

ECONOMIC COMMISSION FOR EUROPE

INLAND TRANSPORT COMMITTEE

Working Party on Transport Trends and Economics

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Conclusions of the Round Table

“Supply Chain Challenges for National Competitiveness through Transport”, 2 December 2009

1. Tremendous changes occurred during the spread of globalization around the world. Globalization has exacerbated competition between countries and played a catalytic role in accelerating growth. In search for raising their prosperity, countries aim at enhancing the national competitiveness. Productivity of companies and other agents acting in its economy is at the core of the success and represents the fundamental determinant of the competitiveness of a nation. High level of productivity guarantees the improvement of the population's standard of living. The national prosperity is highly affected by competitiveness, defined as the productivity with which a nation uses its resources. In an increasing knowledge-based economy, nations compete in providing, supporting and attracting high levels productivity activities.
2. In accordance with the outline of the Project “Supply chain challenges for national competitiveness through transport” and its indicative timeline, the secretariat of the UNECE Transport division organized one day Round Table. Participants were invited from member governments, industry associations, academia and other stakeholders. List of participants is attached to this document.
3. The objective of the round table was to gather experiences from UNECE member countries in which national logistics plans and strategies have been already developed or are being considered, and to exchange views on methodologies which have been applied in developing national strategies and plans. Furthermore, international governmental and intergovernmental organizations were offered the opportunity to provide information on methodological basis used for development of their logistics and competitiveness indicators.
4. Director of the UNECE Transport division opened the Round Table by briefly introducing the scope and objectives of the Project, the role of the Task Force to be established and the expected outcome of the Round Table. She underlined the relevance of the Project for all UNECE member countries and stressed that the UNECE, as a bridge between EU and non-EU countries, with its experience in developing international transport regulations and having the mandate for technical assistance projects would be best placed for development of such new methodological framework.

Following this, the secretariat introduced the subject highlighting the gaps in the existing methodologies and approaches based on the analysis of the available national and international initiatives to link supply chains and competitiveness of nations.

5. The problem of competitiveness has arisen as an essential issue of nations and firms in the age of globalization. The intensification of the globalization process greatly expands the range of nations involved in the international competition. The global competition enables countries to strengthen their own competitive status and to promote the enhancement of their national competitiveness. Competitiveness represents one of the most dynamic economic and business concepts. It is a multifaceted concept including both quantitative (e.g. growth rates) and qualitative aspects (e.g. human resources). Also, it is an important issue for policy makers and other stakeholders in a country. The widespread use of this concept reflects the growing need of nations and business enterprises to examine their relative position with regard to competitors in the global market. The concept of competitiveness is at the core of the success of nations and companies. At the level of the company, competitive firm is the one that produces goods and/or services of a higher quality or at a lower price than its competitors. In a similar way of thinking, a competitive country is the one that creates, produces and markets goods and services either of a higher quality or at an inferior price compared with other countries. Also, a competitive nation is forging ahead in gaining market shares in business sectors that foster the economic well-being of its citizens.

6. In the first session the Round Table heard about the approaches used in Austria, Finland, Greece, Kazakhstan, Switzerland and the United Kingdom. Participants were briefly informed about main challenges which the current transport and logistics developments impose on policy planners, logistics providers and users of supply chains. National strategy to develop logistics sector and realize benefits from increased efficiencies in the economy through better performing supply chains are driven by various policy considerations in these countries.

7. In some countries, policy objective to reduce traffic burden and congestion as well as to induce modal switch from road to rail transport and promote multimodal solutions appear to be main drivers which set conditions for development of national logistics sector and supply chains (Austria and Switzerland). In other countries, development of logistics and national supply chains is motivated by the aspiration to better position national logistics market and supply chains in the region and in the international market (Greece). In Finland, national logistics strategy is being drafted by the Ministry of Transport and Communications, involving a broad spectrum of private sector stakeholders. United Kingdom approach focuses on the journey of passengers and freight from an 'end-to-end' origin to destination perspective thus helping to identify the pinch points and prioritize policy interventions. Passengers and logistics chains consider journeys (in terms of speed, cost and reliability) in their entirety, not by individual transport mode.

