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Compleo Corporate Challenge DOaccelerate 2022

About Compleo

Compleo Charging Solutions AG is one of the leading full-service providers of charging technology in Europe. The company supports business customers with charging technologies as well as charging stations, charging infrastructure software and, if required, planning, installation, maintenance and service. Compleo's offering includes both AC- and DC-charging stations. DC-charging stations from Compleo are the first on the market that comply with calibration regulations. The company is headquartered in Dortmund with further product facilities located in Paderborn. Compleo focuses on innovation, safety, consumer-friendliness and cost-effectiveness. Its customers include Aldi, Allego, Clever, E.ON, EWE Go, Daimler, Siemens and more than 300 municipal utilities in Germany. Compleo started production of its first charging stations in 2009. The fast-growing company currently employs more than 650 people. Compleo is listed in the Prime Standard segment of the Frankfurt Stock Exchange (ISIN: DE000A2QDNX9). In April 2021 Compleo acquired 100 percent of the shares in wallbe GmbH, now Compleo Connect GmbH. In January 2022 Compleo acquired 100 percent of the shares in innogy eMobility Solutions GmbH.

Challenge Intro

For the operation of fast charging stations at highly frequented locations, high reliability and predictability are essential. In order to secure the high investment costs for a charging pole or a charging pole location by low downtimes, we are therefore looking for promising "predictive maintenance concepts" to simplify service & maintenance and to increase customer satisfaction for the operators (our customers) as well as for the users of our charging poles.

We are looking for products and concepts (sensors, data analytics, etc.) that monitor the current status of a charging station and communicate critical status messages via dashboard or signaling. A solution should be as easy to use as possible, and tie in with existing product developments.

Challenge Details

Many high-traffic charging stations carry out a large number of charges during the day and downtimes are associated with a high economic losses. All infrastructures are connected to sufficient data lines and are either located in urban areas or along highways. The goal is to integrate the sought-after solution into a maintenance concept so that downtimes in the charging station infrastructure can be avoided or at least minimized. At the same time, the long-term goal is to optimize the product lifetime and the performance of the charging columns based on the collected data.

The solution should match the following requirements:

- Selection of maintenance-relevant data

- Implementation of best-practice algorithms from predictive maintenance, adapted to the charging infrastructure
- Optimization of maintenance work and maintenance cycles
- Presentation of the evaluations via a dashboard
- Evaluation of the causes for failures / false alarms
- Integration of the failure and service history to improve the predictive maintenance algorithms

Regarding the solution, we are completely open to various approaches. Regardless of whether purely data-based concepts, which are based on existing data sources, or a combination of hardware and software, which either include your own sensor technology or uses commercially available sensors, we would like to get to know you and your idea.

To ensure a high penetration of usage within the company, the solution should be easy to use and accessible via different types of user devices (desktop, tablet and mobile). This ensures that technicians can also access the systems on the road and process their maintenance orders immediately and flexibly.

We are looking for a partner who has initial experience in the following fields:

- Predictive maintenance in electrical installations
- Data analytics
- Embedded system
- IoT or cloud-based systems

We are looking forward to your ideas & your application and are excited to work together in September. We will be happy to answer any questions and provide further information during the application phase.