Republic of Lebanon
Office of the Minister of State for Administrative Reform
Center for Public Sector Projects and Studies
(C.P.S.P.S.)

Phase Three Recommendations

الجمهورية اللبنانية
مكتب وزير الدولة لشؤون التنمية الإدارية
مركز مشاريع ودراسات القطاع العام

THE REPUBLIC OF LEBANON

TRADE EFFICIENCY PROJECT M71/WB

Presented December 1998 By;

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Executive Summary

A Trade Efficiency project, funded by the World Bank, sponsored by MOET and under contract supervision by OMSAR has been in progress in Lebanon since July 1998. It was originally due for completion in November 1998 but is now due for completion in February 1999, following an in-depth review as a result of potential administrative and personnel changes, and the likely impact of the end of year holiday season.

This introductory section summarises a report comprising over 100 pages. Its recommendations are extremely broad in their implications; they cover several Ministries' sphere of operations and mandates, in addition to impacting virtually the whole of the Lebanese trading community, the port, Customs, harbour operations, trade professionals and Chambers of Commerce and other peak industry bodies. It also indirectly impacts upon the trade finance sector, insurance, transport and logistics operations.

This trade efficiency project has taken a very detailed and wide ranging look at the Lebanese trade process; it concludes that the only viable method of improving matters to the extent that it will have a significant impact upon the Lebanese economy, and its future as a trading nation, is to propose a wide ranging trade process reform programme. This programme will utilise current and new technologies and re-engineered processes based upon world best practises.

This summary briefly describes the problems caused by the current trade process in Lebanon, and the main reasons for these problems. It will then describe the principles underpinning a proposed trade process reform programme. It will conclude with proposals for a technology assisted system for future trade processes, together with anticipated benefits for Government, trade and the consumer.

The project will be completed with a full debrief for selected invitees by early February. The implementation phase will follow full discussions of the debrief and report contents.

The contact points for communications on this project are Dr R. Khoury at OMSAR, Paul Kimberley, the Consultant, and Ms Mona Darwich, MOET, Project Administration Executive.

Introduction

It is not possible to cure the ills of any national trade system by tackling the problems in a piecemeal fashion. The solution demands a holistic, door-to-door, or end-to-end approach. Therefore each of the participants in the process have been taken into consideration. These include:

- The importer/exporter, i.e. the trader or the merchant;
- The trade professionals, or trade process intermediaries (Customs brokers, freight forwarders and shipping agents);

- Ministries and agencies, from the public and the private sector, who manage the prohibition and restrictions regime (generically known as technical controls);
- Customs;
- Container handling and cargo handling authorities, and;
- The ports.

Current Trade Processes

Dissatisfaction with the current trade process system is widespread, and vocal. It can take up to 17 days to import goods into the country (5-11 days green channel, 8-17 days red channel); it typically takes 7 days to export goods (5-7 days range). The costs of these delays means that some traders may have to mark up goods by up to 50% (in addition to gross trading margins) just to cover the costs of importing goods. Additionally, there are the famous "informal costs" of trading in Lebanon. These informal costs represent between $350-$450 per container in extra costs, for importers and exporters.

For a small company, it is not possible to break even on export consignments with an invoice value of less than $5,000, even at 50% gross trading margins.

These costs and associated data have been confirmed during this Trade Efficiency project, which has undertaken over 100 interviews, analysed over 150 completed questionnaires from members of various peak industry bodies, and feedback from two debriefing sessions in front of a combined audience of over 100 traders. These are in addition to debriefs with each of the agencies and peak industry bodies involved in international trade.

The time taken, and these additional costs, make Lebanese exports uncompetitive. They have caused the port to become uncompetitive and free zones (Freeports) to be ineffective so far. Both sectors are losing customers. Additional costs are passed on the trader and the consumer alike. This has contributed to the Lebanese paradox; a low wage, high cost economy.

The Causes

The trade system we are faced with today is the result of Ottoman and the French systems of administration. Very little has changed in the Lebanese system over the last 20-30 years, while, at the same time, developed (and some lesser-developed) countries have been deploying new technology and re-engineered systems in order to create internationally competitive trading systems.

The problems start with the traders, who are so indoctrinated with current practises that they have almost given up questioning them; they just pay money to facilitate trade, and pass the costs on to their customers.

Technical controls are the province of Ministries, Government agencies and private sector agencies, such as the Chambers of Commerce. There are 49 agencies who can issue prohibitions and restrictions to importers ***and*** exporters (pre-licences, licences,

visas, certificates, etc.). They also have a range of "legalising" duties, such as endorsing Certificates of Origin and commercial invoices. In addition, they operate technical controls at the point of import and export. There are 79 discrete types of controls covering over 1,000 HS sub codes (Customs commodity classifications). Each trade transaction takes an average of 3 technical controls. The total possible combination of technical controls, which ultimately have to be managed by Customs, comes to over 11 million!

And then we have the trade professionals; Customs brokers, shipping agents and freight forwarders. They are also part of the problem. It is in their interests to ensure that the current complexities remain in place; without them, they could not claim expertise, nor justify the money which changes hands for which they obtain no receipts.

Customs have now made a good start with NAJM, but it is only a start. Once goods are selected for red channel, hence physical inspection, then old practises come into play. There is a well known tariff for bribes in the Customs areas, at the port and elsewhere. And there is a mindset that the trader is their adversary, not their client. The trader presents Customs staff with almost endless opportunities for delay, for administration difficulties and for payment to make those difficulties disappear. The trade professionals are active participants in this game in which there are only two losers, the traders and the Lebanese consumer.

The port and container handlers are also contributors to the overall inefficiencies. The port's ancient, paper based systems, mean that a manifest cannot be discharged in less than 8 days. That means that even Customs often do not know where containers have been stored for up to 8 days. The only way to find out is for a trade professional to ask for help to "find" the container. These practises have made the Free Zone ineffective and have almost killed the trans-shipment trade. Much is expected of the new container handler operators but they can only improve part of the process.

Each of these groups of people have combined to insert themselves into a complex trade organism, which feeds on traders and the community alike. The process is sequential; there is a well established set of steps necessary to import and export, up to 40 in number. And they are currently unavoidable.

During the course of this project it was estimated that informal costs-bribery, in all of its forms-added a total of around $45 million to trader's costs. Delays cause extra trader costs in the range $100-$250 million. Costs of obtaining technical controls costs another $10-$15 million. The multiplier effect of these costs on consumer prices means that each man, woman and child in Lebanon is probably penalised by as much as $50-$150 each year.

How to Change the System: Principles of Redesign

There are some well accepted principles for the reform of national trade systems. Following a meticulously planned and executed migration from existing methods to best practise, over a period of years, the basic systems redesign principles include:

- Transparency;

- Process simplification, including the elimination of all but essential Government technical controls;
- Speed of transaction processing;
- Pre-clearance and pre-approvals of declarations and technical controls;
- Post event auditing, for physical inspections, where deemed to be absolutely necessary;
- A strict evaluation of the function of Customs clearance processes, followed by a re-engineering of Customs processes based on technology;
- Risk management by both Customs and technical control agencies, resulting in the absolute minimum of physical inspections;
- The adoption of information technology, and particularly electronic commerce techniques, to facilitate these re-engineered processes;
- The development of an appropriate legal and implementation infrastructure.

To add a little more detail to these, apparently, academic principles:

1. Systems design must bear in mind the paramount importance of removing all activities, except the physical operations of transport and logistics, from the critical path of trade flows. Everything else can be done before the event by pre-clearances or pre-approvals, or after the event, on a client's (not adversary's) premises, or through the adoption of contemporary risk management techniques.

2. Contact between traders, government officials, Customs and the port must be replaced with "electronic contacts". This includes replacing paper Customs declarations and other formalities with electronic (EDI, or Electronic Data Interchange) declarations. Ultimately this will eliminate the need for any face to face transactions.

3. Another pre-requisite for transparency is to ultimately replace all paper forms used in (remaining) technical controls, all signatures, all stamps and cash payments with electronic lodgment and electronic payment methods.

4. Green channel approvals should have a design level of 95%, increasing to 99% over time. Physical inspections should utilise new technologies, automated inspection methods and post event auditing (pre-event, if necessary, for exports). This will result in a significant reduction of Custom's workload, in re-engineering Customs work flow, and ultimately in labour force down sizing. It will, necessarily, involve Customs in retraining and re-education in order to change prevalent attitudes from that of adversarial relations and mistrust to those of trusted trading partners, or client relationships. Customs will become a "traffic cop, risk management" agency, as opposed to a "gatekeeper, policeman". Note: This re-education task will need to be extended to all players in the trade process. Attitudes evolve; they cannot be imposed.

5. Government controls, where they have been proven-and accepted by Customs and others-to be necessary, and to be compliant with emerging and accepted international trade treaties and the laws of international trade, will similarly need to be simplified and offered electronically. As these systems evolve in Lebanon, they will use EDI, Electronic Commerce (EC) and electronic payment methods. In time, they

will also use electronic (digital) signatures. In the mean time, appropriate legal agreements (trading partner agreements, or TPA) will compensate for the absence of a written signature. All remaining technical controls will be issued from a multi-agency, single location bureau. This bureau will also be the base for a commercially operated trade information service offering pre-competitive trade information, trade clearance services for SMEs, trade development and trade promotion services. It might also become the basis for an export development/promotion service.

6. Collection and delivery of goods will have a design level of 48 hours for imports and 36 hours for exports.

7. Customs will operate outside the physical boundaries of the port. The Freeports (Free Zone) will operate as was intended, outside the Customs regime and influence.

8. The port and container handling operation will need to make goods available for inspection and clearance within 24 hours of arrival at the port (and airport) facilities. It will be necessary to introduce an Electronic Cargo Manifest, Electronic Bay Planning/Location and harmonised exchange of electronic information between traders, trade professionals, the shippers, the port, the container handlers and Customs. These will be based on the UN approved electronic messages contained in the UN/EDIFACT (EDI for Administration, Commerce and Transportation) standards, already used by the developed countries, and many developing countries. They account for well over 75% of total global trade. All cargo information and all Customs clearances will involve pre-arrival (and pre-departure) processing of trade control information. Note: The Port of Dubai, the contractor for the Port of Beirut, is already compliant with the majority of these practises.

Indirect Issues in Lebanese Trade Efficiency

The report only makes direct recommendations on those issues that the public sector and the Government can directly influence. There are some other issues that are of importance to the development of trade and to logistics efficiencies that the Government can only indirectly influence. These include the banking sector and trade finance, although the Government may institute initiatives for SME trade financing. Similar comments apply to trade insurance. In addition, the transport and logistics infrastructure has an impact on trade efficiency. The report makes comments on these issues but not direct recommendations. It suggests a vehicle by which these issues may be aligned and improved to assist trade flows.

But the major emphasis of this project, and the resulting recommendations is on the management of information and trade information processing systems. Goods can travel to the other side of the world in less than 24 hours today, but what use is that if the documentation takes another five to seven days to arrive, and before Customs can start their work? Improve the management of information and the indirect factors will fall into place, out of commercial self interest.

Main Recommendations

The main recommendations contained in the report, of which we wish to make you aware, before the report emerges, are listed here. It should be noted that the report will also contain a detailed look at the steps involved, and the work plan, by which the reformed system will evolve from present systems.

1. To re-engineer existing trade processes based on the electronic exchange of information between all players in the trade process.

2. To convert Customs from a "policing" organisation to a "risk management, trade facilitation" organisation.

3. To introduce electronic container scanners to a Customs inspection regime that is located, exclusively, outside all port's operations.

4. To introduce, and to enforce, transparency and the shortest critical path of trade flows between transport and logistics, traders and their clients.

5. To set operational standards for the port, Customs, the container handling operation and logistics operators, which will ensure 48 hour collections for imports and 36 hour deliveries for exports. This performance standard will stipulate the standards, the methods and the frequency/timeliness of electronic information exchanges.

6. To replace all existing technical control processes with a single, centralised, multi agency bureau, including Ministry of Finance payment operations. This bureau may also involve the Chamber of Commerce. It will operate to commercial hours and to competitive, private sector standards. This bureau will also ideally merge MOET and Chamber of Commerce information services to provide a wider range of value added services, for which traders will pay fees. This bureau will become the one-stop shop for all technical controls. In the longer term there will be no necessity to visit the bureau; all technical controls will be issued electronically.The bureau is known as the Trade Information Service (TIS) throughout the remainder of this report.

7. To introduce, and to enforce, a regime of post event auditing for technical control agencies, together with a system self regulation for reliable trading partners and of risk management for others. This recommendation is aimed at, together with Customs recommendations, removing the need for physical inspections (except in extreme circumstances) and reducing clearance times down ever further, to hours, even minutes, as the best world practise now dictates.

8. To introduce a Customs training institute, for Customs personnel training and education, for retraining and for training and certification of trade professionals. After an initial period of grace, non-certified trade professionals will not be allowed to submit Customs declarations, nor to operate on behalf of traders, without Customs training institute certification.

9. To establish an umbrella organisation for the implementation and management of this programme of recommendations. This vehicle for trade process reform, modelled

on many similar organisations around the world, code named LibanFac (Liban Trade Facilitation), will, ultimately, be owned and operated by the private sector. But it will almost certainly require Government funding to begin with. Its revenues will come from the operation of the technology and services that make electronic exchange of trade information feasible and practical. Additionally, traders are already sympathetic with the idea that LibaFac may charge a trade facilitation fee of $100 for each trade declaration in order to pay for the technology and set up costs. Naturally, these fees will reduce with competition and volume growth. This facilitation fee is contingent upon clearance times being reduced to design levels and the elimination of "informal taxes". At 1998 volumes this represents a revenue stream of $40 million. It can be expected that declaration volumes will increase at a rate of 10%-20% each year, in line with global trends. Since total establishment costs and the costs of technology should be in the order of $10-$15 million, there appears to be a strong financial incentive to progress this project, not forgetting the national benefits which will also accrue from its success.

In conclusion, there are a number of activities undertaken by LibanFac in pursuit of its mandate.

- For example, the executive of LibanFac will be measured against a "trade efficiency index (TEI)". The TEI will include such factors as the average time it takes to clear goods through Customs and trade processes through to client's premises each month, compared to pre agreed targets.

- LibanFac will also have a number of special interest groups (SIG). The first will be the Legal Issues Group. They will be charged with overseeing the simplification and rationalisation of existing technical controls, with methods by which technical controls are promulgated and their effectiveness measured, as well as their compliance with treaties and with international law. For example, it will be recommended that this group, with appropriate approvals from the Council of Ministers, or similar authority, declare that all technical approvals will be annulled, from a given date. All agencies then have a period of grace during which they re justify their requirements for particular technical controls. They are then matched against the ability to provide similar, or improved controls and information by other methods. This should result in a much simplified regime for technical controls. After the given date, Customs will not operate any technical controls unless it has the imprimatur of this group. The Legal Issues Group will also develop a new Electronic Trade and Customs Law based on the UN model, UNCITRAL and contemporary precedents.

- LibanFac will also operate other SIG, mostly based on volunteer members together with appropriate public sector representation, on such issues as electronic banking, insurance, transport and logistics, trade facilitation and industry specific issues, such as QR (Quick Response), JIT (Just In Time inventory control), ECR (Efficient Consumer Response), codes and message development.

- LibanFac will manage the technology, including computers, networks, support and technical personnel, administration and billing, marketing, promotion and liaison with standards and international groups doing similar work. It may also manage a Government Intranet, or the gateway to Government systems which automates

technical controls approvals. It may also adopt the role of manager of the Trade Information Service Bureau, described earlier in this recommendations section.

- LibanFac will require an internationally experienced executive to initiate the programme of trade process reform.

Summary

It cannot be over-emphasised that the cure for Lebanon's trade process ills requires a holistic, door-to-door solution. A solution that covers every participant in the trade process; there can be no exclusions. Any thing less will result in "making one leg of a racehorse go faster", with the result that it goes even slower!

This will be a major new project, certainly the largest technology assisted administrative reform project that Lebanon has so far attempted. This predicates the sponsoring agency, who must have some experience of projects similar in scope and scale.

Costs of technology and implementation are likely to fall within the region $10-$15 million, excluding any costs associated with down sizing Customs. However, LibanFac revenues will repay that expenditure, and will provide Government with a surplus. In time, LibanFac may make a capital gain for the Government. In addition, TIS has the potential to become self funding and to become a candidate for privatisation.

Benefits to consumers, to traders, to exporters and to trade development will ensue from these trade reforms. And if we get it right, we may even begin to offer the service to regional neighbours, thereby creating a new, and typically Lebanese, industry.

Acronyms Used During the Project

ASYCUDA	Automated System for Customs Data and Management (NAJM)
ATM	Automatic Teller Machine
BCCI	Beirut Chamber of Commerce and Industry
BDL	Bank of Lebanon
BDV	Brussels Definition of (Customs) Value
BIS	Bank of International Settlements
BOL	Bill Of Lading
Bolero	Bill Of Lading Electronic Registry Organisation
BOT	Build, Operate, Transfer
CAP	Common Agricultural Policy
CDR	Council for Development and Reconstruction
CH	Container Handler
COC	Certificate Of Compliance
COO	Certificate Of Origin
CSC	Computer Sciences Corporation
DD	Direct Debit
DEC	Digital Equipment Corporation
DOS	Disk Operating System
DG	Director General
EAN	European Article Numbering (Association)
EC	Electronic Commerce
ECR	Efficient Consumer Response
EDI	Electronic Data Interchange
EDS	Electronic Data Systems
EFT	Electronic Funds Transfer
EFTPOS	Electronic Funds Transfer at Point Of Sale
EIB	European Investment Bank
ELC	Electronic Letter of Credit
ESCWA	(UN) Economic and Social Commission for Western Asia
EU	European Union
EUR.1	European Union COO
FAS	Free Alongside Ship
FCL	Full Container Load
FEDI	Financial Electronic Data Interchange
FF	Freight Forwarder
FFR	French Franc
FX	Foreign Exchange
GATT	General Agreement on Tariffs and Trade
GDM	German Deutsche Mark
GEIS	General Electric Information Systems
GSP	General System of Preferences
HE	His/Her Excellency
HOD	Head Of Department
HS	Harmonised System (of Customs tariffs)
IBM	International Business Machines

