



IMPACT OF CLIMATE CHANGE ON CLEANING & CATERING

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NET ZERO CLEANING

- Where and How can we achieve Net Zero?
- We know about cars, trucks and planes as well as energy generation producing carbon dioxide, but where does cleaning and catering fit in?
- Consider the whole supply chain



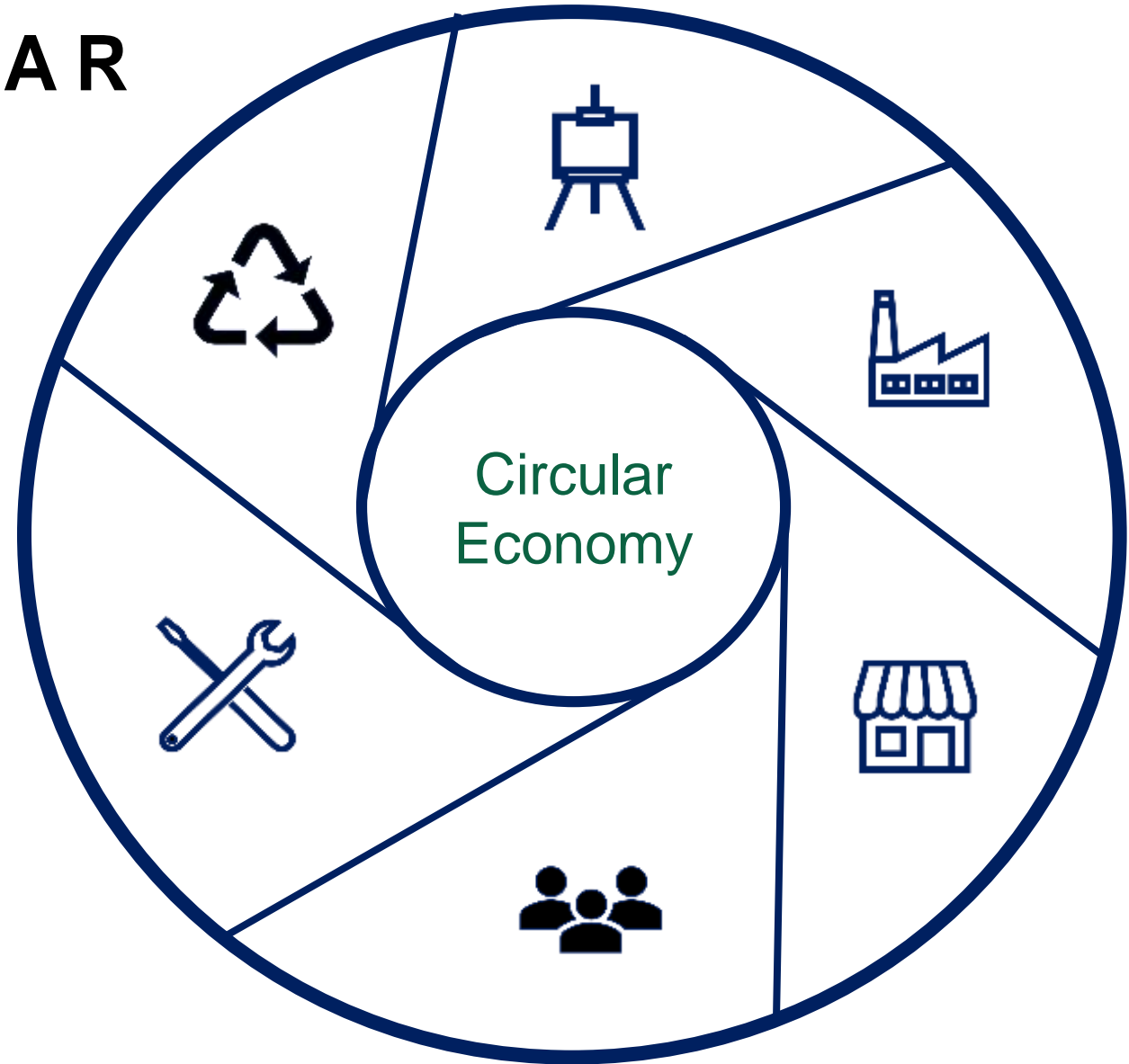
OFF-SETTING

“If your business plan relies on carbon offsetting to reduce your emissions, please go away and write a proper business plan”

