Extraordinary design meets revolutionary powertrain technology: the QUANT e-Sportlimousine with nanoFLOWCELL®

Vaduz, 4 March 2014 – Elegant, sporty and with an extraordinary design that underscores the special character of this car as the platform for a revolutionary new powertrain technology – this is the QUANT e-Sportlimousine in its world premiere at the 2014 Geneva Motor Show.

The initial ideas for the QUANT were born in 2003 in sketches by the La Vecchia brothers for a pioneering automobile, a revolutionary car for the future. Its revolutionary character was reflected in its unusual design right from the start. A first model was built in cooperation with a Swedish auto manufacturer in 2009 and presented at the Geneva Motor Show as the NLV Quant. This also served as the basis for the NLV Quant concept car that was presented in Geneva in 2010.

New powertrain and complete redesign

Following the 2010 Geneva Motor Show, it was decided to pursue a completely new concept, both optically and technically. Every element of the QUANT e-Sportlimousine has been developed from the ground up over the last four years: new powertrain, complete redesign, and most importantly, every aspect of the new prototypes are designed with homologation requirements in mind. The new QUANT e-Sportlimousine is neither a show car, nor a concept car, it is the first automobile equipped with nanoFLOWCELL®.

The extraordinary exterior of the new QUANT e-Sportlimousine

The flowing, sensual design of the exterior wins you over with its long, harmonious lines. The roof line runs from the windscreen almost the entire length of the car to the wing-like, sculptured rear end. The goal was to give the car as much feeling of motion as possible to reflect the nanoFLOWCELL® at the heart of the QUANT e-Sportlimousine, as well to underscore the sporty, dynamic expression of what an e-sports-car should be.

Impressive dimensions and proportions

With its impressive length of more than 5.25 metres, a width of more than 2.2 metres and a height of 1.35 metres, the QUANT e-Sportlimousine makes a bold statement on terms of its dimensions and proportions. Its 22 inch tyres also generously highlight the car's sporting character.

No b-pillar and unusual gull-wing doors

A series of challenges, like the increased wheel base necessary to accommodate the increased volume of the electrolyte tanks, had to be overcome. The two unusually long gull-wing doors, inspired by eagle wings, cover the complete front and rear seating areas and the car does without a b-pillar altogether. The large, 1.7 metre wide side windows can be lowered completely. The team's passion for the extraordinary shows in some interesting details: the side window lowers into the gull-wing door faster at the front than at the rear. The extremely curved rear windscreen and the unusually curved front windscreen with its raked a-pillar, combine with the short front bonnet to make for impressive optics.

"It was important to us that, despite its size and unusual dimensions, our four-seater QUANT e-Sportlimousine would be a sporty automobile. The front of the car is convincing, with its pronounced shoulders, self-confident look, and clear lines. Anyone who stands in front of the QUANT e-Sportlimousine will know exactly what I mean," Nunzio La Vecchia is already excited about the public's reaction to the car's premier in Geneva.

The newly-developed colour of the QUANT e-Sportlimousine: Chrystal Lake Blue

The new colour, "chrystal lake blue" developed exclusively for this vehicle, reflects the character of the powertrain: The blue represents water and the copper the flowing of electricity. "The design is flowing, like fresh river water running around a rock," development lead Nunzio La Vecchia describes the overarching concept of the design, which represents the heart and the origin of this car: the nanoFLOWCELL®.

The interior: visionary, trailblazing design

Wood, copper, and leather dominate the interior design of the new QUANT e-Sportlimousine. "We are pushing the envelope even with the interior of this car. We pushed every component to the limits of design and technical possibilities. We're making something completely new that will make others ask why no one has done this before," explains Nunzio La Vecchia regarding the visionary approach to the design of the new QUANT e-Sportlimousine by the nanoFLOWCELL AG company.

„Welcome Mode" on entry

Just getting into the QUANT e-Sportlimousine equipped with nanoFLOWCELL® is an experience. As soon as the massive, almost 2-metre long gull-wing door has raised itself above the driver's seat and rear passenger seat, the QUANT "awakes" to greet the driver with its colossal, more than 1.25 metre front display showing important information about its charge state, flow cell data, driving range, and all infotainment system information.

