Aims of the research project at IME, Aachen
- Producing a > 50 % high manganese-FeMn
- Safeguard a recovery yield higher than 50 %
- Investigation of the feasibility of a metal condenser process attached to DC-EAF

Results
- A metallic premelt was used. In series 1 the manganese content is diluted to 26 % due to the added steel scrap
- In series 2 FeMn simulating the residue of continuous process after tapping worked very well as premelt. The Mn content in FeMn is about two times higher compared to series 1

Conclusions
- According to the results, the DC-EAF serves good possibilities to produce FeMn from spent primary batteries. However a further development of the slag system will give important additional information to improve the efficiency of the process
- Zn was won in oxidic form because it was not feasible at this stage of development to install a Zn-condenser