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Preparing National Master Plans on freight transport and logistic

UNECE handbook for national master plans for freight transport and logistics

Submitted by the secretariat

At its 61st session, the Working Party on Intermodal Transport and Logistics agreed on the suggested structure for the United Nations Economic Commission for Europe (ECE) Handbook for national master plans for freight transport and logistics. The Working Party requested then the secretariat advances in the preparation a draft handbook for its sixty-second session.

This document provides an advanced version of the draft handbook. The Working Party will be requested to consider this version, provide its feedback and directions on how to further advance it. The Working Party may further reconsider the structure of the handbook.

Handbook on preparing National Master plans for freight transport and logistics

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CHAPTER 1: The role of the governments in freight transport and logistics

The future prosperity requires, amongst others, that flows of goods are done seamlessly. This can be only possible if freight transport and logistics industry is able to organise, coordinate and move these flows in an efficient and optimised way. This should mean fast but safe and secure and at possibly lowest costs for customers but also for public at large freight transport operations. The latter requires minimising freight transport and logistics sector externalities.

While freight transport and logistics operations are done by private undertakings, the governments have an important role to play, on the one hand, to facilitate the operations of private undertakings by providing the necessary, stable conditions for doing business, or to ensure the availability and maintenance of the necessary infrastructure, and on the other hand, to ensure that the business is geared towards high-level objectives such as e.g. addressing the climate change.

This chapter discusses the role of the governments in freight transport and logistics with regard to creation of stable conditions for doing business, availability of infrastructure and in achieving high-level objectives.

1.1. Stable conditions for doing business

Governments are responsible to enact and enforce the necessary legislative framework and standards which will form the conditions for the freight transport operations done by private undertakings. For the latter, it is important that they have stable, predictable and transparent work conditions established by the legislation and standards in force. Only such conditions decrease the operational risks.

For the freight transport and logistics to thrive in a country, in addition to a proper legislative framework facilitating the operations, it is also important that skilled workforce is available. As governments play an important role in establishing the necessary educational and vocational programmes as well as in creating work conditions in various sectors, it depends on the government decisions whether the freight transport and logistics as a sector will be attractive for professional careers and whether the future potential employees will receive the training markets will look for.

1.1.1. Administrative procedures

Governments enact rules, regulations and standards, which frame the conditions for the freight transport operations. These rules, regulations and standards and their enforcement are expected to make freight transport operations safe, secure, efficient and fair in term of level-playing field. These can be grouped into:

- (a) regulations for carriage of cargo including such as perishable goods, dangerous goods, livestock, and control procedure (at borders and inland) including such as: medico-sanitary, veterinary, phytosanitary standards,
 - (b) regulations for admission to traffic of vehicles and drivers, and for locomotives and rolling stock,
 - (c) insurance regulations,
 - (d) contract of carriage regulations,
 - (e) regulation for maximum driving times and required rest periods,
- [others to be added, as necessary]*

Majority of these regulations can be sourced from United Nations transport agreements and conventions, among them:

Border Crossing Facilitation

- 1975 Customs Convention on the International Transport of Goods under Cover of TIR Carnets (TIR Convention), entered into force on 20 March 1978.
- 1982 International Convention on the Harmonization of Frontier Controls of Goods, entered into force on 15 October 1985.
- 1972 Customs Convention on Containers, entered into force on 6 December 1975.
- 1954 Customs Convention on the Temporary Importation of Private Road Vehicles, entered into force on 15 December 1957.
- 1956 Customs Convention on the Temporary Importation of Commercial Road Vehicles, entered into force on 8 April 1959.
- 2006 Convention on International Customs Transit Procedures for the Carriage of Goods by Rail under Cover of SMGS Consignment Notes, not yet in force.

Driving times and rest period/contract of carriage

- 1970 European Agreement concerning the Work of Crews of Vehicles engaged in International Road Transport (AETR), entered into force on 5 January 1976.
- 1956 Convention on the Contract for the International Carriage of Goods by Road (CMR), entered into force on 2 July 1961, along with the 1978 Protocol to the CMR and the 2008 Additional Protocol to the CMR concerning the electronic consignment note (e-CMR).

