UNITED NATIONS

United Nations Economic Commission for Europe
Inland Transport Committee
Working Party on Rail Transport

Recommendations: Organizing demonstration runs of container block trains on Euro-Asian transport links

Introduction

Railways are often perceived by users as entities whose technical competence is high but which lack the ability to adapt quickly to economic change and the changing needs of customers. In addition, the complexity of rail operations appears to contradict requests of users for transparency. When several railways are involved in one shipment, potential customers are scared away by the prospect of disorderly operations following different practices.

Demonstration runs of container block-trains aim to (i) identify physical and non-physical bottlenecks to efficient cross-border movements by rail; (ii) develop cross-country interconnectivity between railways, and between railways and other modes of transport; (iii) provide landlocked countries with better access to major ports; and (iv) raise awareness among freight forwarders of the possibility of rail transport of containers between Asia and Europe. In the context of Euro-Asian transport links (EATL) in particular, the railways entering into a process of a joint organization of demonstration runs of container trains along international transport corridors must reassure users by building up credibility while providing an integrated, motivated and customer-oriented system to market and deliver services that meet customers' expectations. A step in this direction would be to put together all technical, commercial and operational requirements in the form of demonstration runs of container block-trains aimed at:

- Testing all parts of each requirement;
- Defining their interfaces;
- Identifying bottlenecks and implementing remedial measures;
- Integrating the operations of the various railways as well as those of the railway authorities with relevant administrations;
- Defining common practices.

The probability that Euro-Asian transport corridors will attract users is enhanced by the fact that they are increasingly choosing service providers on the basis of the perceived long-term value. This means that the success will depend on railways being able to deliver cost effective and reliable service. In this respect, it is essential that any operational or organisational obstacles to the realisation of these goals must be removed. Achieving the desired result requires that a certain degree of interoperability exists between neighbouring railways on the planned route. It also calls for the establishment of operational and organisational standards aimed at ensuring as much compatibility as possible between them. These conditions are necessary for the emergence of a "borderless railway space" operated under one unique set of rules. Thus, the railways engaging in the organization of demonstration runs of container trains may wish to consider best practices and formalise operational criteria in the form of bilateral or multi-lateral agreements.

The text below reviews the issues that need to be addressed by participating railways and competent authorities in order to ensure successful operations of Euro-Asian block trains.

Compatibility of train assembly

An agreement should be reached between the participating railways as to the number of 20 ft-containers in transit and the number of wagons that one train should haul. This compatibility of train assembly and load scheduling practices between neighbouring railway systems will be essential in order to avoid the necessity of having to re-adjust train loads at borders. The desirability of operating fixed formation unit trains across borders, where track gauge continuity permits, should be recognized and acted upon.

The ultimate number of wagons which could be operated in a single train depends on a number of related factors. These are: the TEU capacity of the wagons utilised, the available length of passing loops on line, the available length of sidings at terminals, and the hauling capabilities of locomotives.

Number of wagons - train length

The main principle guiding decisions about train lengths is that wagons should be added up until the point at which either (i) the maximum length of loops for crossing/passing purposes or sidings at terminals, or (ii) the maximum trailing tonnage for single locomotives (of predominant types in use), is reached. The underlying rationale is based on economics, because long run marginal costs (i.e. operating costs plus wagon and locomotive amortisation) decline with increasing train size up to the point at which another locomotive must be added. If one takes, as an example, a minimum useful length of loops and sidings of 850 m between the fouling points, the number of wagons hauled in one train is equal to

39 3-TEU wagons

(850 m – 32 m – 30 m $\geq$ 19.8 m x 39)

or

57 2-TEU wagons

(850 m – 32 m – 30 m $\geq$ 13.7 m x 57)

where

- length of the locomotive = 32 m,

- distance margin for stoppage precision = 30 m,

- distance between buffers or coupling gears of 3-TEU and 2-TEU wagons is equal to 19.8 m and 13.7 m respectively.

Decisions on the maximum number of wagons that one train will haul should be reached on a “whole route” basis. As trains will be hauling containers in transit, the limiting loop distance to be taken into consideration for the whole route will be the most limiting loop distance when all the railways along the particular route are considered together. In this evaluation, due attention should also be paid to the length of sidings in terminals at origin and destination as well as at border points, especially those border points where the break-of-gauge occurs and container transhipment must take place.

