

Given how important batteries will be in the future vision of European transport and energy networks, **Alfons Westgeest** of EUROBAT explains the importance of investment in battery R&D

Charging ahead

Modern society is dependent on energy, and our electricity and transport energy networks are increasingly dependent upon battery technology. In the future it is hoped that Europe can transition to more greener, energy independent and sustainable approaches when it comes to road transport and the electricity grid. The ambition is a shift to renewables, with European electricity being generated by wind turbines, hydroelectric power, solar energy, and other renewable forms. Meanwhile, the ambition to wean road transport off its dependence on fossil fuel continues.

These twin goals require the development and deployment of adequate battery technologies. Batteries will hold the electricity that will power the vehicles of the future, and with much renewable energy intermittent given the shifting of weather patterns and throughout the day and night cycles, the need for that holding capability is clear.

Engage and influence

For these fundamental shifts in how modern life is organised to be achieved, investment and support for battery storage technology will be essential. Working in this area is EUROBAT, the Association of European Automotive and Industrial Battery Manufacturers. Speaking to Pan European Networks about emergent trends in battery technology and the evolving potential new technologies have in this sector, executive director, Alfons Westgeest, underlines the importance battery technology has for European prosperity.



Alfons Westgeest

As a European organisation, Eurobat works to engage and influence the EU policy making community, and Westgeest is clear on the priorities when it comes to batteries in electric vehicles and energy networks: “Our policy and advice towards the European institutions is to allow all battery families into the automotive market. In other words, we are not happy with an end of life vehicle approach which would make it difficult for investing in battery technology – we don’t agree with that.

“For the industrial battery market, we see a significant trend towards energy storage and of course, particularly for battery energy storage. Here all technology families are playing a role and will continue to do so. When it comes to lithium, sodium and nickel based batteries, the market is actually taking off quite well, in addition to lead-based batteries. We might see even stronger market growth than some of the automotive battery technologies. Indeed there is a great need for battery storage because renewable energy is intermittent. Therefore it means that during a few hours, days or even a longer time, energy from batteries may be necessary. While batteries do not have the ability to solve everything, there are about four or five different energy storage technologies combining battery storage that provide a couple of creative advantages.

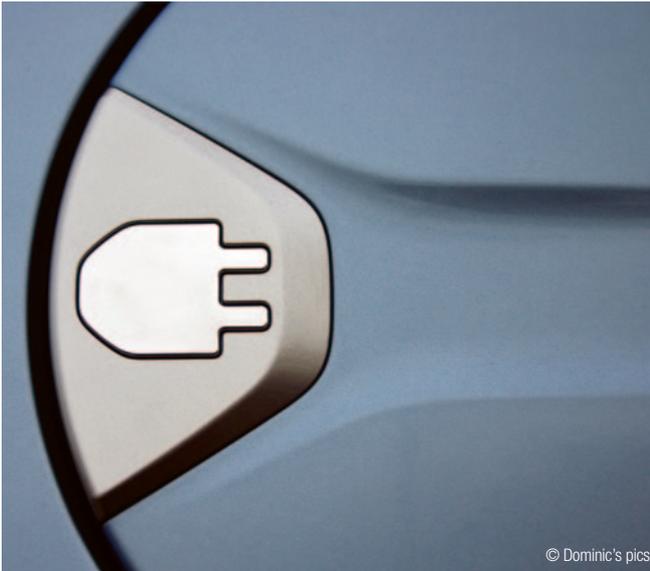
“These can be applied on both a central and de-central level; where power is generated, and where it is distributed, to a very local or even residential level. These two major trends define our industry as a very vibrant sector; an industry with a lot of opportunities in Europe.”

EU competitive

Looking at the wider gambit of EU policy making, Westgeest details the impact this has on his sector, citing the first priority of retaining the talent and strength within the European battery industry. In the midst of global developments,



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competiveness is critical for the sake of the economy and for retaining the jobs the battery industry creates. Where governments can have a clear impact is within the field of research and development.

After drawing attention to the potential the upcoming framework programme, Horizon 2020, holds for his sector, PEN asks the EUROBAT executive director about the relationship between fundamental research and industry in greater detail. Westgeest replies: “We should have a greater part of European R&D dedicated to battery technology for the benefit of e-mobility and renewable energy. The need for R&D exists because there is still a need to increase battery characteristics, both in terms of life cycle, material technology, nanotechnology, and even explore opportunities for better recycling technologies.”

Yet in the wider context of this conversation, continuing disagreement over the future of the EU's long-term, Multiannual Financial Framework for 2014-2020 exists between and amongst member states and the European Commission, with clear implications for European research funding. While EUROBAT has been involved with a variety of projects drawing on innovative battery developments such as Green eMotion, it is clear that a more focused approach to the commercialisation of research could be more beneficial.

Highlighting an innovation that has changed the European car industry, Westgeest tells PEN: “Start-stop was in fact introduced thanks to European research and initiative; we hope to see

the same success with advanced hybrid and electric vehicles. The US is pouring in money into this area, and what we would like to see is indeed significant money on the table for 2014-2020, not split over hundreds of projects but more co-ordinated over the member states. This would take a more sizeable, but also more co-ordinated, form inside Europe.”

Right direction

Critically, PEN asks if EUROBAT is pleased with the current thrust of R&D travel: “I think it is in the right direction. What is more contentious is related to some research areas related to the transition between research and commercialisation. Demonstration projects such as Green eMotion have been very good at the basic research such as in materials, rather than focusing more on direct application. It is hard to tell if there is the right direction in balancing research and application. While Europe has always been extremely good in fundamental research, it has not always been so good in rolling out innovation into a fast moving market, or indeed finding the partners willing to invest in the market roll out. This is where I think an opportunity exists that we shouldn't miss this time around.”

Finishing the dialogue with Westgeest, PEN asks about EUROBAT's priorities for the coming year, where of course the organisation will continue to promote battery technology and its general application. In particular, EUROBAT is working to take forward market dynamics, as the executive director tells PEN: “We speak to our customers, through our supply chain, to make sure that we promote batteries as a solution for e-mobility and renewable energy.”

At the same time, regulatory considerations will continue to be looked at by the EUROBAT team, with Westgeest stating: “We will support our member companies in understanding international regulations, while where we are needed, seek to positively influence and advise international institutions about battery regulations, and that includes not only European but also global bodies such as the International Standards Organisation (ISO).”

He makes it clear that engagement with regulators in a variety of fields, such as those dealing with transport and environmental matters, will be necessary, but of equal importance is reaching out and responding to the needs of communities; having batteries serve a purpose for consumers and within the world we live in.

Westgeest is clear on this count: “I think that's where our association plays a role, in helping to underline the sustainability of battery technology to our business colleagues. They buy the batteries and we work to build awareness of how we produce and recycle batteries; this is a major effort where we are reaching out to the car industry, to the electricity industry and to those who buy standby batteries.”

Alfons Westgeest
Executive Director
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