Transport of Dangerous Goods

- 1957 European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR), entered into force on 29 January 1968.
- 2000 European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterway (ADN), entered into force on 28 February 2008.

Transport of Perishable Foodstuffs

- 1970 Agreement on the International Carriage of Perishable Foodstuffs and on the Special Equipment to be Used for such Carriage (ATP), entered into force on 21 November 1976.

Admission to traffic of vehicles and drivers

- 1968 Convention on Road Traffic, entered into force on 21 May 1977.
- 1958 Agreement concerning the Adoption of Harmonized Technical United Nations Regulations for Wheeled Vehicles, Equipment and Parts which can be Fitted and /or be Used on Wheeled Vehicles and the Conditions for Reciprocal Recognition of Approvals Granted on the Basis of these United Nations Prescriptions, entered into force on 20 June 1959.
- 1997 Agreement concerning the Adoption of Uniform Conditions for Periodical Technical Inspections of Wheeled Vehicles and the Reciprocal Recognition of Such Inspections, entered into force on 27 January 2001.
- 1998 Agreement concerning the Establishing of Global Technical Regulations for Wheeled Vehicles, Equipment and Parts which can be fitted and/or be used on Wheeled Vehicles, entered into force on 25 August 2000.

1.1.2. Education and vocational training for professionals in the sector of freight transport and logistics

Freight transport and logistics, as other transport sectors, or more general any sector of economy, requires skilled and trained workforce for effective and efficient operation and for sustaining international competition. Advanced specialization and technological innovation in freight transport makes the emphasis on the necessary skills even more profound.

Governments can support the freight transport and logistics industry by providing the necessary vocational education and training for interested individuals by providing vocational schools teaching the skills demanded by industry. Governments need also to work closely with universities which need to train highly-skilled professionals, in tertiary education, to become highly-skilled executive managers.

Governments role also lies in close collaboration with industry and its associations to facilitate training and retraining opportunities for employees of SMEs.

1.1.3. Working conditions in the sector of freight transport and logistics

Governments play a crucial role in creating and supporting work conditions that will attract new recruits to the jobs in the sector of freight transport and logistics.

Governments are responsible to ensure that work conditions in the industry meet the health and safety standards. They also need to work with industry associations to ensure that employees can enjoy stable contract conditions and related benefits which make the employment in the sector more attractive.

International Labour Organization (ILO) conventions with focus on decent work conditions through a sectoral lens for ports, shipping, inland waterways and road transport can be sourced for creating the necessary work conditions, among them:

- Occupational Safety and Health (Dock Work) Convention of 1979
- Protection against Accidents (Dockers) Convention of 1932
- Dock Work Convention of 1973
- Hours of Work and Rest Periods (Road Transport) Convention of 1979

1.2. Availability of necessary infrastructure and networks

Governments create the necessary conditions and make available the infrastructure that is required, among others, for freight transport. Freight transport and logistics undertakings can organize and carry out their transport operations more effectively and optimise them, the more options in terms of reliable infrastructure and switch points between the various infrastructures they have. In the current world, the operations will not be optimised, especially for intermodal transport, if reliable and high-performance digital infrastructure is not provided.

1.2.1. Road infrastructure

Governments need to ensure availability of an adequate road network linking the commercial and good production centres within and among countries. Such road network should consist of express

roads and ordinary roads. The first group of roads should be constructed and maintained complying with standards that enable drivers to travel safely at higher design speeds and transporting higher loads. The national system of roads should be connected with systems of neighbouring countries. In addition, the road should be equipped with ancillary facilities and adequate border crossing facilities preventing delays at border crossings.

The source for creating adequate network of roads for governments is the European Agreement on Main International Traffic Arteries (AGR) of 1975. It establishes a plan for a grid system of reference roads (E-roads) within the European region having a general north-south and west-east orientation, which governments are responsible to implement and effectively operate. The international E-road network also includes intermediate roads located between the reference roads and branch, link and connecting roads. Importantly, it also sets minimum standards for the construction, maintenance and signage of roads forming the E-road network.

