

The Climate Change Advisory Council

# Workshop on transition of Irish transport: issues, approaches and options

14:00, 19<sup>th</sup> September 2019,  
Herbert Park Hotel, Dublin

## **‘Setting the Scene’**

Dr. Tadhg O’Mahony (Council Secretariat)

A green circular logo with a white outline, resembling a pin or a speech bubble, containing the text 'CLIMATE CHANGE ADVISORY COUNCIL' in white, uppercase, sans-serif font. The logo is positioned on the left side of the slide, overlapping the white background and the blue diagonal shape.

CLIMATE  
CHANGE  
ADVISORY  
COUNCIL

# Where are we now?

- Transport major source of GHG in Ireland
- Second largest sector behind Ag. at 19.8% of national total
- Transport CO<sub>2</sub> grew by +133% between 1990 and 2017

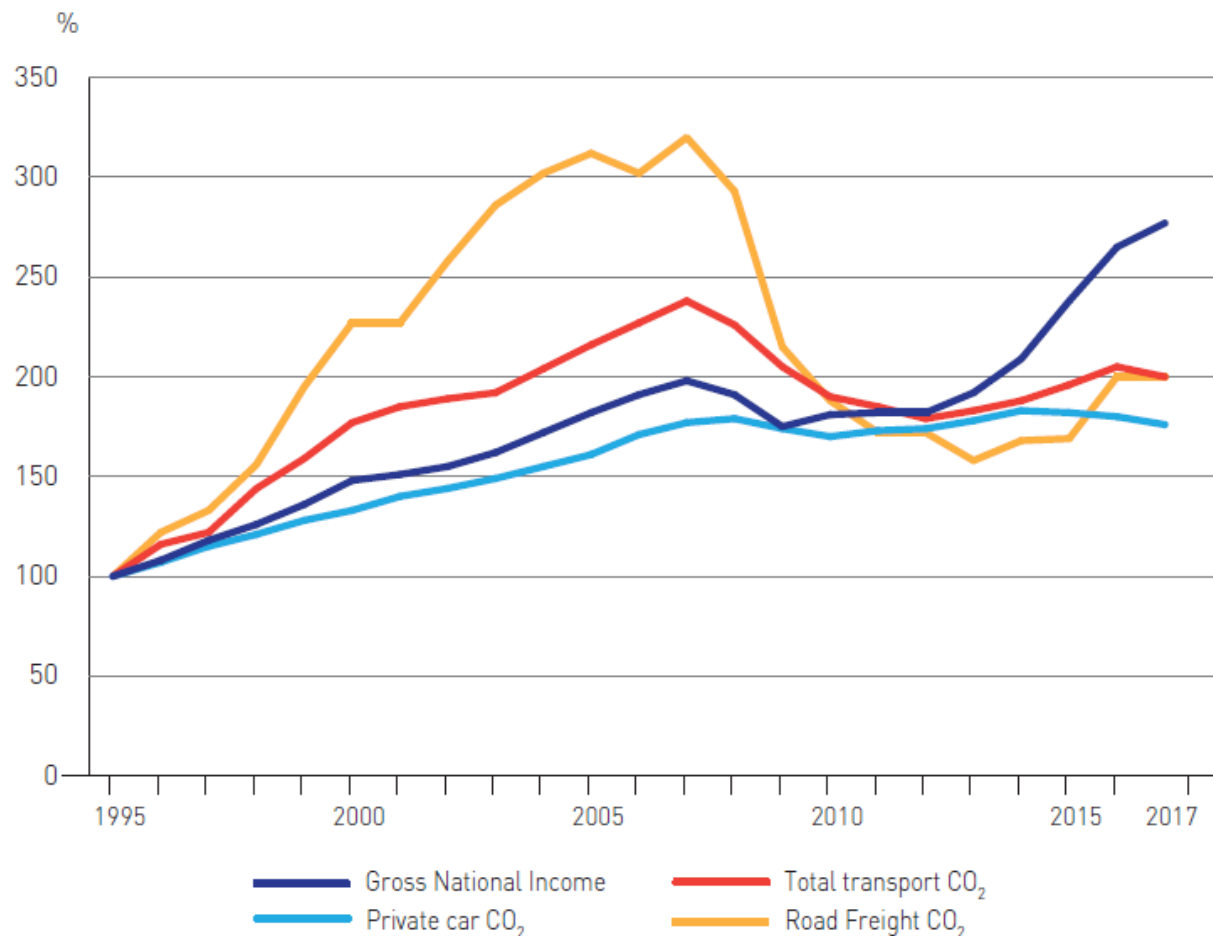


Figure 1. Trends in the economy and in transport CO<sub>2</sub> CCAC Annual Review 2019

# Where are we now?

- Transport CO<sub>2</sub> dominated by private car at 52%, followed by road freight at 19%

