

Optimised Battery Production through Nanotechnology

Development of a novel nanotechnology toolbox for quality testing of Li-ion and beyond Lithium batteries.

Sustainable electricity storage is among this century's main challenges. Being faster and more accurate than existing methods, the radio frequency (RF)-nanoscale techniques developed in NanoBat have the potential to redefine battery production in Europe and worldwide and greatly benefit the clean energy and e-mobility transition in Europe.



3 Years
Duration



13 Partners
7 Countries



5 Mio €
Budget



OBJECTIVES

Science &
Technology

Calibration,
Modelling &
Data Analytics

Industry &
Open
Innovation



METHODS



Instrumentation &
Technologies



Modelling &
Simulation



Microscopy &
Imaging



KEY RESULTS

Fast
Electrochemical
Impedance
Spectroscopy (EIS)



High-throughput
Measure Station



KREISEL

Post-mortem
Failure Analysis



2D automated GHz
Resonator Scanner



New Virtual Quality
Gate Data Analytics



Pilot Line Battery
Access Point



Fast
Electrochemical
Cycle Test



Open Software
Modeling Platform



New Scanning
Probe Techniques
(SECM)



Scanning Microwave
Microscopy in Liquid



Complex
Impedance
Measurement



DISSEMINATION
ACTIVITIES

19

Publications-to-date:
Microscopy, Modelling,
Cell Testing, Pilot Lines

470

Participants in
5
Public Workshops

35

Conferences Attended

27

News and Events

#nanobat

6

Newsletters

5000

People Reached
per LinkedIn Post

4

Sectors: Academic,
Industry, SMEs, Pilot Lines

>40

Active Researchers

20

Stakeholders



CONSORTIUM

