



UNECA CONTINENTAL WORKSHOP ON E-VEHICLES INSPECTION

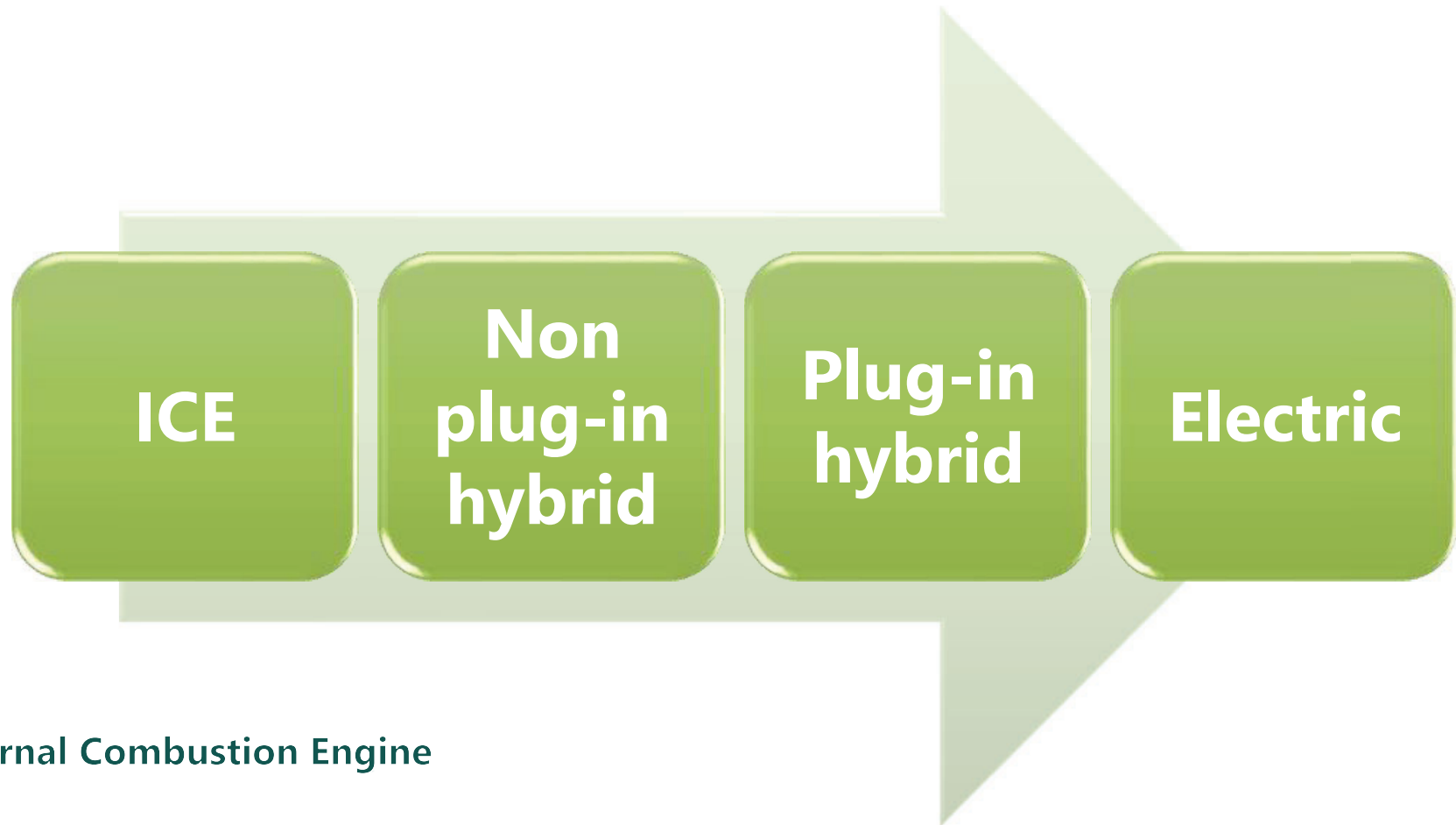
The challenges of e-vehicles

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