ID	Identity
IDAL	Industrial Development Authority of Lebanon
IDD	International Direct Dialling
IMF	International Monetary Fund
ISDN	Integrated Services Distribution Network
ISO	International Standards Organisation
IT	Information Technology
JIT	Just In Time (Inventory Control)
LBP	Lebanese Pounds
LCL	Less then full Container Load
LIBNOR	Lebanese Standards Association
LOC	Letter Of Credit
MICR	Magnetic Ink Character Recognition
MIS	Management Information Systems
MENA	Middle East North Africa
MFA	Multi Fibre Agreement
MFN	Most Favoured Nation
MOA	Ministry Of Agriculture
MOET	Ministry Of Economy and Trade
MOF	Ministry Of Finance
MOFA	Ministry of Foreign Affairs
MOH	Ministry Of Health
MOI	Ministry Of Industry
MOIP	Ministry Of Industry and Petroleum
MOJ	Ministry Of Justice
MOL	Ministry Of Labour
MOT	Ministry Of Transport
MPT	Ministry Of Posts and Telecommunications
NAJM	See ASYCUDA
NTB	Non Tariff Barriers
OIC	Officer In Charge
OMSAR	Office of the Minister of State for Administrative Reform
OTC	Over The Counter (Pharmaceuticals)
p.c.	personal computer
pka	public key authority
PO	Purchase Order
PSI	Pre Shipment Inspection
PWC	Price Waterhouse Coopers
QR	Quick Response
RTGS	Real Time Gross Settlement
SAD	Single Administrative Document
SEAL	Secure Electronic Authority License
SET	Secure Electronic Transaction
SITPRO	Simplification of International Trade Procedures
SME	Small and Medium Enterprise
SWIFT	System for the Worldwide Interchange of Financial Transactions
TCU	Technical Cooperation Unit
TIC	Trade Information Centre
TOR	Terms of Reference

TT	Telegraphic Transfer
UCC	Universal Code Council
UK	United Kingdom (of Great Britain)
UKP	UK Pound
UNCTAD	UN Conference on Trade and Development
UNDP	UN Development Programme
UNEDIFACT	UN EDI For Administration Commerce and Transportation
USD	US Dollar
USM	$US Million
WAN	Wide Area Network
WTO	World Trade Organisation

Useful Web Sites

The following web site references are intended to supplement the information contained in the body of this report. They fall into the following general areas:

Lebanon national sites.

Electronic commerce technology.

Electronic commerce vendors, including some who may well qualify as potential vendors for technology implementations (see Recommendations, Technical Controls and Implementation Agency).

Trade facilitation, trade facilitation agencies.

Logistics, courier and express parcel services (track and trace systems).

Ports and Harbours.

Legal Issues

Please note that this is not an exclusive, nor even an exhaustive list. But these references will point to virtually every other site necessary to obtain a complete understanding of the technology, systems and operating agencies who are involved in technology assisted trade efficiency and trade facilitation systems.

Lebanon Web Sites

Ministry of the Environment:	www.moe.gov.lb
Ministry of Public Works:	www.public-works.gov.lb
Ministry of Posts &Telecoms:	www.mpt.gov.lb
Ministry of Tourism:	www.lebanon-tourism.gov.lb
Prime Minister's Office:	www.rafik-hariri.org
Ministry of Agriculture:	www.agriculture.gov.lb
Ministry of Public Health:	www.public-health.gov.lb
OMSAR:	www.omsar.gov.lb
Central Admin'n of Statistics:	www.cas.gov.lb
Ministry of Economy and Trade:	www.economy.gov.lb
Trade Information Centre:	www.economy.gov.lb/tic

Electronic Commerce Resources

EC Resource Centre	www.allec.com
JIBC (EC, Electronic Banking)	www.arraydev.com/commerce/JIBC
EDI, EC Publications	www.edigroup.com
Internet Commerce	www.internet.com
Commercenet (EC Consortium)	www.commerce.net
EC Forum	www.edifice.org
EDI/EC Articles	www.erols.com/jserrat/main.htm
EC Info Center	www.edi-info-center.com
Int'l Telecoms Union	www.itu.ch

Standards and Codes

UN/EDIFACT	www.unece.org/trade/untdid/welcome.htm
Uniform Code Council	www.uc-council.org
European Article Numbering	www.ean.be/index.html
Trafix	www.unicc.org

Vendors

Actra	www.actracorp.com
AT&T	www.att.com
Broadvision	www.broadvision.com
British Telecom	www.bt.com
Bull et cie	www.cp8.bull.net
Compaq	www.compaq.com
Connect	www.connectinc.com
Frontec	www.frontec.com
Fujitsu	www.fujitsu.com
GEIS	www.geis.com
Harbinger	www.premenos.com and www.harbinger.com
IBM	www.ibm.com
IBM Internet Commerce	www.internet.ibm.com
ICAT (Catalogue Developer)	www.icat.com
Intershop	www.intershop.com
InterWorld	www.interworld.com
Mercantec	www.mercantec.com

Microsoft	www.microsoft.com
NCR	www.ncr.com
OBI (Open Business)	www.supplyworks.com
Open Markets	www.omi.com
Oracle	www.oracle.com
Origin	www.origin.com
Peapod (on-line grocers)	www.peapod.com
SAP	www.sap.com
Sterling	www.sterling.com
Sun	www.sun.com
Tandem	www.tandem.com
TEDIS	www.tedis.com.au
Unisys	www.unisys.com

Digital Signatures/Security/Secure Payments

COST (SET)	www.cost.se
VeriFone	www.verifone.com
VeriSign	www.verisign.com
Visa	www.visa.com

Logistics

DHL	www.dhl.com
Federal Express	www.fedex.com
United Parcel Service	www.ups.com

Trade Facilitation

Trade Compass	www.tradecompass.com
Tradegate	www.tradegate.org.au
Singapore Network Services	www.sns.com

Ports and Harbours

Int'l Ass'n Ports and Harbours	www.iaph.or.jp

Legal Issues

APEC Electronic Commerce	www.bakerinfo.com/apec

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APPENDIX

Appendix A: *Print Outs of Recommended Web Sites*
Appendix 1: *EDI: Shaping the Future of National and International Customs Operations.* T. Hayes, Sec. Gen'l., CCC (WCO).
Appendix 2: *American Customs Service: Trade Data Processing*, P. Kimberley
Appendix 3: *Customs Risk Management*, C. Vassarotti, ACS
Appendix 4: *Gateways and Services*; A Global Perspective, P. Kimberley
Appendix 5: *UN/EDIFACT: Introduction and Overview*, P. Kimberley
Appendix 6: *Electronic Commerce Overview*, P. Kimberley
Appendix 7: *Glossary*, P. Kimberley

1.00 INTRODUCTION

A Trade Efficiency project, funded by the World Bank, sponsored by MOET and under contract supervision by OMSAR has been in progress in Lebanon since July 1998. It was originally due for completion in November 1998 but is now due for completion in February 1999, following an in-depth review as a result of potential administrative and personnel changes, and the likely impact of the end of year holiday season.

The project comprises five different elements:

1. A status review, aimed at establishing which other projects were likely, or potentially capable of impacting this project.

2. A trade process analysis report, aimed at documenting present systems and highlighting areas for improvement.

3. A trade process recommendations report, this document.

4. A trade information service specification, which is to be a sub-set of these recommendations, treated in such a manner that it can be tendered for supply.

5. A concluding debrief of findings and recommendations.

1.10 This Report

It will be clear that this is the most important of the deliverables, within the overall context of Lebanese trade. The purpose of this report is to present recommendations for the complete, end to end, trade process. The TOR describes this activity:

"After consolidation of the two reports (Phases One and Two) collated to this date it will then be possible to produce a comprehensive set of recommendations. These recommendations, as set out in the TOR, will cover:

- *Proposed processes and procedures;*
- *Standardised documentation and data, together with a migration path from document to data;*
- *A streamlined compliance regime and regulatory requirements together with a statement on likely impacts of these changes, where possible;*
- *Proposals on the management and operation of this streamlined regime, including a gateway between the public sector and the private sector for communications, clarifications, discussion, dispute resolution, review and improvements;*
- *Recommendations on methods by which the private sector can participate and play its part in the management of the process;*
- *Other relevant recommendations as they become clearer during the project, including enhancements to the process as experience is developed."*

In addition to the TOR four additional points were requested, and approved by the reviewing committee. These are:

- *A detailed discussion of the 7 year plan needed to improve the trade flow.*
- *More analysis of the findings and facts, especially in organising and analysing gaps, barriers and redundancies.*
- *More justification of numbers used in conclusions (i.e. quote sources).*
- *Referral to experiences of other countries in relation to practises and results of applying the necessary steps.*

1.20 Style

It is possible that there may be some readers of this report who have not had the opportunity of reading the earlier reports from this project. It is also likely that many of the report's readers will be extremely busy, without much time to read yet one more technical report on an esoteric subject. For that reason, the writing style is kept as light as possible, with diagrams and quotations where possible, to encourage readers to continue reading. It is not liberally sprinkled with footnotes, margin notes and proof statements. That is why there is an Appendix. If the reader requires further detail on any topic, it is covered either in the Appendix, or from referenced web sites. This report is intentionally written to be read in a relaxed, conversational style, with as few discontinuities and inhibitions to understanding as possible.

This report is written so that it may be read as a stand alone document, without necessarily having to read Phases One and Two, although there will be some duplication, for the sake of clarity. Since there will be some material referenced that requires further explanation, especially technical references and terms, in addition to web references, a full Glossary is also included, at the Appendix.

1.30 Objectives

The purpose of this report is to summarise and justify a series of recommendations concerning the complete Lebanese trade process, from an importers buying process through to receipt of goods at his premises. It also takes the same view of the exporting process. Direct recommendations are made concerning traders, trade professionals, the port, container handlers, Customs and all of the agencies involved in trade controls. Indirect recommendations, or comments, are made concerning trade finance, insurance, SMEs, logistics and transportation.

The recommendations and comments are subject to a number of sub recommendations, which concern more detailed, manageable steps.

However, the true objective is to present an overall vision for the future of Lebanese trade; a vision that is understandable, achievable and desirable.

The report concludes with a short term and a long term action plan, to make possible the translation of a vision, or comprehensive set of ideas, into reality.

1.40 Contents

I keep six honest serving men
They taught me all I knew
Their names are What and Why and When
And How and Where and Who

Rudyard Kipling, "The Elephant's Child"

Apart from being one of the most famous figures of 19th century English literature, Kipling was an accomplished newspaper reporter and editor. Those questions are all he ever used to obtain all necessary information on any topic, as newspaper reporters are taught, even today. This is equally true of any presentation of facts, especially technical reports.

And so this recommendations report sets out to present the reader with the six honest serving men of Lebanese trade process reform.

The report begins with an summary of the current process, its consequences for trade and its weaknesses and areas for improvement. This section summarises information from the Phase Two report, with some additional comment.

The next section looks at a set of rules for redesign of systems, followed by an overall conceptual plan for a redesigned process. International best practise is referenced here, in order to help explain some of the rationale for proposals.

This overall design is then looked at in more detail from the perspective of the five major groups of direct participants in the trade process.

Thereafter, a look at how the recommendations might best be implemented is covered. This section also covers legal issues, banking, finance and insurance, logistics, transport, SMEs and various technology issues. An outline business case for the recommended approach will also be discussed.

The report will conclude with a draft project plan and timing, together with a summary of the work to be done and potential benefits. A simple statement on short term actions will also be included.

An Appendix containing a comprehensive set of references, a full Glossary and other sources completes this report

2.00 PREAMBLE

Consultants have a number of rules. The first is: *"find out what your clients want, and then propose it to them"*. There is generally nothing wrong with that advice; the client normally knows what is best. He just requires a third party to confirm it so that the advice is seen to have more credibility than an unsupported internal proposal. But sometimes the consultant is retained because of specialist knowledge, experience or skills. This specialism is, at times, in such an esoteric area that the first rule cannot apply. In this case the client may be generally well informed but, because the knowledge is so specialist, the consultant's contribution must prevail.

Nevertheless, the client, or the client's representatives, must make their views, requirements and preferences clear. That is their duty. But, in this latter case, these requirements or comments need to be weighed against practical experience or the broader view. Which brings us to a second, seldom used rule: *"on occasion, in spite of the clients' views, there is no alternative than to do the right thing for the greater good of the client, no matter how unpopular that might turn out to be".*

In this case, good consultants have another rule. Rule three: *"if the recommendations might prove contentious or debatable, deploy the hygiene factor."*

The "hygiene factor" basically applies to clearing the air by explaining the reasons for the general approach taken within recommendations, hopefully in a sufficiently sensitive manner that it gives offence to no one.

2.10 The Hygiene Factor

In the case of the Trade Efficiency project, the hygiene factor does not relate to disagreements; it is more concerned with the scope and scale of the recommendations. As will soon be evident, this project evolved into a "whole of Government, whole of economy project". The implications for the outcomes of the project extend to every public sector agency and every private sector organisation, ultimately to every citizen of the Republic of Lebanon. The review and committee process was, necessarily, undertaken by representatives from just a few of the interested parties. The mission of the committee included circulation and discussion of information obtained during the project with their peers and superiors, in order to broaden the debate. While these tasks were undertaken most diligently, and with better than expected results, the fact remains that the process was not-and could not be- truly representative of all interests. Additionally, it was to be expected that most input came out of a comparatively narrow set of interests and experiences, based on each member's individual responsibilities.

This is not meant to criticise the committee, nor any of its members, nor the work that was done and the outcomes achieved. Quite the reverse. It is evident that the outcome was due to the diligence and efforts of the committee members, but not of the committee process *per se.*

There are two reasons for mentioning the committee process; the first is that, within the context of the current Lebanese public sector organisation and work practices, the only way that a committee process can work efficiently and to schedule is to rely on the

unfailing availability of members-at any time of every working day-and their own willingness to work well outside the current public sector norms. This is unfair to both the committee members, who have other work to do, and even more unfair to the external consultants, who have deadlines and budgets to meet.

The second reason is that the level of the vision that a project such as this requires is often incompatible with the practical experiences-and frustrations-of the committee members. To paraphrase a few examples:

1. *"Any recommendations must be capable of implementation in the Lebanese context; they must be practical and permissible under Lebanese law."*

This project is about establishing a vision for the future Lebanese trading process. The law that currently controls the Lebanese trading process reflects a situation that existed before the two world wars, when international trade was a very small component of economic activity and paper the only means to convey information. Laws were made by man and can-and will-be changed by man. Change at every level is vital for Lebanon if it is to participate in the global economy of the next century.

Hence, the vision described in this recommendation report ignores existing conditions but does describe what needs to be changed, why and how.

2. *"Make comparisons with regional competitors."*

It is clear that many Lebanese public servants regard the Arab region as their datum for comparison. But that is making comparisons with one of the lesser developed trading blocs on earth, especially in terms of trade efficiency and trade facilitation. True, the port of Dubai operates to world best practise standards. It is also true that Tunisia is making very determined efforts to catch up with world best practise. For example, all of their technical controls are written on one side of one piece of paper; their Customs is now virtually free of corruption and their major trading partner is already the EU, even before they have full membership. But Dubai and Tunisia are the exceptions that prove the rule.

Global trading means that everyone is a potential competitor, and a potential customer. Self-serving regional comparisons will not obscure that truth.

The recommendations within this report are based on the premise that Lebanon wants to become a genuine participant in global trading, and is prepared to compete.

3. *"Lebanon does not yet have the technological expertise, nor experience, nor infrastructure to consider a world-standard trade facilitation plan. Its too soon. Show us manageable little pieces."*

Without a vision, even the little pieces do not make sense. The world is not standing still and allowing Lebanon a breathing space to learn. In the view of the consultant, it is crucial to recommend the very best system that could be designed anywhere, using the best available technology and practises. While the world leaders in trade have spent over 30 years learning to automate and improve trade processes, they have done it incrementally. And because they have pioneered processes, it has cost them dearly,

with many costly failures along the way. Lebanon now has an opportunity to leapfrog technologies, to leapfrog experience gathering and to start with world best practise systems, at reasonable levels of expenditure.

These recommendations are based on that premise.

4. *"Trade efficiency is not just about information technology; it includes banking, insurance, logistics and transport. Please include these in your recommendations."*

Valid observations, and a valid request. To a point. To refer to an earlier comment. This project was sponsored by the Government. While it evolved into a "whole of Government" project, the only entities on which realistic and implementable recommendations can be made are for those agencies over which the Government has an effective control. These include:

- Importers and exporters and trade professionals, through trade and technical controls.
- Customs.
- The port, container handlers and harbour, through ownership/equity and mandates.
- Public sector agencies.

While banks (trade finance), trade insurance and transport/warehousing are regulated by Government, they are not controlled to anything like the same extent. They will change through enlightened self-interest, not through legislation or other forms of compulsion.

While the recommendations recognise the importance of these players in the overall trade process, they only make comments. These comments may turn into recommendations after the private sector has become included in the consultation and review process.

Vitally, trade efficiency ***is*** principally about information technology. Modern trade process systems have the management of information at the heart of systems. If goods can be delivered to the other side of the globe in less than 24 hours, what good is that if the paperwork takes another seven days?

Logistics, road systems, transport, finance, insurance and other sectors are all important. But they are not the controlling factors of trade efficiency. Information is the determinant. Information processing must facilitate the speedy exchange of goods and services; it must maximise the potential of the existing physical infrastructure. Once we have achieved that, then we can improve the physical infrastructure for even greater improvements.

This report's recommendations embody the principles that are outlined in this preamble. These are the reasons for the approach that has been taken. Later sections of this report concentrate on the technical criteria that determine the specifics of the recommendations.

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2.20 Acknowledgements

While this project has been supported by a committee, the resulting recommendations are exclusively the work of the consultant. Any errors or omissions are therefore the responsibility of the consultant, no one else.

This Trade Efficiency project, when completed, will span about eight months, from July 98 to February 99. During that time, many people have contributed their time and expertise. The Phase Two Report Appendix listed all contacts, to whom we repeat our gratitude.

In conclusion, although Ministerial changes are due to take place very soon, which means that some of the office holders may change, the consultant wishes to place on record his appreciation of the contributions, the hard work and extra hours, the advice, the support, the professionalism, the courtesy and the understanding of the following:

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HE Minister Bchara Merhej
Nasser Israoui
Imad Saleh
Robert Bou Jaoude
Raymond Khoury
Mrs. Hala Makarem Saab

Lebanese Customs

Dr Hassan Henaini
Salim Balaa (NAJM Project)

The Port of Beirut

Rafi Achkarian (Free Zone)
Bassem Soubra

Ministry of Finance

HE Minister Fouad Seniora
Dr Basil Fuleihan

Ministry of Economy and Trade

HE Minister Yassin Jaber
Ibrahim Tabsh
Mrs. Rafif Berro

And finally, most particular and grateful thanks go to a fine young Lebanese professional, Ms Mona Darwich. Her hard work, communication and translation skills, her own knowledge of the subject matter, her personality and unfailing good humour are

what ultimately made the difference. Lebanon should be proud of people like this. It is profoundly to be wished that the eventual outcome of this project will make them proud of Lebanon.

Paul Kimberley
Principal, PKA
Electronic Commerce Consultants
Sydney, Australia
December 1998

3.00 BACKGROUND

The history of international trade conceals the history of national revenue. For centuries Customs revenue was a royal prerogative; its collection and enforcement being highly protected. Import and export approvals were synonymous with revenue protection. Apart from a few very crudely imposed taxes and tithes, revenue from import and export-even between close neighbours-was the only reliable form of national revenue.

The methods of control included multiple approvals for every single item on a manifest or declaration; each control required signatures, and seals or chops. Each of these required confirming seals or chops, and signatures. Each check, each signature, each chop, helped reassure the beneficiaries of the revenue that the merchant or trader was being kept honest, that the king's revenue was being protected and that the king's servants were doing their job.

That process, in some form or another, has been with us for 5,000 years. In spite of the invention of paper, of ink, the printing press, calculators, computers and communications, things are still roughly the same-at least in the developing economies. Of course, printing and payment systems have changed. Paper is now replacing coins, which themselves replaced tokens and bartering as methods of payment. Nevertheless, letters of credit and promissory notes have been with us for over 4,000 years. One of the fist recorded legal cases argued in court involved Demosthenes defending the presenter of a declined letter of credit, between merchants in Greece and (today's) Ukraine.

The central issue in trade control and revenue collection is trust and proof. Writing, checking, signatures, countersignatures, audits and multiple paper and physical inspections have been the norm in trade processing systems, until the early 1980s. Globalisation and the consequent growth in world trade, the resulting acceleration and increase in volumes of trade transactions, and the potential of information technology is forcing the more advanced countries to reengineer their trade processing systems. In other Customs and trade processing regimes, particularly where labour is cheap and volumes are lower, there has been less pressure to change. The generic steps in those older, paper based control systems, remain sequential, typically along the lines:

- Obtain signed approvals *[Government officials]*
- Print documents (invoice, packing list, bill of lading, cargo manifest, certificate of origin, declaration, etc.) *[Trader]*
- Sign documents *[Trader]*
- Check signatures and content *[Government officials, Customs]*
- Add stamps (seal or chop) *[Government officials, Customs]*
- Sign the stamps *[Government officials, Customs]*
- Approve *[Government officials, Customs]*
- Move on to the next required approval *[Government officials, Customs]*
- Repeat until all approvals are completed *[Government officials, Customs]*
- Duties and expenses paid *[Trader]*
- Take possession of goods/ ship goods *[Trader]*

If mistakes are made then traders pay a fine and go back to square one. If the process takes too long, then traders pay someone to accelerate the process.

What are the weaknesses of these types of systems?

People make errors; they misread, or write things down incorrectly-even Customs and ministry officials make mistakes. Volumes are increasing, pressure increases, time diminishes. As volumes grow more people are added to perform the checking functions; more requirements are added to technical controls and Customs work loads. More regulations and penalties are introduced. All of which adds more pressure. At some future stage, if nothing changes, then even if 10%-20% of the eligible workforce were to work in Customs and trade process management functions, they would not be able to handle the volume, the velocity and the complexity. These circumstances are being forced on administrations by systems that are essentially based on lack of trust.

The consequences include: extra time to clear goods; extra officials to handle increased volumes, and therefore even more time taken; more mistakes, more "help" to overcome mistakes and facilitate clearance through channels, more space to store goods, higher costs and less efficient administrative operations and uncompetitive traders. This is an unavoidable consequence of paper-based systems in today's globalised trading world, especially where trust is not a factor in relationships between traders and officialdom.

Is it any wonder that today's systems causes longer delays, are more corrupt, are more expensive-and face even higher demands of speed, accuracy and control than ever before.

3.10 Introduction to Lebanese Trade Processes in 1998

Some of the following sections were taken from the Phase Two Report. They are included here to enable this document to be read as a stand alone report.

The Lebanese import process comprises between 19-21 discrete steps; the value add process 5 steps and the export process between 10-17 steps.

The time taken to import goods through the green channel process is between 5-11 days; red channel, 8-17 days. To export takes between 5-7 days.

The number of steps necessary to complete the full import/ export cycle varies between 34-43.

The cost penalties imposed by these delays can be as much as 5% of domestic consumer prices, possibly more. One example from Phase Two shows that the difference between a 5 day import and a 12 day import can add 50% onto the retail price of a consumer product, if it is imported each month. Monthly imports are the norm.

Note: Lest the disbelieving reader dispute these conclusions, read Phase One and Two reports. From them it will be seen that well over 100 interviews took place with participants in the trade process. In addition, over 150 questionnaires were analysed

before several debrief sessions-both public and private- were held to confirm and to correct findings. Representatives of the Chambers of Commerce, the Merchants Association, Lebanese Traders, trade professional organisations, the port, Customs and Finance, in addition to other ministries, have confirmed the figures used in this report as being representative of 1998 conditions. No statements made in this report concerning costs, time and processes are included which have not been confirmed by at least two sources.

See list of contacts for the names of interviewees. Appendices also contain some confirming statements from traders.

The reasons for this state of affairs include a complex interaction of manual systems between:

- The importer/exporter
- The trade professionals, including Customs brokers, freight forwarders and shipping agents.
- Technical control agencies, including Ministries, Chambers of Commerce and Lebanese embassies and overseas representatives.
- Customs
- The port and the container handlers.

Apart from NAJM (Customs computer system), there are very few computer systems used in the whole process. No computer systems interact with each other for the purpose of Lebanese trade processes, at the moment.

Traditional Customs and port processes, lengthy and non-integrated technical controls and the demands of physical inspections at the port/Customs all contribute to unnecessary delays and costs.

And then there is the problem of corruption. Informal costs (bribes) average $350-$450 per container, for both imports and exports.

These all combine to make Lebanese trade uncompetitive, as compared to many developed countries performances. Modern port and Customs administrations now average 2 days or less for the complete import and export process. And corruption has been virtually eliminated from the majority of the world's ports and Customs.

3.20 The Players in the Lebanese Trade Process

The trade process is an integrated series of activities which involves five groups of organisations.

1. The first is the *importer/exporter.* In the case of an importer who needs to import materials to rework and to add value, this is regarded as a re-exporter. Goods in transit between two ports, both outside Lebanon, and free trade zones complete this first group.

2. The second group comes under the heading of "*technical controls*". Restrictions and prohibitions are issued and monitored by various *Lebanese Government Ministries*. Consular invoices ("legal invoices") are issued by *Lebanese embassies* overseas, or by their nominees. The term "legal" in this case, and in some others, is a dubious semantic device. Other organisations in this group include *Chambers of Commerce and Industry*, who have the national monopoly on issuing Certificates of Origin (COO), and in endorsing (legalising!) some others, as required by foreign importers.

3. The third group comprises the *"trade professionals"*. This term describes the people whose profession it is to complete and to process the documents necessary to import or to export goods into, and out of Lebanon. This includes the *shipping agent*, who is employed by, or represents, one of the shipping lines who carry goods to and from Lebanon (by sea or air).

   Freight forwarders are also included in this group. Their job is to pack goods into containers and manage the good's transport all the way through to the deck of a container ship, in the case of exports. Or from the ship to the importer's premises in the reverse case. In Lebanon, their duties also include processing goods through the container handling and port procedures. Freight forwarders generally represent the land transport component, particularly in the Lebanese context.

   The third of the trade professionals is the *customs broker*. His job is to complete the required customs documentation, necessary to clear them through the Customs import/export procedures.

The activities of groups two and three are often known as the "*formalities*".

4. The fourth group is contained within one organisation, Lebanese Customs. The duties of Customs are much wider than just the clearance of goods through the points of import/export. Due to the legacies of war they often undertake security and policing activities, for example. They are, in addition, generally the first line of border patrol, but only at recognised points of entry. Because of their importance to the national economy, Customs are part of the Ministry of Finance. This is not always the case in other countries.

5. The fifth group comprises the ports. They handle the sea and air traffic, and the physical port infrastructure at the docks and terminals. In the case of the port of Beirut, a second organisation will soon be appointed to handle all container storage and movement within the port. At present it is handled by the port authority.

Note: The port of Beirut represents around 85% of all Lebanese imports and exports. Hence the port will be the primary focus for recommendations.

These five groups interact in a dynamic fashion to enable trade to flow. The efficiency with which they interact determines the trade efficiency of the nation.

3.30 Overview of The Lebanese Trade Process

The following illustration, *Diagram 1: The Lebanese Import-Value Add-Export Process* is intended to show the major steps in the process. It may look complicated but it is actually a dramatic over-simplification of the actual processes.

The diagram is intended to illustrate the steps that an importer goes through, from the arrival of the goods through to the Customs release, port processes and eventual delivery to the importer's premises. The types of documents and technical controls necessary for formalities are illustrated, but obviously not in detail at this stage. The term "informal processes" is used in connection with Customs and port operations. It should more accurately be mentioned in connection with virtually all technical controls, as well as Customs and port activities. The concept of "informal processes" is crucial to an understanding of the problems of Lebanese traders, and the potential for reform and solution of these problems.

The manufacturer/value adder is then illustrated. It shows how he receives imported goods, and how he inter-operates with domestic supply chains in order to buy local materials and services in the process of converting or adding value to an import. The materials to be converted may be anything from raw materials to elaborately transformed manufactures.

The manufacturer then negotiates an order, or engages in pre-competitive activity, prior to soliciting overseas orders. This may involve obtaining trade information; more likely, it means negotiations with an existing trading partner. Pre-competitive activity could also include participation in trade shows, and/or in export promotion activities, and/or in incentive financing programmes.

The manufacturer may sell his products to an intermediary in Lebanon, such as a merchant or a trading company. Or he may export direct. Either way, he normally uses trade professionals for the purpose of expediting the exports through the formalities and through the transportation/storage and shipping phase. Occasionally, exporters manage this process themselves, if they have the in-house expertise.

And so the diagram flows through to the overseas shipping process, after which the importer obtains payment, to complete the cycle.

Imports and exports are not always part of the contiguous cycle that we have illustrated here. Many imports come into the country and are consumed in Lebanon. Some are part consumed in Lebanon and part exported, either via the ports, or, surprisingly frequently, exported across the Syrian borders for Syrian, or a third country consumption. But all exports, except for trans-shipments, require some local value add.

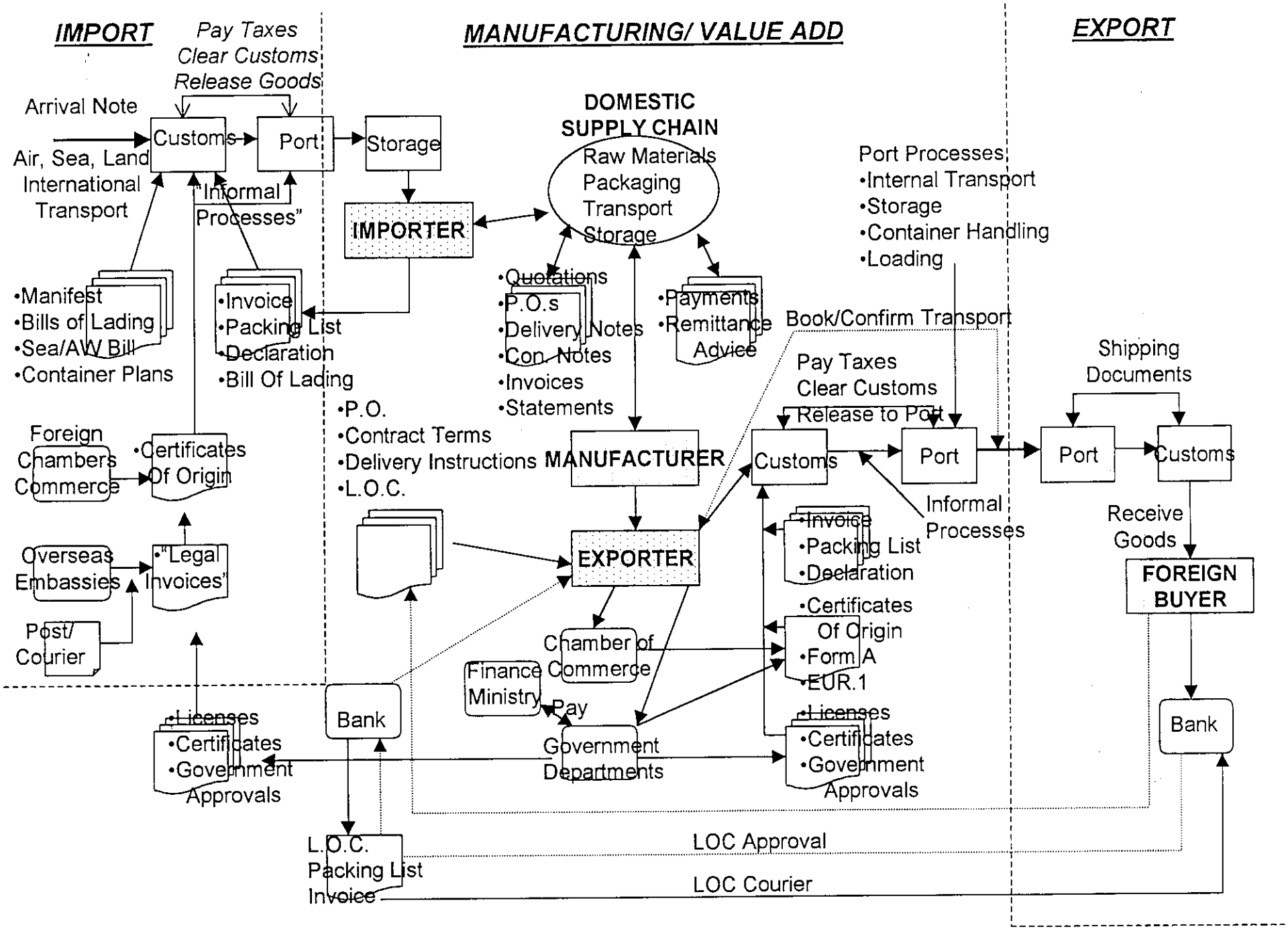

Diagram1: The Lebanese Import-Value Add-Export Trade Data Flow

From Diagram 1, in a little more detail, the major steps in the process can be categorised as follows:

3.31 Steps in the Trade Process

Table 1: The Importer

Step	Process
1	Pre competitive activities
2	Order/LOC/Documentation
3	Controls
4	Customs processes
5	Container handling
6	Port processes
7	Transport
8	Receive goods
9	Pay/approve LOC

Table 2: The Value Adder/Manufacturer

1	Pre competitive activity
2	Negotiate order details
3	Lodge LOC
4	Execute order/value add
5	Pack goods into container

Table 3: The Exporter

6	Obtain COO/Eur.1/Form A
7	Technical controls
8	Customs clearance
9	Container handling processes
10	Port processes
11	Transport to overseas buyer
12	LOC approval
13	Obtain payment

3.40 Process Summary

And finally, the following charts contain a more detailed step by step summary of what happens to the importer, the value adder, and to the exporter in the Lebanese trade process.

Note: Day 0 (zero) represents the beginning of the critical path, or the start of the import process. Days with a negative value (-) illustrate that the activity may take place off the critical path or before the import process begins. The same day numbering convention is used for tables 4-6 inclusive. See following diagrams for illustrations of time/ process and sequences.

Table 4: The Import Process

#	Trade Partner	Process	Day (from)	Day (to)	Comments
1	Importer	Pre competitive: research.	-	-	Search for suppliers
2	Importer	Pre transaction: Negotiate Order; Research.	-	-	Commercial negotiations
3	Importer	Agree contract: Receive LOC. Endorse by bank. Receive Invoice.	-	0	Trade financing
4	Shipping Agent	Receive: BOL, Packing List, COO, Legalised Invoice.	-4	0	Assume this happens before goods arrive.
5	Importer/ Messenger	Obtain Technical Controls. Ministries, MOF. Private sector controls.	-4	0	Assume done before goods arrive.
6	Shipper/ Port	Receive Arrival Notice. Select and notify berth.	-1	0	Telex/fax.
7	Shipping Agent	Receive Cargo Manifest, Delivery Order.	0	3	All paper.
8	Port/ Container Handler	Ship arrives. Unload containers. Tally. Check container. ID/Seal Intact?	0	3	Tally Men on ship and dock.
9	Container Handler	Move Container to Storage Yard. Record Change of Location.	0	3	Paper Systems

		Inform Freight Forwarder			
10	Shipping Agent/ Customs/ Container Handler	Manifest to Customs, Container Handlers. Reconcile Errors. Match location to Manifest.	2	8	Shipping Agent allowed time to enter and correct Manifest details.
11	Container Handler/ Customs	Complete reconciliation of containers/locations.	3	8	May take considerably longer.
12	Customs Broker/ Importer/ Customs	Submit SAD. Register declaration.	3	8	Paper entry
13	Customs Broker/ Importer/ Customs	Clean SAD. Sign. NAJM selection. Green channel or Red channel.	3	10	***Note: Any technical control requirement forces NAJM to select red channel.***
14	Customs	Green channel selected by NAJM. Issue tax assessment.	3	10	Green channel.
15	Customs Broker/ Importer/ Customs	Pay taxes. Obtain receipt, Goods Release Order.	4	11	Green channel.
16	Freight Forwarder/ Importer/ Customs Broker	Go to port. Locate containers. ID containers. Submit Delivery Order and clearance. Take possession of goods.	4	11	Green channel.
17	Freight Forwarder/ Importer/ Customs Broker	Pay Port and Harbour Dues. Pay Container Handler Fees. Obtain Receipts, Releases.	4	11	Green channel.
18	Freight forwarder	Collect goods. Load onto truck.	5	11	Green channel.
19	Freight forwarder	Deliver goods to importer.	5	18	Green channel.
OR	**OR**	**OR**	**OR**	**OR**	**OR**
13	Customs Broker/ Importer/ Customs	Clean SAD. Sign. NAJM selection. Red channel. Physical inspection. (70% Declarations).	3	12	Red channel.
14	Customs Broker	Inform Port. Inform Broker/Importer.	3	12	Red channel.

		Register SAD.			
15	Container Handler/ Customs	Move Goods to Storage Shed. Amend Location Records. Inform Customs/ Freight Forwarder/Importer.	6	15	Red channel.
16	Customs Broker/ Freight Forwarder/ Customs.	Attend Storage Shed. Physical Inspection. Issue Assessment.	8	17	Red channel.
17	Freight Forwarder/ Broker/ Customs	Pay taxes. Obtain release.	8	17	Red channel.
18	Freight forwarder/ Customs broker/ Importer.	Pay Port, Harbour, Container Handler fees.	8	17	Red channel
19	Freight forwarder.	Collect goods.	8	17	Red channel.
20	Freight forwarder.	Deliver goods to importer.	9	24	Red channel.
21	Importer.	Approve LOC. Pay supplier	24	120	Terms vary.

Diagram 2 on the following page is a graphical representation of this table.

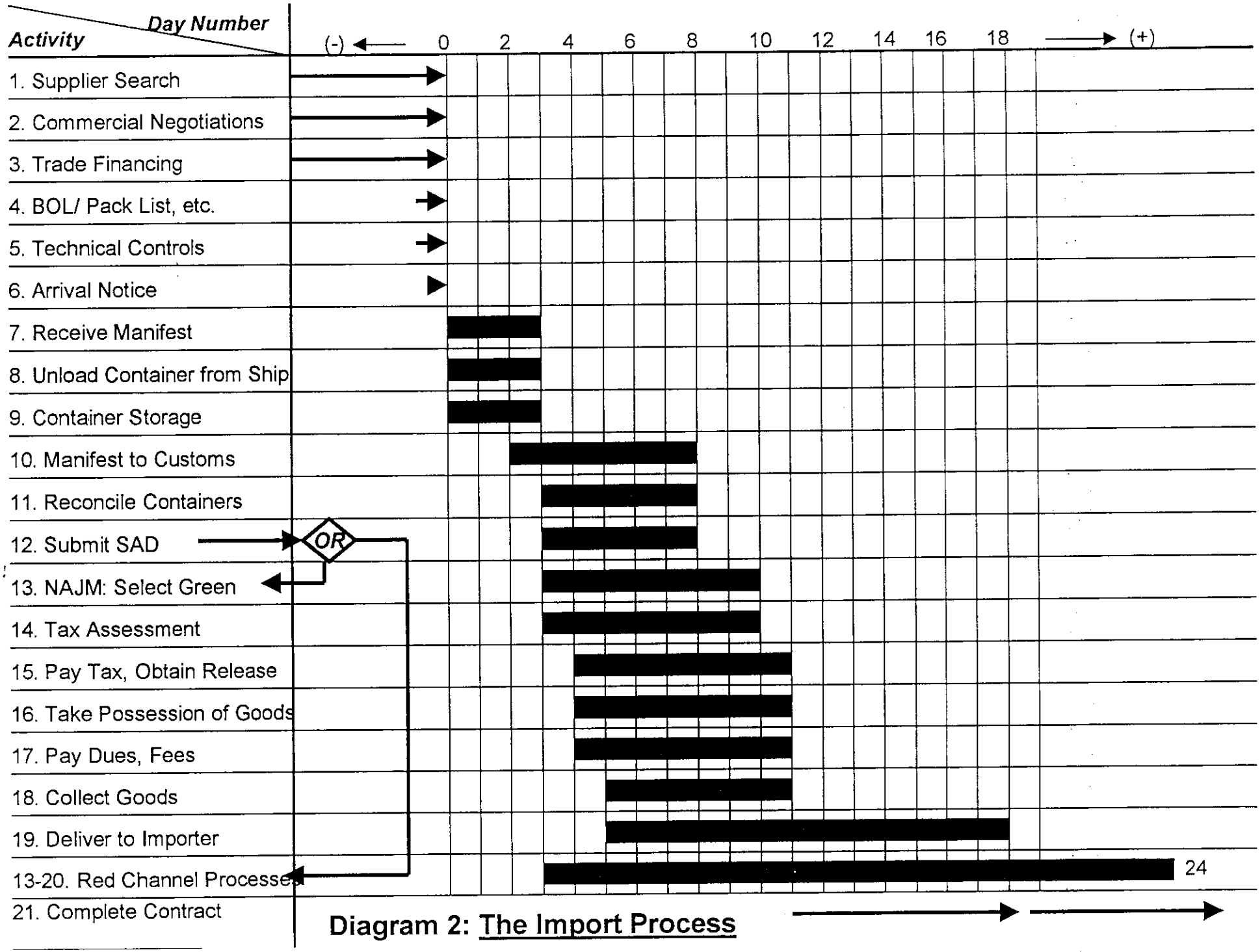

Diagram 2: The Import Process

Table 5: The Value Adder

The following table-The Value Adder- summarises the activities of a local manufacturer who imports goods, or buys them from an importer, and adds value to them by transforming them into a different product, a higher functionality product, or uses them as a component in a sophisticated assembly. Please note that the day numbering sequence on this chart may, or may not follow on from the importer sequence. It depends on the industry, commercial arrangements, export efforts, experience, and many other factors. This example is treated as a pre-export activity for an exporter, or a supplier to an exporter.

#	Trade Partner	Process	Day (from)	Day (to)	Comments
1	Manufacturer/ value adder.	Receive goods from import process. Storage.	-45	-15	Depending on supply and reorder cycle (i.e. industry).
2	Manufacturer/ value adder.	Management decisions. Decisions on production, stock, timing. Develop sales and manufacturing plans.	-45	-15	Depending on supply and reorder cycle (i.e. industry).
3	Manufacturer/ value adder.	Buy local goods and services. Transform, add value to imported goods.	-90	-5	Depends on sophistication of product, cycle times to complete and export efforts.
4	Manufacturer/ value adder.	Find buyers. Negotiate contract terms, delivery details.	-90	-5	Depends on industry, export efforts, etc.

Table 6: The Exporter

This third table summarises the activities of the exporter. He may have bought the goods from a local supplier, specifically for export purposes, or he may actually be the manufacturer. Note that it is assumed that the exporter has bought his goods from the value adder in the previous chart, just for the purposes of explanation. It is not meant to follow specific cases.

#	Trade Partner	Process	Day (from)	Day (to)	Comments
1	Exporter	Receive order, contract terms, LOC, etc. Assume average of 4 days to receive and plan order for export.	-8	-4	Ideally completed before export process begins.
2	Exporter	Obtain technical controls. Obtain licences, certificates Obtain C.O.O., Eur.1 or Form A	-4	0	Ideally completed before export process begins.
3	Exporter	Submit LOC/ finance request to bank. Initiate approval process. Attach C.O.O., copies as required by importer.	-8	-2	Ideally completed before export process begins.
4	Freight Forwarder	Book container space by fax with shipping agent.	-4	-1	Wide variations, from months before to the day of shipment.
5	Freight Forwarder	Pack goods into container. Obtain Packing List.	-4	0	Start of export process
6	Customs Broker	Raise: ▪ NAJM declaration ▪ P.O. ▪ Invoice ▪ Packing List ▪ Delivery Note ▪ C.O.O./Eur.1/ ▪ Form A. ▪ Obtain legalised invoices where needed	-4	0	Document-ation phase.

7	Freight Forwarder	Deliver goods to port.	-4	0	Physical delivery
8	Customs Broker	Declare export to Customs, NAJM and SAD. SAD registered.	0	1	Export document-ation
9	Customs	Assess tax, select channel	1	1	
10	Customs	Select Channel	1	1	***Note: Any technical control requirement forces NAJM to select red channel.***
11	Customs Broker	Green Channel. Pay taxes, fees. Obtain release of goods.	1	2	Green Channel
	OR	**OR**	**OR**	**OR**	
9	Customs	Assess tax, select channel	1	1	Red Channel
10	Customs	Select Red Channel	1	1	Red Channel
11	Customs/ Freight Forwarder	Inform Port/Exporter. Note goods location.	1	3	Red Channel
12	Customs.	Physical Inspection..	2	5	Red Channel
13	Customs	Complete assessment	5	5	Red Channel
14	Customs Broker	Pay taxes, fees. Obtain release of goods.	5	6	Red Channel
15	Container Handler/ Port/ Shipping Agent	Load goods onto ship. Complete Cargo Manifest, Bill of Lading, Ship's papers.	5	7	Pre-shipment documents
16	Shipper	Transit to destination. depending on destination and itinerary.	6	15	Physical transport
17	Buyer	Buyer received goods at his premises.	8	18	Export customer
18	Buyer/Seller	Exporter gets paid! depending on LOC, finance type and approval processes.	21	120	Transaction completed

