PRESS RELEASE

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SUEZ proposes actions to mitigate microplastics from tyre wear particles, the "invisible ocean pollutants from our roads"

Up to one third of all microplastics released to UK waters come from tyre wear particles

SUEZ recycling and recovery UK (SUEZ) has today (06 April 2021) launched The Insight Report: 2030, Invisible Ocean Pollutants from our Road, in partnership with report authors SOENECS, Social, Environmental & Economic Solutions Ltd. The report reveals the potential scale of Tyre Wear Particles on UK roads and within ocean microplastics globally, and it sets out recommendations on how to address the challenge by 2030.

Key highlights of The Insight Report: 2030 include:

- Every car tyre weighs about 1 kg less when scrapped than when made, a truck tyre about 8 kg less.
- UK tyre wear produces approximately 63,000 tonnes of tyre wear particles per year.
- Tyre wear particles could account for 28-34% of all microplastics released to UK surface waters:
    - Which could amount to 1.03 million tonnes of oceans microplastic including 350,200 tonnes tyre wear particles by 2030
    - Which could ultimately amount to over 2.5 million tonnes of ocean microplastics including 850,000 tonnes tyre wear particles by 2050.

John Scanlon, Chief Executive Officer for SUEZ recycling and recovery UK said: "Understanding how tyre wear particles contribute to microplastics in our built environment is the first step in the journey to reducing microplastics in our natural environment and the global food chain. Meeting the challenge of reducing tyre wear particles is the next piece in the microplastic pollution puzzle.

"Constructive change is already underway to address those other better known sources of microplastics, which gives us all confidence for tackling microplastics from tyre wear particles by 2030. Extended producer responsibility schemes, deposit return systems, and other imminent policy changes will transform our usage of plastic bottles, while a ban of the use of microbeads in cosmetics has been introduced, and cross sector collaboration is underway to reduce plastic microfibre shedding from synthetic clothing. The road we must all drive along for the next decade to meet our 2050 carbon neutral target must be one that at the same time reduces ocean microplastic pollution, rather than increasing it with every press on the car brakes - the cause of this invisible pollutant."

The current design of electric vehicles can increase tyre wear and all cars currently rely on largely unchanged plastic composite rubber tyres, resulting in increased tyre dust pollution and ultimately higher levels globally of ocean microplastics. The Insight Report: 2030 identifies the five core factors that determine how we may be able to mitigate our invisible pollution problem of the present, as being: the design of tyres, cars, roads and their water management, driving skills and training; and the ability to improve interception of tyre wear particles at source.

In order to reduce overall tonnages of tyre wear particles and proportions that result in microplastics entering the ocean, SUEZ and SOENECS recommend wholescale changes by 2030 which will involve:

- Introducing pollution capture technologies on vehicles, roads, sewers, storm and other drainage
- Collaborating with local authorities, real estate developers, industry and governments to adjust drainage and other urban infrastructure in mitigating the invisible pollution problem.
- Modelling the impact of increased street sweeping, processing and separation, to intercept more tyre wear particles
- Collaborating with start-ups, manufacturers, organisations and researchers to explore novel opportunities for tyre wear particle prevention, including a shift in tyre composition, engineering and design
- Creating a guide for the resources and waste management sector to assist with understanding how the purchase of electric vehicles over the next decade may impact tyre wear particle pollution
- Preparing a business case for including tyres in extended producer responsibility schemes

Dr David Greenfield, Managing Director of SOENECS Ltd, said: "Road vehicle designs of today must be fit for an electrified road network of tomorrow that can wean us off fossil fuels but will have also reduced microplastics from tyre dust. To engineer change and reduce microplastics pollution from tyres we can’t simply rely on changes to individuals’ driving habits, we must collaborate across the value chain of production and consumption in tandem with policy makers and technology innovators, all with end of life in mind to create a truly circular economy."