While the length of loops along main lines will influence overall operations, in the case of terminals, however, the length of sidings in itself may not be binding on overall operation practices if all loops along the main lines are found to be longer. Indeed, since shunting will in any case take place, loops may be shorter provided that the short length is compensated by adequate resources allowing overall shunting operations to be performed fast and efficiently.

Wagon capacity

The wagons used to carry containers on the EATL corridors are either of the 3-TEU or the 2-TEU type. The 3-TEU wagon, approximately 19.8 m long, offers considerably more operational flexibility than the 13.7 m long 2-TEU container wagon. This is because it can carry three 20 ft containers; or a single 45 ft, 48 ft or 53 ft container; or a single 40 ft and a single 20 ft container. The 13.7 m wagon, on the other hand, has the capacity to carry only a single 45 ft or 40 ft container; or two 20 ft containers. The disadvantage of the 3-TEU wagon is that it will impose an axle load of nearly 25 tonnes if it is to carry three 20 ft containers at a full gross weight each of 24 tonnes. However, the 20 ft containers (even when loaded with dense commodities) rarely exceed an overall mass of 18 tonnes (i.e. 2.5 tonne tare plus 15.5 tonne load).

Further, for a given length of loops the number of 3-TEU wagons required to carry a given quantity of containers will be substantially smaller than the number of 2-TEU wagons. For example, 39 3-TEU wagons will carry 117 TEUs while 57 2-TEU wagons (the maximum number consistent with the loop limitation) will only carry 114 TEUs.

The use of 2-TEU wagons, as compared with 3-TEU wagons, will also significantly increase the cost of operating the services by raising maintenance cost. This is because on container wagons, maintenance only deals with running gears and braking system while the length of the frame has virtually no impact on the process. Consequently, to carry an equal number of containers, the number of 2-TEU wagons will be 1.5 times higher than the number of 3-TEU wagons and maintenance cost will roughly increase by the same factor, i.e. 50%.

Maximum gross weight of trains

The result of the above calculations has to be checked against the hauling capabilities of locomotives (of the predominant type used) while paying due attention to the gradient on the various line sections. Using the above wagon number, the critical figure is:

(39 x 3 x 18) + (39 x 22) = 2,964 tonnes,

where

- 39 is the number of wagons,

- 3 the number of TEU that can be accommodated on one wagon,

- 18 the average maximum gross weight (in tonnes) of a 20ft container,

- 22 the tare weight (in tonnes) of 3-TEU container wagons.

The above calculation demonstrates that the efficiency of international train operations will, in large part, depend upon the existence of a relative consistency in the operating practices of neighbouring railway systems. For example, in situations where there is continuity of track gauge but no consistency in the length of trains operated on either side of the border, transit delay and cost penalties will result from the necessity to re-marshal or adjust loading at the border. The two main influences on train lengths are the hauling capacities of locomotives and the available length of crossing/passing, station and terminal sidings.

The problems associated with differing train lengths can be overcome by specifying standard train configurations based on unit or block train operation of international container services. *Unit trains* are trains comprising a fixed number of wagons of a single type, operating between a single origin and destination, with intermediate stops limited for train crossing purposes or for operational reasons such as crew or locomotive changes.

Routes	Origin	Break-of-gauge borders	Break-of-gauge stations
Route i (Russian Federation, Belarus, Poland)	Russian port of Vostochny	Belarus - Poland	Brest - Terespol
Route ii (China, Kazakhstan, Russian Federation, Belarus, Poland)	Ports in China	China - Kazakhstan Belarus - Poland	Alataw Pass - Drujba Brest - Terespol
Route iii (China, Mongolia, Russian Federation, Belarus, Poland)	Ports in China	China - Mongolia Belarus - Poland	Erenhot - Zamyn Uud Brest - Terespol
Route iv (Republic of Korea, Democratic People's Republic of Korea, China, Russian Federation, Belarus, Poland)	Places on the Korean Peninsula	China - Russian Federation (or China - Mongolia) Belarus - Poland	Manzhouli - Zabaikalsk (or Erenhot - Zamyn Uud) Brest - Terespol
Route v (Republic of Korea, Democratic People's Republic of Korea, Russian Federation, Belarus, Poland)	Places on the Korean Peninsula	Democratic People's Republic of Korea - Russian Federation Belarus - Poland	Tumangan - Khasan Brest - Terespol

Block trains are similar, except that they may comprise more than one type of wagon, but nevertheless operate to fixed formation, single origin/destination principles. In container haulage service, both types of trains should comprise wagons which may be run at or near passenger train speeds to avoid being held in passing loops for faster passenger trains. The main advantages of such trains are that by avoiding marshalling yards and intermediate stops for loading/ unloading both transit times and operating costs can be significantly reduced.

