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Chapter VI

Tade and Transport Efficiency

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Chapter VI

TRADE AND TRANSPORT EFFICIENCY

This chapter provides an update on the expansion of the UNCTAD Global Trade Point Network (GTPNet), on developments in the field of multimodal transport, and on the impact of the latest developments in information technology on the efficiency of transport operations.

A. Trade efficiency

Development of the GTPNet

116. UNCTAD's Global Trade Point Network (GTPNet) has been designed to offer primarily small and micro-businesses around the world practical assistance in all trade-related matters: trade information, bank loans, transport, insurance and customs practices. Among other things, data and information on transport practices, specifically maritime transport and related services, are indispensable for achieving greater efficiency in trading activities. Relevant service providers, such as transport operators, could benefit from the facilities provided by the GTPNet so that they are able to offer a higher quality of services in both time and cost, maximizing the benefits of services provided.

117. The GTPNet relies on the most advanced available technologies for networking and multimedia communication. As the number of connected Trade Points increases, the GTPNet is rapidly emerging as one of the main worldwide networks for trade-related information flows. As at April 1997, 108 countries were involved in the GTPNet, 21 of which are least developed ones. There are 41 operational Trade Points in 23 countries and another 120 Trade Points have been requested (24), are being set up (89) or are moving towards being fully operational (7). The GTPNet is a global trade-related network based on the Internet. The main servers are located at the United Nations International Computing Centre (UNICC) in Geneva and at the UNCTAD Trade Point Development Centre in Melbourne, Australia (which moved from Bangkok, Thailand, in 1995).

Electronic trading opportunities (ETOs)

118. A particularly important feature of the ETO system is that ETOs are distributed on a point-to-point and company-to-company basis. This is in contrast to older systems, which posted information on a bulletin board system or relied on country-to-country exchanges at a more official level. Companies receive ETOs in their e-mail boxes or from their local Trade Point, or they download them from the ETO Newsgroups straight into their computers. Therefore, the ETO system is directly in touch with the people who make trade happen. Its size, growth, reliance on the most advanced technologies available, and focus on the specific needs of developing countries and smaller firms make it a truly unique instrument of worldwide integration in global trade.

119. Offers to buy and/or sell can be accessed on the GTPNet from all connected Trade Points and ETO subscribers around the world. ETOs are electronic messages sent out in free format or using UN-EDIFACT compatible standards (PRICAT message), which allow their easy retrieval and selection. An average of 200 ETOs are disseminated among Trade Points and ETO subscribers daily. Since the creation of the GTPNet, over 1 billion ETOs have been processed. It is estimated that every day ETOs reach over 7 million companies around the world in the following way: 40 per cent via e-mail, 30 per cent via Newsgroups and the Web Trading Place (direct download), 20 per cent via bulletin board services (ASCII-based services) and the remaining 10 per cent via newspapers, ETO brochures, etc. A new breed of ETOs appeared on the GTPNet in November 1996, which will contribute to making the GTPNet one of the first global networks adapted to full electronic trade transactions on the Internet. This system introduces secure requirements for validation, authentication and secure payment processing in the GTPNet.

Internet and development: The use of World Wide Web servers

120. The World Wide Web is the fastest-growing part of the Internet. It is made up of multimedia (i.e. text, images, sound and video) information distributed on thousands of Internet servers around the world. This information is interconnected by "hypertext links", where choosing a highlighted word or image on one web page takes the user directly to a related web page, wheresoever its physical location might be. Although Internet connectivity is still far from being truly global, most countries have some access to it. Because of its remarkably low cost, the Internet remains a solution to involve the less advanced players in the emerging Global Information Infrastructure (GII).

121. The GTPNet World Wide Web server was launched in January 1995. It contains structured information on trade efficiency, Trade Points, the GTPNet, ETOs, etc., as well as hypertext links with other United Nations organizations, government agencies, and trade-related organizations and information sources.

122. The GTPNet now offers thousands of links with other networks and organizations. This is done primarily by hypertext links on the GTPNet servers. Also, with the ETO-e-mail system, many links exist, particularly with trade promotion organizations. Finally, many World Trade Centres have expressed interest in establishing Trade Points. Cooperation on these fronts continues, and is being further accelerated by the increased interest of other major trade-related networks in being "linked" in some fashion to the GTPNet. An important element of such cooperation would be the creation or further improvement of linkages with trade-supporting services, such as banking, insurance and transport.

