

GLOBAL MACRO-ROADMAP: an Actionable Vision of Decarbonized and Resilient Transport



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What is at Stake?



- **Climate Change:**

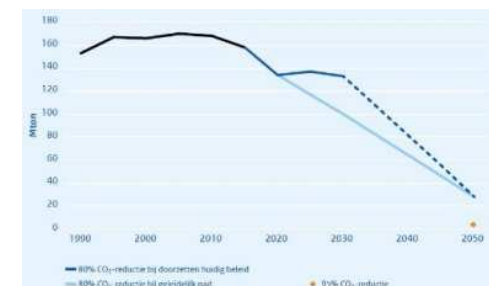
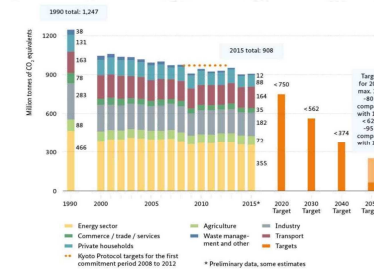
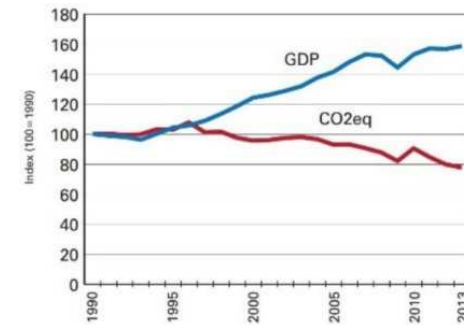
- Current Transport GHG emissions are **7.7 Gt**
- 2050 BAU => emissions possibly **13-15 Gt**
- 2050 emission levels based on **Paris Agreement** “well below 2°C” => target **2-3 Gt**

- **Sustainable Development:**

- **1 billion** without access to all season roads
- Urban population will grow by **2.3 billion** up to 2050
- **1.3 million** killed in road accidents
- **Million +** people die annually from transport related air pollution

Early Adopters of Decarbonization

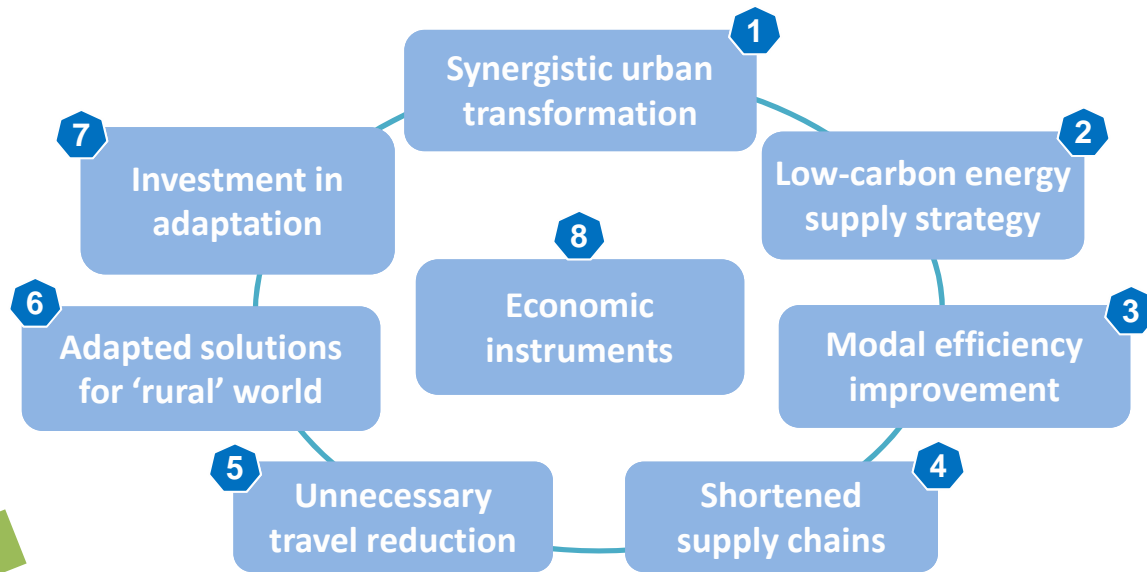
- **Sweden** decoupled GDP growth from CO₂; now speeds up CO₂ reduction process to be **carbon-neutral by 2045**
- **Germany's** Climate Action Plan targets 55-56% reduction (1990 levels) by 2030, **80-95% CO₂ reductions by 2050**
- **The Netherlands** introduced Energy Agenda with intention to be **nearly CO₂ emissions free by 2050**