8. Transport strategy in Kazakhstan is focused on development of transit land-bridge between China and Europe and development of logistics centres in major population areas and key border crossing points. In Tajikistan program is concentrated on diversification of transport routes, development of future logistics centres, and the need to develop logistics for agricultural products, while in Kyrgyzstan, the strategy is focused on road infrastructure and maintenance, including two corridors to China, and development of logistics and marketing centres for agricultural products as well.

9. In the second session, participants were informed about the Global Competitiveness Index of the World Economic Forum, Logistics Performance Index of the World Bank, SCOR Model of the Supply Chain Council, the World Competitiveness Yearbook of the International Management Institute (Lausanne), Liner Shipping Connectivity Index (LSCI) of UNCTAD and the work on promoting competitiveness and innovative development through international cooperation by the UNECE-ECID.

10. In the final session, participants discussed the opportunities, possible approaches and further directions which the UNECE Project could take. It was commonly noted that development of any new indicator of competitiveness would not have an added value considering the nature of the existing competitiveness indicators (World Bank, World Economic Forum, IMD Lausanne, etc.), as well as the potential costs associated with development and construction of a new index. However, it was also noted that the existing indicators are based on quantitative, static and supply oriented transport indicators and are partially derived from user surveys. Surveys could provide useful insights but can not replace the rigorous methodology based on hard data and evidence. Furthermore, they fail to fully take into account the role of transport in supply chains and implications of this new role of transport for the competitiveness of each nation, based on demand driven qualitative indicators of transport services. For these reasons, participants felt that it would be justified to develop a new evaluation framework. This new framework would be able to provide countries with a flexible tool which must take into account and accurately reflect technological, commercial and regulatory changes governing transport in the context of supply chains.

11. Such a framework would need to be based on multi-criteria based tools. When assessing overall performance, non-monetary costs such as socio-economic costs (including environmental costs), need to be considered. These are often neglected by the private sector. Society as a whole, however, shoulders these costs, thereby reducing the total efficiency of the system. By combining these cost and quality indicators or by aggregating them into regional or national average values, a more comprehensive evaluation covering total transport costs, quality of services and impact on socio-economic factors could be performed.

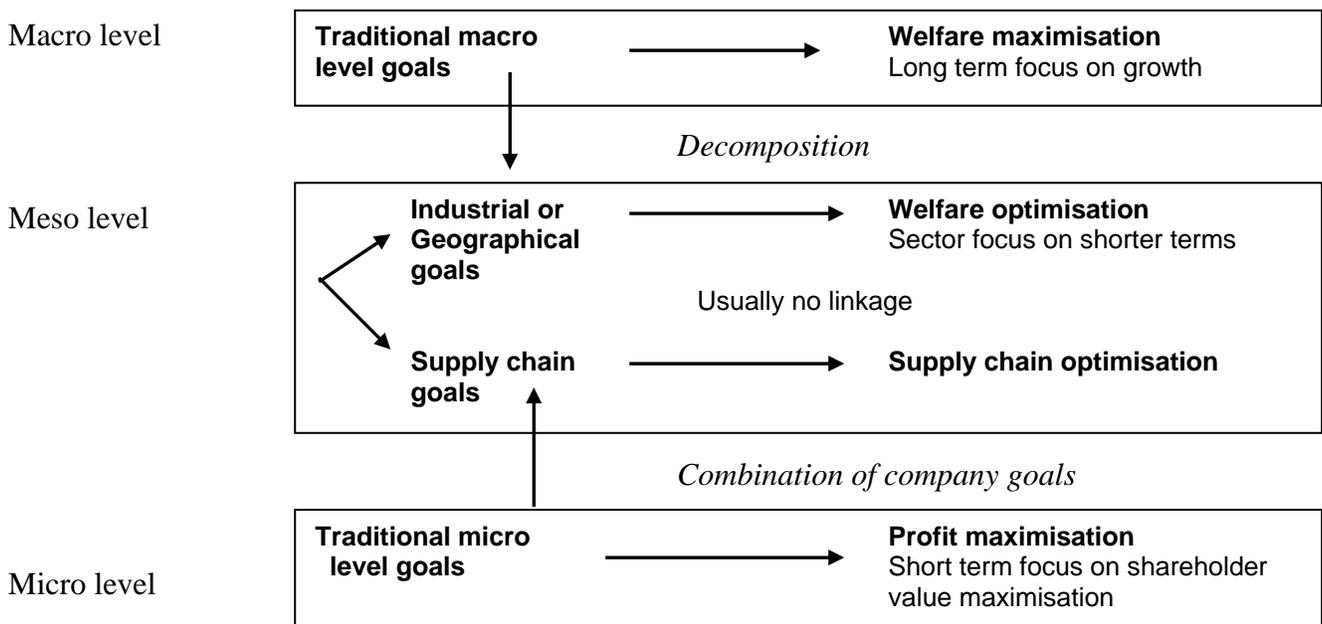
12. Rising transportation costs jeopardize profits. Transportation is a major component in the calculation of cost of goods sold, sometimes exceeding the cost of the labour and materials that go into a finished product. Rising fuel costs, capacity issues and increasing security requirements all contribute to rising transportation costs. The intricacies of today's transportation landscape increase the possibility — and cost — of delays. And these costs add up quickly: expediting, falling back on more expensive options, lead time uncertainties, on-time delivery challenges and the chance of losing markets. When transportation and global trade capabilities are fully integrated, a business can leverage technology to create cost savings and revenue opportunities. Significant reduction in transportation costs and avoidance of costly delays at border crossings; prevention of expensive non-compliance audits and fines; improvement of carrier performance and rate management; enhancement of warehouse productivity; better control inventory costs across the extended supply chain at the end translate into enhanced competitiveness of industries and a country's potential to benefit from more efficient functioning of the overall economy.

