

Ghost Written Blog Article for Adaptive Corporation  
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## Blog Article for Adaptive Corporation



Presentation of Rimac's new electric hypercar C\_Two model on Strossmayer square.  
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### 3DEXPERIENCE Powers Rimac's New All-electric Hypercar Taking High-End Sports Cars To The Next Level

Nestled on the coast of the Adriatic Sea is the small country of Croatia. It was most famous for summer vacations, but is now becoming known as the destination site for automotive innovation. Mate Rimac, an entrepreneur and Croatian automaker, is changing the game in transportation with his company, [Rimac Automobili](#). Rimac is not only

designing and developing new drivetrains, battery systems, and high-performance electric vehicles (EVs), but they've also created the hypercar of the 21st Century.

## What Gives Them the Edge?

[Rimac](#) is using state-of-the-art software—an advanced product lifecycle management (PLM) platform with a custom model-based system simulation for global collaboration and better integration.

Rimac was founded five years ago with its mission to take sports cars to the next level and build an electric hypercar. From the start, Rimac's development processes were digital and virtual as much as possible. They recognized that the key to building an extremely complex system, such as an entire car, is the ability to model, simulate, rapidly iterate, and repeat, over and over again. In other words, minimize the physical prototypes in favor of digital versions.

## Tools for Complex Physical Systems

In the beginning, Rimac successfully used SOLIDWORKS 3D CAD to develop and validate lightweight solutions for battery power in EVs. As their customer base increased, and the electrical system of their new C\_Two model became more complex, they migrated to Dassault's to [3DEXPERIENCE platform](#).

Choosing the right digital software, tools, and processes are key to modern vehicle design and production. Being able to create, simulate, iterate, verify, and test drive an electric vehicle virtually without a physical part saves substantially on development costs that would otherwise be out of reach.

Dassault's [3DEXPERIENCE](#) Platform enabled Rimac's development team of 100+ employees to work in CATIA (CAD), ENOVIA (cPDM) and other applications on the digital manufacturing side, such as CAE SIMULIA and DELMIA. They also had access to Dassault's data-driven database in ENOVIA.

But due to the complexity, Rimac needed even more customization. Fortunately, they were able to partner with [Modelon](#), a Swedish software developer. They specialize in model-based systems engineering (MBSE) and simulation, to create an open-standard, model-based system.

Modelon solutions are based on Modelica (open-standard language) and FMI (open-standard model format). Modelica was created to model complex physical systems containing, for example, mechanical, electrical, electronic, hydraulic, thermal control, electric power, or process-oriented subcomponents—exactly the complexity Rimac needed.

Even better, Modelon's open standard-format means their solutions seamlessly integrate with a wide variety of software platforms, such as **3DEXPERIENCE** and other PLM tools, allowing users to share and collaborate consistently from product concept to operation.

## **Results of Rimac's Approach**

Rimac's incredible success has proven the value of their approach. With the help of **3DEXPERIENCE** and Modelon solutions, they've created cutting-edge electric drivetrain technologies which they supply to several large automotive players including Aston Martin, Jaguar Land Rover, and Renault.

Rimac has also developed two of its own electric hypercars, the second containing an innovative four-engine electric drivetrain in which one engine drives each wheel. Porsche was impressed enough in the company's technology that they bought a 10% stake in Rimac, forming a development partnership.

To find out more about how Rimac is using **3DEXPERIENCE** and Modelon, see [engineering.com](http://engineering.com).

And to find out more about how a comprehensive Digital to Physical PLM platform can help you overcome your challenges in bringing new products to market, [contact us](#).