



Think Piece: 2030

Tyres: The
Invisible Ocean
pollutant you've
never heard of!

Introduction



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Objectives



Causes

We drive over 330 billion miles per year
in the UK

Every car tyre weighs about 1 kilogram
less when scrapped

A road with 25k vehicles each day will
generate around 9 kgs of TWP per km

UK Tyre wear produces approximately 63k
tonnes of TWP p.a.

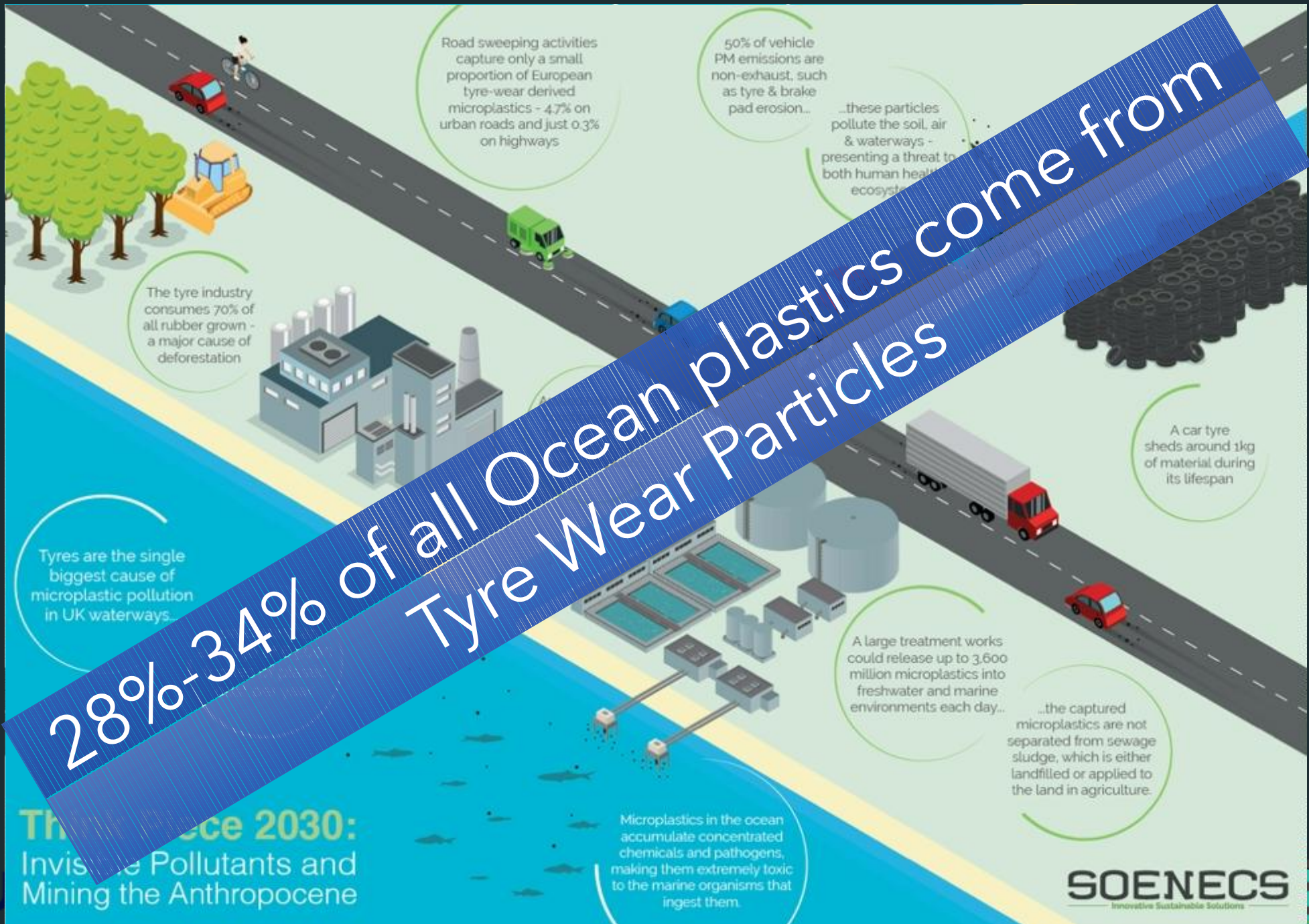
Tyre wear could account for 65% (18,000
tonnes annually) of all microplastics
released to UK surface waters



Impact

The Pathways to the ocean





The Future 2030:
Invisible Pollutants and Mining the Anthropocene



Personal impact

Passengers per vehicle		1	5	25
TWP pollution per 5 KM		mg		
Mode of transport	Moped (1 person max)	65	350	1,625
	Motorcycle (2 people max)	300	1,054	4,569
	Passenger car (5 people max)	660	684	3,418
	Bus (50 people max)	2,075	2,085	2,139



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What will happen between
now and 2030?