13. New framework should be based on meso-level indicators developed to assist policy making, thereby enabling policy actions to be implemented in a way that supports efforts by industry to develop competitive supply chains. The interaction between industries' objective to create competitive

supply chains and public policy goals of improving industry efficiency through policy actions requires governments to understand the mechanisms affecting the performance of shippers, carriers and other service providers in the supply chain, not only domestically but also internationally. A comprehensive analysis of the economic and financial impact of the wide range of policy instruments in place could assist in determining the cost effectiveness and appropriateness of various policy options and this requires macro indicators. However, macro indicators focusing on welfare maximization are mostly decomposed into meso-level indicators focusing on welfare optimization, under the condition of subsidiarity, for sectors or regions, and not on supply chains. Policy makers need the linkage between, on the one hand, the macro and meso level indicators and, on the other, the supply-chain indicators.

14. In relation to the link between logistics and supply chain management and the methodological framework two important methodological issues arise and need to be addressed: (i) there is a gap between the level and quality of information available at the micro level (i.e. concerning individual companies, their performance, internal circumstances and framework conditions) and the data required at the macro level (i.e. concerning the expected effectiveness of instruments of public policy). Hence difficulties are foreseeable in linking best practice information at the micro-level to framework conditions at the macro-level.

The missing link



15. National competitiveness is influenced both by macroeconomic and microeconomic factors. Government plays a key role in establishing macroeconomic stability and providing sound political and social institutions. On the other hand, the ultimate determinant of the economic efficiency is the productivity of the companies acting in the national economy. The first nation's source of competitiveness lies in its companies, where is added value created. This is why companies need a proper national environment in which they are born and learn to compete. Such environment is based on the following four broad attributes of a nation that constitute the diamond of national advantage.

16. For governments, it is important to establish a clear relationship between transport performance indicators and the transport policy objectives they are designed to support, in order to transform indicator values into relevant action and link them to past and future development. Hence, it is necessary for governments to specify their strategic policy objectives for developing performance indicators and to communicate them to all participants involved with supply chains. In order to improve the basis of transport policy, data collection on logistics services is essential. It is also necessary to focus on data useful for international comparisons and on indicators useful for analysis associated with transport policy objectives.

17. In brief, for the evaluation tool indicators which are relevant, plausible and for which data can be obtained need to be selected. They should be applied in a way that provides both industry and government with the insights necessary to determine factors contributing to inefficiencies in transport systems, supply chains, and strategies/policies to lift performance and ultimately increase the overall national competitiveness.

18. Development of the new methodology and relevant analytical tools should start from a general assumption that logistics and supply chains are fast emerging markets with the transport sector having a central role in ensuring their most optimal performance. There is, therefore, a real need to properly evaluate the transport sector's value added and the role in ensuring optimal and efficient delivery of logistical and supply chain services, as well as its contribution to the overall national competitiveness through supply of such services.

