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**NEW DEVELOPMENTS AND BEST PRACTICES IN INERMODAL
TRANSPORT AND LOGISTICS**

Impact of the financial and economic crisis on intermodal transport

Note by the secretariat

I. MANDATE

1. The Working Party on Intermodal Transport and Logistics decided in March 2009 to ask a virtual group of experts to analyse the impact of the current financial and economic crisis on intermodal transport and to report at its forthcoming session in October 2009 (ECE/TRANS/WP.24/123, paragraph 19). Due to lack of participation, this virtual expert group could not be established. However, in order to provide a basis for consideration by the Working Party at its present session, the secretariat has prepared the present note containing some reflections on the subject.

2. Following the discussions at its present session, the Working Party may wish to decide on possible follow-up activities, if any.

II. ECONOMIC AND TRANSPORT TRENDS

A. Economic developments

3. The deepening financial crisis and increasingly tight credit conditions resulted in a remarkable reversal of economic growth throughout the United Nations Economic Commission for Europe (UNECE) region in the final quarter of 2008 and first half of 2009.

4. Most UNECE economies experienced a pronounced growth slowdown in 2008 when gross domestic product (GDP) grew by only 1 per cent in the European Union (EU) and the United States of America. The countries in Eastern Europe, the Caucasus and Central Asia (EECCA) continued to outperform in 2008 other UNECE sub-regions, with GDP growth of 5 per cent and freight transport growth of 2 per cent. However, declining demand in the EECCA commodity sector depressed economic activity in 2009 also in these countries. Preliminary data for the first quarter of 2009 show that GDP fell at an accelerating pace in the EU and in the Commonwealth of Independent States (CIS).

5. Apart from Cyprus, Greece and Poland, all EU countries recorded a decline in GDP in the first quarter of 2009 compared to 2008. The fall in GDP was particularly important in the Baltic States, ranging from 18 per cent in Latvia to 14 per cent in Lithuania, but also in Slovenia, Finland, Germany and Hungary where GDP declined between 6 per cent and 8 per cent. In CIS countries, GDP continued to grow in the first quarter of 2009 only in Azerbaijan, Belarus, Kyrgyzstan, Tajikistan and Uzbekistan, while the by far largest economy, the Russian Federation recorded a decline in GDP of 14 per cent. In the Ukraine, GDP fell by around 20 per cent during the same period.

6. In June 2009, the Worldbank revised its earlier prediction for the fall of global GDP in 2009 downward from 1.7 per cent to 3 per cent. In late July 2009, the World Trade Organization (WTO) estimated that world trade in general would decline by 10 per cent in 2009 and exports of main industrial countries by 14 per cent.

7. At the same time, there seem to be now some cautious signs of a possible turnaround in the global economic crisis, but all depends on the restoration of the financial markets in the advanced economies. The unprecedented policy responses, both fiscal and monetary as well as the support provided by public authorities to the financial system are all starting to show results. Whether this is a sustained trend, still remains to be seen.

B. Development in the transport sector

8. The global crisis had a particular impact on international maritime shipping and container transport. During the first quarter of 2009, container throughput in Western European ports fell by 18 per cent. Container volumes declined even more in Eastern Europe and St. Petersburg recorded a minus of 38 per cent during the same quarter. For the first half of 2009, Rotterdam, Europe's largest container port, reported a fall in container throughput by 15 per cent, down to 4.6 million twenty-foot equivalent units (TEU).

9. While, in the last quarter of 2008, robust national transport markets seemed to have initially cushioned the decline in international transport led by the dramatic fall in maritime

container movements, freight transport by rail, road and inland water transport has also declined dramatically in the UNECE region in the first half of 2009.

10. For the first quarter of 2009, “Deutsche Bahn” recorded a decline in freight traffic of 24 per cent and predicts a minus of 7.5 per cent for the whole of 2009. Similarly, SNCF of France reported for the same period a decline in freight traffic of 28 per cent, with a dramatic fall in steel and automobile transport in the order of 50 per cent. Similarly, the Russian Railways recorded a minus of 27 per cent during the first quarter of 2009 and expect a decline of 20 per cent for the second quarter.

11. With a particularly bad performance in January 2009 (down by 36 per cent in Western Europe), it is likely that UNECE member countries have recorded a fall in rail freight of around 20 per cent during the first half of 2009.