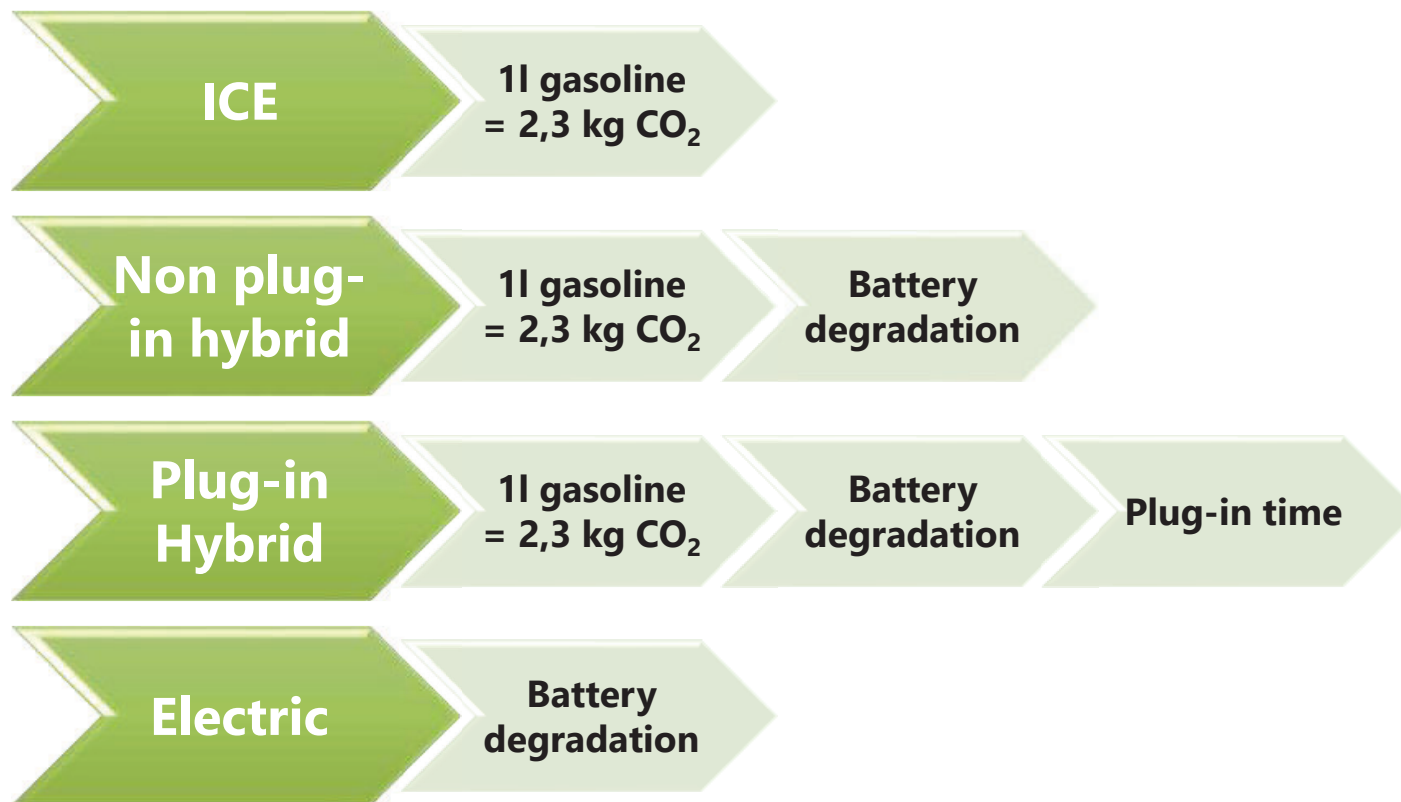
Whereas this presentation highlights the challenges, electrification is the way forward for road transport