In countries with a developed and dense network with high-level of implementation of AGR, governments need to be looking for ways to optimize the use of the road network while limiting upgrade and new constructions to sections, where it is absolutely essential to remove bottlenecks. The optimization should be considered at the level of infrastructure networks, and solution such as shifting of transport between modes and networks, use of intelligent transportation system and telematics to better control transport flows, but also avoidance of empty runs should be explored, assessed for implementation and applied when proven effective.

1.2.2. Rail infrastructure

Adequate rail network is essential to offer reliable rail transportation possibilities for both passengers and cargo. For the latter, rail transport operated on medium to longer distances can alleviate burden on the road network and help mitigate environmental damages. To achieve this objective, it is important for the rail network to be connected across national borders.

The European Agreement on Main International Railway Lines (AGC) of 1985 serves for governments as a basis to develop international railway traffic within the European region, by laying down a coordinated plan for the development and construction of railway lines adjusted to the requirements of future international traffic. The Agreement defines the "International E-railway network" consisting of railway lines of major international importance which the Contracting Parties intend to develop and effectively operate within the framework of national programmes in accordance with their respective legislations. AGC sets out the technical characteristics of the network and its minimum requirements, such as number of tracks, loading gauge and speed, for both passenger traffic and goods traffic.

The development of rail network for freight transport is also addressed in the European Agreement on Important International Combined Transport Lines and Related Installations (AGTC), which lays down a co-ordinated international plan for the development of combined transport services and the infrastructure necessary for their operation based on internationally agreed performance parameters and standards. The AGTC lines correspond to AGC lines to great extent while AGTC also defines lines and section of lines of importance to combined transport.

Like for road infrastructure, in countries with a developed and dense rail network with high-level of implementation of AGC and AGTC, governments need to be looking for ways to optimize the use of their rail networks, and upgrade lines or section of lines which face capacity constraints. Optimization should be also done through application of intelligent transportation system and telematics to better control transport flows.

1.2.3. Waterways infrastructure

Inland waterways and coastal routes infrastructure, if properly developed, can provide transportation opportunities, in particular for freight transport, offering economic and ecological advantages. As for rail, the inland waterways and coastal routes can alleviate burden on the road network.

The European Agreement on Main Inland Waterways of International Importance (AGN) of 1996 serves for governments as a basis to develop international transport by inland waterways in the European region. AGN lays down a coordinated plan for the development and construction of a network of inland waterways of international importance, based on agreed infrastructure and operational parameters. This network, called E waterway network, consists of inland waterways and coastal routes used by sea-river vessels as well as of ports of international importance situated on these waterways and routes. E waterways are defined by technical characteristics, such as waterway class, draught, bridge clearance and by operational characteristics, such as traffic, navigation period, duration of breaks.

The development of waterways infrastructure is also addressed in the Protocol to on Combined Transport on Inland Waterways to the European Agreement on Important International Combined Transport Lines and Related Installations (AGTC) of 1991, of 1997. The Protocol lays down an international plan for the development of combined transport services on inland waterways and on certain coastal routes and of their infrastructure necessary for their operation based on internationally agreed performance parameters and standards.

1.2.4. Intermodal terminals

Combined transport, hence shifting between modes can be one of way to optimization of the transport operation. This however is possible, if adequate infrastructure in terms of intermodal terminals is provided, where the mode change can be performed.

The already mentioned AGTC and Protocol on Combined Transport on Inland Waterways to AGTC define the locations of the combined transport terminals respectively on rail lines with the possibility to switch to road and on waterways with possibilities to change to road and/or rail.

1.2.5. High-performance digital infrastructure

Intelligent transport systems (ITS) are systems to be installed in vehicles and on transport infrastructure to support making optimum and efficient use of the infrastructure as well as vehicles.

Governments through transport infrastructure providers work on integrating existing ITS solutions into vehicles and infrastructure and use their capabilities for transport optimization and efficiencies. At the same time, governments support research and development to further advance ITS in terms of its capabilities and in getting its deployment more cost-efficient.

