# 10. Substitution sand in road engineering, a product from the recycling of Shredder Residues of Metallic wastes Sand: recycled more efficient than the natural

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Born from the recycling dedicated to ferrous and non-ferrous materials, the COMET group has developed different expertise and innovations in the recycling professions, with new highly technological plants.

Awarded in 2016 by the Belgian Circular Economy Prize, the Mons plant produces artificial sand that has physical properties superior to natural sand for the formulation of bituminous asphalt.

Today, the COMET Group has about thirty companies in Belgium and France and employs nearly 400 people. It treats more than one million tons of metal waste per year (construction scrap, light scrap, end-of-life vehicles and household appliances depolluted, solar panels dismantled, scrap from recycling parcs, etc.). With these volumes, the COMET Group has become an important supplier in terms of secondary raw materials for industry.

With regard to the mineral fraction from photovoltaic panels, end-of-life vehicles or WEEE, the R&D teams of Comet Traitements, in collaboration with the University of Liège and a road infrastructure manufacturer and supported by the General Directorate of Economics of the SPW (Public Service of Wallonia), have implemented a concentration and purification process that makes it possible to obtain a technical sand that combines several undeniable advantages:

- Physico-chemical properties superior to natural marine sand that improve the strength of bituminous asphalt;
- An environmental gain, by reducing the pressure exerted on a scarce natural resource;
- A contribution to the challenges of mobility and reduction of CO2 emissions related to transport, given the local circularity solution.

Thanks to these undeniable qualities, after several strict field analyses, the Public Service of Wallonia has included this sand as a possible official component in bituminous mixtures for Walloon public roads (Specifications-type "Qualiroute").

In general, the COMET group is thus involved in a long-term solution research for the new products reaching the end of their life, with the maximum possible circularity (currently 97.8% recycling rate based on inputs). It should be noted that the COMET Group, associated with the social economy company RECMA, has just been awarded a large multi-year contract for the treatment of photovoltaic panels in France.

Since solar panels are made of 75% glass, the deposit in question here (20,000 tons by 2026) will inevitably contribute to the technical sand replacing even more its natural cousin, for the greater good of our environment.

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