The operational parameters relating to train configuration will have to be agreed to for each route by all the railways concerned.

The break-of-gauge issue

There are different track gauges on E-A transport corridors and particular routes. The standard gauge of 1,435 mm is used by railways of China, Democratic People's Republic of Korea (DPRK), Germany, Poland and the Republic of Korea (ROK). The broad gauge of 1,520 mm is typical on the railways of Belarus, Kazakhstan, Mongolia and the Russian Federation.

The above table implies the break-of-gauge points on some routes, i.e. at the borders between the countries using different track-gauges.

In the case of container traffic, solving the break-of-gauge issue involves either operating with only one set of wagons and changing the bogies at the break-of-gauge points or operating with two sets of wagons of different gauges and transferring the containers from one set to the other. One difficulty associated with bogie-changing is the logistical problem (and associated cost) of maintaining an adequate inventory of bogies especially when there is a large imbalance in the directional flows of wagons. Another difficulty is that bogie-changing facilities are very often equipped with tracks of small capacity. Consequently, bogie-changing a whole train would necessitate numerous shunting operations and require a longer stopping time than a transhipment operation. The recent development of wagons with adjustable wheel-sets presents an alternative to bogie-changing. However, such wagons have not been used in sustained commercial freight operations over long distances.

For the foreseeable future therefore, the favoured solution to break-of-gauge problems along E-A corridors seems to be the transfer of containers between two sets of wagons. Implementing this solution is also superior in economic terms as it does not require massive investment from the railways concerned in yards and handling equipment. In the long term, the solution allows the railways to use the existing wagons until the end of their technical life-cycle.

Whatever the technology used, break-of-gauge operations require shunting the wagons from the receiving sidings to a dedicated yard and back again to the departure yard. Both shunting and actual bogie-changing or container transhipment operations represent a non-negligible time loss and could erode any competitive advantage which rail might otherwise have for freight movements within the corridor. This situation emphasizes the need for adopting fast and cost-effective transfer methods and sound operational principles. More specifically, guarantees must be obtained that the dedicated yards will be working at the time of arrival of the trains and, in the case of container transhipment, that the sets of empty wagons will already have been positioned in advance.

In the period preceding the actual demonstration runs of container block trains, the status of facilities at each break-of-gauge points will have to be assessed.

For each break-of-gauge point, the operational target will have to be fixed in an operating agreement. Depending on the technology used, e.g. gantry cranes, reach-stackers, etc., the number of moves per hour will have to be determined. This information, together with the number of containers hauled by one train, is crucial to build realistic and reliable schedules. The working agreement should

stipulate such points as the technology used; performance criteria, i.e. number of moves per hour; railway administration responsible for the acceptance of trains for each direction of traffic; type of information to be specified in the acceptance register; procedures for registering wagon or container damage; criteria for refusing a wagon or container; treatment of documents and information.

Since all break-of-gauge points are also border-crossing points, the interaction between railways and customs/security administrations will also have to be defined and stipulated in the working agreement.

The reliability of service will depend crucially on linkages with container handling and distribution systems in ports and hinterland areas. These handling and distribution systems must be (i) sufficiently comprehensive in terms of their coverage of container trade generating industries and locations with easy road access and (ii) sufficiently well equipped to allow rapid loading and discharge of container wagons.

Composition of a container block train

The composition of a container block train must be optimised technically so as to allow as much as possible the coverage of a daily distance of 1,000 km. Apart from the need to meet the basic commercial requirement to cover a distance as quickly as possible at a reasonable cost to reduce overall transit times, adopting for container block trains the speed criteria normally used for passenger trains would give freight services a greater chance to receive the same priority as passenger trains at the conceptual stage of train scheduling and train-path allocation. In addition, adequate operational performances will ensure that traffic controllers do not stable container trains each time there is traffic disruption. Here again, the usual practice may have to be reviewed in the light of economic facts. One block train generates more revenue than many passenger trains.