Transport companies on the Internet

123. Business information through the Internet is rapidly assuming importance also in the transport sector. For the maritime industry, the Internet has become an important tool for technical and commercial management, general administration and marketing. Equally, for the trading community, it has provided easier and more readily available access to information, thus contributing significantly to market transparency. In order to assist both providers and users of maritime transport services, UNCTAD is developing a transport web page called TransLink as a quick and inexpensive means of helping developing countries to improve the efficiency of trade operations. TransLink is planned to be a search engine consisting of subdirectories that will provide information and instruction on using data links. It will thus be complementary to the GTPNet programme in terms of both contents and linkage.

124. Annex IV provides a list of web sites of transport and related companies and institutions. Given the rapid development of the Internet, this listing cannot be considered as exhaustive; rather, it gives only a modest insight into the opportunities offered by this medium.

B. Multimodal transport and technological developments

125. The advantages and disadvantages of in-house and bought-in logistics services in different branches of the transport industry are among the main issues in discussion of trade facilitation. In recent years, different industries have recognized the value of using outside contractors to perform selected logistics functions or manage complete logistics processes. According to a survey/ on the use of third-party logistics services as well as the scale of globalization of activities of service suppliers, European operators were outpacing those in the United States. In Europe, 69 per cent of the logistics service companies surveyed were operating worldwide, compared with 59 per cent in North America. The increasing globalization of business provides a massive potential competitive advantage for organizations that could develop and manage global supply chains.

126. Leading freight forwarders and major multimodal transport operators continue to establish subsidiaries, agencies or representations in developing countries and countries in transition, providing complete transport services in those countries. Sometimes such steps meet with reservations on the part of governments, which see the penetration into their markets of more sophisticated and effective foreign operators as a threat to their domestic operators.

127. Shipping and trade have always relied on the transfer of documents and information. The Internet - and particularly the World Wide Web

facility - has begun to be considered as a new effective means for accelerating the movement of trade documentation and for other commercial applications. Though the number of transport companies using this facility is still relatively small, it is likely to increase dramatically. For this to happen, some outstanding problems need to be overcome, such as the security of the Internet and the reluctance of shippers and operators to reveal space demands and open positions. Among developments in the field of commercial Internet applications, mention may be made of systems for the trading of new and second-hand containers which provide vendors with a worldwide market and customers with rapid access to information about available equipment.

Transport and environment

128. A new environment transport initiative called "transport chain assessment" was launched by an industry company for which transport represents an essential part of the product value. The concept was designed to calculate and manage vehicle emissions and energy consumption across the whole transport chain, from production to delivery to consumer, and to create conditions for, and initiate the use of, transport solutions with improved environmental performance. Under this concept it is possible to calculate vehicle emissions and energy consumption in a specific transport chain. From a specific point showing the various types of emissions and energy consumption from specific transport modes, customer-specific transport environment profiles are produced. A unique customer and transport chain profile can then rapidly identify and measure deficiencies and unnecessary emissions. The concept can become an effective instrument for reducing the adverse environmental effects associated with transport, and a competitive tool for a new industry standard in this field.

Land-bridges and other block train services

129. The opening of the direct rail link between the Iranian port of Bandar Abbas and Turkmenistan has brought new possibilities for the development of trade in the region. India in particular has expressed interest in using this rail link for its containerized cargo trade with CIS countries. A new regular Bombay-Delhi container shuttle service has begun operations with the twice weekly departure of 40-wagon trains in addition to several container block train services already in operation in India.

130. In China, a dedicated container rail service between Zhengzhou in Henan Province and Hong Kong started on 15 December 1994, jointly provided by the China Railway Container Transport Centre and the Kowloon Canton Railway Corporation. The distance of 1,122 kilometres is covered in less than 72 hours. The train capacity is 84 TEUs. Since then several other dedicated container services have been put into operation.

131. The potential for intermodal transport in China was given a major boost with the official inauguration on 1 September 1996 of the Jingjiu railway connecting Beijing and Shenzhen. Several railway links connecting to the Jingjiu railway have already been built, with supporting intermodal systems and handling equipment. Until recently, the Chinese railway network moved almost exclusively containers of shipping lines. Starting at the end of 1996, however, the Ministry of Railways has placed major orders for own ISO 20-foot containers, and it is expected that container traffic will grow substantially over the coming years. For that purpose, the Chinese Ministry of Railways has established several subsidiaries to specialize in containerized rail transportation and to cooperate with other modes of transport.

