

Session 3: Transport system optimization: logistics and inter-modality

Introduction

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EU JRC / IEA Workshop

Future Role of Trucks for Energy and the Environment

Brussels 8th November 2016

Scoping of Logistics Interventions



logistics ≠ transport



critical inter-dependence between technology, infrastructure and logistics

delimiting the boundary around logistics initiatives

transport

logistics

operations

business

single company

multi-business

fleet management

network design

recycling

product design

delivery scheduling

cross-docking

packaging

vehicle routing

modal split

port-centric logistics

order processing

sales and operations planning

control tower

materials handling

backloading

primary consolidation

procurement

outsourcing

vertical collaboration

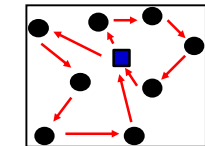
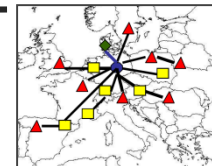
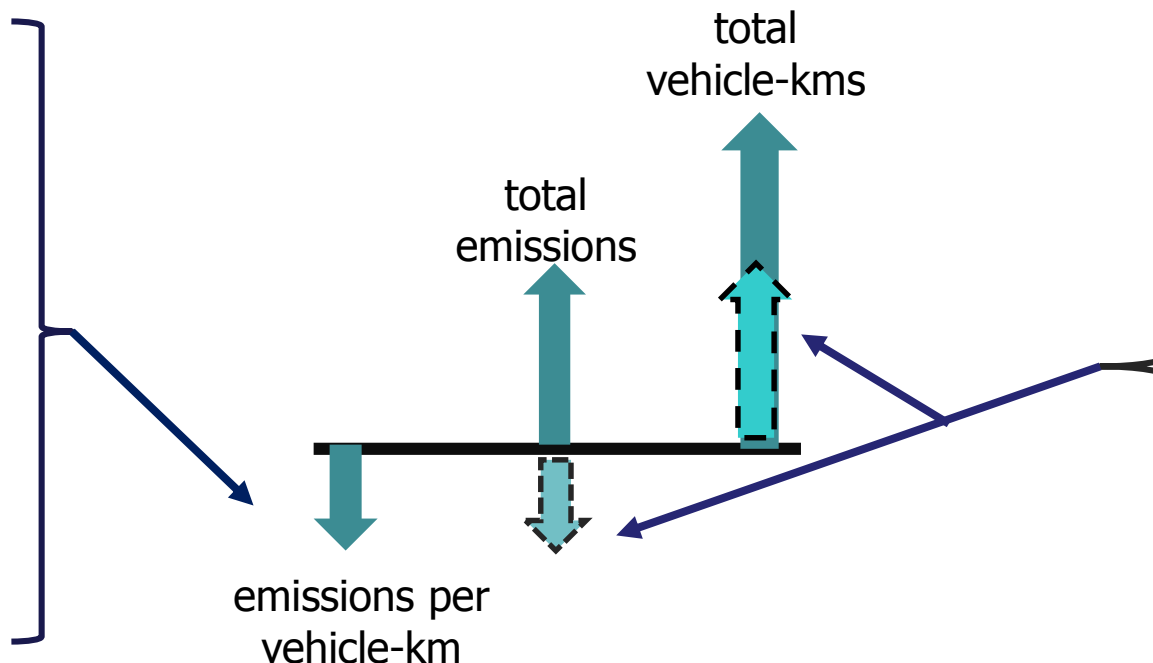
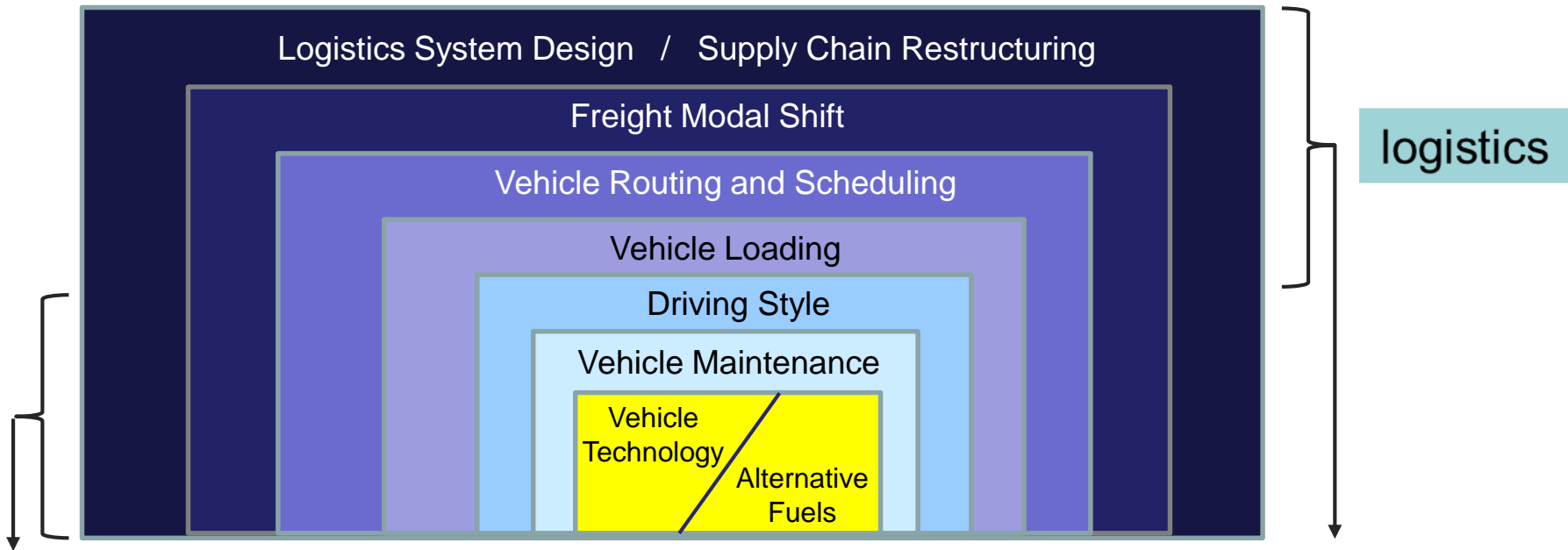
sourcing