So far as locomotives are concerned, both freight and passenger locomotives can normally be used for container trains which are normally "light" trains but the final choice of what motive power to use will depend on the operating costs related to train assembly, i.e. the number of TEUs and number of wagons to be hauled in a single train. In terms of overall operation, railways should optimize the roster of locomotives to let locomotives and crews carry on for as long as is technically possible and allowed by working hours regulations.

When the crew and locomotive have to be changed, a time target should be fixed for the operation. Typically, considering the time for uncoupling and moving the off-duty locomotive, switching the points and signals, moving the relief locomotive, coupling it to the train and carrying out the brake test, a locomotive change should not take more than between 20 and 40 minutes. The same principle should also be followed when stoppages are due to train inspection. Such inspection is usually quicker for container trains than conventional freight trains given that containers will not pose the same risk of load displacement. Whenever possible the distance between two consecutive stoppages for wagon inspection should be optimised to what is technically reasonable from the safety point of view.

Train schedule

Scheduling the container block trains will mean reaching a compromise between the fastest transit times that can possibly be achieved on each of the train routes and the need to offer reliable services, i.e. build schedules which are realistic and can be met most of the time. The scheduling stage is a crucial one in the preparation of this type of rail services. Consequently, it is essential that all the elements entering into the building of schedules for the rail journey between terminals of origin and destination be analysed and that operational documents be issued. On the operational side, two main areas are time-related, namely main-line operations and yard operations.

Main-line operations

Scheduling main-line operations requires the two following inputs: (a) the "basic schedule", which is based on the fastest transit time over a line or line-section, and (b) a so-called "punctuality margin", whose purpose is to allow for such operational elements as lack of precision in speed reading instruments, occasional greater gross weight than usual, late opening of signals by station staff, longer than expected stopping time, temporary speed restrictions unforeseen at the planning stage, track work, adverse weather conditions on some line sections during certain periods of the year, etc.

Aggregating these elements yields a train path indicating arrival and departure times for scheduled stops at stations and yards, passage time through stations and specific spots along the line. The defined train paths must fit in the overall operation train graph, i.e. be compatible with other scheduled trains, such as long distance inter-city passenger trains. How the resulting schedules for container block-trains integrate at the national level will be studied by each of the involved railways and, in a second stage, national schedules will be aggregated and refined into an international schedule for each route.

Yard operations

While container block trains by-pass marshalling yards, they still require terminals at both ends of the routes and at break-of-gauge points. To avoid delayed start at the beginning of the journey or delayed delivery of the cargo at destination, the terminals must be well-designed and well-equipped. Well-designed means that terminals must be located as close as possible to the main trunk line so that no time is lost entering and exiting the terminal by running at low speed over a number of switches and secondary tracks. Also, terminals should, whenever possible, be set aside from other yards so that their operations are not hampered by other shunting movements. At the same time, terminals at both ends of the route should offer easy access to road vehicles so as to guarantee reliability of the road ↔ rail interface. On the site itself shunting movements must be minimized so far as wagons are concerned. This can be best achieved by having a track of sufficient length under the crane-way.

Well-equipped means that adequate handling equipment must be made available to guarantee that containers are moved swiftly from truck/ship to wagon, wagon to truck/ship and wagon to wagon. Although output depends on the design of the equipment itself and on the layout of the terminal, on average the number of containers transferred per hour is 20 to 30 for a gantry crane, 15 to 20 for a straddle-carrier and 20 to 25 for a reach-stacker.

For overall punctuality and reliability of the services, proper scheduling of yard operations is particularly crucial at break-of-gauge points. This requires inputs pertaining to the technical and non-technical operations taking place at the break-of-gauge points. Regarding the technical operations, a large number of inputs are to be taken into account in the scheduling.[1] The output should be an operating manual aimed at securing as much as possible a predictable and routine type of operations. The manual lays down the conditions in which container block-trains are to be handled and stipulates *inter alia* the following details: (a) tracks where trains are to be received and from where they are to be dispatched, (b) tracks where containers are to be transhipped, (c) number of staff, (d) number and type of shunting locomotives, telecommunication facilities, handling equipment, etc. Once all the elements of the main-line and yard operations are assessed, they will be aggregated into national schedules which are then coordinated and agreed at the international level among involved railways along each individual route.