12. Comparable data showing recent developments in road and inland water transport are not yet available for the UNECE region. However, data obtained through the electronic toll systems on highways in Germany, Austria and Italy indicate a decline in lorry traffic of 16 per cent, 17 per cent and 13 per cent respectively for the first five months in 2009. International road traffic seemed to have declined even more (minus of 18 per cent in Germany).

13. Few data are available for traffic on European inland waterways, but estimates indicate a decline of up to 50 per cent in traffic for the first quarter of 2009.

14. The outlook for the remainder of 2009 is bleak even though many so-called “experts” believe that the bottom of the cycle has been reached. Container throughput in European ports has apparently stabilized in July 2009 and is expected to increase slightly in the second half of 2009.

C. Trends in intermodal transport

15. As already predicted in October 2008,¹ the increase in intermodal transport in Europe had come to a sudden halt in 2008. UIRR companies reported a decrease in transport in the order of 1 per cent compared to 2007 amounting to 2.94 million consignments or 5.88 million TEU equivalents.² This compares to increases of 9 per cent in 2007 and 15 per cent in 2006. While the first six months of 2008 had still shown healthy increases, the second half of 2008 saw a dramatic decline in traffic as a result of the worsening economic crisis and, in particular, the reduction of transport demand in port hinterland traffic and by the automotive industry.

16. Traffic volumes on the main intermodal transport corridors across the Alps also reflected the worsening economic climate in Europe. In 2008, non-accompanied intermodal transport across Switzerland declined by 1.4 per cent (in terms of tonnes). While in the first half of 2008, traffic still grew by 0.1 per cent (via the Gotthard) and by 9.5 per cent (via the Lötschberg), the second half of 2008 showed a decline of 8.6 per cent for the Gotthard and 1.2 per cent for the Lötschberg. In November and December 2008, the decline in total non-accompanied intermodal transport across Switzerland had been in the order of 13 per cent.

¹ See document ECE/TRANS/WP.24/121, paragraph 22.

² One UIRR consignment (accompanied or unaccompanied) is equivalent to two twenty-foot equivalent units (TEU).

17. The first quarter of 2009 showed a continued downward trend in intermodal road-rail transport. In Germany, “Kombiverkehr”, the largest European intermodal transport operator, reported a decline in traffic in the order of 18-20 per cent and expects a similar decline for the rest of the year. The French intermodal transport operator GNTC even reported a decline in traffic of 30 per cent and up to 50 per cent on specific routes. Intercontainer Austria reported a down turn in the order of 17 per cent and the Swiss operator HUPAC saw a minus of 20 per cent during the same period.

18. Intermodal container transport in port hinterland traffic, representing around 60 per cent of total intermodal traffic in Europe, did apparently not decline more dramatically than overall intra-European transport in the first three months of 2009. The specialized German port hinterland operators, Transfracht and HHLA Intermodal, also recorded traffic slow-downs in the order of 20 per cent and 17 per cent respectively.

19. Only the Austrian intermodal transport operator OKOMBI, offering Rolling Highway (RoLa) transport services mainly across the Alps, did a little better and saw a fall in traffic of slightly less than 10 per cent in first quarter of 2009.

20. In general, European intermodal transport operators predict an overall decline in traffic in the order of 10 per cent to 20 per cent for the remainder of 2009.

21. Even though the economic crisis seems to have affected all modes of transport in a similar manner, first indications for a modal shift towards road transport are visible. This seems only logical since the cost structure of road transport is more flexible than that of rail and intermodal transport and fuel prices have declined considerably since its peak in 2008. This has led to price reductions in long-distance road transport between 20 per cent and 30 per cent during the past few months. Also reduced transport volumes favor, in principle, the deployment of small and flexible road transport units.

22. These theoretical underpinnings seem to be confirmed by data from Switzerland, which indicate that a modal shift from intermodal rail to road transport has already taken place across the Alps. Based on data for the first quarter of 2009, intermodal transport across the Alps is expected to decrease in 2009 by 13 per cent, compared to 8 per cent for road transport. These projections will, however, only hold if intermodal transport operators are willing and able to uphold their present dense network of national and international lines and services. Should the crisis persist until the end of 2009, it is likely that the European intermodal transport network will need to be thinned out considerably and further loss of market shares would then be inevitable.

