



Urban Mobility

Zero tailpipe
emissions led



Typically Low / Medium Power



New mobility vehicles
for bus-rapid-transit



Community
based transport



Buses with fixed city and urban routes



Long Range Mobility

Net-zero* emissions led



Typically Medium Power



Long distance coaches



Buses with flexible semi-urban and rural routes



***Net-zero:** Achieving a state in which the activities within the value chain of a company result in no net impact on the climate from greenhouse gas emissions. This can be achieved by balancing the impact of any remaining greenhouse gas emissions with an appropriate amount of carbon removals.



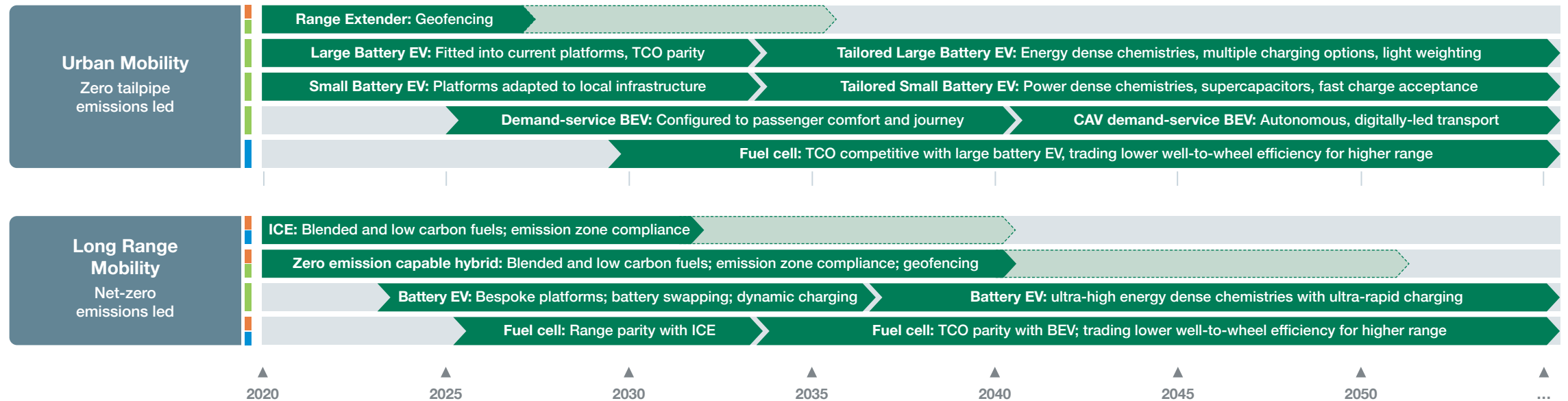
This roadmap represents a snapshot-in-time view of the global automotive industry propulsion technology forecast for mass market adoption. Specific application-tailored technologies will vary from region to region.



Solid colour bar:
Technology adoption for mass-market applications



Dotted line bar:
Technology exists in international markets, but less prevalent in Europe



Energy Source Mature for widespread adoption	ICE fuels	Blended fuels moving to low carbon fuels (including gaseous fuels)		Net-zero compliant fuels, sufficient supply at low cost	
	Electricity	Increasing renewable electricity supply		Ubiquitous renewable green electricity supply	
	Hydrogen	Sufficient (blue and green) hydrogen supply to support automotive applications			Green hydrogen, sufficient supply at low cost
Drivers and Regulations		Policy, environmental, social and economic drivers that exert influence on vehicle design and powertrain choices			
Technology Enablers		Engineering and technology enablers that exert influence on vehicle design and powertrain choices			

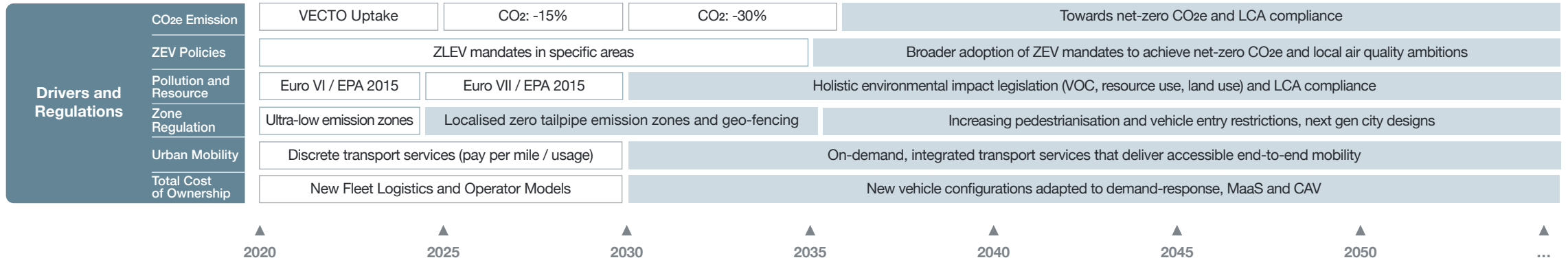
Hybrids = Mild, HEV, PHEV and range extender

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Further details
on page 3



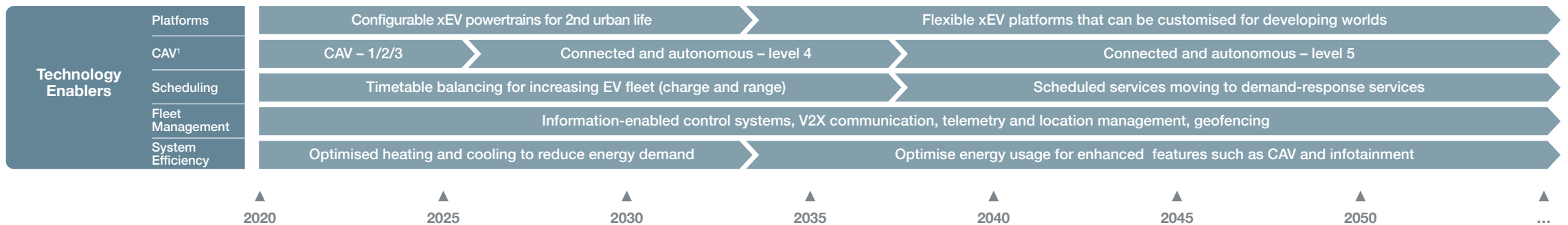
Policy, environmental, social and economic drivers that exert influence on vehicle designs and powertrains

Defined driver Predicted driver



Engineering and technology enablers that exert influence on vehicle designs and powertrains

Technology adoption for mass-market applications



1. Adoption is dependent on supporting roadside infrastructure (incl. V2X, digital networks, data protocols, interconnects). See further details on <https://zenzic.io/roadmap/>