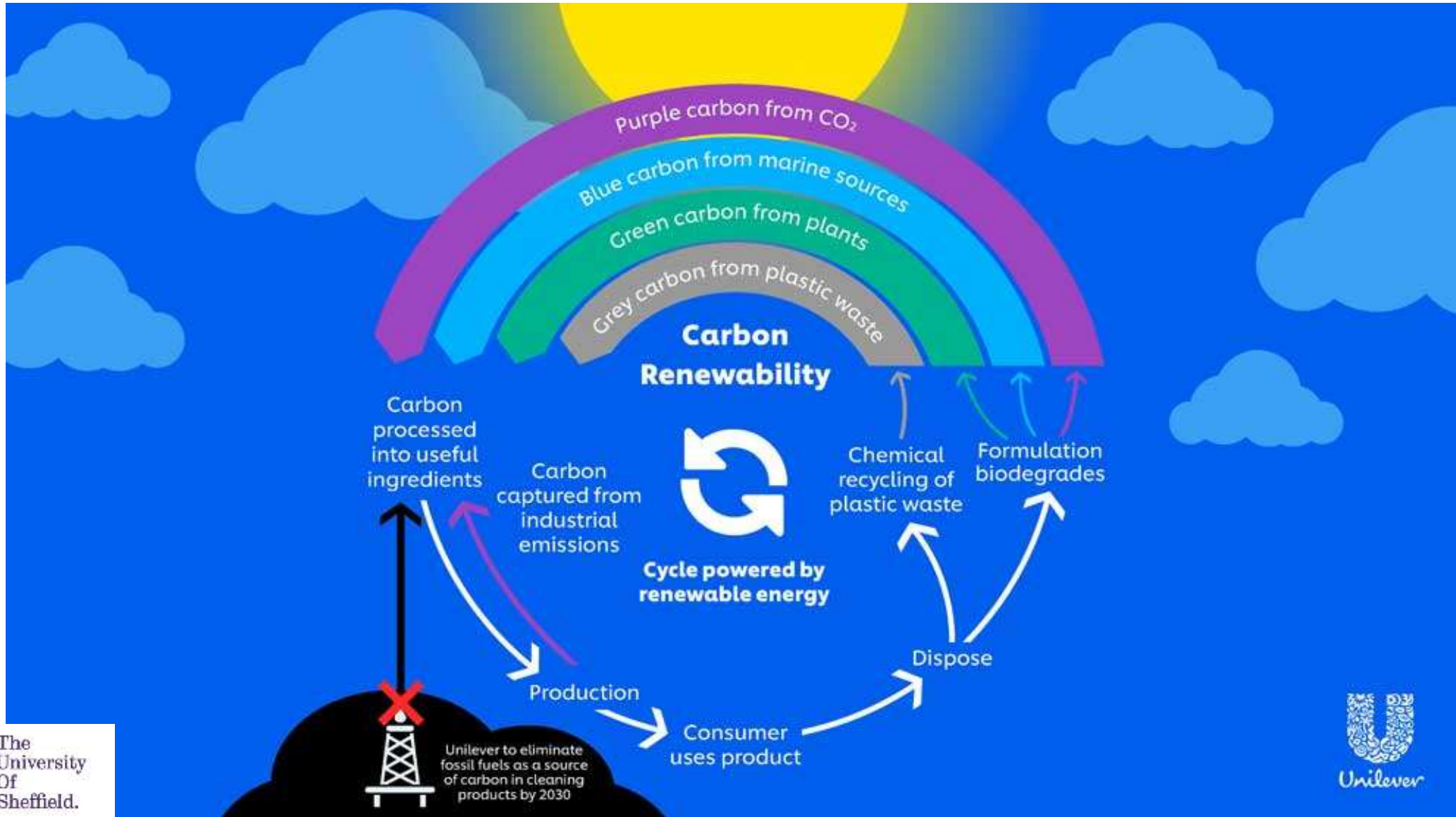
VP of a blue-chip multinational

MOVE FROM LINEAR TO CIRCULAR

- Zero Waste means complete recycling
- Consider where cleaning products come from
- How can we complete a new 'Carbon Cycle'?



UNILEVER-SHEFFIELD STRATEGIC PARTNERSHIP



The University of Sheffield.



