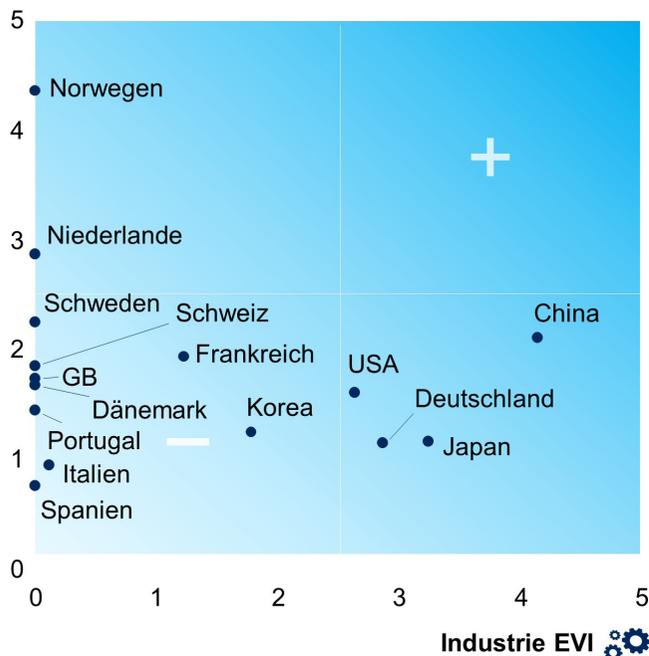


Dry Room

CRC - Engineering

Enormous requirements are placed on battery manufacturing for use in electric cars. The CRC Clean Room Consulting GmbH plans dry rooms as appropriate production environment for the decisive battery systems with a relative humidity of less than two percent and in part also rooms with a relative humidity of less than one percent.

Markt EVI



Results of current Electric Vehicle Index (EVI): ranking of electromobility including main market players

Quelle: www.mckinsey.de/elektromobilitaet

High-performance batteries for progressive electromobility

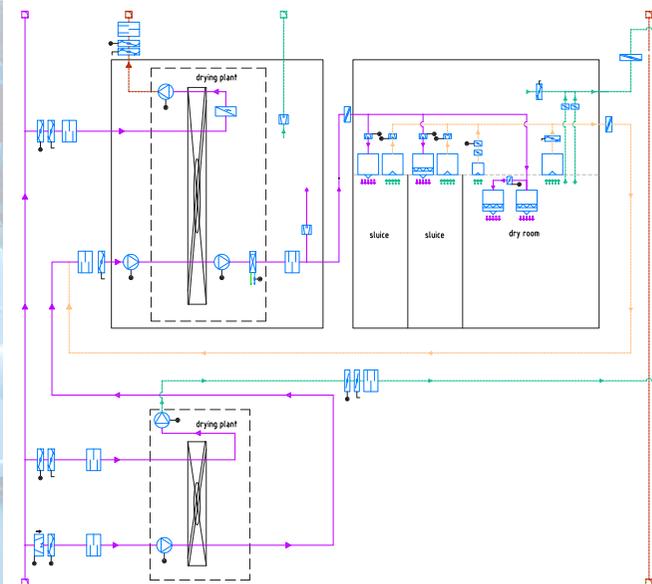
The increasing demand for so-called lithium-ion battery systems is directly related to the current explosive topicality of the progressive electromobility. High demands are especially made on the energy storage devices for electric cars concerning their efficiency, price, energy density, security and service life. To enhance the durability and thus expand the range of the electric cars at the same time, the manufacturing environment of lithium-ion cells plays a crucial role.

Highest requirements on the manufacturing environment

As the battery cells are very sensitive to moisture, the assembly process of the cell takes place in the dry room. For this specific production step, the relative humidity of the room air may not exceed two percent. Furthermore, the monitoring of these extreme conditions should not be neglected. CRC enables an appropriate monitoring system to check and meet the very low concentration of moisture, occurring in the dry room, permanently. For this purpose, the moisture level is identified by determining the dew point temperature. Among the low level of humidity, the dry room has to display certain cleanliness as well. Due to profound expertise, CRC can rely on extensive experience in the architectural and technical planning of clean rooms.

Dry Room – advanced technology as trendsetter

Within the framework of operational research projects, CRC already carried out the planning of dry rooms with considerable specifications as well as their implementation and constant operation. Regarding the requirements for the system, higher specified dry rooms with the need of lower air humidities are expected in the future to achieve the desired efficiency of the batteries for electric cars. In accordance with the results of a specially designed market and risk analysis of CRC, this expected development has been reconfirmed. Therefore the know-how in this particular field is still essential.



Scheme air technology in a dry room