Governments promote the benefits from the application of ITS, among them, increased safety and security, better environmental efficiency, improved solutions for seamless intermodality, better route and deliveries planning, etc. At the same time, governments play even more important role in addressing the challenges with ITS, such as interoperability among systems and data exchange, fraud and violation, privacy and security, increasing gap between developed and developing countries in terms of transport solutions.

1.3. High-level objectives

The freight transport and logistics undertakings may be optimising transport operations to create high profits in a sector but may, at the same time, create externalities to public at large. The governments need thus to ensure that externalities are taken into account when optimization of freight transport operation is done. It is also the role of the governments to enable innovation, research and development in the sector, on the one hand to enable further efficiencies in the sector and, on the other, to decrease the sector externalities through technology progress.

1.3.1. Environmentally friendly and energy efficient transport

More traffic can mean more emission of pollutants and CO₂ and more noise and land uptake unless it is organized more efficiently. Transport can thus not be developed by simply expanding infrastructure and adding vehicles. The development of transport needs to happen through making transport systems more efficient. This means that transport must consume less energy and become more efficient, cleaner and quieter.

Governments have the responsibility to prevent transport expansion at the costs to the environment. Governments need to incentivise the industry to use low emissions vehicles and roads and times causing least impact on environment and population. Various bonus-malus solutions, assistance programme for purchase of low emission vehicles or intelligent tolling systems have been introduced with success.

Emission reduction can be also achieved by moving transport to more efficient means of transport – from road to rail and waterways. For this to happen, adequate infrastructure allowing for combined transport needs to be ensured.

Governments need to encourage investment into technologies that will further decrease emissions of pollutants and noise both from road and railways.

Governments need to work closely with local authorities to redefine city logistics, on the one hand to ensure that goods are delivered where they are consumed, while at the same time decrease the impact from freight deliveries in urban areas.

1.3.2. Innovation, research and development in freight transport and logistics

As transport needs especially solutions for optimization and making it more efficient, which is true for developed economies with developed and dense transport infrastructure, such solutions can be only found through innovation research and development.

The responsibility of the government is to incentive and encourage research and development in the industry, by the relevant associations as well as at the universities. Government may create funds from which grants supporting innovation and research for new solutions could be given.

The innovation may not only address technology but also further policy development, encouraging further system optimization, shift or avoidance especially of empty runs.

1.4 Strategic geographical location of a country

Many countries consider that they are on a “cargo crossroad” where for several reasons they do have a specialized role to play. Whether or not this is a case depends on different parameters.

Landlocked Developing Countries (LLDCs) for instance tend to be at a significant economic disadvantage compared to their non-landlocked neighbours due to geographic remoteness, lack of direct access to deep sea ports, higher than average transport costs (both for exports and imports) and limited integration into the global economy. More specifically, LLDCs have transport and logistics costs which are on average 50% higher than countries that have access to the open sea. If containerized imports are considered, landlocked countries have costs that are 85% higher than the world average. The average landlocked country has less than 40% of the trade volume of the average coastal country.

For, LLDCs, the following issues are particularly prevalent and tend to result in significantly higher transport and logistics costs:

- Higher time requirements for importing and exporting. According to “Trading across Borders” data collected as part of the World Bank Group’s Doing Business ranking, in 2014, it still required almost 47 (notional) days to import a 20-foot container in landlocked countries which presents a very noticeable gap in comparison to 25 days for importing the same container in transit countries, and
- Stability and openness of neighbouring countries to insure a reliable access to international markets. If efficient import and export procedures domestically are not matched by equally efficient systems on the ‘other side’ of the border overall efficiency gains remain minimal.

Littoral States, which contrary to LLDC neighbours do have deep sea ports at their disposal have a significant geo-strategic and economic benefit over landlocked countries particularly if one bears in mind that today, over 80% of all trade is seaborne (Stopford, 2009; UNCTAD, 2015). Ports are also important for the support of economic activities in the hinterland since they act as a crucial inter-modal connection between sea and land transport.