132. At the end 1996, a major United States intermodal carrier launched its first rail-based intermodal container service in China. The service operates with daily container trains between Harbin and the port of Dalian, which is connected with Japan by weekly feeder service and from there to the line's worldwide scheduled container services. The new service offers transport time of 26 days between Harbin and New York, and vice versa. All the transport, including delivery or collection in Harbin, is organized on one single transport document. The company intends to establish additional intermodal container services in China.

133. Another major intermodal operator has concluded a preliminary agreement with the Chinese Government permitting the company to open freight centres in seven major Chinese cities with the aim of providing complete transport services with the use of its own vehicles and container freight stations. The agreement will allow the company to operate

the network for three years on a trial basis.

134. Following the construction in 1992 of the railway line between Urumchi and Druzhba linking the Chinese and Central Asian CIS railways, a new service between Japan and Central Asia via China called the Trans-Asia Land-bridge Service (Central Asia Express) was launched by a Japanese freight-forwarding company. Shipments from Japan are carried to China on a weekly container ship service and transhipped to the Chinese Railways at the port of Lianyungang for carriage to Druzhba at the Chinese-Kazakstan border, where they are transferred to the Kazak Railways. Transit time from the Japanese ports to Almaty is 25-27 days. The operator of the service accepts container and conventional shipments on door-to-door transport documents. Several agreements needed to be concluded between the freight forwarder and different rail and forwarding companies and governmental organizations in China and Kazakstan. Lianyungang handled 12,118 TEUs through the new land-bridge in 1996.

135. Container services have also been introduced by Viet Nam Railways, a joint venture with a New Zealand company provides rail transport of containers between Hanoi and Haiphong, operates inland container terminal facilities and offers auxiliary value-added services.

136. About 20 container block trains are operated daily by the Malaysian Railways, each capable of transporting 60 TEUs. The railways handled 40,000 TEUs in 1996. To meet increasing demand in container traffic, new specialized rolling stock was acquired, including low-bed wagons for transporting 40- and 45-foot-long containers.

137. The provisions of the EU Council directive concerning the development of railway enterprises in the Union (EU Directive 91/440) have begun to be incorporated into the national legislations of member countries, and the railways of some Central and Eastern European countries have taken measures on the application of this directive. Its main provisions concern:

- greater autonomy for railway enterprises;
- separation of infrastructure and operations; and
- creation of international groupings and infra-structure access rights.

138. A major United States rail company and two European operators have created a joint venture to provide door-to-door intermodal freight services in Europe using shuttle block trains. The venture provides services for the movement of maritime containers, trailers and swap-bodies. This development contributes to a change in the competition situation on the European railway network, access to which should be granted to all combined transport operators in accordance with EU Directive 91/440. However, not all European railways have expressed their readiness to open their networks to external operators, reserving for themselves the right to operate trains on their networks. Some of them have preferred to operate their own container block train services in addition to those operated by Intercontainer-Interfrigo (ICF). Table 41 gives details concerning new block/shuttle container train services introduced by ICF in 1995-1996.

139. Two major European airports have decided to cooperate in promoting the use of rail transport as an alternative to road transport, where punctuality is becoming an ever-increasing problem. Different solutions for the use of rail transport for this purpose were being studied, including the creation of special infrastructure, rolling stock and operational measures.

140. In the United States further integration and mergers in the field of transport services have continued. As a result, the number of Class I railroads will have dwindled from more than 30 in the 1960s to only 5 by the end of 1997. New transport corridors served by double-stacked container trains have continued to emerge with major infrastructure works along these new corridors.

Inland navigation

141. Though inland navigation is generally both economically viable and ecologically safe, it is not always used to its full potential, often because of lack of financial resources for development and maintenance. In the case of India, for example, although experts have estimated that at least

Table 41

New block/shuttle container train services introduced by ICF in 1995-1996

Centres connected	Type of service	Frequency per week
Basel-Rotterdam	Shuttle	5
Antwerp-Malaszewicze	Block train	1
Neuss-Pruszkow	Block train	3
Bochum-Taatstrup	Block train	5
Berlin-Moscow	Block train	2
Milan-Barcelona	Block train	4
Sopron-Halkall	Shuttle	2
Lisbon/Leixoes-Santurce	Block train	1
Rotterdam-Sopron	Shuttle	2
Sopron-Thessaloniki	Shuttle	2
Vercelli-Bochum	Block train	2
Fos-Metz	Block train	5

Source: *Containerisation International*, August 1996, p. 63.

