment to create, develop and produce new technologies
- Establish effective measures to defend European technologies, companies and markets

Europe has a successful existing battery manufacturing base, producing a wide range of advanced, reliable and high-performing lead batteries for many applications. These provide energy storage to support renewables such as wind and solar power; back-up for hospitals, data centres and mobile phones and power everything from boats, golf buggies and forklift trucks. Lead batteries also power virtually all cars, trucks, buses, motorbikes, electric vehicles and hybrid vehicles and form essential safety batteries for cars and lorries.

Europe's lead battery manufacturing sector boosts the EU economy - employing more than 20,000 people across 15 member states, and many more through the value chain.² The industry is investing significantly into research to make sure lead battery performance and lifetime is up to 5 times better - highlighting its commitment to its long-term future.³



Europe can be a leader in a range of advanced, sustainable battery technologies

Europe is self-sufficient in lead battery raw materials, and the industry in the EU is globally competitive. Critically, it underpins and supports a vast range of strategically significant European industries from automotive through telecoms. Home-grown lead battery companies based in Europe are investing in ensuring the significant untapped potential for innovation in lead battery technology and applications is realised.



These investments, with universities, research institutes as well as companies are in turn driving a thriving pan-European network of research and innovation across the region.

As a clean, green industry, lead batteries are already making an unrivalled contribution to the circular economy, all while achieving the high growth envisioned in the industrial strategy.



Lead batteries employ 20,000 people across 15 Member States and support an automotive industry with 13.8 million employees.⁴



Over €7 billion EU sales of lead batteries were made in 2017 alone.⁵



Europe accounts for 22% of global lead battery sales (\$8bn of \$36bn in 2017⁵) while lead batteries make up over 70% of the global rechargeable battery market by capacity.⁶



Lead battery technology development has contributed to the EU battery manufacturing industry's collective spend of over €2 billion on research and innovation.³

References

1. EUROBAT e-mobility battery R&D roadmap 2030, EUROBAT
2. Essential Energy Everyday Europe, EUROBAT and International Lead Association, 2018
3. An Innovation Roadmap for advanced lead batteries, Consortium for Battery Innovation, 2019
4. Automobile Industry Pocket Guide 2019-2020, European Automobile Manufacturers' Association (ACEA), 2019
5. Lead acid battery market 2015-2030, Avicenne Energy, 2018
6. Lead acid battery market 2015-2030, Avicenne Energy, 2019