
EUROBAT Input Paper to the EC SET Plan Action - Issue paper n°7 from 10 May 2016:
“Become competitive in the global sector to drive e-mobility forward” from the SET Plan secretariat (Energy Union core priority n° 4, action 7):

Context:

The EC invites stakeholders to take position on the proposed targets/priorities in accordance with the guidelines set out in document entitled "[the SET Plan actions – Implementation process and expected outcomes](#)" for Stage 1 (Agreement on targets/ priorities). Stakeholders' positions should be submitted in the form of an "Input Paper" by Wednesday May 25th, 2016

1. The EU Battery Industry support the EC to speed up the energy efficiency and decarbonisation of transport through R&I in e-mobility
2. EUROBAT agrees that traction batteries are considered a Key Enabling Technologies in EV drive trains with focus on energy density and power requirements, however, to focus R&I on EVs only would be a mistake as all vehicle classifications I (Conventionals), II (HEVs) and III (pHEV/EVs) have potentials to further enhance energy efficiency and decarbonization of transport (i.e. Joint Paper “Review of Battery Technologies for Automotive Applications” from EUROBAT, ACEA, JAMA, KAMA and ILA from 2015)
3. The existing Battery Industry in Europe has huge potentials as they do have a stable and secure battery manufacturing base in Europe installed already. Lead-acid, Sodium and Lithium technologies have each their own threats and opportunities that are not fully exploit yet. Therefore, the focus of the SET Plan should take into account all these technologies; and do not “pick a winner”. EC funding is needed to improve products, production processes and costs.
4. The European battery industry with its long term experience and deep know-how can cover an important role in the development of e-Mobility solutions. Customer’s general demands are better performance, increased life and reduced costs. To achieve these goals are both necessary public research activity and a relatively stable demand that justify and sustain the private investments. Incentives and funded projects for advanced public transport will help to create an initial constant demand.
- 3) To focus R&I funding only on ‘disruptive’ battery technologies is high risk as no warranties on the outcome and does not benefit of the advantages, having the industry already in place. R&I funding for existing battery technologies, should be continued in parallel.
- 4) R&I funding strategy in e-mobility should be seen in the wider picture, including the stationary battery applications to target the 4 Energy Union core priorities all at once, namely:

- Developing highly performance RES technologies and to improve their integration in the EU energy system, as well as reducing the costs and their values (core priority 1, action 1 &2)
 - Creating smart technologies in homes and buildings to increase the security and smartness of the energy system, as well as to provide added value to the energy consumers (core priority 2, action 3 & 4)
 - Developing new materials and technologies for market uptake of efficiency solutions for buildings to make EU Industries less energy intensive and more competitive (core priority 3, action 5 & 6)
 - Diversifying energy options for sustainable transport to become competitiveness in the global battery sector for driving e-mobility and market take up of renewable fuels (core priority 4, action 7 & 8)
- 5) Manufacturing chains for different applications is the reality already today. Each battery is designed/adapted to the application and the production process are different
- 6) Promoting new investments at all stages of the innovation chain should not penalize the already existing EU battery business in Europe, on the contrary, in a first stage synergies should be exploited for up-scaling manufacturing processes to mass production
- 7) New business cases for storage and e-mobility batteries need to be supported, including reinforcing existing and new strategic public-private partnerships
- 8) Overall, the targets proposed are extremely aggressive and will require a substantial amount of public funding support to make it possible to achieve them.
- 9) With reference to the performance targets proposed EUROBAT would suggest:
- to differentiate battery targets per vehicle classification (class I,II and III)
 - to define the conditions under which the targets are set (ex. ambient temperature, time of discharged...) should be indicated
- 10) Battery cell and battery pack costs: the values are particularly aggressive and not in line with those proposed by the battery industry. Besides, the values should also be split up to respect the vehicle classifications. Information on battery performance targets and costs can be found in the EUROBAT document “E-mob Battery R&I roadmap 2030” from 2015 and the joint paper “Review of Battery Technologies for automotive Applications from EUROBAT, ACEA, JAMA, KAMA and ILA.
- 11) The manufacturing targets:
- Battery collection/recycling rates: are they with or without taking into account the impact of the EV second life?
 - Economy of recycling: EUROBAT can confirm that we follows up on the actions from the EU Action Plan on circular economy (all battery technologies)

- 12) Best placed actors for e-mobility to prioritizing R&I activities are, besides the EU Battery industry, the car OEMs in Europe (ACEA, JAMA, KAMA) as well as the Tier 1 suppliers (CLEPA) as they are close to the market. If the market (or demand-side) does not follow, the joint implementation plan would fail.
- 13) Other key actors such as the associations such as EUCAR, EARPA, EGVIA, as well as the Technology Platforms ERTRAC, ERRAC, EPoSS and SmartGrids have their role to play as they are currently doing – to ensure networking to enhance the coordinated approach and avoid duplication of R&I.
- 14) Barriers are:
 - a. need for closer cooperation with OEMs R&I strategy, with IEC/CEN/UN/ISO bodies
 - b. need for market uptake measurements to stimulate the demand side - coordinated approach by EC
- 15) The EU Battery Industry highlights that it could contribute significantly to the R&I SET Plan competitive actions if considerable funding from the EC would be made available.

In conclusion:

E-mobility Battery R&I should not be focused on EV applications only but to open to all vehicle types (class I, II, III) and to all battery technologies, to be placed in the wider picture of the SET Plan.