New dry-blend cathode manufacturing process for lithium-ion batteries

The electrode manufacturing process still is a major challenge in battery production for electric vehicles. In the European project “ELIBAMA” a new process is developed to replace the organic solvent based state-of-the-art coating process by a dry-blend coating process.

Life-Cycle Assessment (LCA)
- State-of-the-art electrode manufacturing process (100 % impact) compared to the new dry-blend coating

Electrochemical activity
- Cycle tests carried out with counter and reference electrode, Li metal 2.5 – 4.2 V vs. Li/Li+
- Constant current – constant voltage
- CV step until current below 0.05 C or time = 1 h
- Dry-blend coated samples of current collector foils show good results in the cycle tests, compared to those produced with the state-of-the-art process

Li-ion battery manufacturing operational work packages
- Improvement of the complete process chain from electrode manufacturing to recycling

Administrational information about ELIBAMA
- Budget: 15.4 M €
- Duration: 36 months (start: November 2011)
- Partners involved: See on the chart (right side)
- Contact person: Markus Cudazzo
- Phone: +49 711 970-1761
- Mailto: Markus.Cudazzo@ipa.fraunhofer.de