1. Working hours of yards; number of staff; number of shunting locomotives; number, length and condition of tracks at receiving yard; number, length and condition of tracks at departure yard; number and useful length of sidings under rail-mounted gantries; overall configuration of yard; ease of train formation; type and capacity of handling equipment; adequacy of lightning of yard for night-time operation; telecommunication facilities (telephone, radio, walkie-talkie sets, etc.).

Border-crossing issues

The development of E-A transport links into an integrated quality network for container traffic implies that impediments to the quick and smooth movement of goods have to be removed.

This is particularly relevant at borders, given the range of operations and checks which can take place at crossings. These operations and checks are of two types, namely those relating to railway regulations and those relating to regulations imposed by other administrations. The table below gives a non-exhaustive list of those operations and checks for both cases.

Railway operations (each item may not be applicable to all railways)	Operations by other administrators
Change of locomotive	Customs inspection
Change of crew	Sanitary inspection
Braking sheet	Security checks (border police)
Technical inspection for acceptance of wagons	
Safety inspection for dangerous goods	
Labelling of wagons	
Change of rear light	

Considering that each operation is in itself a source of delays, one can easily understand that moving freight between two points through several border-crossing points is fraught with potential risk to reliability. If anything, the number of operations listed in the table highlights the need for cooperation between the railways to reduce the risk by securing agreements, fixing standard times for each operation and laying down quality measurement principles.

The experience so far has shown that greater efficiency could easily be achieved if:

- The commodity unit is the ‘container’,
- The operating unit is the ‘block train’, and
- The commercial unit is the ‘transit’ container.

The practical implications are that operating block trains would by-pass marshalling yards, eliminating the need for hump operations with the related risk of damage to wagons and displacement of cargo. Consequently, the wagon-exchange procedures could be expedited.

Regarding the drawing-up of documents based on train information, the computerised exchange of the required data between railway administrations in advance of the arrival of the train at stations where specific operations are scheduled, will help the railways optimise their resources and streamline their working practices. As soon as a train leaves a major station, the information should be sent forthwith to the next border/transhipment station. This would help early preparation of the documents and actual work after arrival of the train would in most cases only consist in checking conformity of the information received with real situation. Such information would, for example, include such items as wagon numbers, container numbers, weight of containers, train length, mass of train, etc.

In terms of operations to be performed by administrations other than railways, the practical implications are that operating block trains carrying transit goods only, in the form of containers sealed with internationally-recognised devices, facilitates the work of customs and border police officials.

To ensure that block trains are flagged on quickly, the railways will have to determine with the relevant administrations the information that each of them need and the format in which it should be provided. In this regard too, standard times should be established for each operation at each border point (ports as well as stations) where inspections take place.

Customs and border formalities

An essential condition for improved transit times is the speed at which customs and other border-crossing formalities can be completed. Given the "in-transit" nature of the goods, it is important that the customs authorities of the countries transited allow customs clearances to take place at stations of origin and destination. To all intent and purposes at stations where there is no change of waybill, the approved time-frame for customs procedures should fall within the time frame allocated for the most time-consuming operation due to take place. Usually, this should be the locomotive change when no transhipment is needed, i.e. from 20 to 40 minutes, or the transhipment operation at break-of-gauge points whose time-frame will depend on the configuration of the yard and the equipment available. Joint customs operations by the officials of two neighbouring countries should be encouraged. The relaxation of customs procedures between European countries has allowed time reduction of up to 30%.

Legal interoperability

Common consignment note CIM/SMGS

Freight traffic from East to West and vice versa must cross an invisible frontier between two legal regimes: the CIM Uniform Rules in the framework of COTIF 99 in the West and the SMGS Agreement from 1951 in the East. Two adjacent but distinct legal regimes might have been justified at the time of the cold war but today they represent a considerable obstacle to the development of international rail freight traffic along the corridors between Western Europe, Russia and Asia. To rectify this situation, at the end of 2004 the CIT, together with the OSJD, launched a project to make the CIM and SMGS legally interoperable. The first stage of the CIT/OSJD project "Transport Interoperability CIM/SMGS" consisted of drawing up a design for a new consignment note, bearing in mind that it also had to serve as a customs document.