19. Development of a multi criteria assessment methodology is aimed at helping countries assess transport's contribution to their competitiveness through its role in global supply chains. Policy makers need to have at their disposal an effective and consistent methodology for the optimal assessment of the transportation market. Governments, other stakeholders and users will benefit from the application of such a methodology in several ways. Common concepts and consistent use of standardized indicators and parameters would produce information and critical elements for analytical work as well as necessary tools to facilitate the evaluation and international comparisons of the transport sector's role in supply chains, and the challenges which their development impose on transport markets.

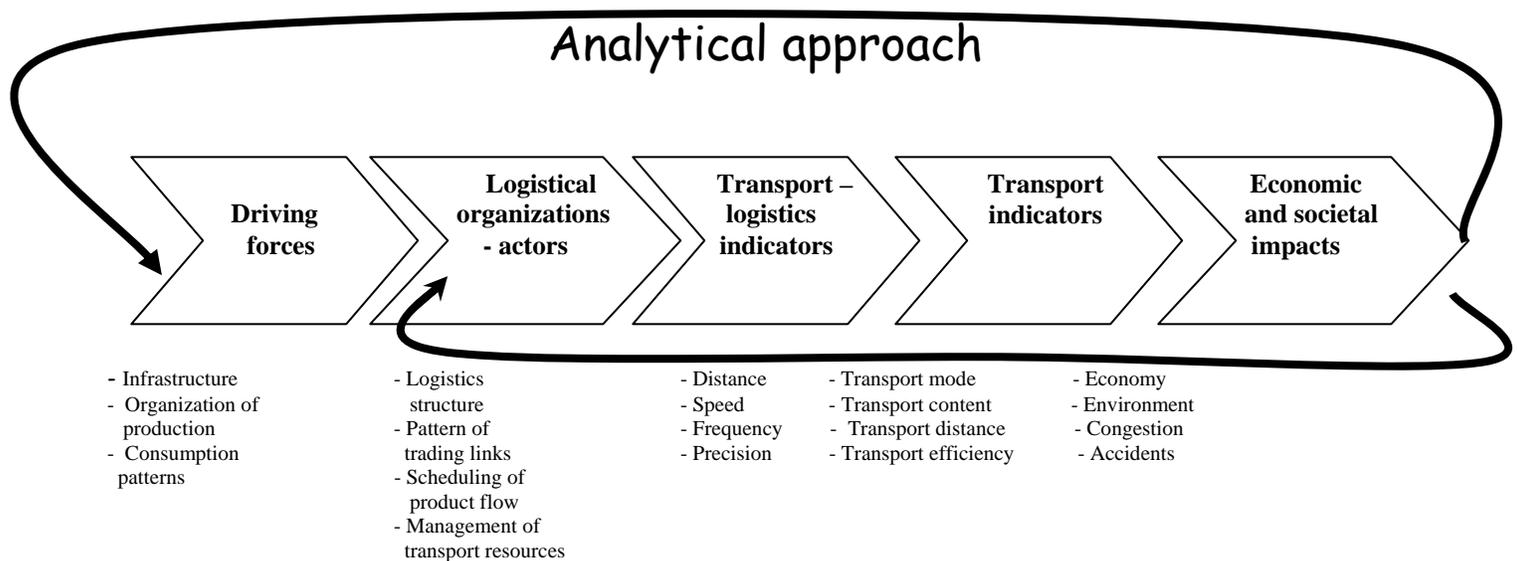
20. The use of framework based on a logical structure will help the assessment of supply chain challenges for transport and provide the opportunity to better understand transport's role in global supply chains; more accurately assess its contribution to countries' competitiveness; contribute to development of an integrated strategy for a country supply chain market; provide tools for obtaining information and measuring the level of integration of different transport modes; create additional value-added by using results for further analysis and assessment of a country's capacity as logistics or transit hub. It will further be possible to use such a methodology to assess).

21. Important role of authorities is to provide a beneficial framework for business to grow and increase efficiencies. This could be carried out in many areas and through a number of policies: (i) identification and elimination of bottlenecks; (ii) information and communications technologies (ICT) (interoperability, co-ordination; smart technologies, intelligent transport systems); (iii) training and certification of logisticians; (iv) indicators to measure logistics performance (including statistical ones); (v) benchmarking and labelling logistics excellence; (vi) promotion of multimodal solutions; (vii) improving efficiency of logistics terminals; (viii) developments of standards (vehicle dimensions and loading units vs. modern logistics); (ix) liability and transport documentation; (x) optimising infrastructure use.