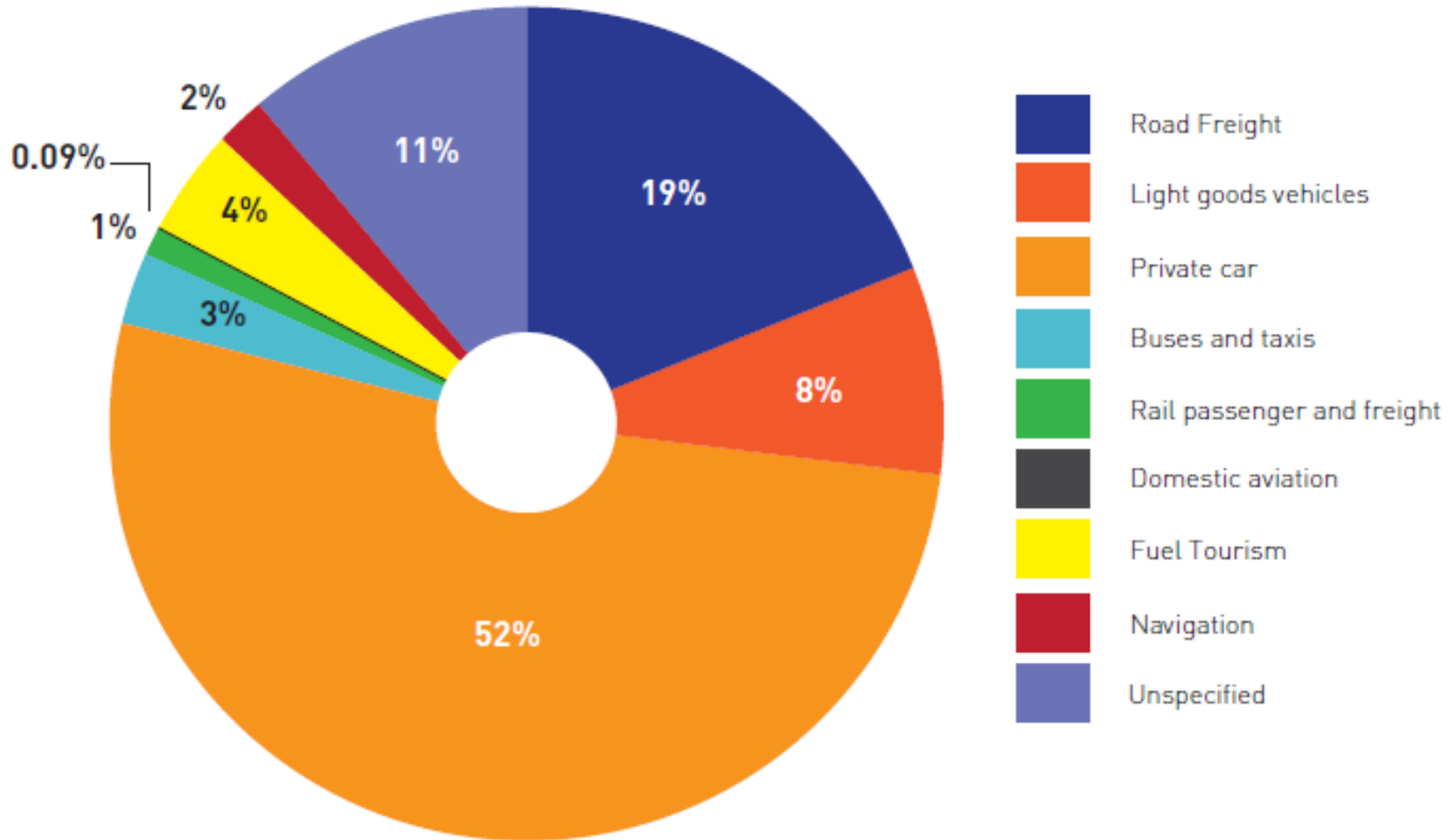


Figure 2. Modal shares in Irish transport CO<sub>2</sub> emissions in 2017 CCAC Annual Review 2019

# Where are we now?

- Global growth in transport emissions noted (IPCC, 2007; IPCC, 2014)
- Key drivers: income and population; social and cultural factors; patterns of spatial and infrastructure development; and costs and prices
- Understanding systemic drivers allows understanding full range of policy levers
- Increased passenger mobility in individual and motorised transport
- Freight shows increase from growth in consumption and trade
- Driving forces pronounced in Ireland, high income and pop. growth
- Policy choices facilitated lower-density and priority investment in roads
- Leads to more emissions intensive transport patterns and 'carbon lock-in'
- Ireland ranks 4th in EU per capita transport emissions

Table 1: Transport emissions data (2017) and per capita rank by Member State in EU 28

Rank	State	tCO <sub>2</sub> per capita
1	Luxembourg	10.06
2	Austria	2.71
3	Slovenia	2.70
4	<b>Ireland</b>	<b>2.38</b>
5	Belgium	2.30
-	<b>EU average</b>	<b>1.76</b>