III. SHORT TERM REACTIONS

A. Intermodal transport operators

23. In late 2008 and early 2009, intermodal transport operators have already adjusted their transport offers, introduced better coordinated transport procedures and reduced over-capacity on certain routes. Most intermodal transport operators have not yet reduced considerably the frequency and density of their intermodal transport networks, as reductions in train frequency, particularly below one daily journey in each direction may induce the risk of losing markets altogether. They also have not lowered the level of service quality. They have, however,

reviewed and streamlined internal procedures in order to identify cost elements that could be reduced without direct impact on service quality.

24. At present, most intermodal transport operators seem to continue their strategic long-term investments in modern equipment, rolling stock, terminals and IT services as well as in training and qualification of staff. On the other hand, investments in additional rolling stock have been postponed or considerably reduced.

25. Larger operators, such as Kombiverkehr or Hupac, have managed to obtain better and more flexible pricing conditions from railway undertakings that provide traction and partly rolling stock for their intermodal transport trains. Smaller companies, however, that had purchased block trains from railway undertakings and had taken the risk of marketing these capacities, have difficulties in obtaining similar temporary rebates and might be compelled to discontinue operation of these block trains if market demand continues to decline. Intermodal transport trains with capacity utilization below 50 to 70 per cent are the first to go.

26. Recently, representatives of the industry (UIRR, UIC, CER) have requested Governments and rail infrastructure authorities to provide short- and medium-term assistance to intermodal transport operators so as to continue, at an adequate level, intermodal transport services at national and international levels. For the short term, they have requested a reduction of infrastructure charges for intermodal transport trains for a period of twelve to eighteen months as well as a decrease in energy charges for such trains that make up around 30 per cent of total operating costs. In the medium term, they have requested an improvement of rail infrastructure in terms of better capacity and quality of services. They have also called on the European Commission and the European Railway Agency (ERA) to consider a moratorium on the implementation of cost-increasing legislation for at least one year.

27. At the national level, requests for temporary assistance have also been made by intermodal transport operators. In France, GNTC has requested to double the present subsidy of 10 EUR per transshipment operation. Similarly, in Germany Kombiverkehr has asked for temporary financial support for two years in the order of 30 Million EUR. Also Austrian intermodal transport operators have requested an exemption from toll on motorways and other tax rebates to better compete with road transport where prices had fallen by 30 per cent during the first months of 2009.

B. Railway undertakings

28. Even though intermodal transport is one of the few rail market segments that has continued to increase during the past years, only very few railway undertakings seem willing to provide temporary assistance measures for intermodal transport, be it in the form of discounts for services or flexibility in the provision of a minimum number of booked trains. As already mentioned, only large intermodal transport operators, such as Kombiverkehr in Germany or Hupac in Switzerland seem to be able to obtain such financial and operational benefits for a limited time.

29. While most European rail transport undertakings have not increased their prices for combined transport during the past months, on 1 July 2009, Rail Cargo Austria (RCA) increased prices for combined transport by 15 per cent. Also on 1 July 2009, the Russian Railways has

increased tariffs for freight traffic in the order of 5.7 per cent. In addition, SNCF is apparently considering a similar move.

30. Price increases may reduce operating deficits in the short term, as clients may not be able to adjust quickly their logistics and transport chains and use alternatives, such as road transport. Whether such increases are, however, a sound strategic solution and the right signal to intermodal transport users and European Governments, which continue to promote and assist financially intermodal transport, remains to be seen. Winning back lost clients is usually very difficult, time consuming and costly, particularly for complex systems, such as intermodal transport.

C. Governments and rail infrastructure agencies

31. So far, only very few Governments seem to have agreed to provide specific temporary assistance to maintain intermodal transport networks and the level of services during the present crisis. Several Governments are apparently reviewing possible assistance programmes, but have not yet decided thereon.

32. Switzerland has decided to provide, until the end of 2009, 33 million EUR to support the transport of containers, demountable bodies and semi-trailers with up to 90 EUR per transport unit operated in trans-alpine rail traffic. Nineteen national and foreign operators profit from these operational assistance measures that apply to sixty transport relations through and within Switzerland. These funds had been approved already earlier for the promotion of intermodal transport in Switzerland, but had not been used due to the decline in traffic.

