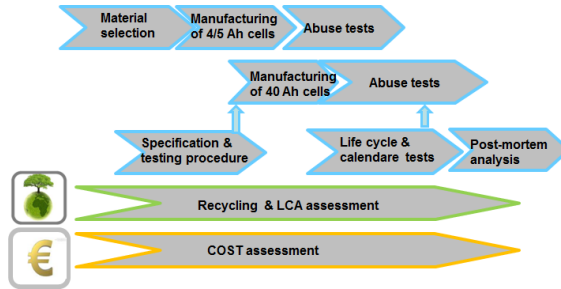


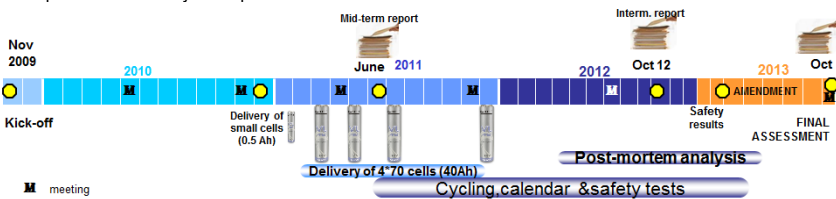
Motivation and Objectives

A large consortium including six car manufacturers, laboratories and test institutes, one recycler and battery manufacturers will combine their efforts to understand the causes of aging and determine among 4 chemistries, the most safe & reliable, the least expensive & the best for recycling efficiency for Electric, Plug-In Hybrid Electric Vehicles and Hybrid Heavy Duty trucks applications.



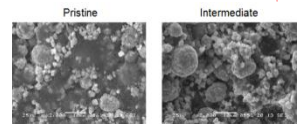
Project Plan, Milestones and Deliverables

Due to late delivery of big cells, the project duration is extended of 12 months to perform life, safety tests and post-mortem analysis as planned.



Achievements

WP2 : - **Bibliography review** on ageing mechanisms (publication in JPS)
 - **Post-Mortem** analysis of initial and 6months ageing samples

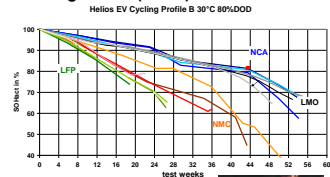


WP3 : - Definition of **cycling & calendar ageing tests procedure** and safety test procedures by collaboration between end users (OEMs), research institutes and testing institutes.

WP4 : - Selection of the most promising 3 cathode materials (**NMC, LMO-blend & LFP**) compare to commercial reference : **NCA**
 - **Manufacturing** and characterisation of 40 small cells (4/5 Ah) & **240 large cells (40Ah)**



WP5 : - Cycling and calendar tests performed (9-15 months according the chemistry)
 2 articles published



WP6 : **Safety tests** (mechanical, electrical and thermal) **performed** on small cells, 40 Ah cells and modules
 No technology have a satisfactory behavior at cell level



WP7 : **Economical Assessment** for active materials , cells & packs performed

WP8 : Description of **4 potential recycling process**. Safety, efficiency and cost issues are described for the 3 most promising ones.



Organisational Information

Budget 4,3 M€
 Funding 2,8 M€
 Duration 48 months (kick off : November 2009)
 DG / Unit Research / H4 – SST
 Coordinator Frédérique Delcorso, Renault

Consortium:

