



Sustainability: How mega and macro trends are playing out in the Lubricants business

A Presentation for:



September 2022



The Energy Transition and the Evolution of Mobility is leading to opportunities and disruption in the Lubricants Industry

Mega themes are leading to the evolution of lubricant specific trends



ENERGY TRANSITION

- **Products and Solutions for Renewables:** e.g. Wind Energy Lubricants
- **Grid readiness/Transformer** oils in light of Energy transition
- **Biogas/HFO/NGEO** industrial engine analysis
- Emerging **Hydrogen** Economy



MOBILITY

- **New Mobility Ecosystem**
- **Parc evolution**
- Engine oils **long-term outlook**
- **EV Fluids** Opportunities
- Sustainable Fuels
- **EV Charging** opportunities



PRODUCT EVOLUTION

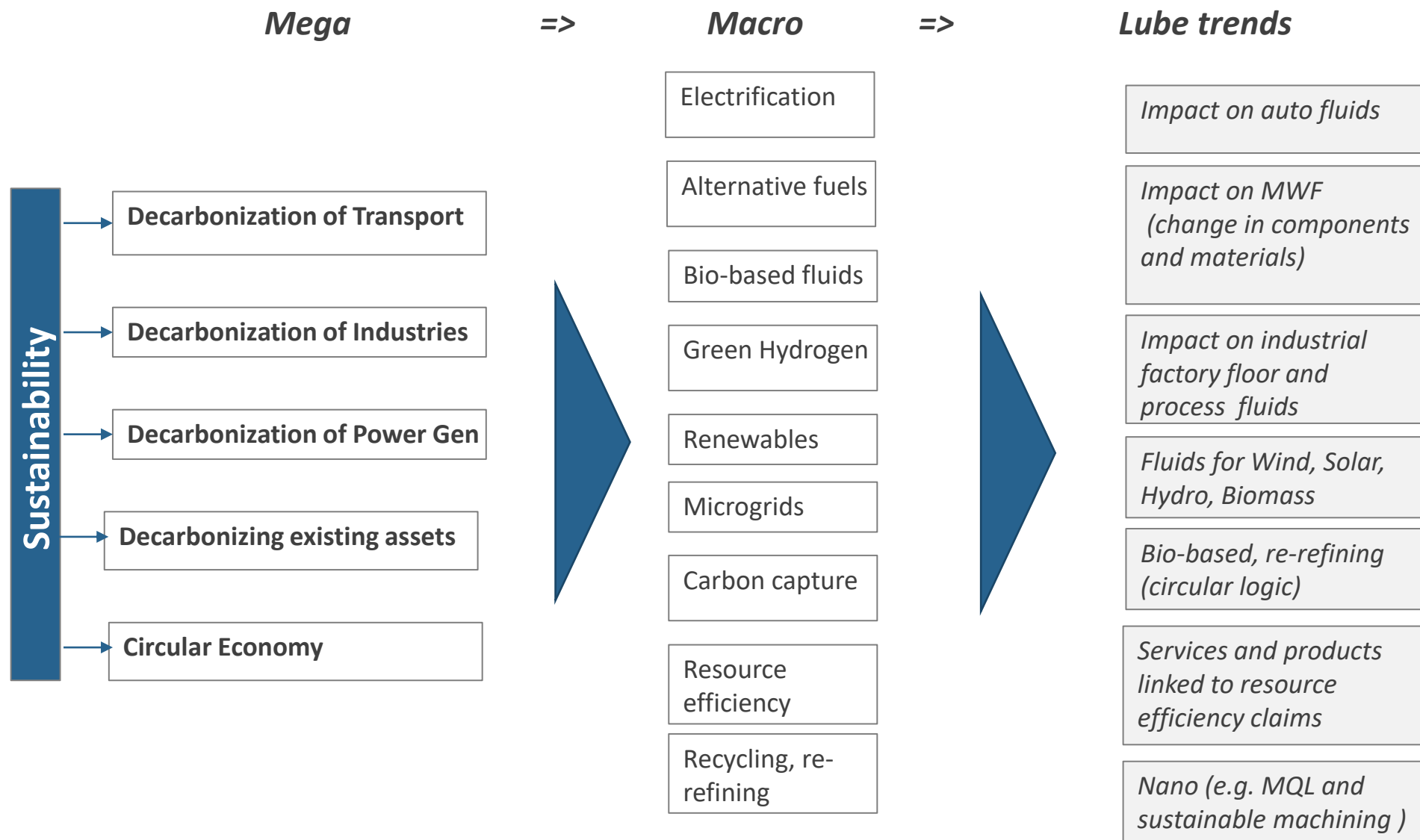
- Bio-lubricants
- **Used oil and Re-refined lubricants and eco-system**
- Synthetic base oils
- Impact of EVs on MWF
- Novel **coolant solutions**
- **Sustainable Value Pools** across various sectors
- New metrics: Factors impacting the **lube footprint**