33. It may well be that Government assistance measures for intermodal transport may not be required if the economic downturn has now reached the bottom line and exports of high-value goods to major European trading partners, such as China, are indeed picking up. Intermodal transport, particularly of maritime containers, should benefit directly from these developments. However, import volumes from overseas still have to move up and there are no clear signs in this direction at present.

34. If the predicted upturn in international trade and transport will not take place in the second half of 2009, Governments may need to consider very seriously whether they should provide support to intermodal transport with short-term measures. Over many years, large private and public investments have gone into intermodal transport and have built up a successful and efficient European network that constitutes a viable and sustainable complement to road transport on major transport corridors. Given the complexity of intermodal transport, there is a risk that, following a possible collapse, its politically wanted revival may be far more costly than short-term assistance measures.

35. Short-term assistance could be provided through the traditional mechanisms already in place (financial, fiscal and regulatory measures), but could also make use of innovative systems of rail infrastructure charging that provide incentives for the use of intermodal transport.

36. Assistance should, however, not benefit individual or national operators, but should be of advantage for intermodal transport services in general and should concentrate on keeping intermodal transport networks and operations intact.

IV. TURN CHALLENGES INTO OPPORTUNITIES

37. Before public assistance measures are to be considered and approved, intermodal transport operators have to do their homework. Fortunately, a crisis is also a time for new opportunities and for the break-up of obsolete structures and habits as shippers, freight forwarders and transport operators are normally more inclined to review their transport management and logistics systems in times of difficulties.

38. Thus, if the present crisis can be used by the industry as an opportunity to adjust to new trends and demands, to streamline internal procedures and enhance cooperation, to abolish or at least reduce endemic bottlenecks in the pan-European rail networks and to improve quality, then intermodal transport may emerge as a real champion on the European transport market. This would be in line with the transport policies of many European Governments that want to bring out the inherent advantages of each mode towards an efficient, safe and sustainable pan-European transport system. However, such window of opportunity is only open for a short time.

A. Globalization and regionalization

39. There seems to be consensus that future freight markets will become more volatile. Globalization will continue, but global logistics chains stand to lose some of their importance. Regional logistics chains and distribution systems with shorter distances and transport times could profit from these developments as they could offer better disposition of goods and flexibility to match demand and supply at short notice.

40. The predicted increase in intra-European trade, particularly between East and West in a South-Eastern direction beyond the EU, could be an opportunity for intermodal transport in terms of already existing rail and terminal infrastructures and long distances often well beyond 500 km.

41. Such long distance intermodal transport operations via the Trans-Siberian or the Kazakhstan corridors to China and via the Marmara tunnel and Turkey to the Middle East may create further demand for pan-European intermodal transport in the order of 1 to 2 Mio TEUs annually.

B. Streamlining operations while increasing service quality

42. In the present financial and economic crisis, intermodal transport services are under threat as they are organized in cooperation with many different private and public partners with often-divergent interests and cost structures. On the supply side, efficient intermodal transport services require a dense network of transport lines and schedules through many European gateways. This complex system of organizing and offering a pan-European intermodal transport network is dependent on the number and quality of each individual operator and line segment. Disruption of services and the discontinuation of individual lines may jeopardize the overall network and the quality of intermodal transport services in general.

43. This is even more so, as in times of crisis the demands for service quality (speed, reliability and information) increase while prices tend to go down. This conflict needs to be resolved quickly by intermodal transport operators before customers leave and turn to road transport.

44. Thus, intermodal transport operators must develop robust business models that, while bringing costs down, continue to offer high quality of services and can cope with rapidly changing demands and market requirements.

45. Increased horizontal cooperative arrangements with competitors on selective issues, such as sharing of capacity and infrastructures could be a solution as long as relevant competition laws are respected. Enterprises are more open to cooperative arrangements and procedures in times of crisis than in boom periods, also because they do not require large-scale investments and could be rapidly put in place.

46. Vertical integration of European intermodal transport into global transport chains is currently pursued by large ocean carriers as part of their port hinterland traffic policies. These examples might need to be looked at in more detail as they also provide examples of how to increase efficiency and control over the total transport chain.

