



The Chartered Institute of Logistics and Transport Ireland

Submission to the Department of Transport, Tourism and Sport for Public Consultation on Sustainable Mobility Policy

Climate Change Challenge

January 2020

Introduction to CILT Ireland

The Chartered Institute of Logistics and Transport in Ireland (“CILT”) is the independent professional body for people engaged in the provision of transport services for both passengers and freight, the management of logistics and the supply chain, transport planning, government and administration. CILT is a member of the wider CILT International family which has offices in over 30 countries and 33,000 members worldwide. CILT has a number of specialist forums, a nationwide structure of locally based groups and a Policy Committee which considers the broad canvass of transport policy. The policy committee is formed of industry experts whose insights and inputs will bring together a conscious discussion on the subject in hand. As a professional body, CILT does not lobby on behalf of any sectoral interest, but seeks to take an independent, objective and considered view on matters of public policy.

CILT Policy Research Agenda in 2020

Increasing demands for emissions reductions and mitigation will put greater pressure on transport activities for the movement of people and freight. The transport sector in Ireland will have to rethink on climate change and adapt to this new climate reality. In 2020, CILT is commissioning research that analyses

climate change implications for Ireland with particular reference to the National Mitigation Plan and the new COP25 agenda. (Please see **Appendix** for proposed research topics)

CILT's views on the Sustainable Mobility Policy Review

This submission is to share insights on the transport policies towards climate change challenge and low-carbon transition in Ireland.

The Report

CILT welcomes the Department of Transport, Tourism and Sport's (DTTAS) commissioning of a Review of Ireland's Sustainable Mobility Policy – the first in 10 years. The sustainable mobility policies focus on active travel (i.e. walking, cycling) and public transport to ensure services that are sustainable into the future and are meeting the needs of a modern economy.

In total nine thematic background papers (Public Transport and Accessibility, Active Travel, Climate Change Challenge, Congestion, Greener Buses: Alternative Fuel Options for the Urban Bus Fleet, Land-Use and Transport Planning, Regulation of Public Transport, Public Transport in Rural Ireland, Statistics and Trends) have been published.

The report, however, focused more on the passenger transport side. CILT would like to raise the importance of the freight transport sector. Sustainable freight transport will make a positive impact on the environmental, social and economic sustainability of the communities they serve. The freight transport sector requires more supportive policies and initiatives to increase the industry awareness and readiness towards sustainable operation and low-carbon transition, especially in light of the post-Brexit impact on trade-patterns and supply chains.

Climate Change Challenge

Climate change is one of the key focus of the sustainable mobility review. The 73 pages detailed background paper on climate change challenge has provided a high-level overview of the climate change mitigation strategies and actions taken in the Irish transport sector.

The DTTAS sought views on the current and potential policy measures on decarbonisation in the transport sector. Four questions have been raised by the DTTAS in this report. We will address these questions in the following sections.

1. Which sustainable mobility emissions mitigation measures, not currently employed in Ireland, should be considered for implementation?

The Background Paper summarised the existing and potential carbon emission reduction measures (as shown in Table 1) using the 'Avoid-Shift-Improve' (ASI) framework. The ASI framework is an international best practice to assess transport mitigation and low-carbon transition policies in a more comprehensive and systemic manner.

Much of the existing measures are about fuel economy and technologies, not enough is being discussed about modal shift and the need to reduce the total amount of vehicular traffic through quality alternatives. There is great potential for both "passenger transport" and "freight transport" sectors to adopt best practice from other cities or countries to alleviate the current environmental performance of transport sector in Ireland.

Table 1 Existing and Potential Emissions Reduction Measures for Transport Sector

	Instruments	Existing Measures	Potential Measures	
AVOID	Private Car	Spatial planning Fuel subsidies/taxes Traffic management Road pricing	NPF Carbon tax College Gate and no car entry zones during peak times Tolls	Fuel subsidy/tax reform Road pricing Car sharing initiatives Teleworking
	Freight	User charges Traffic management Logistics planning	Tolls HDV cordon	User charges Logistics planning support
SHIFT	Private Car	Public transport investment Cycling/walking infrastructure Optimise PT system Low Emission Zones	BusConnects Smarter Travel Taxsaver Bike to Work Park & Ride sites	Parking policies New Park & Ride sites Low Emission Zones
	Freight	Rail freight		Rail freight promotion
IMPROVE	Private Car	Fuel economy standards Alternative fuel infrastructure & supports Ban on Internal Combustion Engine (ICE) cars Scrappage scheme Company car tax	VRT/motor tax EU regulations on CO ₂ Biofuels Scheme EV incentives	Further EV incentives VRT/motor tax reform Scrappage scheme Ban/restrictions on ICE cars CO ₂ company car tax
	Freight	Fuel economy standards Fuel subsidies Eco-driving	EU regulations on CO ₂ Minimum excise relief for natural gas Biofuels scheme Eco-driving Research projects	VRT/motor tax reform Eco-driving supports Clean Vehicle Fund

Source: DTTAS, 2019

Passenger Transport

We briefly list a number of transport and land-use policies implemented in other European cities (such as Berlin, Hamburg, Munich, Vienna, and Zurich) that could potentially be adopted into the Irish context (as shown in Table 2).

In short, increasing both quantity and quality of public transport in urban and rural areas, as well as improving multi-modal levels of integration in an effective and efficient manner are the key to promote the “shift” to public transport in Ireland. Further in-depth analysis is needed to assess the current expenditures to deliver these measures and the need for additional capital.

Similar measures could be already existed in Ireland (such as traffic calming, fuel price, road supply). However, as they were not mentioned in the DTTAS’ background paper, we would like to draw the attention to these measures again. In-depth feasibility study of implementation these measures in Ireland is required for further analysis and discussion.

Table 2: Potential Measures to Adopt in the Irish Transport Sector

Field of Action	Measures Identified in other European Regions
<i>Policies that restrict car use (“Avoid”)</i>	
Price of gasoline	In 2014, roughly half of the retail price of gasoline was due to taxes: 56% in Germany, 49% in Switzerland, and 48% in Austria
Traffic calming & speed limits	Most residential streets are traffic-calmed at 30km/h or less, with speeds reduced to 20km/h on shared streets, and to 7 km/h on some residential streets (home zones)
Road supply	Motorways rarely penetrate into city centres; most neighbourhood streets discourage through-traffic by 30km/h speed limits and infrastructure modifications, such as narrowings, curves, diverters, chicanes, speed bumps, raised intersections, and artificial dead ends
Driver licensing	Strict and expensive driver training and licensing; probational licenses for young drivers
Road revenues & expenditures	Revenue from roadway user taxes and fees are higher than roadway expenditures by all levels of government, providing an important source of general revenues
<i>Policies that promote public transport (“Shift”)</i>	
Quantity of service	Large increase in the total amount of public transport service between 1990 and 2012 (as measured by place kilometres, e.g. +80-90% in Hamburg, Munich, and Vienna); increased operating hours and frequency of service
Quality of service	All systems have modernised their vehicles and stations; full coordination of schedules, fares, and routes across modes and operators; quicker and easier
Home-to-work index measure for commute time/cost	“Housing and mobility calculator” - A readily accessible online calculator is to give citizens an opportunity to compare locations in Vienna and its environs, especially before they decide to move house.
<i>Policies that make walking and cycling more attractive “Improve”</i>	

Car-free zones	Most cities have pedestrianized large areas of their downtown that are off-limits for automobiles with parking garages at the periphery
Traffic calming	As noted above, residential streets discourage through-traffic and greatly reduce car speeds
Pedestrian facilities	Pedestrian priority in car-free zones, traffic-calmed streets, and shared streets
Bikeway networks	Comprehensive, region-wide integrated networks of paths and lanes for cyclists, including special provisions at intersections (traffic signals, advanced stop lines); extensive bike parking on sidewalks, on-street bike-corrals, and at public transport stations (including full-service bike parking stations)
Traffic education	Comprehensive traffic and cycling training is offered in most schools; priority of non-motorized modes emphasized in driver's training and testing
Land-use planning and policies that facilitate compact, mixed land-uses	
Coordination with public transport	Strict land-use controls limit low density sprawl and encourage compact development around public transport stop
Planning process	Coordination of land-use plans among levels of government and across jurisdictions; integration of land-use, transport, and environmental planning at all levels of government

Source: Buehler & Pucher, 2016

Freight Transport

Again, CILT would like to emphasise the importance of the freight transport sector. Freight transport sector requires more supportive policies and initiatives to increase the industry awareness and readiness towards the low-carbon transition, especially in light of the Brexit impact on trade-patterns and supply chains. We suggest the following areas of policy that should be further developed:

City/Urban Freight Transport

Urban freight transport, defined as all movements of goods into, out of, through or within the urban area, made by light or heavy vehicles. Alliance for Logistics Innovation through Collaboration in Europe (ALICE) launches the Roadmap Towards Zero Emissions Logistics 2050, in which urban logistics is one of key areas to contribute to the low-emission transition progress.