CHAPTER 2: The Importance of Logistics sector for the National Economies

Not surprisingly, an effective logistics sector is recognized in most countries around the world as one of the core enablers of economic development. Initially, logistics policies tended to concentrate on facilitating trade and removing border bottlenecks. Today, international logistics is increasingly intertwined with domestic logistics. The strength of the logistics sector and the strength of a country’s national economy are intrinsically inter-connected.

The World Bank's Logistics Performance Index (LPI) analyses countries' performance through six indicators:

1. The efficiency of customs and border management clearance.
2. The quality of trade- and transport-related infrastructure.
3. The ease of arranging competitively priced international shipments.
4. The competence and quality of logistics services.
5. The ability to track and trace consignments.
6. The frequency with which shipments reach consignees within the scheduled or expected delivery time.

When it comes to validating these LPI indicators, freight forwarders and express carriers are considered best positioned to assess how countries perform. Ultimately, they are the actors directly affecting the choice of shipping routes and gateways, thereby influencing the decisions of firms to locate production, choose suppliers, and select target markets. The opinion of freight forwarders is thus central to the LPI's quality and credibility.

Recognizing the importance of measuring container port performance, UNCTAD developed the Liner Shipping Connectivity Index (LSCI) in 2004 to determine countries' positions within global liner shipping networks. The LSCI captures how well countries are connected to global shipping networks based on five components of the maritime transport sector: number of ships, their container-carrying capacity, maximum vessel size, number of services, and number of companies that deploy container ships in a country's ports. Increasingly, governments recognise that air connectivity plays a crucial role in enhancing economic growth by facilitating tourism and inward foreign direct investment and supporting trade in goods and services. IATA has developed a connectivity indicator to measure the degree of integration a country has within the global air transport network. It is a measure of the number and economic importance of the destinations served from a country's major airports, the frequency of service to each destination and the number of onward connections available from each destination. Connectivity increases as the range of destinations increases, the frequency of service increases and/or larger "hub" airport destinations are served.

[countries performance ratings to be added]

CHAPTER 3: Good practices from UNECE member countries

There are differences in freight transport and logistics performance among the ECE member States. There are countries in the region that are leaders in freight transport and logistics. They shape, through their action, the development of the sector. There are other countries, which learning from the good practice available, work on developing their freight transport and logistics.

The position of a country in freight transport and logistics, is a prerequisite to the development of national master plans. As the positions differ, so differ the focus areas and actions undertaken by countries.

Country	Focus areas of national master plans
Armenia (2011)	<ul style="list-style-type: none"> - Improvement to regulatory framework and oversight capacity - Road asset maintenance - Expansion of railway network - Improvements to urban transport - Use of information technology - Traffic safety - Trade facilitation - Transport costs reduction
Azerbaijan (2009)	<ul style="list-style-type: none"> - Adoption of a comprehensive transport infrastructure plan - Reform of the transport and logistics curriculum - Establishment of a pilot corridor with special economic zones, multimodal cargo facilities, logistics centres - Simplification of customs laws and regulations; improvement of transparency in rules and regulations - Promotion of the harmonization of border-crossing procedures, forms and data requirements - Development and compilation of logistics performance indicators to assess the success of government policies, laws, and regulations
Belarus (2013)	<ul style="list-style-type: none"> - Logistics development - Construction of logistics centres - Improvement in transport sustainability
Bulgaria (2010)	<ul style="list-style-type: none"> - Implementation of European transport policy: the Greening Transport Package, Railway transport, Road transport and intelligent transport systems, Waterborne transport, Air transport, Intermodal transport, Urban transport - Efficient maintenance, modernisation and development of transport infrastructure - Reduction of the transport sector negative impact on the environment and human health - Integration of the Bulgarian transport system into the European transport system; - Provision of transparent and harmonised competitive business environment of the transport market; - Financing for transport sector development and performance - Efficient capture of EU funds - Safety and security of the transport system - Provision of high-quality and accessible transport in all regions of the country
Czechia (2013)	<ul style="list-style-type: none"> - Freight Transport as Part of the Logistics Process

