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Proven Strategies to enable more efficient and low-carbon logistics

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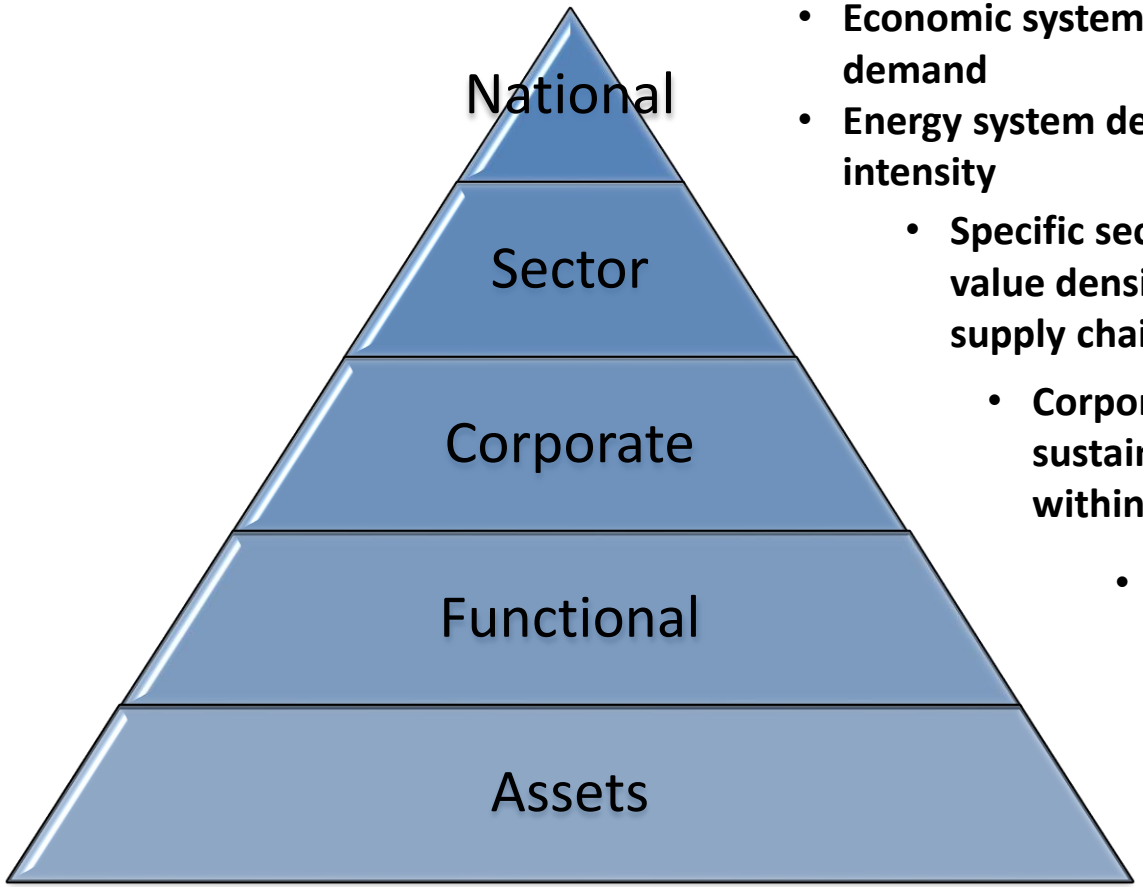
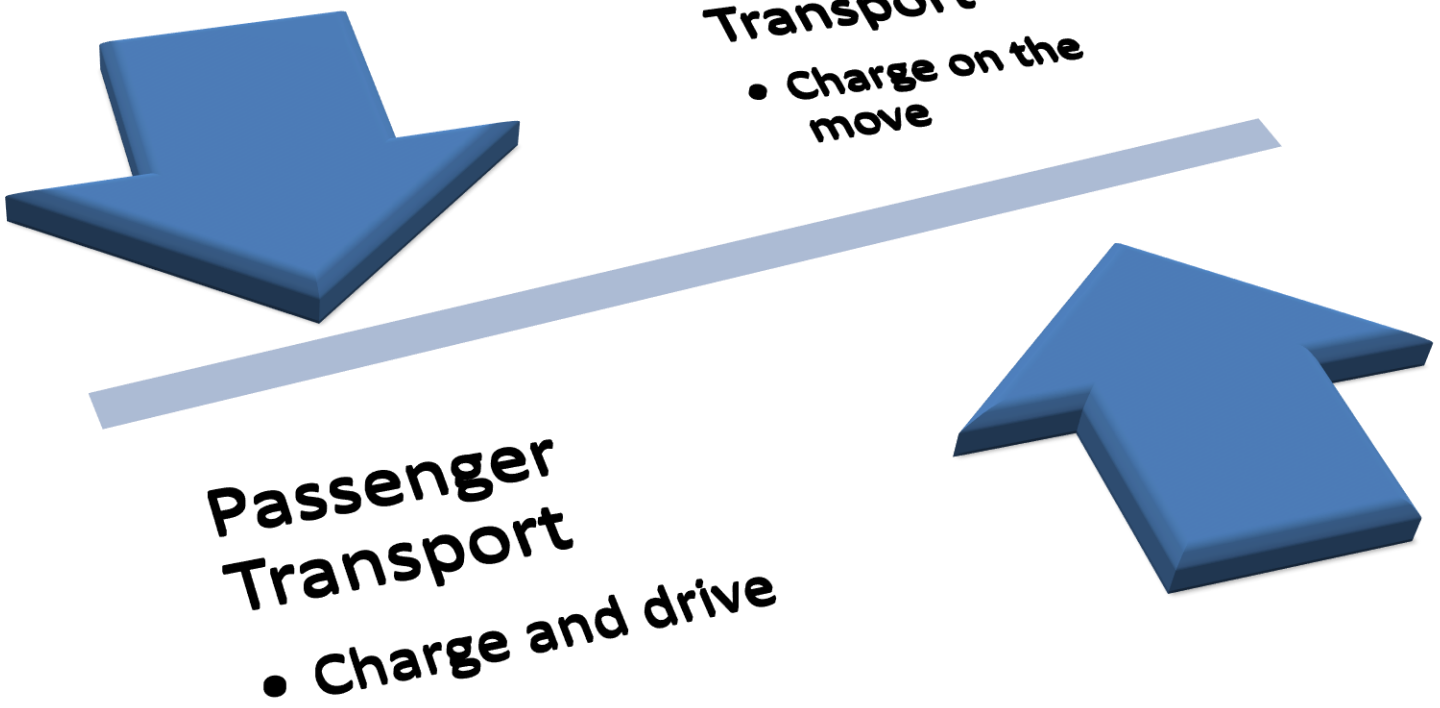
Systems and sub systems

