

## Media release – Interview with Christophe Pillot: August 30, 2017

# 22<sup>nd</sup> International Congress for Battery Recycling ICBR 2017

The holiday period is gradually coming to an end and it is now time to make preparations for the months ahead. We hope you have already blocked the time slot from September 20 to 22 in your schedules, as that is when battery recycling specialists from all around the world will be getting together for this year's International Congress Battery Recycling ICBR 2017 in Lisbon, Portugal.

Don't miss this opportunity to exchange news, views and ideas with experts from all areas of the battery recycling sector! Again this year we have put together an interesting and highly diverse program for our visitors. We are particularly looking forward to our keynote speakers, who will open the congress on September 20. This year we will be welcoming

- Carlos Martins (Secretary of State of Environment Portugal),
- Nuno Lacasta (President Portuguese Environment Agency),
- Prof. Vera Susanne Rotter (Technical University Berlin) and
- Christophe Pillot (Director Avicenne Energy)

as our keynote speakers.

Christophe Pillot, a worldwide specialist in Lithium batteries markets, will be at the ICBR 2017, giving a summary of the rechargeable battery market and the main trends we can expect to see over the coming ten years. Before the congress we had an opportunity to talk to Christophe Pillot. He gave us a number of interesting insights, which you can read in the interview below:

1. Mr Pillot, the powerful Lithium-ion batteries are predicted to grow strongly. How is the current demand for these batteries developing?

I will present detailed figures at the ICBR 2017, but I can say that the LIB market achieves more than 90 GWh demand in 2016, that means a 25% average growth rate per year for the last 10 years.

2. In which areas of application is the strongest growth recorded?

The trend continues unchanged; Automotive and e-buses, mostly in China show the strongest growth. In 2016, Automotive and e-buses consume 50% of the LIB. Other applications are portable devices (35%). Then, stationary and industrial applications start to use Lithium-ion batteries and replace sometimes lead acid batteries.

3. How do battery manufacturers react to the high demand for Lithium-ion batteries? Are there any plans for new production capacities known?

Huge investments are on the way in China and Korea but also as you know in the US with TESLA and in Europe. LG and SAMSUNG will both start Lithium-ion production in Europe in 2018.



4. The recycling of Lithium-ion batteries is only worthwhile in case of high volumes and high Lithium prices. What is the current trend for the Lithium price?

The Lithium is not the major metal issue in a Lithium-ion battery. Cost of Lithium represent less than 2% of the battery pack. Cobalt, Nickel or Copper are more important in LIB batteries than Lithium. Nevertheless, the Lithium price increased because most of the Lithium is consumed by the battery industry. It increase from 7 US\$/kg to almost 25 US\$/kg on the spot market at the beginning of 2016.

5. In a foreseeable future do you know about any technology that will replace the current Lithium-ion chemistries?

No. Lithium-ion will be the major choice for portable devices and automotive in the next 10 years. Li-Sulfur, Li-Air, fuel cells and so one will not be on the mass market before at least 10 years.

6. Do you foresee a significant development in Europe for batteries technologies in a particular field of application?

Major application in Europe will be Electric & Plug in hybrid. Then, on a longer term basis, lead acid starter batteries could be replaced by Lithium-ion in stop-start cars, micro hybrid cars, 48v batteries.

Christophe Pillot will be presenting a detailed overview of the trends for the next ten years at the ICBR 2017. We look forward to welcoming you at this year's battery recycling industry meeting! For all the details on the program and how to register, go to: <a href="http://www.icm.ch/icbr-2017">http://www.icm.ch/icbr-2017</a>.

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#### About ICM

ICM AG is an international leader in the organisation of conferences specialising in the fields of recycling cars, electronics and batteries. These waste streams have been among the world's fastest growing commodity markets for years.

ICM is a Swiss company which has organised conferences in Europe, North America and Asia since the year 2000. The company was founded by Jeanette Duttlinger. Her team consists of 15 employees who speak German, English, Spanish, French, Italian and Chinese.