The Greater Dublin Area, with the highest population and vehicle densities in Ireland, is producing 42% of national CO₂ emissions from transport, and the increased levels of air pollution caused by traffic is also breaching EU limits (EPA,2019). Increasing urban freight distribution and road-intensive logistics activities in the city have led to a series of environmental and social issues in urban areas, such as increasing greenhouse gas emissions, noise, air pollution, traffic congestion, infrastructure deterioration, historical urban area preservation, the quality and safety of residents in urban areas.

In DTTAS' Background Paper, no measures are in place to tackle this issue, and little data is available to capture the emission from the major cities in Ireland. Meanwhile, some of the sustainable urban logistics measures have been applied in Dublin city; such as the UPS urban eco-hubs and cargo bikes, which could eliminate delivery vehicles dispatched to the city centre. Some measures such as charging truck tolls (e.g. N25 Waterford new bridge bypass) potentially negatively impacts sustainability. To avoid the cost, logistics operators may force drivers to transit through the city unnecessarily, which has negative

effects on both emissions and road safety. Policymakers should examine this with a view to incentivizing freight transport providers to bypass the city whenever possible. CILT would like to see further policy research looking into these measures. These measures could be transferable and scalable to other cities in Ireland.

Promote the use of Higher Capacity Vehicles (HCV)

A general definition of Higher Capacity Vehicles (HCV) is that bigger than conventional road freight vehicles. HCV is able to transport about twice as much freight as standard trucks would in terms of weight and volume, and reducing CO₂ emissions by up to 27% (ACEA, 2019). The European Automobile Manufacturers' Association (ACEA) is calling for policy support towards an EU-wide high-capacity transport system. This should allow for HCVs to travel on dedicated parts of the EU road network.

Many research and trials into HCVs are generally positive. The research from University of Westminster (Piecyk and Allen, 2019) summarised a number of benefits of HCV:

- Well-loaded HCVs result in vehicle km reduction and fuel consumption;
- Leading to lower GHG emissions and air pollution than conventional road vehicles (i.e. HGV) per unit of goods carried;
- No worsening in road safety – several field trials reporting improvements;
- No worsening in road wear and tear.

CILT suggests further research to map out the current market of heavy goods vehicles and explore the cost benefit of adoption of HCVs in Ireland.

2. Are there any measures identified as “potential measures” that you would like to see implemented? (as shown in Table 1)

Car Sharing

“Car sharing incentives” has been proposed as a potential measure to reduce the private car use in Ireland. However, no further details has been given about this measure in the report.

A study (Rabbitt and Ghosh, 2016) on the feasibility and potential benefits of car sharing in Ireland has explored the economic and environmental impact of rolling out the car sharing service from the Greater Dublin Area to the entire country. The research found that a large group of individuals who are quite likely to join car sharing, however, outside Dublin, there is a lack of high population density areas with suitable users. Car sharing is complementary to public transport and not a competitor. The introduction of car sharing would provide positive impacts on both environmental and economic aspects. Environmentally, it is estimated that car sharing service would potentially lead to a slower growth rate of car-ownership and in turn generating significantly high CO₂ savings of 84 kt for Dublin and up to 229 kt for Ireland. Economically, car owners who travel predominantly on alternative modes, could make significant travel cost and CO₂ emission savings through joining car sharing.

The investment required for infrastructure development, operation and maintenance of car sharing service are not included in this study, hence the cost savings are calculated on the basis of customer savings only. Policy measures on car sharing incentives could focus on infrastructure development to support the roll out of car sharing in the Greater Dublin Area.

