

Voxdale wins CLEPA Innovation Award for Joint Development of Innovative 12V Battery with Umicore

13 June 2018, The Hague: Belgian design and engineering firm Voxdale was awarded the CLEPA Innovation Award for its outstanding work and partnership with the automotive industry. With the Innovation Awards competition, the European Association of Automotive Suppliers (CLEPA) recognises outstanding contributions to the sector's achievements in making mobility sustainable, safe and smart.

Voxdale in partnership with Umicore, a global materials technology and recycling group and a global leader in cathode materials for rechargeable batteries; and Sam Dejonghe, a budding Flemish race driver, is working with Mahindra Racing to increase the race performance of Mahindra Racing's Formula E race car. Formula E brings 'electrifying' racing to some of the world's leading cities, playing out against the backdrop of iconic skylines such as New York, Hong Kong, Paris and Rome. It aims to bring revolutionary electric driving in a safe, sustainable and eco-friendly way to the general public.

Voxdale and Umicore, together with Renesas, another Mahindra Racing team partner, are jointly developing a smart 12V battery which enables mission critical systems to be run on the Formula E car. Voxdale also offers inputs in aerodynamics, thermal management and structural integrity of the car. The results of this work will be seen in Mahindra Racing's Season 5 car that will hit the tracks in December 2018. The smart battery and insights in aerodynamics and materials will assist Mahindra Racing to compete at the highest level in the championship.

Koen, CEO of Voxdale says, "We are gratified and proud to win this award. Our contribution is not just to improve the battery but also running hundreds of simulations of aero, heat, and stress to optimize the performance of the whole car. Winning or losing a race is a matter of milliseconds. Details like weight reduction, dissipating heat efficiently, and drag reduction will hopefully make for a victorious season. The ultimate prize will be to see the team finish Season 5 on the podium!"

Kurt Vandeputte, SVP Rechargeable Battery Materials Umicore, comments: "Our partnership is based on a strong common belief in clean and electric mobility. The combination of our technological expertise is key to the development of an innovative 12V battery for Mahindra Racing, one out of currently 10 racing teams of the Formula E competition. Umicore is proud to be part of this partnership and we see the CLEPA Innovation Award as a confirmation of our unique, innovative and outstanding cooperation."

About Voxdale

Voxdale is a design, engineering and research agency for mechanical and mechatronical applications in automotive, medical, and industrial sectors. In its design and engineering process, Voxdale uses numerous simulation, optimization and prototyping tools to look into early feasibility of ideas, to generate unique and disruptive concepts, and to minimize risks during industrialization. Voxdale works on structural architecture, materials, composite design, thermal management and aerodynamics.

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About Umicore

Umicore is a global materials technology and recycling group. It focuses on application areas where its expertise in materials science, chemistry and metallurgy makes a real difference. Umicore has a unique position in cathode materials for rechargeable batteries used in electric vehicles, portable electronics and stationary energy systems. Its continuous investments in R&D and production capacity underscore its ambition to be a global leader in materials that enable clean mobility. Umicore's overriding goal of sustainable value creation is based on an ambition to develop, produce and recycle

materials in a way that fulfils its mission: materials for a better life. The Group generated a turnover of € 12.3 billion (€ 2.9 billion excluding metal) in the 2017 and currently employs 9,700 people.

About Mahindra Racing

Mahindra Racing is one of ten founding teams – and the only Indian team – to compete in the FIA Formula E Championship, the world's first fully-electric international single-seater street racing series.

About CLEPA

CLEPA brings together over 100 of the world's most prominent suppliers for car parts, systems and modules and more than 20 national trade associations and European sector associations. They represent more than 3,000 companies and cover all products and services within the automotive supply chain. Founded in 1959 and based in Brussels, CLEPA is recognised as the natural discussion partner by international organisations and fellow associations. The CLEPA Awards are in the four categories of Environment, Safety, Connectivity & Automation, and Cooperation.