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**UN/EDIFACT
A NATIONAL IMPLEMENTATION PLAN**

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UN/EDIFACT

- **a national implementation plan**

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Introduction

During the last few decades, we have witnessed great turmoil in the world's economic and technological environments. *Economically*, two currents are increasingly present: there is a tendency towards both *globalization* and *regional economic integration*, reflected by an ever increasing number of transnational enterprises, and by the creation of many trade areas and organizations. From a *technological* point of view, there has been a spectacular development in the field of modern information technology (telecommunications and computing). The IT revolution has been coupled with, and is at the same time a result of the sharp fall in IT prices, allowing for an exponential growth in the application of this technology. The recent economic and technological development has had two important consequences: it has paved ground for new ways to facilitate trade, through for instance the use of computers in trade transactions; it has at the same time created possibilities for new economic activities, including electronic trading of goods and services, on-line delivery of digital content, electronic fund transfer, etc.

Within this new economic and technological context, the ECE holds a central role. Faced with a rapidly changing world economy, the ECE, during the Working Party's Session of September 1994, decided to adopt the following mission statement:

“The United Nations, through the UN/ECE, has established and supports a body dedicated to improving the ability of business, trade and administrative organizations, from developed, developing and transitional economies, to exchange products and relevant services effectively. Its principal focus is to facilitate international transactions, through the simplifications and harmonization of procedures and information flows, and so contribute to the growth of global commerce“.

One way through which this can be achieved is the relevant use of modern information technology. In this respect, the ECE has adopted Recommendation 25, endorsing the widespread use of UN/EDIFACT as the universal standard for electronic data interchange in administration, commerce and transport. The document recommends coordinated action by governments to promote UN/EDIFACT as a single international standard for electronic interchange of data between public, administrative and private companies of all sectors worldwide. Electronic Data Interchange (EDI) is the direct electronic transfer of structured business and administrative data from one computer to another. EDI is part of the new electronic trading environment which links together in-house applications with external databases, WWW, E-mail, etc.

Today, the conditions for implementing EDI seem to be present. Governments recognize the great potential of UN/EDIFACT in international trade transactions. The increasing access to and rapid evolution of modern information technology makes UN/EDIFACT a powerful and practical tool that should not be ignored. Recommendation 25 represents a contribution from the ECE to promote an increased use of UN/EDIFACT. This paper tries to go a step further, proposing specific measures that can be carried out by governments who wish to take advantage of the opportunities offered by the technological revolution.

In the following sections, a general conceptual guide to the implementation of UN/EDIFACT at a national level will be presented. The action plan will contain elements that may be used in a possible ECE recommendation on the subject. The first section briefly analyses the importance of a national initiating and coordinating body, and views its possible roles in the preparation and implementation phase. In order to ensure UN/EDIFACT's credibility and to prevent uncertainty concerning its application, the creation of a sound legal framework is crucial. Section II will shed light on problems of this nature. The EDI implementation process is bound to be a complex one, and will necessarily differ from one sector to another. That is why it is important to associate all possible user groups in the preparation and implementation work. Cooperation between each Trade Facilitating and/or EDI body and users is a must, not only to tailormake guidelines for specific sectors and industries, but also for the creation of EDI software and legal infrastructure. The financial sector holds a preponderant role in every economy due to its interaction with practically all other economic sectors. Hence, the success of EDI initiatives regarding these institutions will be important to implement UN/EDIFACT. These issues will be discussed in sections III-VI of this paper. All actors involved in international trade sooner or later come in contact with customs authorities. Trade facilitation in this field will be discussed briefly in section VII.

I. The Creation of a Central Initiating and Coordinating Body

If such a body does not already exist, each government or relevant ministry should appoint a national organization for promoting EDI with both government and private sector representation. When they exist, national trade facilitation organizations are one good option. This body will function as a central initiator and coordinator in the preparation and implementation process. An important task of this institution will be to identify the present state of EDI in the country. In order to get a complete picture of the situation, the PRO org. should work closely with sectors that already have traditions in using the internationally standardized format. However, sectors that are potential benefactors from UN/EDIFACT should be allowed and encouraged to participate in these activities. Through cooperation with present and future user groups, the PRO org. will draw a balance sheet of the situation, enabling it to elaborate an implementation strategy. The PRO org. should, in association with relevant actors, propose concrete measures as to how the implementation process of UN/EDIFACT should be approached and carried out for each sector and industry. When this action plan is set into motion, the PRO org. should monitor the progress and be ready with a follow-up plan. But the PRO organization's activities should not be simply limited to the national sphere. In order to make national EDI activities efficient, they need to be supplemented with international initiatives. The PRO org. should, to the extent possible, participate, or be associated with international standardization work done by the United Nations or other standardization bodies. In other words, the PRO org. should adapt an all encompassing approach in the nation's implementation activities, being involved in activities ranging from the elaboration of an efficient implementation strategy to more detailed tasks like the study of different dimensions of this strategy, including for instance legal and technical issues. The PRO org. should, in order to

complete its mission in a satisfactory manner, be given the mandate to establish working groups and other bodies that can study relevant issues in greater detail.