US$ 430 million would be necessary, over a period of 5-8 years, for the development and maintenance of the inland waterways network, only US$ 8.57 million has actually been spent.

142. China has carried out a project to expand inland navigation in southern provinces worth US$ 349 million. It involved dredging a 273-kilometres-long section of the Xiang river between Nanning and Guangzhou to cater for ships of up to 1,000 tonnes by the end of 1998.

143. In Europe it is forecast that over the next 15-20 years the volume of containers transported between Rotterdam and the hinterland will be tripled. This offers plenty of scope for inland navigation. Many innovative technologies have been introduced in this area, including new designs and bigger barge dimensions. One of these innovations is a 398 TEU self-propelled barge under construction in the Netherlands, to be put into operation in August 1997.

144. In spite of some growth in the volume of transported goods owing to better awareness by shippers of the possibilities of sea-river transportation, and governmental policies aimed at stimulation of this environmentally friendly mode of transportation, this technology is still handicapped in Europe. There are many reasons preventing wider use of sea-river technology, among them the necessity for high specialization of vessels for particular river characteristics, the need for collapsible superstructure to pass under bridges, and the seasonal influence of water depth on the carrying capacity and therefore on the efficiency of the use of the vessels.

Container leasing industry

145. The container leasing industry experienced strong growth in 1996 (see tables 42 and 43). Customers' push for hiring new equipment resulted in major disposal programmes initiated by leasing companies in their efforts to reduce the average age of stock. The negative side of the developments was substantial over-ordering of containers in the second part of 1995 and a recession in several Asian economies which led to a weakening of utilization rates in 1996. However, the repair standard (IICL-5) and container interchange (Container Interchange Management) initiatives developed jointly by leasing sector and shipping lines were expected to lead to substantial cost savings in the near future. It was expected that realization of these initiatives would streamline container interchange and reduce repair costs.

Table 42

Distribution of the world container fleet by owner in 1995-1996

Owner	April 1996		July 1995	
	TEUs	per cent	TEUs	per cent
Major lessors	4 290 000	43.8	4 070 000	44.0
Other lessors	330 000	3.3	300 000	3.2
Lessors total	4 620 000	47.1	4 370 000	47.2
Ocean carriers	4 760 000	48.6	4 480 000	48.5
Other	420 000	4.3	400 000	4.3
World total	9 800 000	100	9 250 000	100

Source: *Containerisation International*, August 1996, p. 6.

Table 43

Container lessors' fleets
(TEUs)

Lessor	End-1995	End-1996
Transamerica	1 036 000	1 350 000
Genstar	1 100 000	1 100 000
Textainer	400 000	430 000
Triton	380 000	420 000
Florens	300 000	350 000
Cronos	265 300	318 300
Sea Containers	263 000	274 000
Interpool	225 000	250 000
XTRA	195 000	220 000
CAI	125 000	185 150
Total	4 290 000	4 897 500

Source: *Cargo Systems*, October 1996, p. 43.

146. Over 86 per cent (in TEUs) of the leased container population was made up of the standard dry freight containers, including high-cube 9 feet 6 inches high containers, the share of which grew to about 10 per cent of the total standard dry freight container population in 1996. The share of United States domestic containers and swap bodies did not exceed 2.5 per cent, that of integral reefers 4.6 per cent and that of tank containers 1.1 per cent.

Container production

147. Continuing growth of worldwide container trades and demand for replacement of older containers were generating constant demand for containers in the world markets, though the total amount of production in 1996, including dry freight container production, was slightly lower than in 1995 (see table 44). The need to introduce highly cost competitive capacities and a shift to new demand centres have resulted in a new geographical pattern of distribution of production capacities. Concentration of container production in China and South-East Asian countries has been accompanied by declining production and emphasis on value-added products in traditional producing countries.