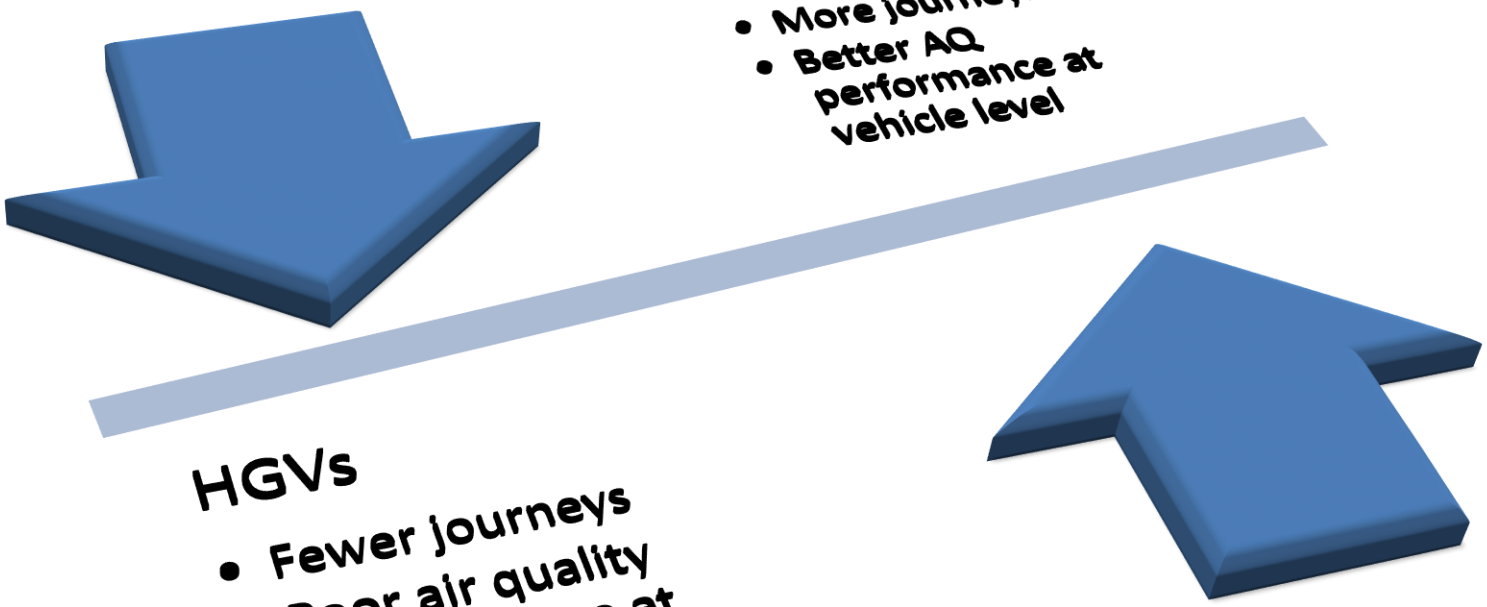


- **Economic system describes logistics demand**
- **Energy system describes carbon intensity**
  - **Specific sector characteristics – value density etc used to design supply chains**
    - **Corporate Supply chains focused on sustainable competitive advantage within the sector environment**
      - **Fleet configuration and physical network design to deliver the corporate strategy**
        - **Vehicles**

