ecoprog press release, 14th February 2023

LIB Recycling: More than 200 Plants and Projects Worldwide

At the beginning of 2023, there were about 110 projects for the recycling of lithium batteries in different stages of planning throughout the world; nearly about 100 plants were operational. This is the result of a trend study by ecoprog.

The recycling of lithium batteries (LIB) represents one of the most promising recycling markets. Since the 1990s already, the number of mobile applications has been significantly increasing due to the development of LIB. In the years to come, the expansion of electric mobility above all will drive the LIB market. China, the EU, Canada or California, amongst others, have already resolved either the withdrawal from combustion engines in automobiles or ambitious quotas for electric vehicles.

It is against this backdrop that ecoprog has looked into the global market for LIB recycling in detail.

As a consequence of the LIB boom, distinctly more than 30 million tonnes of LIB will probably have to be recycled annually in the long term. At present, this holds true for even less than an estimated half a million tonnes per year only.

At the moment, about 100 LIB recycling plants are operational throughout the world. Most of these plants cannot be considered as final commercial plants but rather are pilot plants that primarily enable further research on this technology.

At the same time, the planning of LIB recycling plants is booming. Worldwide, more than 100 projects have been planned at the beginning of 2023.

Reasons for LIB recycling are, for instance, the costs and availability of raw materials such as lithium or cobalt. In addition to that, also from an environmental viewpoint, stricter recycling targets for LIB will be issued in the course of electric mobility in many countries. Thus, the amended EU Battery Regulation will include, for instance, recycling quotas for batteries as well as individual raw materials such as cobalt or nickel, and even recyclate quotas for raw materials such as lead or cobalt. Moreover, monitoring measures will be taken, e.g. an electronic passport.

The structure of operators and project promoters differs significantly from region to region. In Europe, for example, there are more waste management companies among the project promoters, in Asia the share of battery manufacturers is comparatively high, and in North America start-ups dominate. These structures follow the regional industrial structure, as well as the different timetables for the implementation of electromobility.

Along with the boom of battery vehicles new projects for LIB recycling are being announced on a weekly basis, too. Market participants such as automobile and battery manufacturers, disposal companies and start-ups have started to position themselves in this market long ago, gathering experiences ever since.

ecoprog's trend study "(Lithium) Battery Recycling worldwide" looks into the technical basics, market factors, level of development, plant inventory, projects and competition in the LIB market worldwide. The study is available at: www.ecoprog.com.

ecoprog is a consultancy specialising in the fields of environmental and energy technology. It has developed into a renowned expert on these markets. ecoprog's typical activities include

market and competition analyses, commercial due diligence, economic feasibility studies and material flow analyses.