148. As the result of unprecedented growth in production capacities in new production centres in South-East Asia, 1996 saw a remarkable overcapacity in the world dry freight container production industry. Several manufacturers were forced to close their production lines or to work with limited capacities, and container prices plummeted to a level where many producers could not show any profit. It was estimated that during 1996 a total of 230,000 TEUs were removed from global manufacturing capacity; and at least 10 factories were closed permanently. A restricted purchase policy by shipping lines and the leasing industry led to an accumulation of stocks of unsold containers at the factories and a consequent reduction in container prices by about 10 per cent compared with 1995.

149. China continued to be by far the largest manufacturer of dry freight containers in the world, as can be seen from table 45. No factory was closed in that country in 1996. The industry took advantage of container purchases at bargain prices, and large orders were placed by national operators and railways.

150. Unlike in China, the container production industry suffered major losses in Thailand, Indonesia, India, South Africa and Malaysia. Many production lines, which had been put into operation in recent years, were closed in 1996 because of the deteriorating order situation and the low prices of containers.

Table 44

World container production in 1995-1996 by types of containers
(TEUs)

Type of containers	1996	1995
Dry freight standard, including high cube	1 080 000	1 200 000
Dry freight special	55 000	65 000
Refrigerated	85 000	76 000
Tank containers	15 000	12 000
Specific regional a/	28 000	33 000
World total	1 263 000	1 386 000

Source: *Containerisation International*, January 1997, p. 61.

a/ Includes United States domestic containers and European swap bodies.

Table 45

World container production (all types) by countries/regions in 1995-1996
(TEUs)

Country or region	1996	1995
China	680 000	695 000
Republic of Korea	80 000	123 000
Indonesia	66 500	88 500
Malaysia	58 000	67 500
Taiwan Province of China	57 000	73 500
India	41 000	31 000
Thailand	22 000	46 000
Others in Asia	8 000	12 500
Western Europe	85 000	86 500
Turkey	42 000	42 500
Eastern Europe/CIS	40 000	35 000
Republic of South Africa	31 000	32 500
Central/South America	25 000	25 000
North America	23 000	22 000
Australasia	4 500	5 000
Total	1 263 000	1 385 500

Source: *Containerisation International*, January 1997, p. 60.

151. Owing to the expansion of demand, the production of tank containers increased significantly in 1996 (see table 46). While the European region continued to be the most important producer of tank containers (including swap bodies), the largest growth in production in 1996 was in South Africa. In the Asian region, Malaysia is the largest producer of tank containers.

152. The total world fleet of tank containers amounted to 100,000 TEUs by the end of 1996, with an annual rate of increase over recent years of about 10 per cent.

153. The world total production of refrigerated containers increased from 51,050 units in 1995 to 56,310 units in 1996, and it is estimated that more than 70,000 units will be produced in 1997. Refrigerated containers continued to be produced mainly by the traditional manufacturers in Japan and the Republic of Korea. However, no fewer than five factories were producing refrigerated containers in China in 1996.

Container dimensions

154. Under a directive of the European Commission, from 1 January 1997 45-foot-long containers will no longer be allowed on the roads of the European Union countries. This does not apply to containers made before the end of 1996, which will be tolerated for another 10 years. This situation has created difficulties for several maritime operators using 45-foot containers in Europe. However, some of these operators appear to have found a solution to the problem by introducing a special type of corner fittings that enables 45-foot-long containers to be transported within the legal limits imposed by the new EU regulations (see box 3).

Table 46

World tank container production
(TEUs)

Country or region	1995 output	1996 output
Benelux	1 200	1 500
Ireland	900	1 000
France	1 700	1 400
Germany	600	750
Italy	250	300
Spain	350	350
United Kingdom	1 800	2 400
Others in Europe	100	100
Europe total	6 900	7 800
South Africa	3 500	5 200
United States	600	600
Asia	250	300
Total	11 250	13 900

Source: *World Cargo News*, December 1996, p. 22.

Box 3

Lines find a solution to new EU container dimension rule

Directive 96/53 of the European Union, ratified in September 1996 and aimed at harmonizing regulations on vehicle weights and dimensions throughout the EU, sets 16.5 m as the maximum permissible length for articulated vehicles on Europe? s roads, with a maximum load length of 13.6 m.

Currently used by some operators, 45 ft long containers exceed this dimensional parameter by 81 mm; thus the Directive will ultimately stop 45 ft units from being used on European roads.