II. The Creation of a Sound Legal Framework

The development of and increase in the use of modern information technology for the conduct of international trade transactions has created many legal challenges. Due to often inadequate and outdated national legislations on the matter, one can detect a feeling of uncertainty concerning the legal effects or validity produced by data exchanged electronically. The success of any country's efforts to implement and promote the use of UN/EDIFACT will depend on the conception of risk involved in its use. In order to ensure that UN/EDIFACT is safe and reliable, the creation of a comprehensive legal framework is crucial. Ideally, national legislation should be passed that gives digital signatures and electronic documents the same legal status as written signatures and paper documents. The credibility of UN/EDIFACT and of electronic commerce as a whole will be a function of national legislators' capacity to define and create a sound legal environment for electronic trade. The PRO org. should establish work groups whose task will be to study the question. These bodies should be composed of national legislators, UN/EDIFACT users, and any other group likely to make a valuable contribution to the legal work.

The progress of electronic commerce depends on each country's level of economic and technological development. Laws concerning issues related to EDI are passed as problems with its application emerge. In this situation, national legislations might differ. The variety of national rules and regulations represents another obstacle to the well functioning of EDIFACT across national borders, and thus to international trade. In an attempt to remedy this, the General Assembly adopted Resolution 2205 (XXI) on 17 December 1966, thereby establishing the United Nations Commission on International Trade Law (UNCITRAL). On 16 December 1996, the General Assembly adopted a resolution recommending UNCITRAL's Model Law on Electronic Commerce to all states. The Model Law intends to offer a set of internationally acceptable rules, guiding states when they enact or revise their laws, in view of removing legal obstacles related to the implementation of UN/EDIFACT. Governments should take measures so that national legislators take the Model Law into consideration when passing bills concerning electronic commerce. A more comprehensive and uniform legal framework on this matter will facilitate the application of UN/EDIFACT for the user countries by clarifying and establishing the rules of the game and by reducing uncertainty associated with the use of EDI. In addition to increased international competitiveness, an improved legal environment for EDI will also send a positive signal to all economic sectors, reinforcing UN/EDIFACT's credibility. It is clear that investing in a sound legal environment is imperative for the success of the implementation of UN/EDIFACT. Legal activities must be pursued both at national and international levels. Due to the constant evolution of modern information, it is important to keep in mind the dynamic nature of the legal task. Caution and clairvoyance are key words in regard to studying and solving legal issues.

III. Establishment of EDI in all Sectors

The PRO org. and user-groups should set an ambitious but realistic timeframe for the establishment of the UN/EDIFACT standard in all industries and sectors of the economy. Later, attempts should be made to introduce UN/EDIFACT for all commercial documents of significance (orders, invoices, payment messages, transport notes, etc.). The degree to which every sector carries out these measures will determine their ability to fully participate in the expanding electronic market place. The PRO Organization, in collaboration with commercial organizations and the public sector, will get the task of drafting guidelines for each individual industry. The point of departure should be existing guides for the use of EDIFACT. Some implementation plans intended for different industries or sectors may present similarities. For this reason, it is important to emphasize cross-sectorial projects, taking advantage of overlapping action plans and avoiding duplication of work. However, the PRO Organization should keep in mind that some sectors and industries have few or no EDI traditions. Hence, one of the PRO organization's challenges will be to associate to its preparation and implementation work those enterprises that do not belong to any specific industry umbrella.

IV. EDI as Criteria for Public Procurement Contracts

The public sector can play a special catalysing role in the process of promoting the establishment of UN/EDIFACT in all economic sectors. By requiring all its suppliers to have the ability to participate in fully electronically based document interchange in future calls for public procurement contracts, it will help give an important boost to the spread of UN/EDIFACT. This will encourage private enterprises to introduce or increase the use of UN/EDIFACT. Companies will soon conceive UN/EDIFACT as a tool with the capacity to strengthen and maintain competitiveness nationally and internationally. In this regard, it is important to facilitate EDI accessibility for small companies.

V. EDI Software and Telecommunications

The implementation of UN/EDIFACT demands the development of EDI software. The price and functionality of these products must satisfy the needs of a wide range of users, regardless of individual companies' levels of ambition with respect to EDI application. The different software houses should work closely with associations representing all usergroups in order to identify existing products, take measures to improve them if necessary, and innovate in the fields that lack functional computer programs. As EDI software becomes cheaper, its accessibility increases, and chances are that its application will be more widely spread. However, in order to accelerate the use of EDI and enlarge its application scope, efforts must also be done to lower prices of telecommunication services. As telecommunication services become cheaper and as accessibility to EDI software increases, all companies will be encouraged to take part in its application. This task falls mainly under the responsibility of

governments and legislators, but it will be the PRO organization's responsibility, together with relevant ministries and associations, to promote progress in this field.