1.5 Degree Target of Paris Agreement is being translated into national plans in various European countries – Transport is an active part of plans

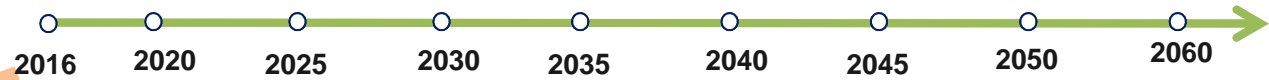
Roadmap : 8 priorities to decarbonize transport by 2050+

Implementing the Paris Agreement in a Global Roadmap aiming at zero net emission Transport



Trail blazers / OECD

Fast followers



Linkage Roadmap components and SDGs

Strong impact

Medium impact

Less impact

Component 1
Urban Transformation

Component 2
Low Carbon Energy

Component 3
Modal Efficiency

Component 4
Shortened Supply Chains

Component 5
Travel Reduction

Component 6
Solutions for Rural World

Component 7
Adaptation

Component 8
Economic instruments

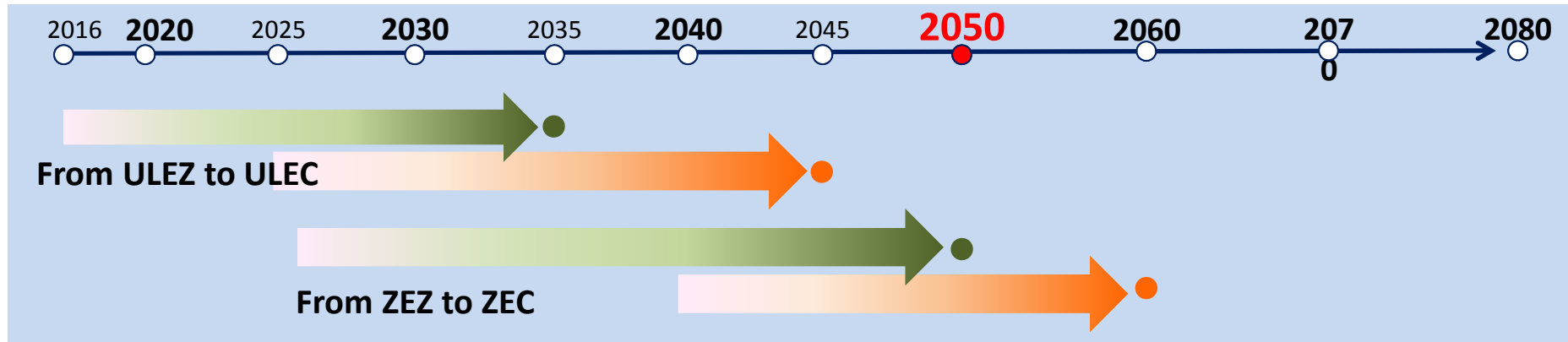


Trail blazers

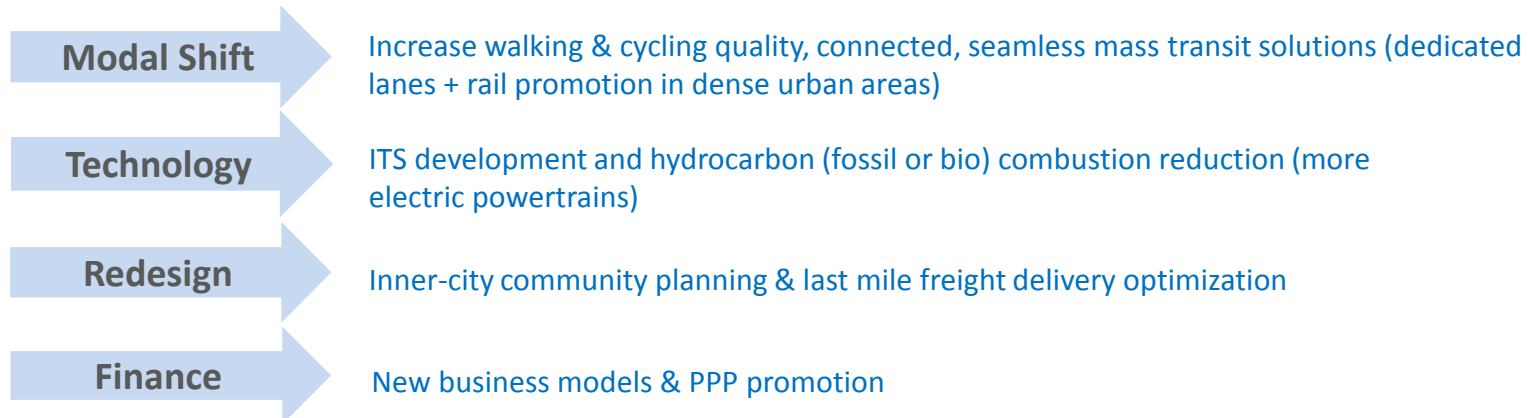
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1. Urban transformation

Leverage aspiration for healthier, inclusive lifestyles and efficient prosperous cities to drive urban transport de-carbonization



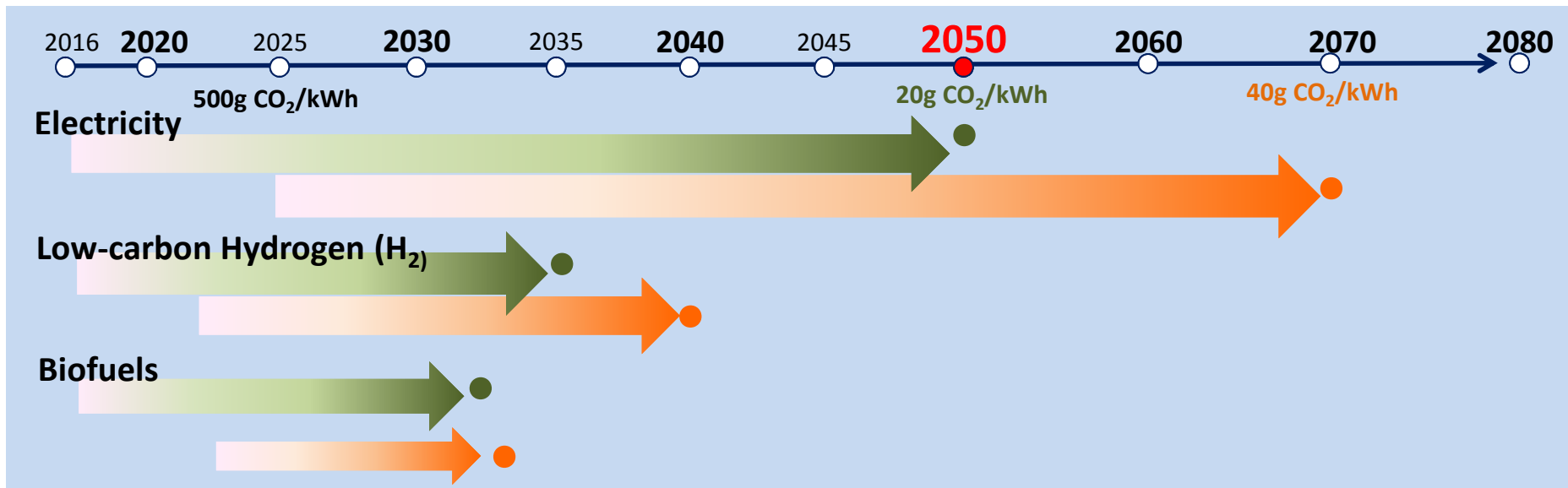
- Expand ultra-low emission zones (ULEZ) concept (e.g. London) to reduce GHG emissions
- Establish ultra-low emission cities (ULEC) before moving to zero transport emission zones/cities (ZEZ/ZEC)
- Realize efficient and effective market for new services and technologies
- Maintain local mandate for urban transport policies