UNILEVER 'CLEAN FUTURE'



NET ZERO CATERING

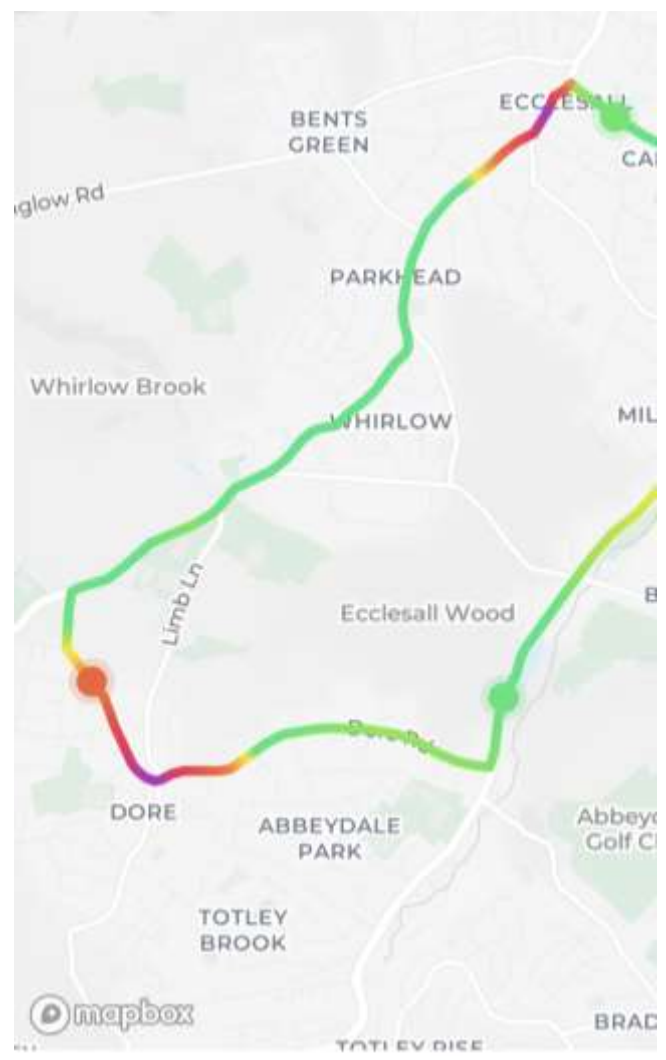
- During the first Covid-19 lockdown CO₂ and NO_x levels were significantly reduced in cities due to reduce ground transport
- However, PM levels either remained constant or rose. Why?