The Directive must be brought into national legislations of the countries members of the EU within 12 months. Although a so-called "grandfather clause" potentially enables existing fleets built before the implementation date to remain in operation for up to 10 years, it will be illegal to put any conventionally-designed equipment manufactured after September 1997 on the roads. Moreover, member States may decide individually whether or not to confer "grandfather" rights for existing equipment.

Intensive lobbying by the maritime community for a change in the draft directive or for 45 ft boxes to be exempted has failed to have any effect.

Door-to-door transport operators Bell Lines and Geest North Sea Line have come up with a novel engineering solution to the forthcoming ban on 45 ft long containers from Europe? s roads. They have jointly developed and patented a corner casting design which will allow the 45 ft box to comply with impending European regulations on vehicle dimensions.

The key dimensions which are set to make 45 ft containers illegal on the road system after next September centre on the kingpin rather than the overall length. Legislation states that the maximum distance from the kingpin to the rear of the vehicle should be 12 m, and that the front of the container/trailer when the vehicle is turning should describe an arc with a maximum radius of 2.04 m from the kingpin.

It is possible for a trailer-mounted 45 ft box to meet one but not both requirements. The new corner casting, however, enables both criteria to be met. New front corner castings and posts will enable the container to meet the crucial 2.04 m swing clearance requirement of EU Directive 96/53. By this means, the overall length of 45 ft across the full load area of a cellular pallet-wide container (CPC) or standard 8 ft-wide unit can be retained.

Boxes with the new castings will continue to fit cell guides in containerships. The concept is fully-functional for top lifting and twist locking purposes and compatible with all existing shipboard lashing systems.

Source: *Lloyd's List* (London), 5 December 1996, p. 2.

C. Information technology in transport

1. Transport information systems

Development of the Advance Cargo Information System (ACIS)

155. In order to improve the efficiency of transport systems, operators have installed computer-based systems to track transport equipment and consignments via all transport modes and at transfer points. One such system is the Advance Cargo Information System (ACIS) developed by UNCTAD, which, using existing communication systems, provides an information network linking the physical points along various surface transport routes. An important feature of the system is the availability of a database facility for transport information, providing registered users with confidential access to the status of any given consignment.

156. ACIS is a logistics information system designed to improve transport efficiency by tracking equipment and cargo on the modes (rail, road, lake/river) and at the interfaces (ports, inland clearance depots) and providing information in advance of cargo arrival. It provides both public and private transport operators and ancillaries with reliable and real-time data on transport operations, such as the whereabouts of goods and transport equipment, and thus improves day-to-day management and decision-making. It also produces regular performance indicators which enable management to remedy deficiencies and to make full use of the existing infrastructure and equipment capacity.

157. Once installed at the national and subregional levels, ACIS could provide data for macroeconomic planning to foster the optimal modal distribution patterns. It will play an important role in the development of trade relations and in reinforcing subregional integration, because it will enable transport operators to communicate, through modes and interfaces and over borders, the vital information which they require in order to improve their efficiency, thus reducing the costs and time of carriage along transport corridors.

158. ACIS relies heavily on information technology, and has been designed for use in difficult environments. Each ACIS module is designed to be a stand-alone subsystem comprising microcomputer hardware and software packages, and can be run on either a single microcomputer or a local network of microcomputers, depending on the size and needs of the operator.

159. ACIS started in 1988 and is operational or being installed in 14 countries: Bangladesh, Burkina Faso, Cameroon, Côte d'Ivoire, Ghana, Kenya, Malawi, Mali, Senegal, Sudan, Uganda, United Republic of Tanzania, Zaire and Zambia. The railway tracking module - RailTracker - is already producing concrete results: shippers and private or public freight forwarders now have direct access into several railway databases - and in some cases this access is "live" on public telephone lines or on Internet so as to obtain current information on the movements/status of consignments/containers. For the 15 railways currently using RailTracker, benefits comprise better use of transport equipment (locating equipment, quicker turn-around times enabling wagon fleets to generate more revenue, simplified maintenance monitoring), reduction in transit times of goods (facilitation of traffic flows at border crossings and interchange of rolling stock between networks, simplified wagon hire compensation formalities) and improved quality of transport services offered to the customer with data on cargo whereabouts, thereby facilitating off-take and delivery as well as reduction of insurance costs.