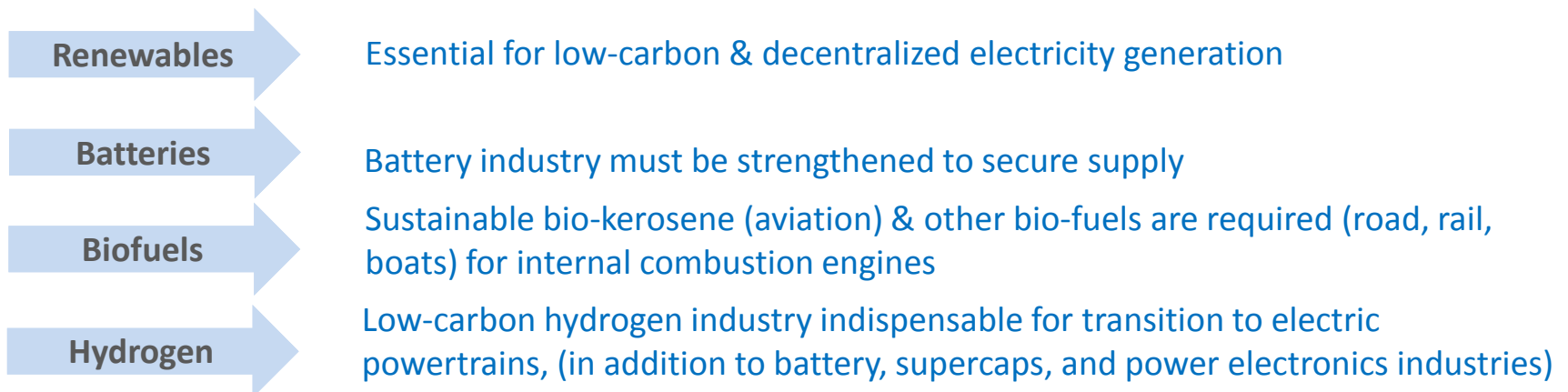
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