The carbon fibre monocoque with four individual seats and jet cockpit styling

The flowing exterior design is reflected in the interior. The carbon fibre monocoque is referenced through two monocoque-like rows of seats, in state-of-the-art jet-cockpit style. They are at the centre of the QUANT e-Sportlimousine. "Driver and passenger sit one behind

another like in a monocoque racing car. One is surrounded by real wood and feels at one with nature," Nunzio La Vecchia describes the special seating and its placement. "With the ambient lighting shining through the wood, which greets passengers as they enter the vehicle, you have the feeling of being integrated into the flow of the nanoFLOWCELL® or surrounded by it," underscoring the intention behind the innovative RGB LED light strips in the car's interior, which can be individually adjusted to the colour of your choice.

Widescreen cinema feeling with a 1.25 metre display

Modern display technology more than 1.25 metres wide and 16 centimetres tall, the front display gives this car that widescreen cinema feeling. Combination instruments, head unit, and entertainment are integrated across the display into a unified whole. Flowing lines from front to rear also dominate here. The instruments are clearly demarcated in a horizontal arrangement that reflects the horizontally arranged interior. Classic dials are replaced by fresh looking segments of circles.

A torque indicator replaces the tachometre you find in combustion-powered vehicles. It displays the torque values of all four electric motors as well as the complete functionality of the on board energy management system in real time.

Wood mounted capacitive sensorFLOW® switches

Another distinctive feature of the new QUANT e-Sportlimousine are its wooden operating controls. The new sensorFLOW® technology provides a visual highlight never seen before in an automobile control elements. At first glance, you only see the natural, smooth ash wood surfaces. Once the QUANT e-Sportlimousine is activated, the control elements become visible through the natural wood. The blue bands of light appear through the wood to represent the flow of the nanoFLOWCELL®.

"The wood surfaces are so thin that a light touch of the finger on the sensorFLOW® icons triggers the appropriate action," enthuses development lead Nunzio La Vecchia, "This innovation allows us use a sustainable material like wood to give you a direct connection to the digital control systems."

Complete Android-based infotainment system

The QUANT e-Sportlimousine's complete infotainment system is implemented in an Android-based system. The full palette of its functionality is principally designed to provide meaningful support to driver and passengers. Previously separate information domains are combined: driving data is not strictly separated from the infotainment system. Front and rear passengers are part of the ingenious displays. For example, the current energy efficiency and vehicle torque are displayed in clear 3d graphics. The vivid visualisations in the display also make every braking manoeuvre and every acceleration not only a sporting, but also an exciting visual experience.

QUANTmobile App

The new QUANTmobile App allows the driver to access the QUANT e-Sportlimousine's climate and infotainment controls from outside the vehicle. Driving statistics and navigation functions are also accessible from a smartphone. Every control, from temperature and climate settings, to opening and closing the doors, has been implemented and is fully configurable.

Instead of offering only a selection of functions via "remote control", the QUANTmobile App is a mobile part of the interior. Connecting your smartphone to the console is part of starting the vehicle. This fusion of the phone with the car makes it the touchpad control for controlling the entire infotainment system of the new QUANT e-Sportlimousine.

The QUANTmobile App will be available for iOS and Android devices.

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About nanoFLOWCELL AG

Founded in late 2013, nanoFLOWCELL AG is an innovative Research and Development Centre based in Vaduz, Liechtenstein. The focus of nanoFLOWCELL AG's research is on the advanced development of drive technology and the classification of flow-cell technology. In the simulation laboratory of the nanoFLOWCELL DigiLab in Zurich, mastermind and development chief Nunzio La Vecchia and his team examine important aspects of quantum chemistry on the basis of molecular engineering. For years they simulated experiments with charge transfer, then conducted trials using digital models, before finally synthesising them for further testing. The current research vehicle, the QUANT e-Sportlimousine, enables the developers to study the mechanisms of charge transfer for the innovative storage technology – the nanoFLOWCELL® – during vehicle operation, as well as to fine tune charge strategies for recuperation and further develop the regeneration of cell charging and safety as well as quality controls.