## Applus<sup>®</sup>

## Aerodynamics and Computational Fluid Dynamics (CFD)

Aerodynamics plays a pivotal role in the design of Electric Vehicles (EVs), directly influencing their driving range. As the automotive industry shifts towards electrification, **optimizing aerodynamic performance** has become increasingly crucial.



At IDIADA, we offer comprehensive support for aerodynamic optimization, encompassing **consultancy**, **CFD simulation and testing**. Through our partnership with the state-of-the-art S2A wind tunnels, we ensure thorough and accurate assessments of vehicle aerodynamics.

Our work is exemplified by the <u>CRONUZ</u> concept car, developed by IDIADA, which showcases exceptional aerodynamic efficiency with a remarkable **Cd value of 0.19**. This achievement remains unmatched for a compact electric SUV, demonstrating our expertise and innovation in aerodynamic design.

Behind our success lies our **dedicated CFD team**, comprising over 50 engineers spread across the globe. With more than 25 years' experience, our team has provided invaluable support to leading OEMs and startups alike, offering expertise in aerodynamic optimization, as well as specialized areas such as **engine cooling**, **HVAC design**, **brake cooling**, **battery cooling** and **thermal propagation**, etc.