Rail Freight

CILT welcomes the “rail freight promotion” as a potential measure proposed by DTTAS, although no further details have been provided on this measure in the report.

Rail freight in Ireland is facing great challenges to grow. As mentioned in the Background Paper, modal shift from road freight to rail freight is a key emissions

reduction approach across the EU, but rail freight in Ireland has dropped to one of the lowest percentages in the EU. Iarnród Éireann as the only rail freight operator in Ireland, the freight quantities are comparatively small and have declined starkly over recent decades. The limited number of high volume bulk movements, Ireland's compact size and the low density of activity all have limited economic viability of alternatives to road freight.

We are of the view that the role of rail freight in the context of sustainability and climate change needs to be examined thoroughly to better feed into policy decisions. More research needs to be carried out in this area. For instance, the development of the Western Rail Corridor, rail freight hubs by the major ports, incentives to increase the number of rail freight operators are worth further investigation to provide cost analysis and feasibility assessment.

3. *Are there any emissions reduction measures, currently employed, that should be amended or fully discontinued?*

We do not have any objections on the current emissions reduction measures.

4. *How should mitigation measures be prioritised (e.g. on basis of: least cost, carbon abatement potential, disruptive effects, co-benefit potential etc.)?*

Prioritising policies is rarely a straightforward process, but it is crucial when time and resources are finite. Currently the mitigation measures in the transport sector have been categorised using the Avoid-Shift-Improve framework. It is possible to further aligning the measures into short term (<5 years), mid-term (5 -10 years), and long term (>10 years) timeframe. An assessment framework could be develop to measure the cost, carbon abatement potential, disruptive impact and co-benefit for each existing and potential measures. Thus, such indicator-based index will provide evidence-based support for policy-making.

CILT would like to suggest a few short-term policy priorities:

Policy should focus on direct citizen improvement and societal welfare. Improvements to citizens in terms of noise, direct fuel inhalation and urban heat island effect.

For freight, currently there are already restrictions for large vehicles in the city centre, for example, heavy goods vehicles do not have free access to the restricted zone in Dublin city centre. Developing to a more sustainable urban logistics, measures such as planned distribution centres which use green methods for the last one-to-five mile delivery, or restrictions on low rating EURO vehicle classes would also urge logistics service companies to upgrade their fleet composition.

As soft measures, DTTAS could encourage branding for companies who are pioneering the adoption of environmental friendly transport modes or technologies, such as E-vans for city delivery, high EURO standard vehicles, E-cargo bikes. This will showcase the social consciousness of DTTAS of supporting the path to reducing our nation's carbon emissions.

Summary

Transport policies and procedures should be effective and efficient, based on objective analysis and practical experience, as well as focused on the future. Best practice should be widely disseminated among CILT members and the wider transport industry in Ireland.

In conclusion, CILT's key highlights

- Ireland will need policies and measures that are radical, innovative and attached to the future to reduce the carbon emission from transport sector.

- For passenger transport, increasing both quantity and quality of public transport, as well as improving multi-modal levels of integration in an effective and efficient manner are the key to promote the shift to public transport.
- Freight transport and logistics sector requires more supportive policies and initiatives to increase the industry awareness and readiness towards the low-carbon transition, especially in light of Brexit's impact on trade-pattern and supply chains.
- Collaborations between government, industry and research institutes are needed to support policy decisions.
- Raising the awareness of climate change in the transport sector and wider society is the key to bring Ireland onto a lower carbon trajectory in the long term.

Appendix

CILT Policy Research Agenda in 2020

Increasing demands for emissions mitigation will put greater pressure on transport activities for the movement of people and freight. Decisions on mode of transport, vehicle, technology, infrastructure, route planning, frequency of delivery, fuel choice and fuel economy will all be affected. The transport sector will have to adapt to this new climate reality. Ireland is an open economy on the peripheral of Europe and is therefore reliant on maritime and aviation transport for effective and efficient connectivity to the world.