Country	Focus areas of national master plans
	<ul style="list-style-type: none"> - Funds for Transport - Advanced Technologies, Research, Development and Innovation - Transport Impact reduction on public health and the environment - Financial Instruments - Legislative Instruments - Social Issues, employment, education and qualifications
Denmark (2010)	<ul style="list-style-type: none"> - Transport infrastructure optimization - Avoid, shift, improve/upgrade approach - Urban logistics initiatives
Estonia (2009)	<ul style="list-style-type: none"> - Fuel prices and tax reform - Regional and global transport system integration encouraging efficient modes - Urban transport planning and policies - Vehicle efficiency and emissions policy; - Road, rail and marine systems construction standards and changes in the, in anticipation of climate change impacts (sea level rise, and increased frequency and severity of weather events); - Transport assessment and analysis for integrated planning
Germany (2008)	<ul style="list-style-type: none"> - Transport infrastructure optimization - Avoid, shift, improve/upgrade approach - Urban logistics initiatives - Environmentally friendly and climate-friendly transport - Good working conditions and good training in the freight transport industry
Greece (2012)	<ul style="list-style-type: none"> - Optimal use of road, traffic and travel data - Continuity of traffic and freight management ITS services - ITS road safety and security applications - Linking the vehicle with the transport infrastructure - Road safety - Sustainable mobility - Development, social cohesion, employability, effectiveness, efficiency of the transport system
Italy (2010)	<ul style="list-style-type: none"> - Modal integration: intermodality and comodality - Navigable waterways - Priority intervention areas for logistics platforms - Outsourcing logistics and the supply chain - City logistics - Vehicle renewals. - Telematics platform for freight transport, logistics and environment

Country	Focus areas of national master plans
	<ul style="list-style-type: none"> - Training in transport and logistics - Monitoring and impact analysis
Kazakhstan (2009)	<ul style="list-style-type: none"> - Gap assessment in physical infrastructure and transport facilities - Review of the transport corridors in Central Asia - Analysis of demographic and economic patterns
Moldova (2012)	<ul style="list-style-type: none"> - Logistics development - Trade facilitation, - Infrastructure improvement and modernization
Norway (2007)	<ul style="list-style-type: none"> - E freight policy - Cross-sectoral cooperation on intermodal development - Integration of transport chains
Portugal (2007)	<ul style="list-style-type: none"> - Competitiveness - Intermodality development - Logistics promotion - New investments
Spain (2013)	<ul style="list-style-type: none"> - Improvements to logistic systems and transport services - Investments into transport
Sweden (2012)	<ul style="list-style-type: none"> - RIS for inland waterways - TAF/TSI for rail - ITS Action plan for road - eMaritime for costal and intercontinental shipping - SESAR for air
Tajikistan (2009)	<ul style="list-style-type: none"> - Transport Infrastructure Inefficiencies and Deficiencies - Operational Difficulties - Institutional Challenges - Strategic Framework - Institutional Reforms; - Operational Improvements - Physical Infrastructure Investments
Turkey (2009)	<ul style="list-style-type: none"> - Traditional freight transport - Intermodal transport operations - Potential markets for freight container transport - Semi-trailers in intermodal transport - European domestic container - Promotion of intermodal transport operations and logistics; - Transport projection for Euro-Asian transport links - Ro-la operation

Country	Focus areas of national master plans
Ukraine (2012)	<ul style="list-style-type: none"> - National infrastructure development program and its integration into pan-European logistic system - Initiatives on trade facilitation. - Investments into inland waterway and railway transport
Uzbekistan (2010)	<ul style="list-style-type: none"> - Institutional reform - Road financing and sustainability - Cross-border facilities - Private sector participation - Road safety - Rail reform - Logistics centres

Countries, leaders in freight transport and logistics look for ways in optimization and making transport more efficient. They look into better application and development of intelligent transport systems and telematics to improve efficiencies. They are interested to reshaping urban freight transport and promote and enhance intermodality.

Other countries focus on measures to improve freight transport and logistics by improving legislation and administrative procedures, by expanding and improving road and rail networks, and by creating stable conditions for doing business.

CHAPTER 4: Guidelines for the development of national master plans for freight transport and logistics

The prerequisite for the development of a freight transport and logistics, and the preparation of a relevant mater plan with specific and focused action is the position in the country in the sector. Countries, leaders in freight transport and logistics, are interested in a different set of actions than countries who are building their positions.