The new consignment note CIM/SMGS is consistent with the article 6 § 8 CIM and article 7 SMGS. The new document is the "sum" of the CIM and SMGS consignment notes. It is based on the United Nations Layout Key for Trade Documents; on the front it has all the boxes for the data which is common to the two contracts of carriage as well as the boxes which only refer to the CIM contract of carriage. On the back are the boxes which only concern the SMGS contract of carriage.

The CIM/SMGS consignment note and the accompanying CIM/SMGS Consignment Note Manual (GLV CIM/SMGS) for international CIM/SMGS freight traffic by rail became available for widespread use by customers and carriers on 1 September 2006.

The CIM/SMGS consignment note is recognised as a customs transit document by DG TAXUD for the EU and EFTA and by the customs authorities of Russia, Belarus and the Ukraine. It can also be used by customers for documentary credit operations.

In addition, the CIM/SMGS wagon list and CIM/SMGS container list were drafted to allow further simplification of international CIM/SMGS freight traffic by rail. The CIM/SMGS wagon list will be used for block trains and groups of wagons carrying conventional traffic and containers which are consigned using a CIM/SMGS consignment note. Because there are not (yet) any relevant instructions for container lists in the SMGS area, the use of a CIM/SMGS container list requires an agreement between the customer and the carrier/railway. A precondition for this is that, unless otherwise agreed, the consignment consists entirely of goods of the same type.

The timescale for authorising new transport links is proving to be too long in practice and has become a barrier to the extension of the scope of application of the CIM/SMGS consignment note. The CIM/SMGS Steering Group therefore decided on a defined procedure for the authorisation of individual transport links.

The CIM/SMGS Legal Group drafted in the second phase of the project the design for the Standard

CIM/SMGS Formal Report and the instructions for its use, basing them on the existing CIM and SMGS formal reports. The advantage of this document is mutual recognition and use both in the CIM and in the SMGS areas.

Further developments

The third phase of the project "Transport Interoperability CIM/SMGS" includes the creation of standard Eurasian transport law CIM/SMGS. Initially, one would develop a simple legal regime based on the existing CIM and SMGS rules for particular types of traffic (block trains of containers, for example) on defined transport links (along the Trans-Siberian Corridor and Corridor II between China and West European ports such as Rotterdam and Hamburg, for example).

The CIM and SMGS would thus remain in place. For yet to be defined traffic flows the legal regime would be created as an extract of selected CIM and SMGS components. This concept is based on the assumption that only a fraction of the current CIM and current SMGS would be necessary for such traffic of goods.

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Working Groups for operationalisation and monitoring

The above elements clearly highlight that for any given route to be competitive, a joint and well-coordinated operation of all the railways and governments concerned is essential.

To secure the required coordination, it is important to set up a dedicated Working Group for each route consisting of railway professionals (railway operation experts) or other professionals (marketing, public relations, and information technology experts). The tasks of the Working Groups will be to plan, organise and monitor demonstration runs aimed at identifying remaining obstacles along the routes. They should be established on a route basis in order to pay due attention to technical characteristics of each route and readiness of individual countries to implement demonstration runs and services. Before performing the necessary tasks, it is important that as a matter of priority the Working Groups define policies concerning the framework in which the implementation progress has to be reported and milestone decisions have to be approved. When this has been done, the Working Groups will be able to turn their attention to concrete action through performing the following tasks.

Preparatory "technical" phase

(a) Define a common calendar for the development of schedules for the purpose of demonstration runs (point h below); (b) agree on the number of wagons/TEUs to be carried in one single train; (c) review the relevance of the existing border crossing agreement for the exchanges of wagons and other operational matters; (d) review the operational framework for transhipment activities at break-of-gauge points; (e) work with representatives of other public administrations to address their needs while meeting operational and commercial requirements; (f) review the existing organisation and equipment in place for collecting and transmitting information between railways and between railways and other entities (customers, other administrations); (g) develop awareness among all staff and define and carry out necessary training, (h) test the relevance of the organisation suggested and identify possible bottlenecks through demonstration runs of block trains; (i) prepare, discuss and finalise the relevant agreements between railways including the responsibility of each railway in case of delay and the definition of a penalty system;