In 2020, CILT is commissioning research that analyses climate change implications for Ireland with particular reference to the National Mitigation Plan and the new COP25 agenda. The policy committee has proposed four research topics around the theme climate change and sustainable transport as follows (as shown in Figure 1):

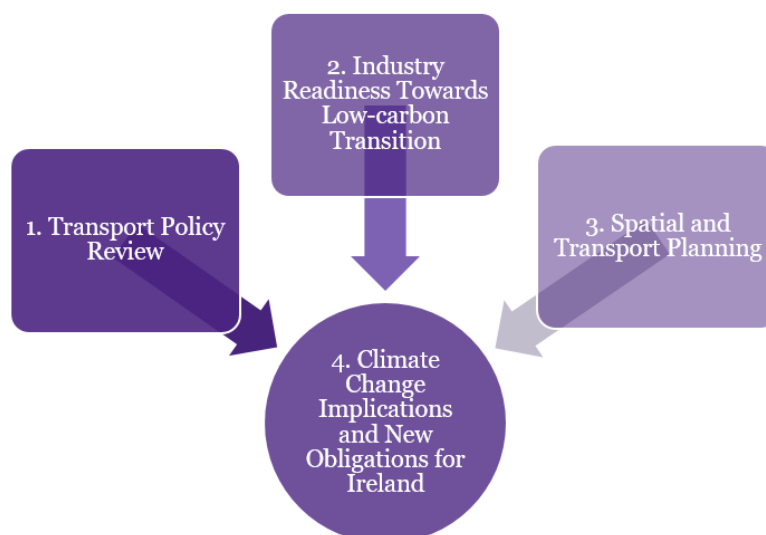


Figure 1 CILT Research Agenda on Climate Change

- 1) **Transport policy review.** A desk-based research to review to capture the current policies/initiatives in Ireland towards climate change and

sustainability in the transport and logistics sector, as well as to identify the best practices in terms of supportive policies/initiatives in the UK and other EU member states to propose recommendations to Irish government and the industry.

- 2) **Study of industry readiness towards the low-carbon transition.** An empirical study to develop an understanding of the awareness and readiness towards climate change and low-carbon transition among transport companies in Ireland.
- 3) **Spatial and transport planning study.** To explore how the modern supply chain will be developed in 20 years and how the spatial and transport planning will support that sustainable development in Ireland.
- 4) **Climate change implications and new obligations for Ireland.** Developed based on the above three research findings, to conclude the climate change implications for the Irish transport sector as well as the new obligations under this new climate reality. This work will evaluate the impact of Climate Action on transport in Ireland and Ireland's international connectivity. Particular attention should be paid to understanding the potential impact on various modes of transport and the potential financial implication and investment required.

The key remit of the policy research at CILT is to provide advice that facilitating the policy implementation in the transport sector in Ireland. The committee will be responsible for various papers during each year in relation to the logistics, supply chain and transport industries. These papers will form the basis of a number of outputted reports from the information and recommendations.

Reference

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Sabrina is a Ph.D. candidate at Technological University Dublin in Ireland. Her current doctoral research focuses on sustainable urban logistics. She holds an MSc degree in logistics and supply chain management from Cranfield University in the UK. Sabrina previously worked as a research assistant at the Asian Institute of Supply Chains and Logistics at the Chinese University of Hong Kong.

Rachel Ivers, Policy Committee Deputy Chair

Rachel is a Public Transport Analyst in the National Transport Authority. She previously worked in engineering consultancies in Ireland and the Netherlands. She gained her BSc. in Spatial Planning from DIT and MSc in Transport, Infrastructure and Logistics from Delft University of Technology, the Netherlands. She is also a committee member of the Irish branch of the Transport Planning Society.

Tim Hayes, Education and Training Committee Chair

Tim is a member of the Institute's Council, Policy Committee, and is Chair of its Education and Training Committee. Former CEO of Bus Eireann and CILT in Ireland. Over forty-five years has held a range of senior management positions in transport and tourism and has lectured at third level. He holds BE, M.Eng.Sc. and MBA degrees and is a Fellow of the Institute.

John Henry, Membership Committee Chair

John is a Chartered Engineer, and Director and Chief Executive of the Dublin Transportation Office (which integrated into the establishment of the National Transport Authority in 2009). John has had a wide-ranging career in the area of transportation in both the public and private sectors in Ireland and abroad.

Mick Curran, CEO of CILT Ireland

Mick has for the last three years been the CEO of the Chartered Institute of Logistics and Transport (CILT). Additionally, prior to joining CILT, Mick spent 24 years as a member of the Defence Forces serving in a variety of roles both at home and overseas.