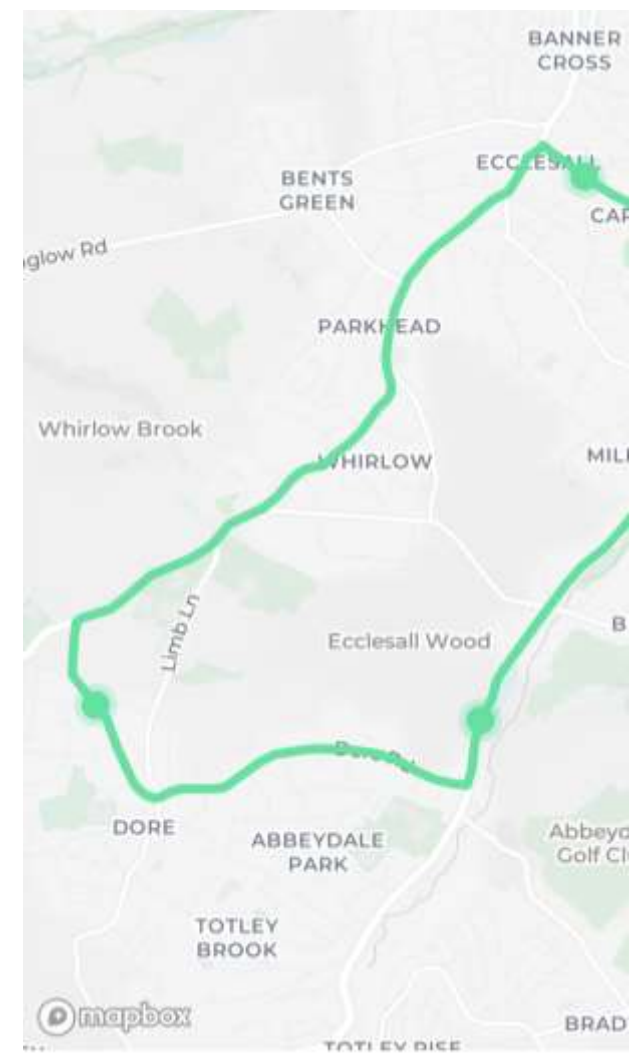


UK LOCKDOWN 1: SHEFFIELD

PM 2.5



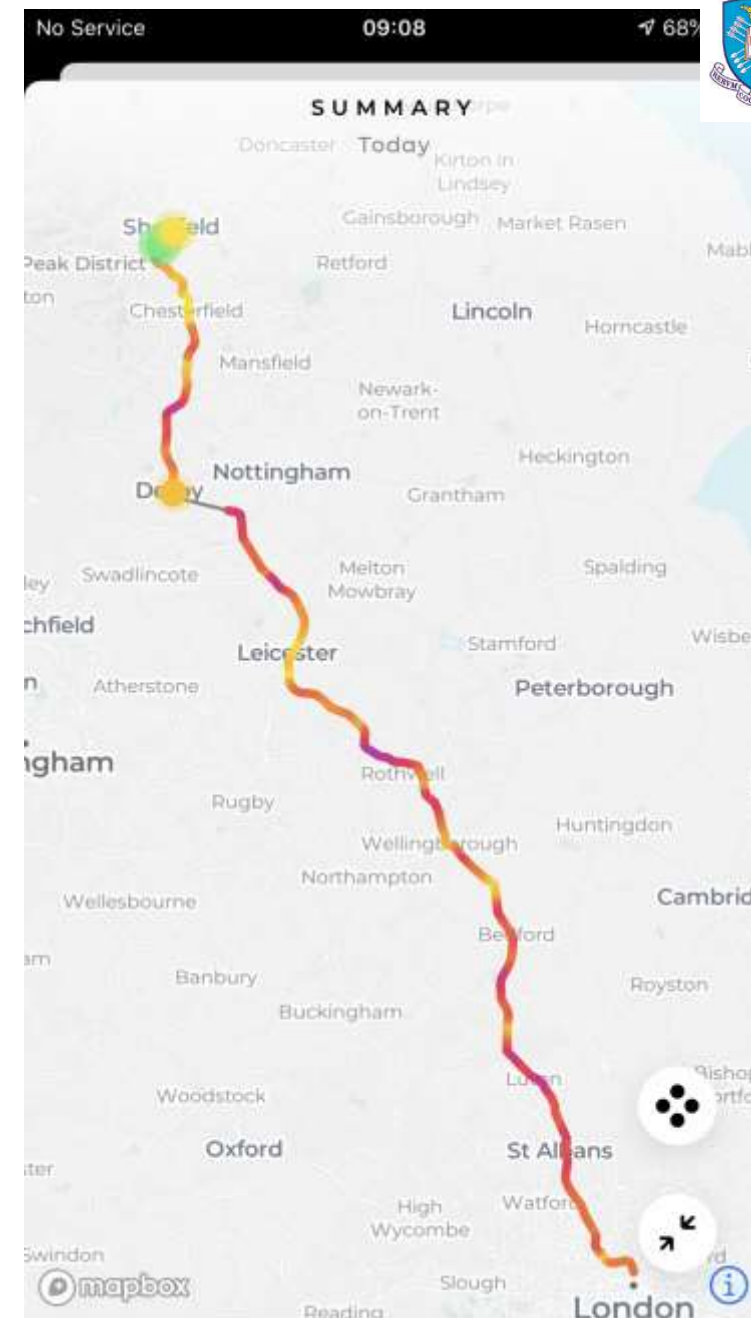
NO₂



SPOT THE EMISSIONS

- The data were recorded on a Plume Flow Sensor
- This is the 07:25 SHF-STP train
- Emissions are High to Very High for PM₁₀ which is Hazardous to Health

Due to on-board Breakfast Service in a sealed carriage with no ventilation



NET ZERO CATERING

- Cooking emissions are very significant
- What practices are supported in your organisations?



SUMMING UP

- We need to be aware that cleaning and catering produce significant emissions over the complete lifecycle of the process: From Cradle to Grave
- In a post-COVID society we need to remain vigilant to our environment
 - We will need to continue to establish secure cleaning protocols but be aware of the associated emissions in the drive to Net Zero
 - We need to be aware of the dangers of particulate matter emissions and their affect on health, particularly PM2.5 which we breath AND respire

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