VI. The Public and Private Sectors' Financial Systems

The public sector financial system interacts with almost all other economic sectors. This system should be adapted to EDI, handling all relevant commercial documents in UN/EDIFACT format. These are measures that will facilitate the interaction between the public and private sectors, and thus have a catalyzing effect on the implementation process. Commercial associations and the public sector should, in collaboration with the PRO org., initiate and carry out projects aiming at introducing UN/EDIFACT-based reporting systems. These initiatives will facilitate the information-flows (annual accounts, tax returns, etc.) between enterprises and relevant public authorities. The administrative burden for private companies will be reduced because the reporting of accounting and tax information to public authorities will be done with the help of computers. These practices will be less time consuming, less expensive and more accurate. This will also facilitate the tasks of relevant public authorities. The degree of success of the interaction between public and private sectors will depend on how well the parties manage to coordinate their respective activities.

The public sector has the advantage of being composed of entities that are closely linked to each other due to its hierarchical infrastructure. This will largely facilitate the task of introducing new EDI systems. Private financial institutions do not present this characteristic, and tend to be more isolated and independent. However, they too play an essential economic role, both nationally and internationally. Until now there has been no real tradition for banks to join forces on new shared systems. This might constitute a serious obstacle to international trade. With this in mind, the PRO organization should encourage the financial institutions to offer services that are adapted to the UN/EDIFACT formats.

VII. Customs and Transport

Customs administration and the regulations they impose could be perceived as bottlenecks in the good functioning of international trade. Much has been done to reduce tariffs and other quantitative trade restrictions, but commercial barriers also exist at other levels. Every time an international trade transaction is carried out, national customs authorities are central actors. Thus, it is important that national customs authorities also participate in the efforts to implement UN/EDIFACT. It is recommended that customs rely more on automation and electronic information systems. This will increase efficiency and accuracy of the customs own work and speed up international trade transactions. When actors in international trade submit necessary data to customs authorities, the use of UN/EDIFACT should at least be an option. If UN/EDIFACT is adapted to all customs procedures, this will greatly facilitate trade, but equally help spread UN/EDIFACT to import and export sectors, banks, insurance, and other sectors involved in trade. The transport sector naturally holds a special place in international trade. It is yet another sector that interacts with all actors involved in

trade transactions. For this reason, the introduction of EDI within transport activities should receive special attention. It is this sector which is most frequently in contact with customs authorities. Customs and transport organizations should cooperate closely in the work to increase the use of UN/EDIFACT in their fields of work.

Conclusion

The recent economic and technological development in the world has made it possible to view trade facilitation from a new angle. By adopting Recommendation 25, the Economic Commission for Europe hopes to endorse the widespread use of UN/EDIFACT as a single international standard for electronic interchange of data between public, administrative and private companies of all sectors worldwide. In this paper, we have looked at some concrete measures that can be taken by national governments that wish to implement the UN/EDIFACT standard on a large scale. It will be wise to create a body with initiating and coordinative powers, a so-called PRO organization. This body will, in association with all user-groups, elaborate a general implementation strategy, and supervise the carrying out of the action-plan. If one is to promote and increase the application of EDI in all sectors and industries, it is imperative to create a comprehensive regulatory framework. UNCITRAL's Model Law on Electronic Commerce offers a set of internationally acceptable rules intended to help states remove legal obstacles to the implementation of UN/EDIFACT. In addition to increasing the credibility of EDI within every user country, the Model Law also reduces disparities that exist between national legislations on this matter. In order to fully take advantage of the benefits of the technological revolution, UN/EDIFACT should be introduced in all sectors and industries. By requiring all its suppliers to use UN/EDIFACT in future calls for procurement contracts, the public sector will give an important boost to the spread of UN/EDIFACT. User-groups and software suppliers must join forces to create inexpensive and functional software products. The government can contribute through the liberalization of the telecommunications sector. These measures will increase the accessibility to UN/EDIFACT and widen its scope of application. The success of a country's ability to implement UN/EDIFACT will depend on certain key sectors' will and capacity to implement and use EDI. Customs, the transport sector, and financial institutions interact with all other sectors involved in international trade and their "attitude" towards EDI will determine UN/EDIFACT's impact in the trade facilitation process. The PRO organization should be present at every level of the preparation, implementation and follow-up process. Through close cooperation between user-groups and EDI bodies, by coordinating the different EDI efforts, and by adopting a global approach on the matter, countries can benefit handsomely from the recent economic and technological developments. Last, but not least, to increase its application, it will be important to spread information about the EDIFACT standard among its potential users and launch an effective awareness programme.

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