

TRANSPORTATION AND MOBILITY CASE STUDY **KREISEL ELECTRIC**



Driving electromobility with the 3DEXPERIENCE platform

Passion for electromobility technologies and fast cars were the driving forces behind Kreisel Electric's project to electrically-power a 1971 EVEX Porsche 910, baptized the Kreisel EVEX 910e. The company was founded by three brothers whose passion for electric propulsion has given birth to high-performing battery packs and energy storage systems for the road and home.

Replacing this classic model's original combustion engine with its patented and award-winning long-range battery

pack required careful planning, ingenious engineering and 3D technologies from Dassault Systèmes' **3DEXPERIENCE**® platform.

With **3DEXPERIENCE**, Kreisel Electric engineers had a single source of trusted information that promoted real-time collaboration, state-of-the-art design and simulation applications to engineer, test and manufacture all required components and systems as well as planning tools to ensure the project stayed on budget and on schedule.

CHALLENGE

To transform the legendary 1971 EVEX Porsche 910 combustion-powered car into an electrified supercar Kreisel Electric needed to design and build a battery pack, cooling system, gearbox and powertrain that would fit in the car's available space. To achieve this, the company needed a solution that was robust yet flexible enough to enable the different disciplines involved to collaborate while keeping costs and schedules in check.

SOLUTION

Kreisel Electric relied on the **3DEXPERIENCE** platform and its *Electro-Mobility Accelerator's* integrated applications that cover the entire development lifecycle from requirements to digital concept, design, simulation, manufacturing as well as overall project management.

BENEFITS

Project stakeholders enjoyed real-time collaboration, centralized and secure access to geometric data, company know-how and project information thereby promoting creativity and innovation while reducing costs and overall development time.

Other benefits include:

- Intellectual property is capitalized for future reuse
- Communities facilitate sharing of information and ideas
- Digital crash simulations reduce physical prototyping costs
- Integration between engineering and production enables early manufacture of designed parts
- As all applications are integrated in the same platform, there is no need for software conversions and interfaces that can introduce errors and delays
- Intuitive interface reduces learning curve

Kreisel Electric is a global pioneer in the development of advanced e-mobility technologies, and develops and assembles highly innovative batteries and electric vehicles, as well as stationary energy storage solutions. Kreisel employs about 90 people at their HQ in Rainbach, Austria.

www.kreiselelectric.com/en/

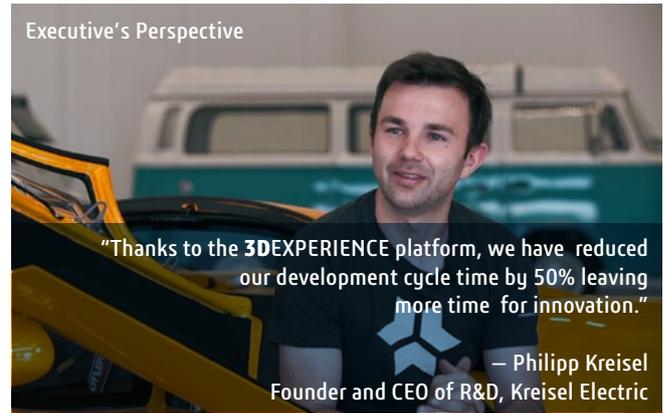
BUSINESS PARTNER FOCUS

Kreisel Electric was supported by Dassault Systèmes' business partner EBM from initial requirements to implementation, testing and training. "EBM's extensive experience and know-how of the 3DEXPERIENCE applications helped bring our users up to speed in only three months." Philipp Kreisel, Founder and CEO of R&D, Kreisel Electric.

E | B | M

www.ebm.at/

Executive's Perspective



"Thanks to the **3DEXPERIENCE** platform, we have reduced our development cycle time by 50% leaving more time for innovation."

— Philipp Kreisel
Founder and CEO of R&D, Kreisel Electric

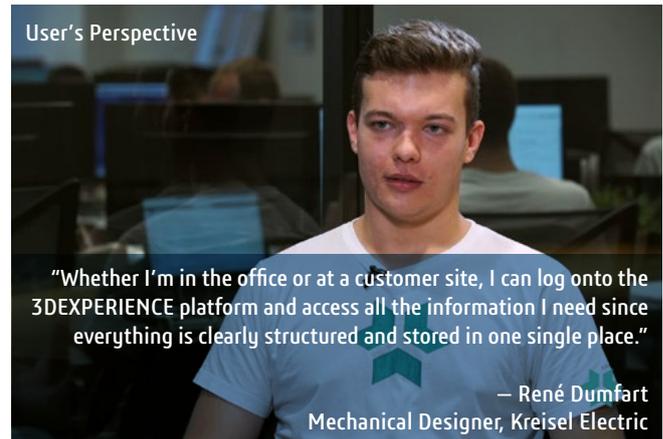
Manager's Perspective



"Positioning the gearbox and battery pack in the car's very limited space could not have been done in time and with this quality without the applications of the **3DEXPERIENCE** platform."

— Helmut Kastler
Head of Mechanical Engineering, Kreisel Electric

User's Perspective



"Whether I'm in the office or at a customer site, I can log onto the **3DEXPERIENCE** platform and access all the information I need since everything is clearly structured and stored in one single place."

— René Dumfart
Mechanical Designer, Kreisel Electric

© 2017 Dassault Systèmes. 3D, 3DEXPERIENCE, the Compass logo and the 3DS logo, CATIA, SOLIDWORKS, ENOVIA, DELMIA, SIMULIA, GEOPAK, EXALEAD, 3D VIA, BODIA, NETVIBES and 3DEXPTE are registered trademarks of Dassault Systèmes or its subsidiaries. All other trademarks are owned by their respective owners. Use of any Dassault Systèmes or its subsidiaries trademarks is subject to their express written approval. Images courtesy of Kreisel Electric.

Our **3DEXPERIENCE**® platform powers our brand applications, serving 12 industries, and provides a rich portfolio of industry solution experiences.

Dassault Systèmes, the **3DEXPERIENCE**® Company, provides business and people with virtual universes to imagine sustainable innovations. Its world-leading solutions transform the way products are designed, produced, and supported. Dassault Systèmes' collaborative solutions foster social innovation, expanding possibilities for the virtual world to improve the real world. The group brings value to over 220,000 customers of all sizes in all industries in more than 140 countries. For more information, visit www.3ds.com.



3DEXPERIENCE