Design of Tyres

Design of cars

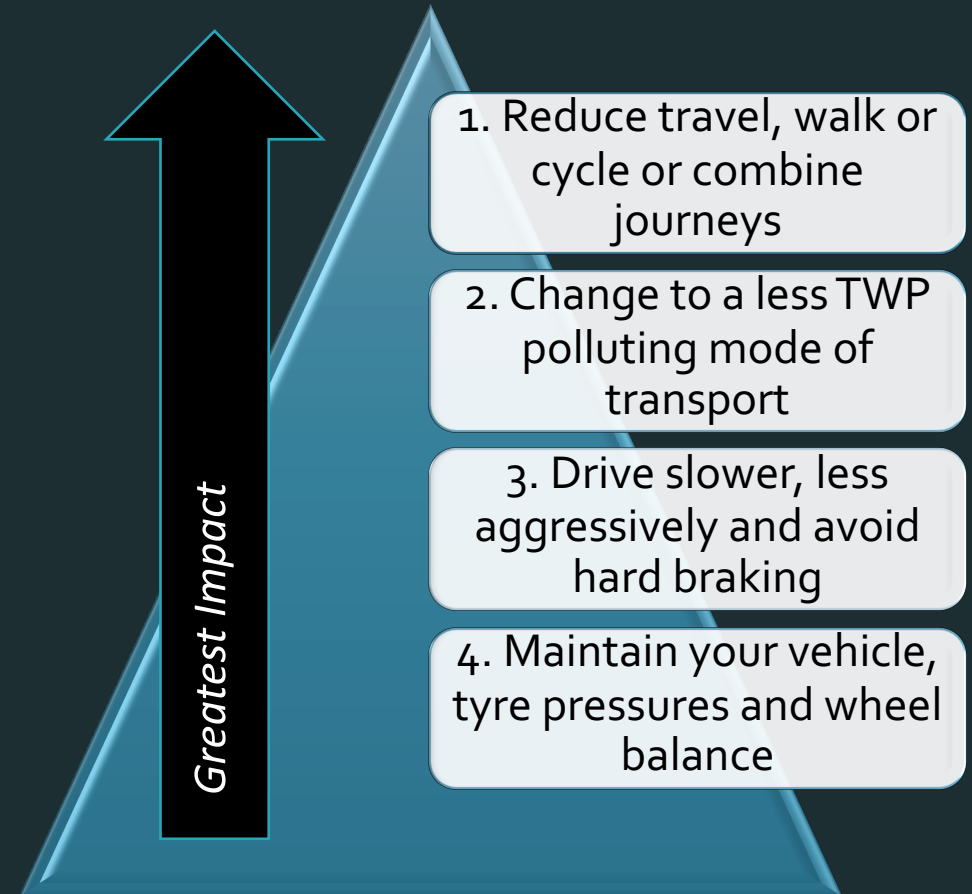


Design of roads and their water management

- Planners
- New roads to have combined sewers
- Less abrading road services
- Lower speed limits
- Hard infrastructure; sleeping police-people, chicanes and "green road"

Driving skills and training

The simplest and most effective way of reducing TWP production is to reduce travel using road vehicles and then change to slower and less aggressive driving to reduce degradation of tyres



Improved interception at source

- Between 0.1 and 10% of TWP is blown onto surrounding environments.
- Street sweeping currently captures 0.3% to 4.7% of TWP.
- WWTPs have the potential to capture between 72% and 94% of TWP passing through them.
- New Solutions:
 - Do we rebrand Street Sweeping as “Ocean Plastic prevention systems”
 - Wastewater Treatment Plants
 - On Vehicle solutions
 - Smart Drains



Conclusion

Research is limited, the scale of impact is not fully understood:

- *What is the actual scale and impact of TWP?*
- *There is enough momentum of knowledge to act, personally, corporately and at a government level:*
 - *Design out the problem*
 - *Intercept the existing pollutants*
 - *Collectively take personal small actions that will have major impacts*
 - *Embrace the future*
 - *Work better together*



Thank you for your Time

Dr David Greenfield
e-mail: davidg@soenecs.co.uk

@DrResources

web: www.soenecs.co.uk