horizontal collaboration

vendor managed inventory

Nature and scale of logistics interventions varies between long haul and urban freight operations

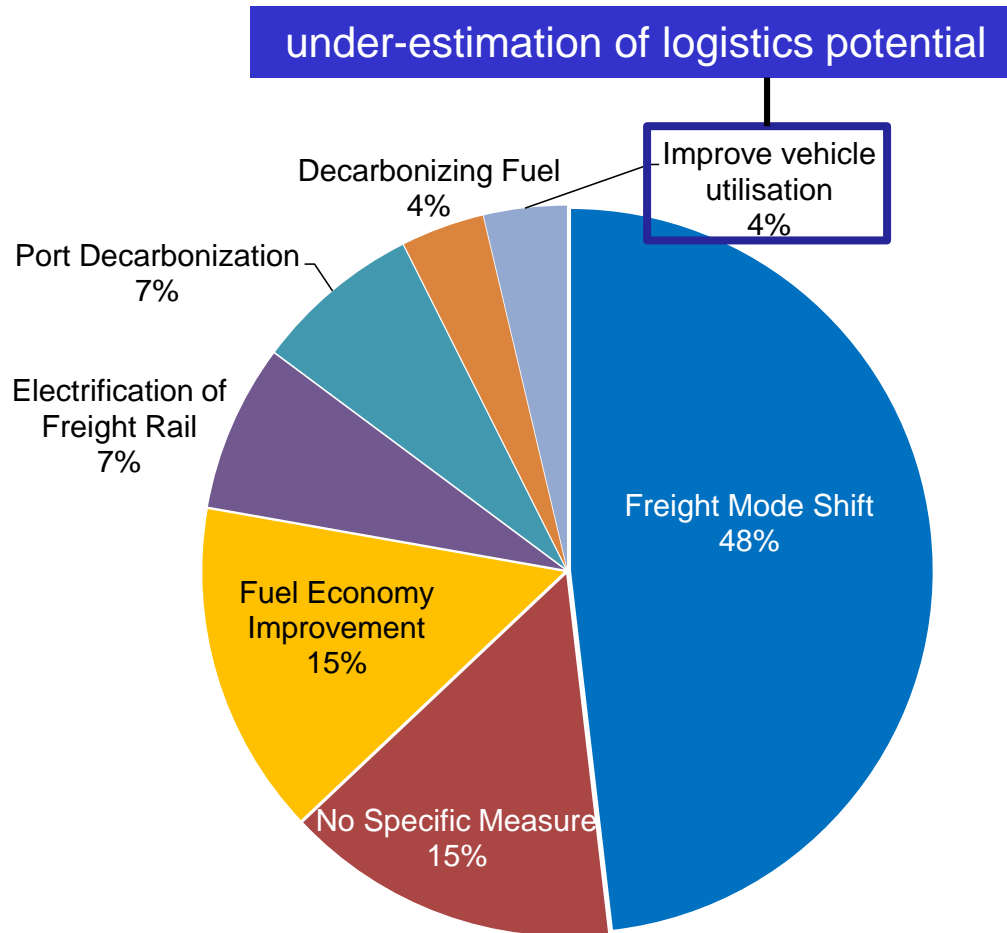
Scoping the Road Freight Decarbonisation Effort



Climate Change Mitigation Measures Specified for Freight in INDCs

Content of 158 INDCs for 185 countries analysed
43% explicitly refer to passenger transport
13% explicitly refer to freight transport

