• Higher sustainability: the new emulsifiers provide formulations with milder labelling for they don’t bear corrosive and dead fish labels. They are also based on globally-available vegetable raw materials.

• Enhanced performance: the new emulsifiers provide outstanding defoaming, as well as excellent low temperature stability.

The new Rhodasurf® LFS is an emulsifier for cutting fluids and hot rolling fluids and is a sustainable alternative to cetyl-oleyl 5 EO.

**Solvay has unveiled Efficium® a breakthrough Highly Dispersible Silica for productivity and performance of automotive tires**

Solvay Silica unveiled Efficium® a breakthrough Highly Dispersible Silica (HDS), an innovative reinforcing filler that allows for higher productivity and greater flexibility in producing green passenger car and truck tire compounds. Highly Dispersible Silica is a benchmark for energy-saving and high-performance tires for passenger cars. Efficium® offers breakthrough benefits for the automotive industry, allowing for increased productivity due to its impact on mixing and extrusion throughput and adding flexibility thanks to its silanization control and reformulation opportunities without compromising on rolling resistance, wear and grip. Efficium® strongly facilitates the conversion from carbon black to HDS compounds.

**CATY17 - Novel Eco-friendly process for the production of advanced oxygen-storage materials for vehicular emissions control**

Solvay has developed a novel eco-friendly process for the production of oxygen storage materials for use in automotive catalytic converters. The new nitrogen-free precursor process, yields advanced Ceria-Zirconia mixed oxides via controlled co-precipitation, providing best-in-class performance and stability characteristics to our customers. The successful completion of this project required re-invention of the traditional chemical approach. This project was realized in the European labs and supported by the Solvay R&I Function though to ‘Proof of Concept’, then scaled up and commercialized by Solvay Special Chem in Asia, facilitated by the global Special Chem R&I team and the local industrial function in Asia. The multi-zone and multi-functional organization successfully resolved a variety of roadblocks, chemical, cultural and practical. The new commercial process, the first of its kind, now serves the Asia-Pacific market. Its implementation helps facilitate the latest, most stringent, vehicular emissions standards to limit environmental damage resulting from air quality degradation by vehicular emissions of carbon monoxide, hydrocarbon and nitric oxides in the largest vehicle growth market in the world. Moreover, this project has enabled Special Chem to achieve its long term strategy of sustainable growth while enhancing its core catalyst business and establishing Solvay as the market leader in emission control technologies.

**Solvay has launched new wear-resistant Veradel® Polyethersulfone**

Solvay Specialty Polymers introduced Veradel® 3300 SL 30 polyethersulfone (PESU). The new Veradel® grade is a tough, high-performance resin designed to meet growing global demand for advanced polymers that can improve automotive powertrain efficiency and reduce carbon emissions. Formulated to replace metal in automotive applications prone to friction and wear - such as oil pumps and exhaust gas recirculation (EGR) systems - the new resin offers wear resistance and a low coefficient of friction in both dry and lubricated environments.

**Solvay has launched Tegralite™ thermoplastic lightweighting solutions to improve time and cost efficiencies in aeronautics industry**

Solvay has launched Tegralite™, a family of high performance lightweight materials which offer the aeronautics industry new downstream solutions and part-making capabilities that improve fuel efficiency and speed up the production, refurbishment and maintenance of planes at a lower cost. Solvay’s Tegralite™ integrates the world’s broadest range of high performance polymer products from Solvay’s Specialty Polymers and the complementary skills of its specialized partners, 3A Composites, Aonix and JS Produção through a global network that is open for expansion. It addresses rising needs to substitute metal or heavier plastic parts with multifunctional thermoplastic materials that are able to resist shock, impact, high temperatures, fire, chemicals and noise.

**Solvay has expanded the Amodel® PPA Portfolio to meet a growing demand for automotive electrification solutions**

Solvay Specialty Polymers has expanded its Amodel® AE-8900 series of products for automotive electronics applications by adding five new glass fiber-reinforced grades with glass filler ranging from 30 to 60 percent. The new Amodel® polyphthalamide (PPA) materials provide high voltage resistance and retention of dielectric properties at elevated temperatures. They also extend the performance envelope beyond the Amodel® AE-1100 and AE-4100 series by delivering greater resistance to automotive fluids, enhanced thermal properties, higher mechanical strength and lower moisture absorption.

**Solvay has launched Amni® Sustainable White belonging to a new generation of sustainable yarns**

Amni® Sustainable White is a mass-dyed white polyamide yarn providing both outstanding whiteness and yellowing protection during the storage period. With its high-tech, brand new Amni® Sustainable White yarns Solvay Fibres is providing financial benefits in the process steps, as well as improving energy and water consumption. Solvay’s high concern for the planet is reflected in the reuse of water during yarn production and in the reduction and treatment of greenhouse gas emissions.

**Silica GEN 3: major breakthrough in silica process becomes an industrial reality**

“Valet 3” breakthrough in high performance silica production: after a 25% decrease in water and steam consumption and a 30% productivity increase at the reaction and filtration stage, a new technology implemented downstream (in the liquefaction and drying process) allows for a five-fold decrease in electricity consumption at the liquefaction stage. At the drying stage, gas consumption should decrease by 10% and productivity should increase by 10%. This is the result of a fruitful collaboration between CBU R&I and Corporate R&I. Silica Livorno site industrial teams and the supplier of the new technology. Following trials to overcome industrial issues, the first industrial implementation in our Livorno plant has been proved to achieve quality, productivity and energy gains over a short period of time.