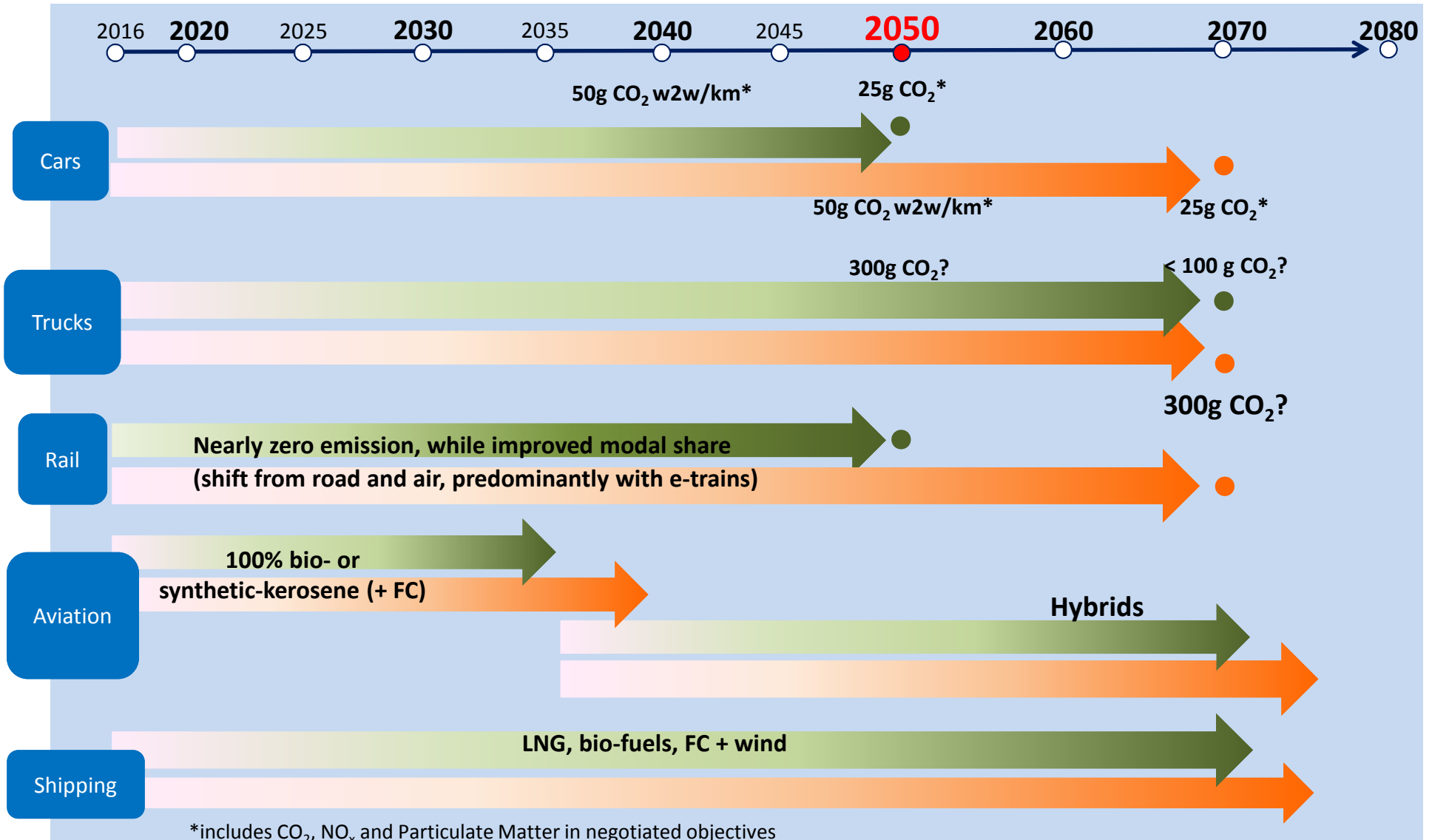
2. Low-carbon energy supply strategy