Analysis by Sudhir Gota



% of INDCs specifying particular green freight measures

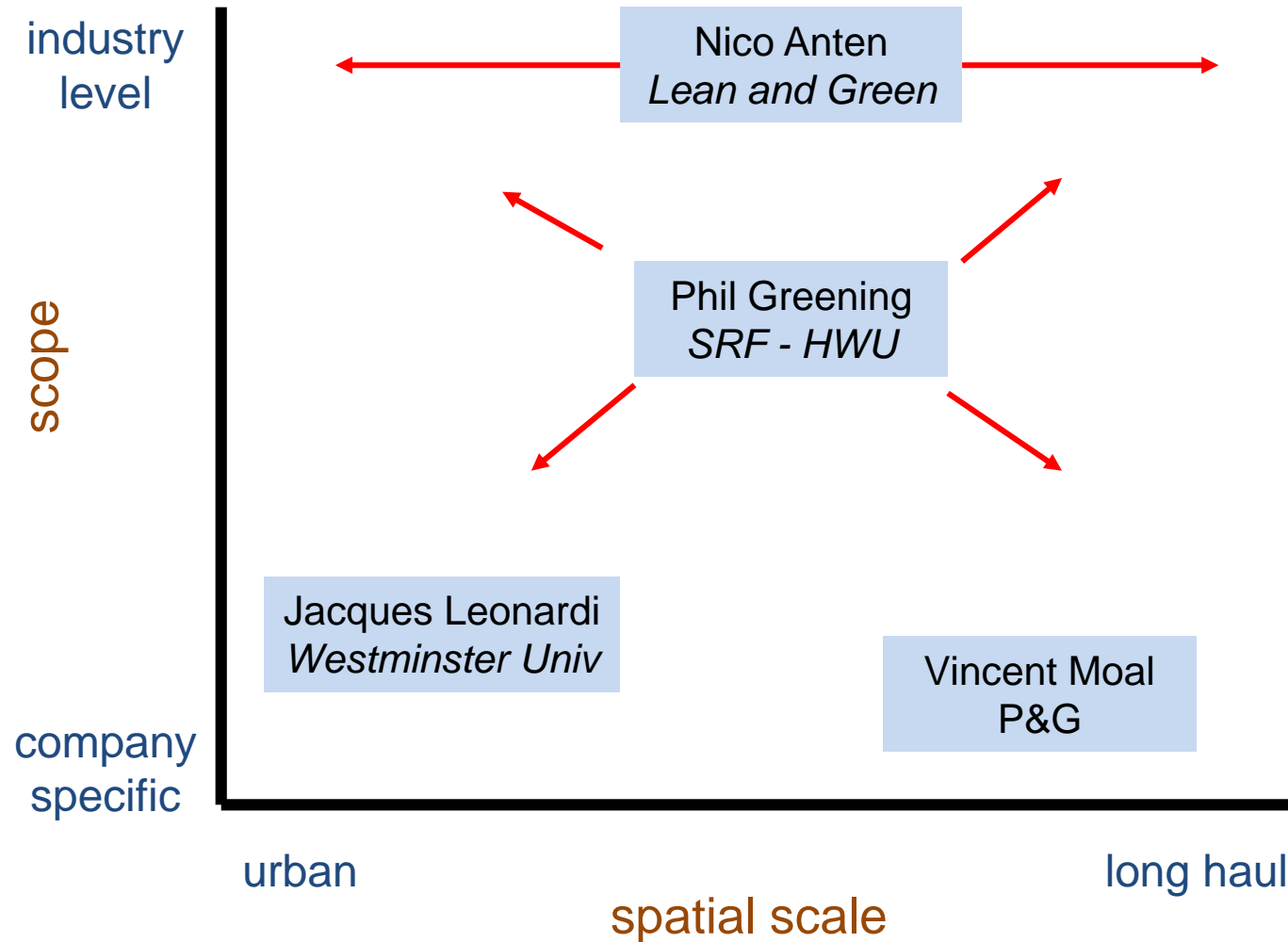
Macro-level Assessment of Potential Carbon Savings from Logistics Initiatives

constraints

- lack of baseline data on current practice and adoption of initiatives
- variability of practice and related CO₂ impacts by company and sector
- inter-relationship between logistical activities – difficult to isolate effect of specific interventions
- limited monitoring / disclosure of carbon impacts of past interventions
- little empirical data for the calibration of simulation models
- difficulty of assessing wider supply chain and environmental impacts

How can we overcome these constraints?

Positioning of the invited contributions



Possible Issues for Discussion

What logistics interventions are likely to yield the greatest carbon savings in the road freight sector ?

How can companies be incentivised, individually and collectively, to implement them?

How close is the alignment between economic efficiency and carbon intensity in the management of logistics systems?



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