Challenge 1: shifting technologies



ICE: Internal Combustion Engine

Challenge 1: shifting technologies



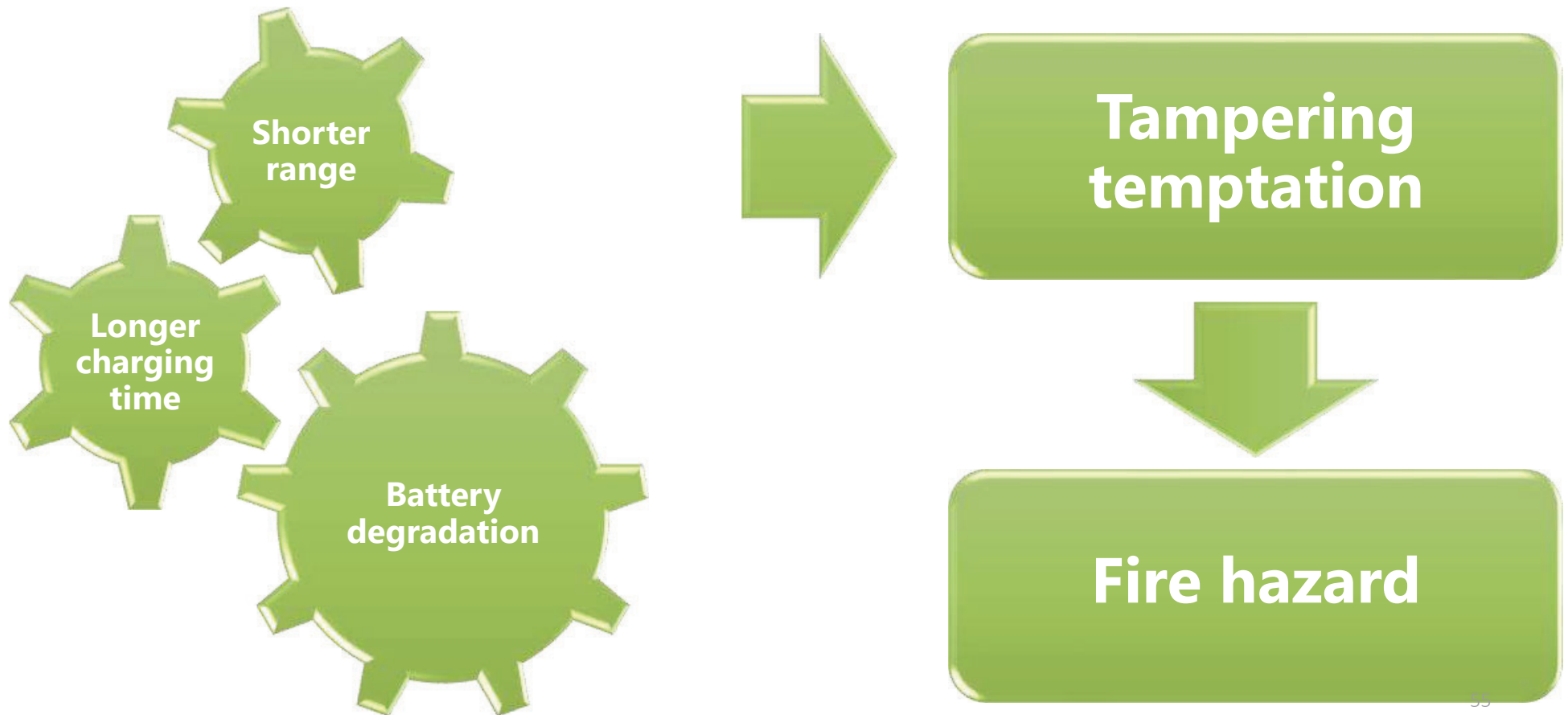
Challenge 1: shifting technologies



**A hybrid vehicle
with worn or
empty batteries
is an ICE vehicle
drawing
x hundred kg of
useless weight**



Challenge 1: shifting technologies



Challenge 2: indicators



- ✓ **Fuel consumption = GHG emission ► theory and reality not always matching**
- ✓ **WLTP cycle: fuel consumption data refers to the first 100 km. Does it properly represent plug-in hybrid vehicles?**
- ✓ **Battery range ► theory and reality not always matching**
- ✓ **Battery State of Health – SoH: a key parameter**

Challenge 3: vehicles procurement



New vehicles:

- Fuel consumption
- Battery range
- Battery charging time
- Battery durability

Used vehicles:

- SoH

Challenge 4: Vehicles in use



JUNE 2023 | POSITION PAPER

ENSURING LIFETIME COMPLIANCE OF
ELECTRIC VEHICLES WITH SAFETY AND
SUSTAINABILITY REQUIREMENTS.

- REVISION 01



https://citainsp.org/wp-content/uploads/2023/06/CITA_WP_BEV_REV1_15062023_FINAL.pdf

Challenge 5: Where is the benchmark?

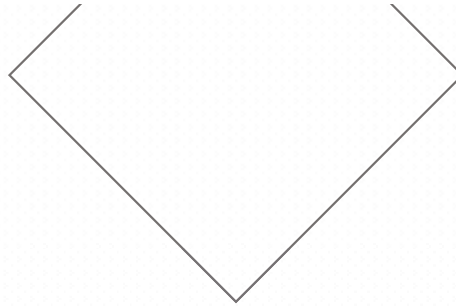


We still do not have an inspiring reference



Making vehicle electrification a success history:

- ✓ **Knowing technology limitations**
- ✓ **Being aware of indicators' meaning**
- ✓ **With an impartial assessment of vehicles**



Thank you for your attention!

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