- In addition to low-carbon electricity, sustainable bio-fuel & hydrogen industries are indispensable by 2025/2030 at the latest to begin significant de-carbonization of transport
- An exhaustive low-carbon energy plan is a must for the world

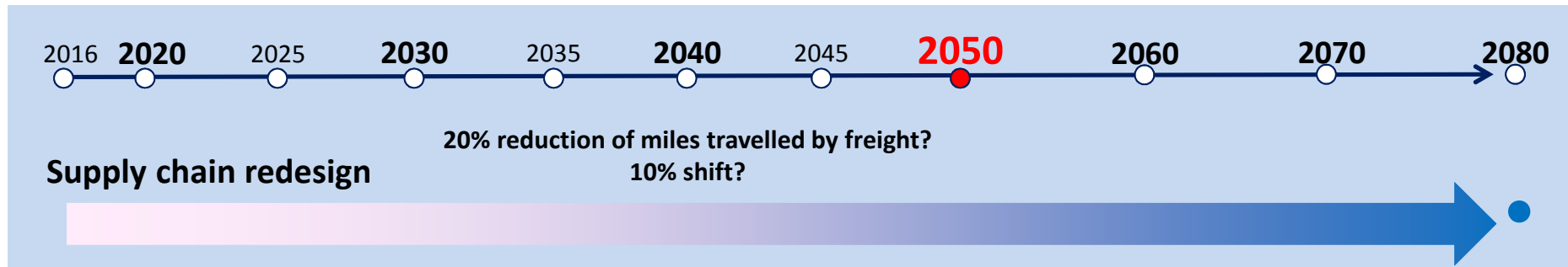


3. Improve modal and system efficiencies



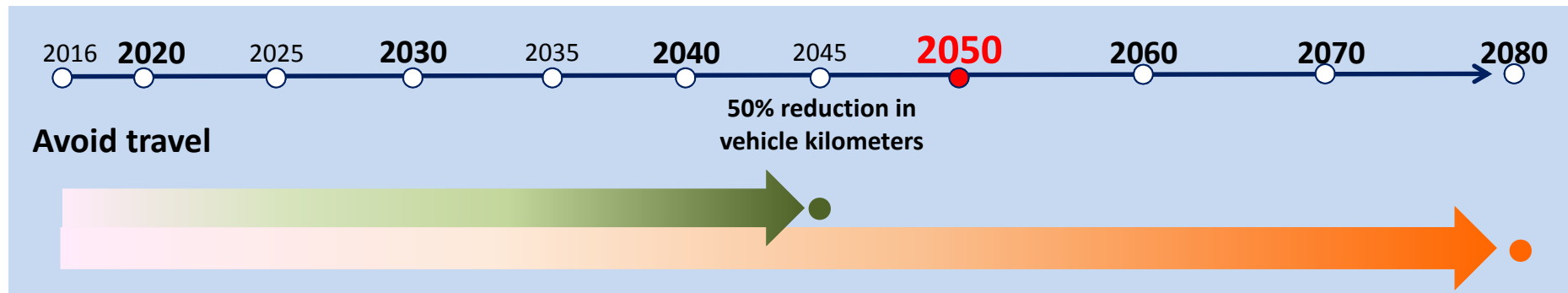
- Post 2020 emission standards trajectories must extend to 2050, at minimum
- Encourage co-modality and modal shift to most efficient solutions, based on evidence of performance improvement
- Optimize the whole multi-modal system as this is perhaps where transport policy can have the greatest impact

4. De-fragment and shorten supply chains to manage freight transport



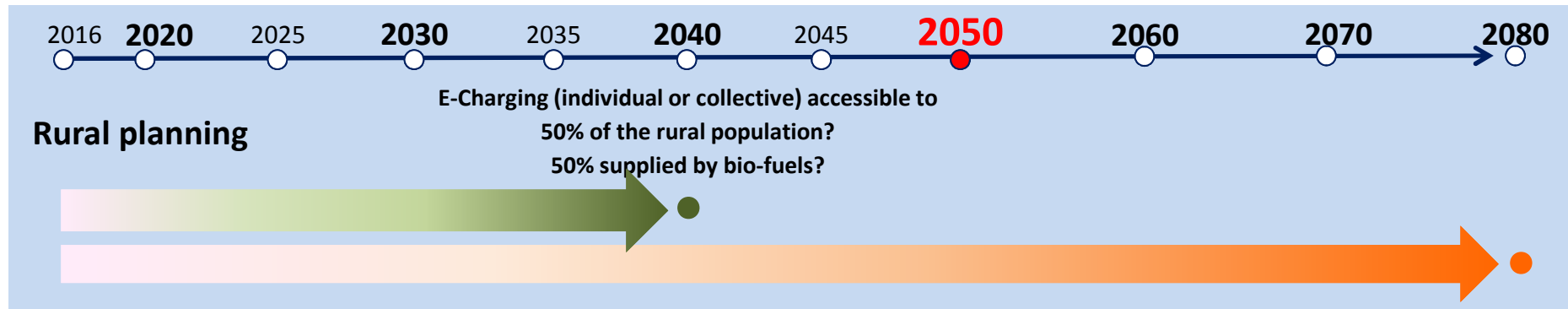
Circular economy and industry 4.0 schemes will help re-design supply chains (local & long haul). A public/private workstream on this issue must be launched without delay.