22. Governments can directly influence logistics management decisions through the use of:

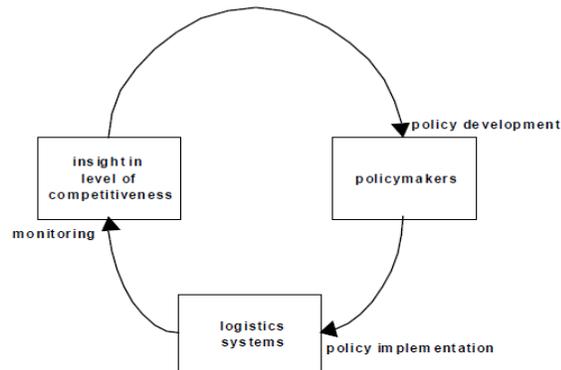
- *Infrastructure and land use planning*: the provision of network and terminal capacity and land use planning policies affect both the total volume and geographical distribution of freight traffic.
- *Fiscal measures*: e.g. fuel duty, vehicle taxes and road user charges.
- *Financial incentives*: to encourage a transfer of freight traffic between modes.
- *Regulations*: qualitative controls are mostly left to govern the design, licensing, operation and maintenance of vehicles. Changes in regulations on construction and use of vehicles, such as raising maximum lorry weight, can promote load consolidation in some sectors.
- *Advice and exhortation*: this has so far been largely confined to identifying and promoting best practice in vehicle loading and fuel efficiency. It could be extended to the design of logistical systems to show they can be made less transport intensive with little loss of competitiveness.

23. The analytical approach to a new methodological framework could be illustrated graphically in the following way



Logistical organization - describing actors in the supply chain at different levels of decision
Transport logistics indicators - describing how driving forces transform into new pressures on product flows (distance - logistical reach; speed - shorter lead times; frequency - numerous deliveries; precision - constrained delivery times)
Transport indicators - describing fundamental aspects of transport efficiency and its effects on environment, health etc.

24. Development of a new methodological framework may be viewed as a quality circle at the policy level, supporting continuous improvement through incremental changes. To be effective, this requires that the links between activities in the circle be transparent and strong enough to be sure that policy adjustments will have the desired effect. In addition, the dynamics in the system imply a continuous and closely interrelated implementation of the benchmarking and policy making activities, originating at the level of individual companies and terminating at a suitably aggregated level.



Quality circle at policy level

25. One limitation of this quality circle approach is that it usually does not improve the feeling of the decision-maker that he/she can control the system. Logically, in a complex system with many long-term uncertainties, it will be impossible to design an optimal policy which guarantees a certain (reasonable) degree of success. The key merit of such an approach, therefore, lies more in the identification of promising focus areas for policy, signalling opportunities for improvement of the system, than in the more normative type of guidance of policy towards optimal measures.

26. The Round Table showed that there has been a significant amount of research already done regarding the supply chains, their management and their economic importance both nationally and internationally, as well as an important number of indicators and indexes developed in international context. Participants pointed out that, in spite of this, there is still a lack of understanding and common grounds for assessing the real impact of supply chains and transport as its most important component on competitiveness of nations, since many governments have not been made aware of the link. The new methodological framework would therefore fill an important gap which governments face when they want to tackle the question what role should they play in developing and creating economic and business environment conducive to supply chains and transport sector role in increasing the efficiency and productivity of supply chains.

27. Furthermore, the Round Table clearly indicated that development of a new methodological framework should be based on building blocks which would take into account functional features of supply chains, which share common features across nations (seamless flows, costs, reliability, sustainability, etc.) but are specific for industry sectors, and specificities in various countries in terms of transport policies, markets and economic conditions related to “maturity” level of different types of countries.

28. At the end, participants agreed that the Task Force should meet in March 2010 to follow up on development of the project. In the meantime, participants agreed to continue discussing critical points of the project, provide the feed-back to the secretariat which will circulate the conclusions of the Round Table. March meeting would be the opportunity to elaborate elements of the framework in

more details with the objective to establish the clearer link between transport policy and national competitiveness through supply chains. Also, Terms of Reference for a consultant to assist the secretariat in this project will be presented and discussed at that occasion.

List of Participants



Round Table on Supply Chain Challenges

02 Dec 2009

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