Compiled from EU Emissions Database for Global Atmospheric Research (EDGAR) 2018

# Where are we going?

- EPA 2019 'with additional measures' (WAM) policy projection to 2040
- Emissions will peak in 2020
- Remaining more than 10 Mega tonnes of CO<sub>2</sub> in 2040
- Projection includes 500,000 EV and increased biofuels

1990	2005	2016	2017	2020	2030	2040
5.2	13.1	12.3	12	12.7	11.9	10.1

**Table 2:** EPA 'With Additional Measures' projection for transport to 2040 in MtCO<sub>2</sub> (EPA, 2019)

# Where do we need to go?

- 2020 target -20% non-ETS emissions on 2005, 2030 target -30%
- ‘National Policy Position’ reduce CO<sub>2</sub> in elec. gen., built env. and transport -80% on 1990 by 2050
- EPA WAM 2019 projects average annual reduction -0.8% p.a. to 2040
- Assuming -80% (on 1990) by 2050 requires average -4.2% p.a., 0 in 2050 -4.5% p.a.
- Transition pathway requires fundamental and significant policy change (CCAC, 2019)
- Climate Action Plan 950k EV’s by 2030, marginal changes in spatial patterns and mode
- May assist meeting 2030 target but with expected increase in income and pop. does not appear sufficient for deep reduction trend to 2050