5. Avoid vehicle kilometers for commuting, shopping and accessing services



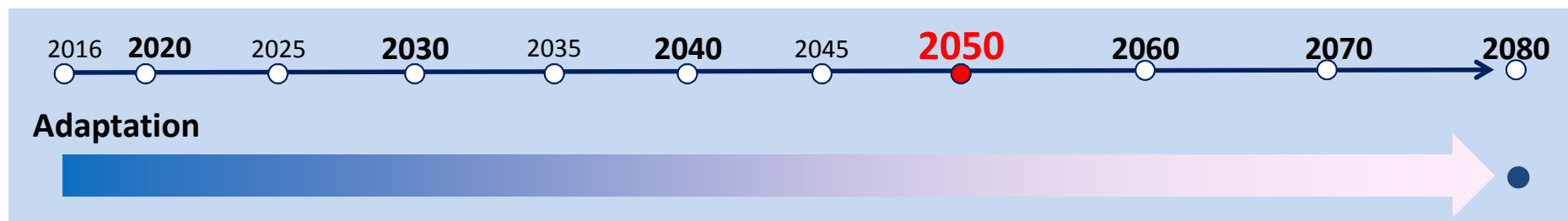
Less travel, teleworking from shared remote offices are possible has huge co-benefits on behavior and economy. Strong action in this area must be coordinated, once again, to create business opportunities.

6. Provide low-carbon solutions for the rural populations



- Infrastructure planning should in particular take into consideration that decentralized electricity or renewable energy generation is favored in rural areas, with potential considerable benefits
- Car pooling to be widely promoted

7. Accelerate action on adaptation in transport sector



- By 2060/2080, the temperature will have increased and the transport sector will not be 'zero-emission'
- From now on strengthen efforts in adaptation and make our economy more climate-resilient

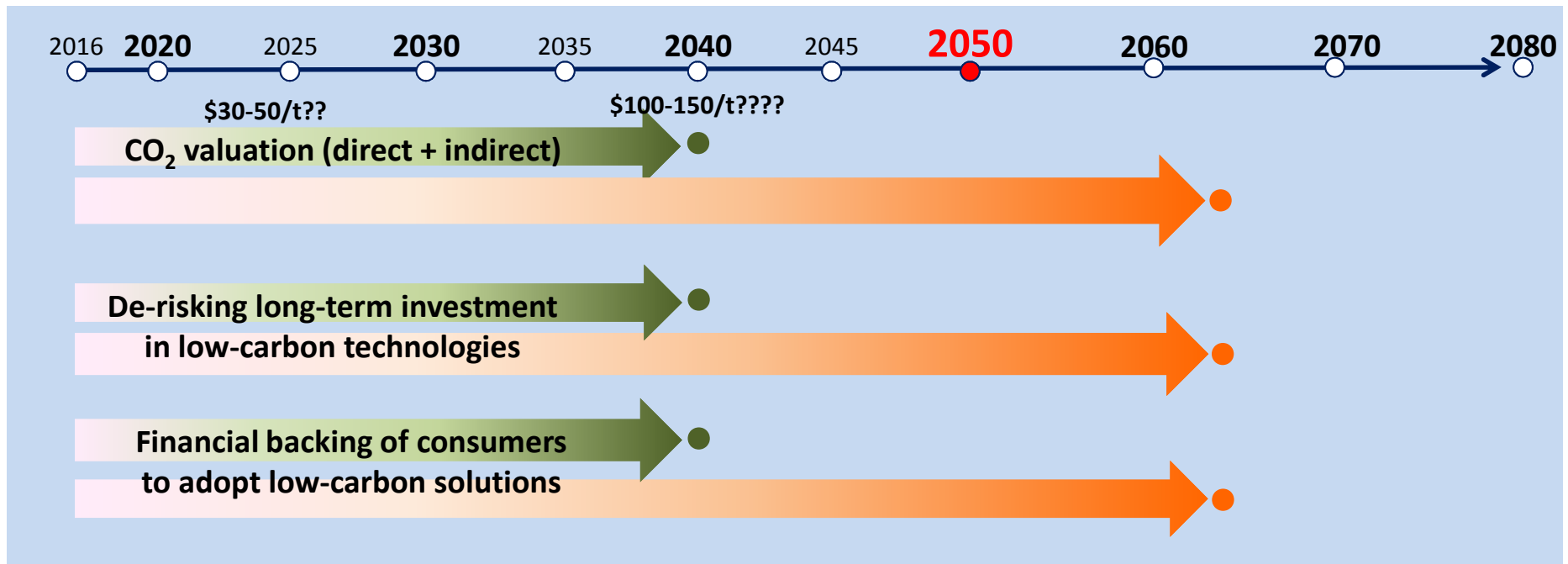
Trail blazers

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Global

8. Economic instruments

Large scale deployment of economic instruments giving a value to carbon, and which catalyze the transformation of the transport sector