160. Programme promotion, development, upgrading, quality control and system maintenance will continue, and funding will be sought in accordance with new requests. Typically for a medium-sized railway, implementation takes 18 months and costs US$ 1 million. Contributions so far have been received from multilateral sources (the European Union and the World Bank) and from bilateral sources (France and Germany).

2. Transit transport

161. A group of experts met in Geneva from 5 to 7 May 1997 to discuss the use of information technologies to make transit arrangements more effective.

162. Lack of effective control of transport equipment and cargo in transit is undermining the credibility of existing transit transport arrangements and threatening to reverse major

achievements in transit facilitation. In order to overcome these problems and to make the most effective use of information technologies, the experts examined a two-tier proposal by the UNCTAD secretariat./ It proposes that new information technologies be used, first, to computerize data-handling tasks undertaken by individual suppliers of transit services, including transport operators, freight forwarders, banks, insurance companies, warehouse operators, customs and providers of market information; and, secondly, to computerize information exchange between suppliers of transit services, for example between port and railway authorities, or with national customs authorities.

163. After extensive deliberations, the experts recommended that UNCTAD should, in the context of the ASYCUDA and ACIS projects, work towards developing a transit module which would incorporate the structure of messaging systems outlined in the paper "Use of information technologies to make transit arrangements more effective" (TD/B/COM.3/EM.1/2 and Add.1). Furthermore, they recognized the need for a comprehensive customs transit system and an integrated cargo-tracking system open to all operators.

164. The transit module should cover all functions of customs control and transport monitoring of transit goods from the beginning to the completion of the transit operation, including the release of securities where appropriate. It should be open to similar computerized systems and, to the extent permitted by national laws, it should permit relevant access by trade and transport operators. Messages used should be based on existing international standards, in particular UN/EDIFACT. A group of countries both transit and land-locked, with priority given to least developed countries, could be targeted to act as pilot sites for this electronic transit mode. Furthermore, the possibilities offered by localization techniques such as Global Positioning Systems (GPS) could be investigated for eventual use.

D. Other developments

Conventions on Maritime Transport

Review of the 1952 Convention on Arrest of Ships

165. The ninth session of the Joint UNCTAD/IMO Intergovernmental Group of Experts met in Geneva from 2 to 6 December 1996 and successfully completed preparation of a set of draft articles for a new Convention on Arrest of Ships.

166. The review of the 1952 Convention became necessary after the adoption of the International Convention on Maritime Liens and Mortgages, 1993 (the 1993 MLM Convention) by a Joint United Nations/IMO Conference, held under the auspices of UNCTAD. Arrest is a means of enforcing maritime liens and mortgages. The Arrest Convention therefore needs to be aligned on the 1993 MLM Convention to ensure on the one hand that all claims secured by maritime liens are given the right of arrest under the Arrest Convention, and on the other hand that circumstances in which ships can be arrested for maritime claims are specified clearly so as to avoid conflicting interpretation in different jurisdictions.

167. The Joint Group did not reach a decision about whether the draft Convention should adopt an approach similar to that of the 1952 Convention and include a closed list of maritime claims in respect of which arrest is permitted, or whether it should include an open-ended list of maritime claims so as to retain flexibility and avoid excluding genuine maritime claims from having the right of arrest. Opinions were divided on the subject, and in view of the decisive nature of the issue the matter was left to be determined at a future diplomatic conference. The Joint Group recommended to the IMO Council and to the UNCTAD Trade and Development Board that "they consider favourably, on the basis of the useful work done so far, proposing to the General Assembly of the United Nations the convening of a diplomatic conference to consider and adopt a Convention on certain rules relating to the arrest of ships on the basis of the draft articles prepared by the Group of Experts"./

Box 4

Signatory position of selected conventions on maritime transport

Name of Convention	Number of contracting parties or countries that have ratified/acceded to the Convention	
	31 December 1995	30 June 1997
United Nations Convention on a Code of Conduct for Liner Conferences, 1974	78	78
United Nations Convention on the International Multimodal Transport of Goods, 1980	7	8
United Nations Convention on Conditions for Registration of Ships, 1986	10	11
United Nations Convention on the Carriage of Goods by Sea, 1978 (Hamburg Rules)	23	25
International Convention on Maritime Liens and Mortgages, 1993	2	3