47. Another element of reducing costs and increasing efficiency is the increased use of modern IT systems to streamline and control internal procedures. Such systems could also provide transparency during intermodal transport operations, such as on-line tracking and tracing of cargo and intermodal transport units, and allow communication among all parties involved in the intermodal transport chain (railways, road transport operators, terminals, shippers, etc.).

48. Railway undertakings further need to increase speed, reliability and punctuality of intermodal transport trains. The current increase in punctuality of intermodal transport trains is a good signal. According to UIRR, average punctuality levels are however still at only 65 per cent, which is still far from the target of 85 per cent formulated by UIRR.

C. Green logistics and intermodal transport

49. The economic crisis will go, but global warming will stay with us as one of the key policy issues for many years. According to recent surveys, this issue is also of growing importance to freight forwarders and particularly for shippers of consumer goods as it provides a means to enhance acceptance by clients and the public for transport and logistics. It also contributes to the motivation of staff. Intermodal transport generally has already a good “carbon” footprint and image, but needs to enhance further its visibility in this respect. Several large intermodal transport operators have already recognized this and offer their customers the possibility to calculate energy use and the carbon footprint of specific intermodal transport operations. Shippers will increasingly require such information from their transport and logistics providers for internal accounting and marketing of products.

50. Another issue of growing concern will be the emission of noise, particularly for railway transport. Procurement policies for intermodal transport wagons and equipment, such as cooling devices, need to take this into account.

D. Terminal operations

51. Transshipment operations, while intrinsically part of intermodal transport are, at the same time, also key drivers for costs, waiting times and rigidity in intermodal transport services. There is a high potential for improvements in this area. Intermodal transport operators and railway undertakings have to cooperate with public authorities responsible for land-use planning and trade unions on operating hours to arrive at stable solutions in this important field.

E. New markets for intermodal transport

52. Intermodal transport is not necessarily confined to high-value goods, but could also offer solutions for other high-volume cargoes, as it could often provide better transport quality, security and protection from outside influences than conventional rail transport. Examples include the transport of coke and fertilizers in containers over very long distances, including transshipment operations, for example towards the Middle East, Central Asia or China.

53. New markets could also be explored by developing market specific intermodal loading units with new technologies, such as horizontal transshipment for specific purposes. Also the opening of the new trans-alpine rail links via the already operational Lötschberg tunnel and the newly constructed Gotthard tunnels (to be completed in 2017) will offer new opportunities in terms of speed and capacity that could open up new markets, such as for air cargo and other time-sensitive goods.

54. Another aspect to be explored could be the combination of intermodal with conventional cargo trains. Such solutions could increase markets for intermodal transport also in cases where the small volumes would normally not justify the use of intermodal block trains. Such options require, of course, that reliability, punctuality and speed do not suffer.

V. THE ROLE OF THE WORKING PARTY

55. The Working Party may wish to take note of the above challenges and opportunities for intermodal transport in a time of crisis and may wish to consider how and to what extent it could assist UNECE member countries and the industry. This could include a regular exchange of information on appropriate short-term policy and assistance measures. It could also include the strengthening of its efforts to review regularly policy measures to promote intermodal transport (refer to ECE/TRANS/WP.24/2008/5 and Addenda). Some of these measures could possibly be enshrined into an international legal document, such as the AGTC Agreement, together with benchmarks for efficient intermodal transport operations that need to be achieved in order to obtain support.

VI. CONCLUSIONS

56. The present unprecedented financial and economic crisis is also an unprecedented challenge for the European transport industry and European Governments. Intermodal transport is one of the cornerstones of an efficient, safe and sustainable transport system in Europe. This should not be jeopardized. What has been built up over many years by the transport industry and European Governments should not be allowed to be destroyed within a few months, as it will be extremely difficult and costly to bring intermodal transport systems back on track.

57. However, unless the present crisis continues to persist, the intermodal transport industry may be able to turn the present challenges into opportunities, become more efficient and expand into new markets. It could even develop into a seamless transport system that constitutes an integral part of regional and global logistics systems and responds fully to the demands of its customers and the policy concerns of European Governments.

58. European Governments have the responsibility to support this development and the UNECE Working Party may wish to assist in this endeavour.