- Review financial and regulatory tools (externality pricing, fiscal incentives to accelerate investment in long-term low-carbon solutions, standards, level playing field and risk cover measures...)
- Support an accelerated transport de-carbonization through global standards & technology transfers
- Start preparing and implementing EU-wide, large scale offsetting solutions (unless other sectors become GHG positive enough to counterbalance mobility/transport externalities, which is doubtful).

Quick Wins on transport, sustainable development and climate change to initiate immediate pre-2020 disruptive action



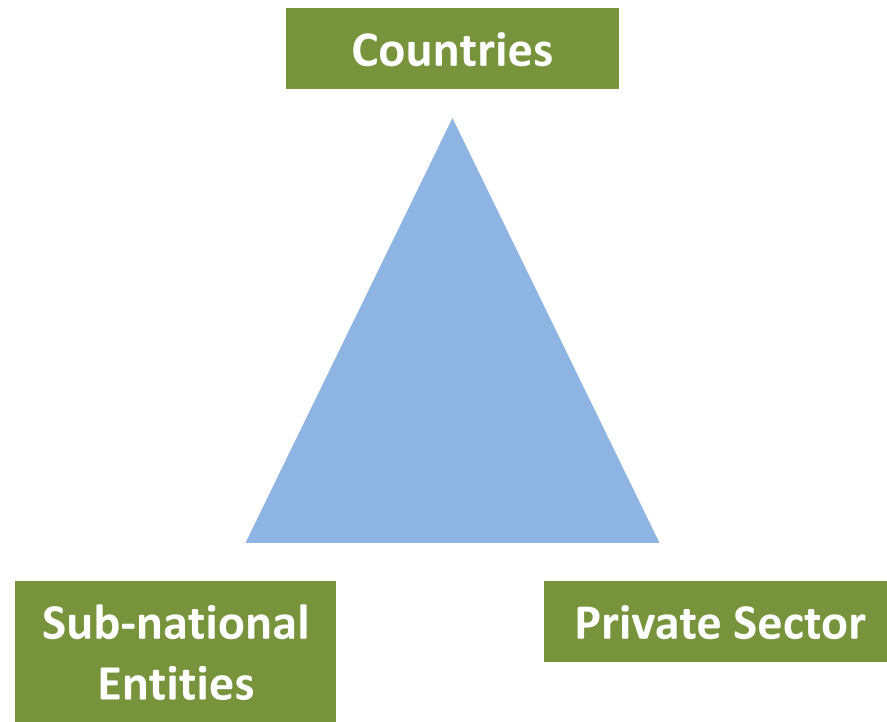
www.ppmc-transport.org/quick-win-actions/

- Scaling up proven solutions
- Can be implemented at relatively low incremental costs
- Halting existing unsustainable practices and/or regulations

Effective 2050-2080 Roadmap needs to combine long term with short term action

TDA - Transport Decarbonization Alliance

- Bring together countries, regional and business leaders to provide **political leadership** for decarbonizing the transport sector in the UNFCCC process
- Give **visibility** to leaders in the field and support them to realize their ambitious objectives on transport
- Raise profile of transport and **raise ambition** for action on transport in the context of the Facilitative Dialogue on increased ambition in the UNFCCC



Expectations from TDA members

- Commitment to work towards decarbonization of transport by 2050 or shortly thereafter;
- **Participants in the TDA, as part of joining the TDA, express general support for the overall principles and directions of the Global Macro Roadmap (GMR) on the decarbonization of transport developed by the Paris Process on Mobility and Climate;**
- Members of the TDA either have formulated ambitious short – (2020); medium – (2030-2040; and/or long term (2050) action plans, are in the process of doing so, or commit to do so;
- Members of the TDA are committed to share experiences with other TDA members on their efforts to define and implement Transport decarbonization strategies.

Thank you!
Ready for discussion