

The recycling business is traditionally dominated by SMEs. In the last 5 years a **general trend** in the electronics recycling sector **to bigger companies** is very visible. Multinational, multi-sector companies are buying several smaller recyclers every year.

Hence the previous project HydroWEEE (03/2009–02/2012) dealt with the recovery of rare and precious metals from WEEE. The idea has been to develop a mobile plant using hydrometallurgical processes to extract metals like yttrium, indium, lithium, cobalt, zinc, copper, gold, silver, nickel, lead, tin in a high purity. **By making this plant mobile several SMEs can benefit from the same plant. By making the processes universal several fractions (lamps, CRTs, LCDs, printed circuit boards and Li-batteries) can be treated in the same mobile plant in batches. This reduces the minimum quantities and necessary investments. In addition these innovative HydroWEEE processes produce pure enough materials that can be directly used for electroplating and other applications.**

The objective of HydroWEEE Demo has been to build 2 industrial, real-life demonstration plants (1 stationary and 1 mobile) in order to **test the performance and prove the viability of the processes from an integrated point of view (technical, economical, operational, social) including the assessment of its risks (incl. health) and benefits to the society and the environment** as well as remove the barriers for a wide market uptake.

Finally **the previously developed processes of extracting yttrium, indium, lithium, cobalt, zinc, copper, gold, silver, nickel, lead, tin will be improved** and new **processes to recover additional metals which are still in this fractions (Cerium, Platinum, Palladium, Europium, Lanthanum, Terbium, ...)** as well as the integrated treatment of solid and liquid wastes have been developed.

Summarized HydroWEEE Demo will boost European competitiveness by applying novel processes for improved resource efficiency by extracting rare and precious metals.