

Danish company produces high-tech lightweight-chassis

Horsens, Denmark, April 10. 2014.

The start-up ECOMove has developed a technology making it possible to manufacture an ultra-lightweight carbon-fibre-chassis, without using special equipment. The first unit has already been shipped to a company in Germany.

ECOMove, a Danish company within e-mobility, has successfully constructed a high-tech lightweight-chassis in carbon-fibre – an accomplishment previously reserved for larger car and sports car manufacturers. The entrepreneurial company has just delivered a chassis that fits into an existing vehicle to a German company.

“The greatest challenge for most electrical car manufacturers is to increase the overall range. One solution is to decrease the overall weight of the car, hereby reducing the energy consumption. We have acquired extensive knowledge and competences in manufacturing lightweight-chassis for electrical cars, which can help reduce the total weight. We design, construct and manufacture lightweight-chassis in composite materials - as for example carbon-fibre - at our Vehicle Lab in Vitus Bering Innovation Park in Horsens – all without using expensive tooling and special equipment,” explains Mogens Løkke, CEO at ECOMove.

The first unit has already been delivered to the German company TURN-E, who works with electrification of cars and boats.

“We have just delivered a lightweight-chassis to a 356 Speedster replica, making it possible to install a battery capacity for a range of more than 500 kilometres. The chassis also improves the stability and strength of the car compared to the original chassis. We furthermore integrated our patented suspension and air-shock-absorbers, improving the vehicles overall driving dynamics,” explains Mogens Løkke. ECOMove cooperated with VIA University College in terms of the initial 3D-scan and strength modelling of the chassis.

Cutting-edge technology

The technology bears the name Qstrung and focuses on a rapid process from idea to prototype – at an even lower cost, than car manufacturers are used to.

“We are a highly improved alternative to the traditional method of welding iron or aluminium parts into a chassis. Qstrung offers manufacturers and designers the possibility of working with composite materials like carbon-fibre right from the start offering more freedom in shaping, economy and in the time it takes to build the first vehicle models,” explains Mikkel Steen Pedersen, Development Manager at ECOMove. According to him, the new method is suitable for both prototyping and volume production. The short production time combined with an attractive material-cost per unit provides interesting perspectives – also for larger vehicle manufacturers.

A technology with perspectives

The e-mobility company sees a great potential in the new way of manufacturing lightweight-chassis - if the market can adapt to the new technology.

“Car manufacturers will have to get used to the new concept. We are cooperating with a wide range of international car manufacturers and companies, who all show interest in Qstrung – hopefully their interest will turn into future orders. Qstrung has without a doubt the potential to revolutionise the market,” says Mogens Løkke.

The German company TURN-E wanted to showcase their competences within electric vehicle conversion, and found a partner in ECOMove.

“With ECOMove Qstrung we are able to showcase our skills and competences in an excellent way. We can integrate more battery capacity than with any other solution, while also improving the overall performance and safety of the car. In less than six months we were able to build a new chassis from scratch with the

help of ECOmove,” explains Christian Von Hösslin, CEO of TURN-E. The German company expects to present the completed 356 Speedster replica at a trade show in Germany later this year.

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About ECOmove

ECOmove was founded in 2009 with an ambition of developing and building a compact, lightweight electrical car for city environments: QBEAK. The company changed course in 2013 by fully focusing on external projects.

With extensive knowledge and a specialty in lightweight technologies, the team provides technology and engineering solutions to help designers and manufacturers to get better electric vehicles faster to the market.

Disruptive development is the philosophy of ECOmove so electric or hybrid-driven vehicles are designed on their very premise – vehicles which unite function, safety, low maintenance and low weight, benefitting both users and the environment.

ECOmove is located in Vitus Bering Innovation Park in Horsens, and is owned by the board of management and Insero Horsens.

About Insero Horsens

The Insero group has been established by the venture capital foundation Insero. The group develops projects, companies, new knowledge and education in the fields of energy, ICT and air traffic. We invest venture capital and offer relevant networks as well as specialised consultancy. We focus on four distinct areas: E-mobility, IT, geothermal energy, and energy in construction. Inseros goal is to generate growth and development in the fields of energy, ICT and air traffic.

About TURN-E

TURN-E, Electric Cars and Boats, was founded in 2010 with an objective of developing electric car conversion kits for existing ICE-powered fleets.

Since late 2012 we focus on building custom battery packs, custom drive trains and started our first 356 Speedster project. This car has a range of 350km, uses a 100kW hybrid-synchron coaxial drive and will be displayed on various shows and electric car rallies this summer.

Style meets Future is the combination of timeless automotive design with the drive of tomorrow.

TURN-E is located in southern Germany on lake Ammersee close to Munich.

www.turn-e.de