FROM PRODUCT TO SERVICE/SOLUTIONS

- Opportunities/**Evolution of services related to lubrication**
- **Digitalisation** and its future business models
- **Partnerships and stakeholder** evolution

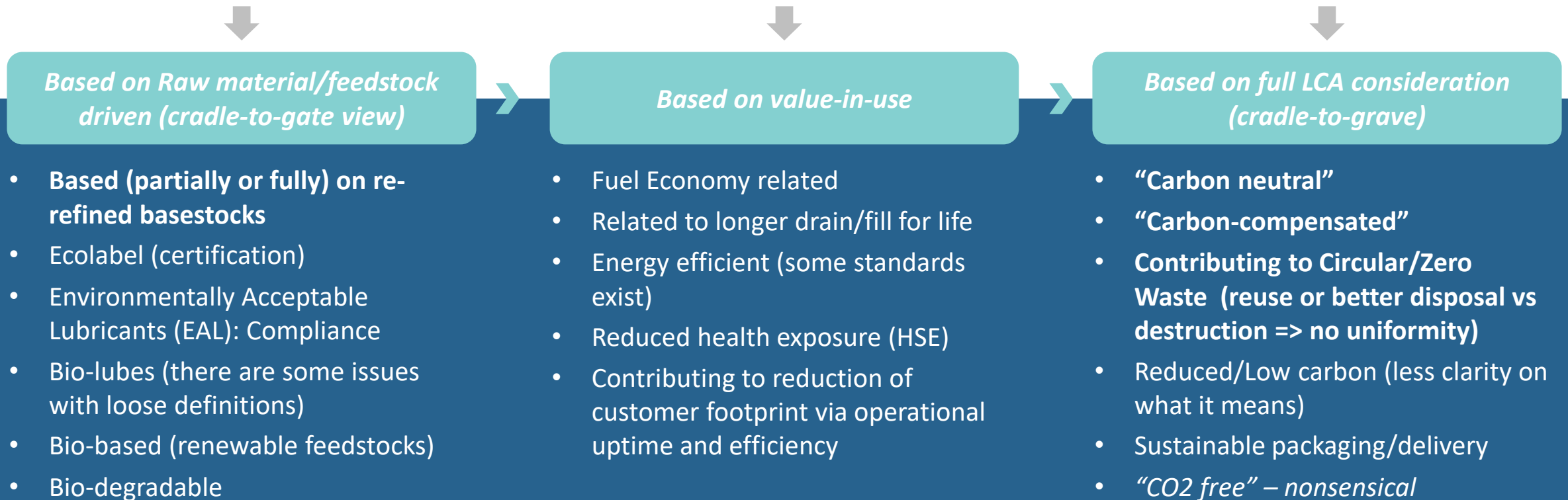
Connecting Mega to Micro: Sustainability impact on lubricants and adjacencies



Increasing focus on sustainability: Lubricant marketers' approach to sustainability will be diverse, from focusing on raw materials (Bio/RR) to full LCA/cradle-to-grave

In search for Sustainable Lubricants: What we are talking about so far

Our offer is more sustainable because we use/help by means of ... – a snapshot



*The metrics, standards and methodology as well as customers and regulators are becoming more sophisticated and discerning
=> Intuiting what’s “good” or “bad” will not be enough. You can only claim what you can measure*



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