Preparatory commercial phase

(j) Define through tariffs; (k) define the system for revenue allocation; (l) define the format of electronic international waybill; (m) define an adequate security plan for cargo (sign a contract with a sub-contractor if outsourcing is adopted) and define a responsibility-sharing scheme in case of damage or theft; (n) assess the information requirements of users/other administrations and define the scope and time-phased implementation of an interactive internet site with on-line space-booking capabilities and on-line tracking facilities; (o) assess the users' needs in terms of transit times, service differentiation, frequency of service, time of delivery; (p) identify the segment of customers interested in fast transit times and assess their needs in terms of service differentiation (e.g. premium service with "very fast", "fast" or "average" transit times, each to be defined); (q) prepare the commercial schedules for container block-trains; (r) devise a brand name and develop a marketing strategy; (s) define performance indicators;

Service-running phase

(t) Monitor operations and overall service delivery; (u) monitor development of competing modes, i.e. shipping for the main leg of the intercontinental journey, road and inland water transport for pick-up and delivery, and plan new services or devise measures for the improvement of existing services; (v) keep close contact with users to understand their changing needs.

Conclusions

The experience already gained by the participating railways in operating demonstration runs of container block trains through their national rail systems shows that these runs along various routes of the E-A transport corridors clearly demonstrate to freight forwarders, shippers and other potential customers the feasibility of Euro-Asian inland transport routes. It has been recognized that the demonstration runs mark a significant milestone in the operationalisation of corridors and provide the opportunity to identify the remaining institutional, technical, and commercial barriers to smooth train operations on each of the routes.

The experience further shows that the establishment of a "Steering committee" for the overall coordination of implementation, and "sub-committees" to deal with the specific technical requirements for the implementation of the demonstration runs on each route should be highly recommended.

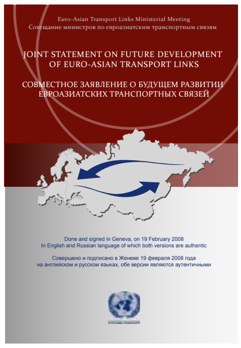
The importance of organizing marketing and promoting services on particular corridor is also recognized. The need to harmonize customs control procedures for the container demonstration runs has also been identified and it is recommended that appropriate bodies from the involved countries fully and constantly cooperate in this matter.

It has also been noted that a common understanding between the participating countries is important and necessary for the implementation of the demonstration runs. The practice has shown that the establishment of a Memorandum of Understanding (MoU) on the planning and implementation of demonstration runs of container block trains facilitates to a great extent running of the operation.

For more information, see:
http://www.unece.org/trans/main/sc2/sc2.html

Meeting of Transport Ministers from Countries in the Euro-Asian Region - 19 February 2008

Transport Ministers and High-Level Officials from countries across the Euro-Asian region and Western Europe, along with representatives from UNECE, UNESCAP and UN-ORHLLS and international institutions, including the European Commission, OSCE, BSEC, ITF, IRU, and UIC met on 19 February 2008 to discuss the development of Euro-Asian Transport Links at the Palais des Nations, Geneva.



The Meeting, which began the 70th Annual Session of the UNECE Inland Transport Committee, opened to a full house and culminated in Ministers signing a Joint Statement on Future Development of Euro-Asian Transport Links.

To read or download the Statement, please go to:
http://www.unece.org/trans/MinisterialITC70/min_jointstatement.htm

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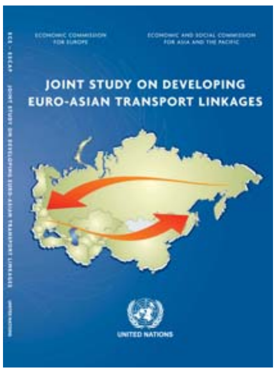
Joint Study on Developing Euro-Asian Transport Linkages



The elaboration of an in-house study was foreseen at the outset of the project. The study was intended to contribute to the formulation of an integrated transport network linking ECE and ESCAP regions, including SPECA countries, on the basis of country information and existing international transport networks under the general project's title "Identification and formulation of interregional transport linkages and corridors".

The study presents an in-depth evaluation of major land and land-cum-sea transport corridors between Asia and Europe and attempts to determine their potential viability. Country reports on highway, railway, and inland water transport networks and with relevant details on seaport connections for multimodal transport operations were prepared by the National Focal Points on the basis of the general work description and a uniform questionnaire.

To read more about the Study, or to download it, please go to:
http://www.unece.org/trans/MinisterialITC70/min_study.htm