PARTNERS

VUB Battery Innovation Centre

Tekniker — Member of Basque Research & Technology Alliance

SKZ

FOM Technologies

deepblue consulting & research

NETZSCH

RWTH Aachen University

SINTEF

CEGASA

Pomega

Leclanché Energy Storage Solutions

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Project timeline:
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WEBSITE
batmachineproject.eu

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BATMACHINE - greener EU battery cell manufacturing

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BATMACHINE

Sustainable battery cell industrial manufacturing value chain by developing an optimised machinery

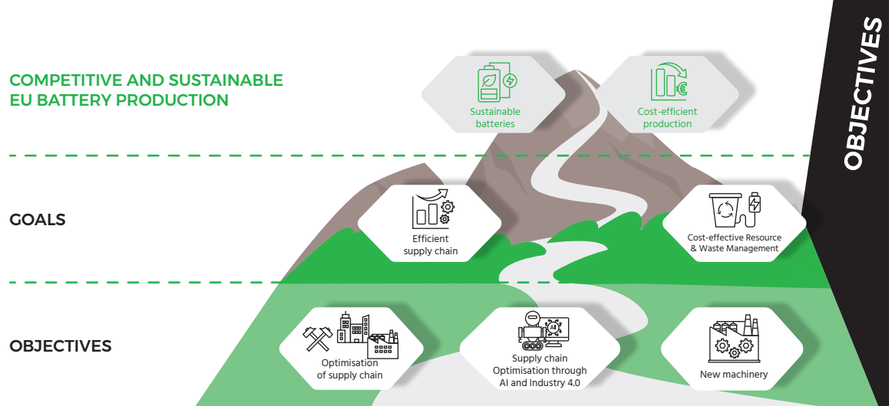
Funded by the European Union

PROJECT OVERVIEW

To meet future battery demand, the battery manufacturing sector must become greener and more cost-effective. This can be achieved by reducing the energy consumption during production and by incorporating digital tools to enhance efficiency.

ABOUT

With a Consortium composed of 11 European partners, BATMACHINE improves and strengthens the EU battery cell industrial production by developing new manufacturing machines to minimise the energy required for their production, to increase efficiency rates, and to integrate AI-based control processes to reduce scrap.



OBJECTIVES

1	Develop new battery cell manufacturing machinery, prioritising the minimisation of energy required for cell production, and improvement of plant efficiency;
2	Implement intelligent quality control processes and Industry 4.0 to enable the site integration and optimisation;
3	Optimise the cost and required energy of the battery manufacturing process, including the integration of low-carbon and low-emission energy sources;
4	Implement environmental standards at the design stage and analyse environmental and social impacts of different machineries and supply chains to suggest best practices;
5	Develop a horizontal integration procedure of the European battery process equipment supply chain into the growing production of giga-scale battery cells;
6	Support deeper collaboration between stakeholders (e.g. battery process equipment companies, industrial-scale cell manufacturers, materials and energy supply chain sectors).