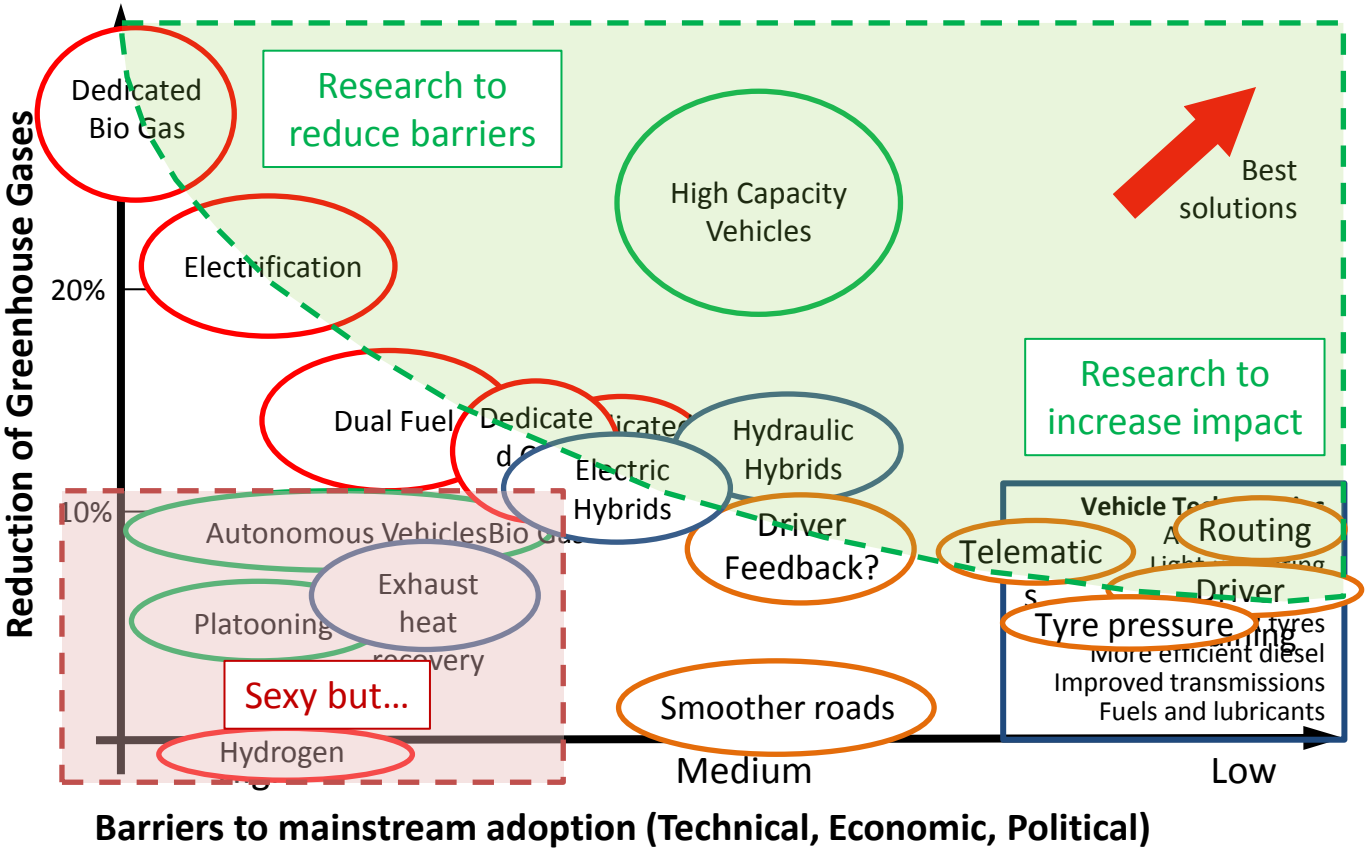
EV: Infrastructure tensions



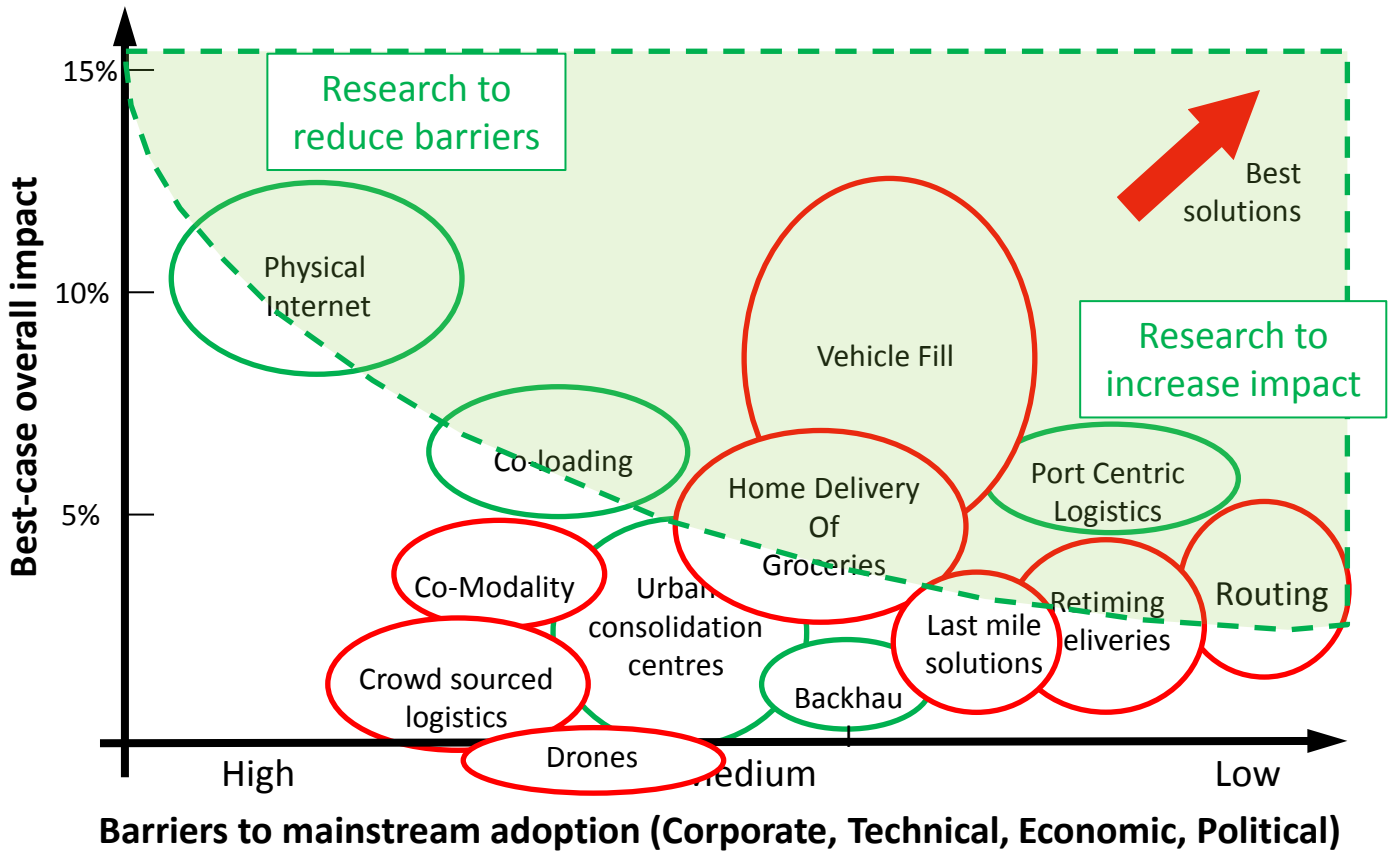
Air Quality: HGVs vs LGVs



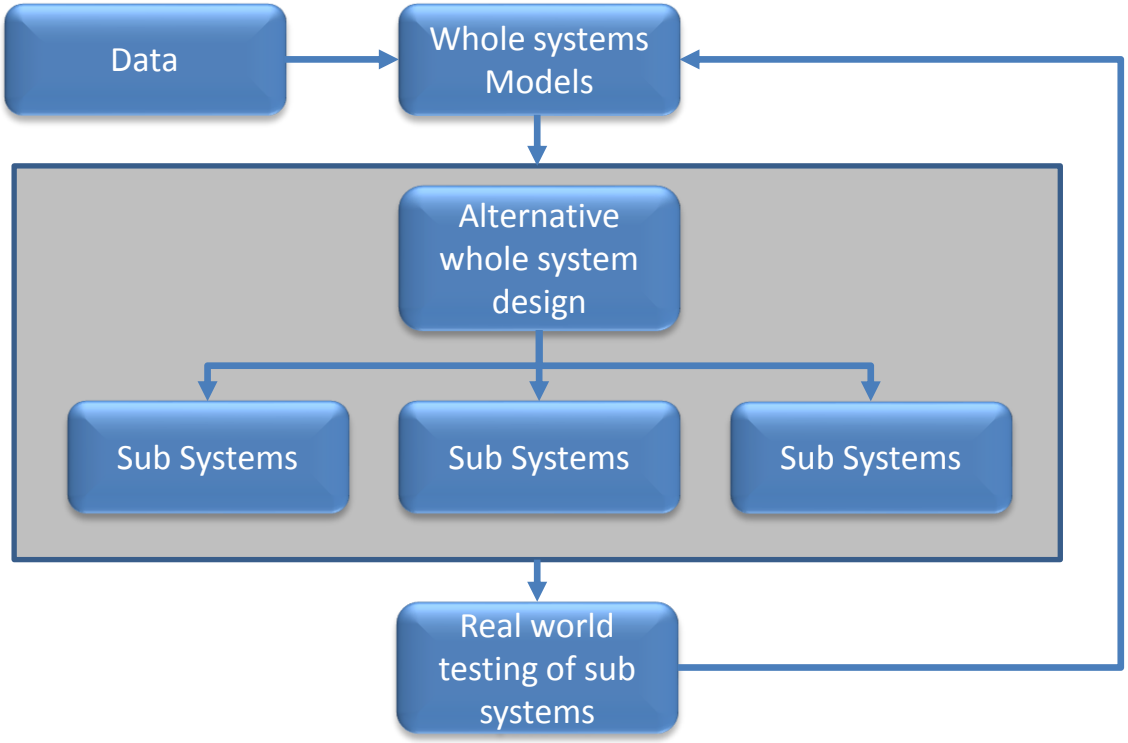
Technologies for reducing fuel consumption and CO2



Logistics measures for reducing fuel consumption and CO2



A new approach: whole systems thinking



Data & whole systems approach critical to this approach

Unit load building in the pick process

Pallet configuration can make a big difference to outbound efficiency:

- Transport
  - Cube efficiency
- Customer
  - Customer friendly deliveries