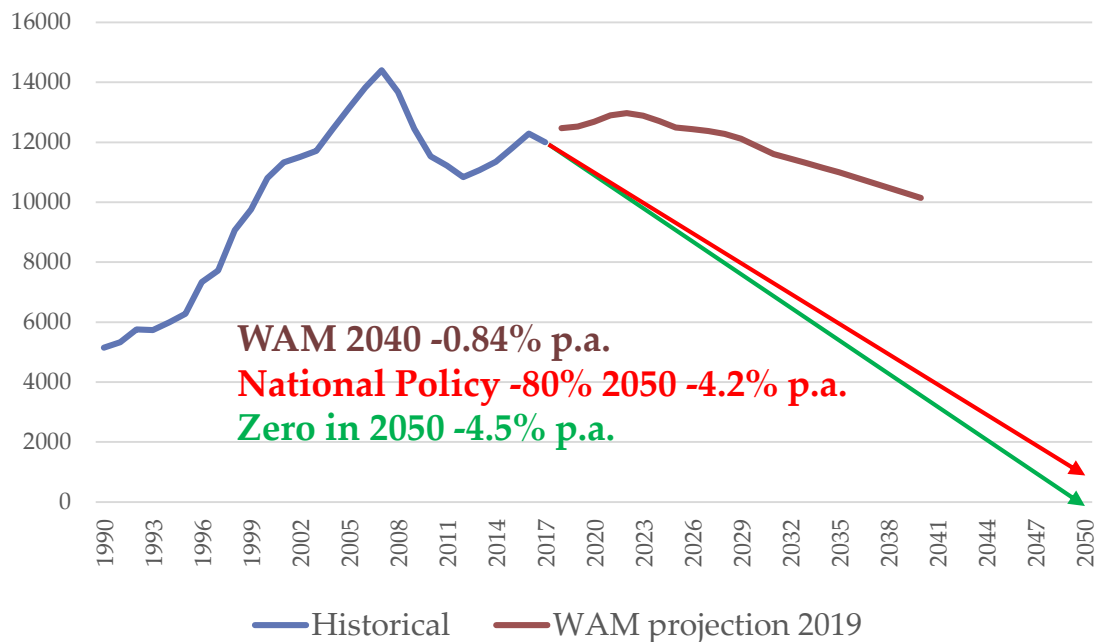


Figure 3. Historic and future transport emissions from 1990 to 2050 in ktCO<sub>2</sub>. Data: EPA (2019)

# What are the options?

- IPCC highlight systemic change necessary for optimal approach to transition
- Conclusion strengthened in Ireland's case when considering growing income and population drivers, and also variety of other policy objectives
- 'Avoid-Shift-Improve' (ASI) approach seeks 'avoided demand' -such as through increased spatial density, 'shift' -to active and public modes and finally end-of-pipe 'improvement' of energy and carbon efficiency -through behaviour and technological change
- Energy and carbon efficient transport, -alternative drive trains and biofuels, important
- Behavioural measures can assist in pushing efficiencies and reducing demand
- Investment a key driver and enabler of alternative pathways
- Transport carbon tax useful to prevent rebound as efficiency improves (IPCC, 2014)
- Successive IPCC Assessment reports suggest efficiency necessary but not sufficient (IPCC, 2007; IPCC 2014)
- This prompts the 'Avoid-Shift-Improve' approach -systemic, holistic and integrated

# What are the options?

- Applying Avoid-Shift-Improve has implications for policy and governance (NESC, 2019)
- IPCC (2014) point to long-term strategy as key implemented by shorter-term plans
- Consider alternative pathways of key drivers; spatial patterns, demand reductions and mode composition to 2050, 2070...
- Key inputs to decision-making on long-term strategy: modelling of feasibility and desirability of different pathways showing economic, social and environmental implications
- Range of strong and mutually-supportive policies needed for transport to decarbonise and co-benefits to be realised (IPCC, 2014)
- Cross-departmental strategic policy integration, particularly of spatial planning, transport and infrastructure investment required
- Avoid-Shift-Improve approach associated with deep emissions reductions but also opportunities for co-benefits and policy synergies
- As a platform for a more cost-effective and just low-carbon transition of transport



# ENDS

## Thank you for listening!

Disclaimer: Secretariat briefing, not a Council position