For the first group of countries, the focus is to be given to action on optimization, including optimization between economic, environmental and social dimensions of freight transport and logistics. In doing so, the governments in these countries should ensure that they maintain or further improve the conditions for doing business for the industry as well as provide the necessary infrastructure.

For the other countries, the focus is to be given to actions that aim at putting in place stable and good conditions for the industry and delivery of the necessary infrastructure, which is well connected internationally. While doing so, governments in these countries should be looking at high-level objectives, including environmental and social aspects of freight transport and logistics and take actions, which do not undermine in medium to longer term the high-level objectives.

The following actions are proposed:

A. Administrative procedures:

Actions in this area should aim at creation of rules, regulations, standards and practices and their enforcement or implementation to make freight transport operations safe, secure, efficient and fair in terms of level-playing field.

Countries building their position in the sector:

- Accede to and implement UN-transport conventions such as those listed in Chapter 1, section 1.1.1. to create stable conditions in the sector for the industry to do business and develop
- Encourage establishment of freight transport and logistics associations
- Work with industry associations to develop vocational training
- Follow international practice and standards to occupational health and safety
- Support increase application of ITS for-transport operations
- Encourage/incentivise use of low emission vehicles
- Create assistance programme especially for SMEs to use of modern, low-emission vehicles
-

Countries, leaders in the sector:

- Sustain high-level implementation of UN transport conventions listed in Chapter 1, section 1.1.1.
- Work with industry associations, vocational schools and universities to establish specialised courses and training possibilities, and for university courses to improve their international profile
- Monitor the work conditions in the industry and work with industry to improve them
- Improve the perception of the industry to attract new recruits
- Introduce freight transport and logistics vocabulary for transborder communication
- Optimize transport operations by better utilization of ITS and telematics by the industry
- Further develop ITS for transport operations optimization through supporting relevant research and development
- Research on policies and technologies to minimize empty runs
- Optimize shippers operations (with regard to ramp times)
- Optimize transit traffic
- Internalise external cost for supporting environmental and social optimization, including through intelligent tolling systems
- Support research and development for pollution free (decreased emissions) freight transport and logistics
- Rethink city logistics and support research in this area
- Enhance environmental and safety standards, and where relevant, introduce them into the international conventions and agreements
-

B. Infrastructure and networks:

Actions in the area should aim at delivery of the necessary infrastructure and its further optimisation:

Countries building their position in the sector:

- Accede to and implement UN-transport infrastructure agreements such as AGR, AGC, AGTC, AGN, Protocol to on Combined Transport on Inland Waterways to AGTC
- Remove missing links
- Create infrastructure at major locations for intermodal shift
- Increase application of ITS for traffic management
-

Countries, leaders in the sector:

- Sustain high-level of implementation of UN transport infrastructure agreements
- Optimize infrastructure networks by better utilization of ITS and telematics by the industry
- Further develop ITS for infrastructure optimization through supporting relevant research and development
- Support research and development for mainstreaming ITS solutions
- Better address ITS challenges such as systems interoperability and data exchange, fraud and violation privacy and security
- Upgrade infrastructure bottlenecks
- Research on segregating freight transport from passenger transport (dedicated road lanes and rail lines for freight transport)
- Optimize use of infrastructure by further enabling intermodal shift: road to rail and waterways, rail to waterways
- Create and develop short-sea shipping
- Adjust and develop infrastructure supporting a new city logistics concept
-

CHAPTER 5: Policy measures in support of the implementation of the national master plans

[to be developed]

This chapter will refer policy measures applied in countries in support of the actions of the guidelines so as to also show good practices implementing the actions.

For many years the working party on Intermodal transport (WP.24) is collecting policy measures already implemented by different UNECE member States. Many of those policies are result of the existence of a National strategy or even master plan on freight transport and logistics. The main objective of the chapter would be to show the benefits that the preparation of a national master plan could bring in practical terms.

CHAPTER 6: Conclusions and Recommendations

[to be developed]