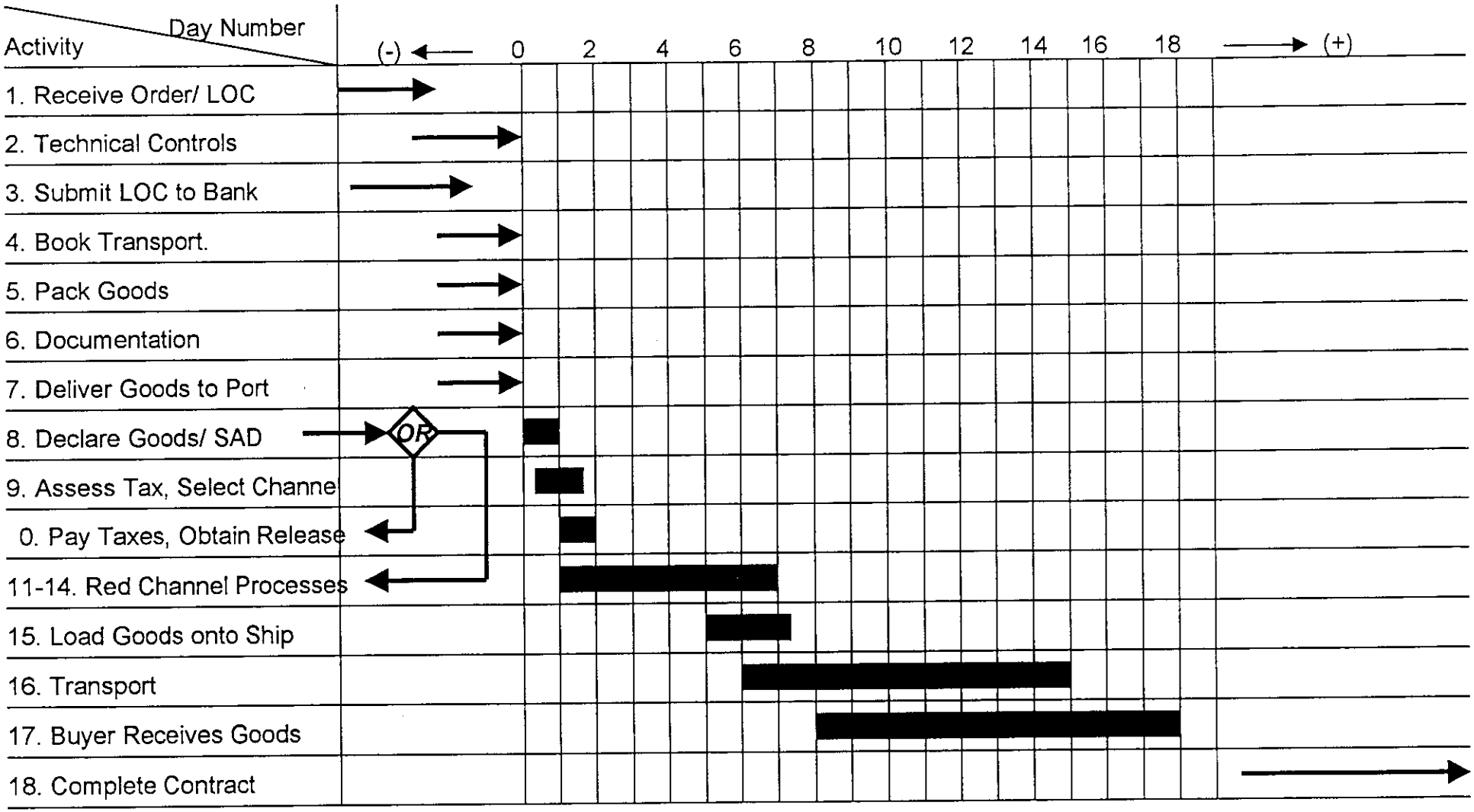

Diagram 3: <u>The Export Process</u>

3.50 Technical Controls

The topic of technical, or Government controls is now being widely debated under the aegis of global trade reform. In Lebanon, these are known as "Prohibitions and Restrictions". Major trade forums, cynically in some cases, now categorise these forms of control as Non Tariff Barriers (NTB). These international bodies, each with their own agenda, are all promoting a version of "free trade", either totally or for certain ranges of products and services, and for certain regions. They include GATT, the WTO, the EU and its partnership programmes and various other free trade areas, such as the Arab Free Trade Area. The Generalised System of Preferences (GSP) is another export control scheme, whereby some developed countries encourage tariff-free imports from developing countries. It is also due to be phased out by the WTO.

3.51 Technical Controls and Free/Fair Trade

At every stage in our project we have encountered officials who truly believe that Lebanon is a beacon for free trade; a light in the darkness of protectionism, if you will forgive the literal analogy. In fact, nothing could be further from the truth. Lebanon has managed to self-impose shackles to free trade that defy comparison with almost any other developed or emerging economy. And Lebanon has achieved this through the continuation of the previous Ottoman and French administration's practises of technical controls. Until very recently, this was compounded by Byzantine Customs practises. But now Customs are embarked on a process of technology-driven procedures reform.

Technical controls may come from the private sector in an attempt to simplify acceptance of goods as being from a valid origin, for example. These controls include the Certificate of Origin. Other forms of control include pre-export, physical inspection. This is an attempt to verify the origin, quality and contents of goods at the point of origin, as opposed to the point of consumption. This is known as PSI, or pre-shipment inspection. A variation on this theme is the acceptance of self-regulating companies' products based on their history and reputation. Self regulation by reputable companies falls within the area of risk management rather than total physical inspection. Qualification for ISO 9000 is an indicator to the likely effectiveness of self regulation.

Consular Invoices (Legal Invoices) are another attempt to control the quality of goods at source rather than destination. But in this case, where an importing country's embassy or legation, or even a local Chamber of Commerce validate an invoice, there is no point to the process. They are supposed to reassure the importing country that the source of supply is, indeed, as stated on the invoice. However, most of these institutions are not competent to judge the quality, source, function or any other aspect of the goods. They rarely see the goods, even when paid to confirm the source.

This practise is generally strictly for revenue raising, with almost no attempt to add value to the process nor to help the importer and exporter. Consular Invoices are the most blatant form of NTBs.

3.52 Internal Technical Controls

Internal controls within Lebanon are administered by the responsible Ministry. They may issue and administer a range of prohibitions, restrictions, licences, certificates, etc. for specific purposes. These purposes include:

- Fraud prevention
- Drug and alcohol control
- Anti-dumping
- Conformity with treaties and international obligations
- Preservation of Lebanon's trading reputation
- Hygiene
- Sanitation: Health and welfare
- Animal health and welfare
- Industry protection
- Consumer protection
- Revenue enhancement
- Quarantine
- Standards/Quality control, etc.
- Statistics Gathering

Each of these controls are unquestionably in the public interest. But their range and complexity, together with the multiple application of controls provides severe inhibitions to Lebanese trade. Desirable though the vast majority of these controls might be, they impose a heavy burden in terms of time and costs to the trader. Similarly, they require the trade professional to have an encyclopaedic knowledge of the regulations, which change dynamically. The only complete and up to date source of regulations is maintained by Customs. It is known as "Restrictions and Prohibitions". Updates and changes are published in The Official Gazette. Even so, Customs are occasionally surprised by new, unpublicised controls.

Each Ministry is able to publish its own additions or amendments, without any reference to the wider interest of trade and the public interest. Some controls are enshrined in law, some by decree and some by regulation.

3.53 Prohibitions and Restrictions

There are 79-repeat 79-types of controls for Lebanese trade. Each control may be applied to hundreds of items within a certain category (generally a range of HS numbers from the Harmonised System {HS} of Tariffs).

Controlling agencies and types of controls include:

Council of Ministers and the Industry Institute: Visas and Certificates proving the Lebanese provenance of manufactured goods.

Ministry of Interior: Pre-licences for imports; Visa and Certification for some printed materials; Agreement and post-agreement for control of drugs.

Ministry of Finance: Alcohol transport permit; monopoly goods; alcohol certificate.

Ministry of Finance (Customs): Alcohol certificate
Ministry of Finance (Regie des tabacs): Passage permit
Ministry of Finance (BCCI: Indirect taxes): Transport permit
Ministry of Finance (BCCI: Indirect taxes): Transport permit, alcohol

Ministry of Defence: Pre-Licence and permit, army controlled products (arms, ammunition, etc.)

Ministry of Health: Licence, Visa/Certification, pre-permit and licences, medical equipment, drugs, pharmaceuticals, OTC pharmaceuticals.

Ministry of Health (Office of the Minister, Department of Sanitary Engineering, Department of Quarantine, Drug Unit, Department of Medicine (import/export), Department of Pharmaceutical Inspection). These issue a range of pre-permits, licences, visas/certifications, plus special approvals, such as a "purification" licence.

Ministry of Labour (Syndicate of Pharmacists): Invoice certification
Ministry of Labour (Syndicate of Pharmacists plus doctors):Invoice certification.

Ministry of Agriculture: Range of products; Licences, visas/certification, sanitary certificate, agricultural sanitary certificates, agricultural calendar, packing requirements.
Ministry of Agriculture (Office of the Minister): range of products; Licences, pre-licence, agricultural sanitary certificate, certificate of origin.
Ministry of Agriculture (Office of the Minister, OIC): Range of products; Licences, pre-licences, pre-permits, specialisation certificates, agricultural sanitary certificates, certificate of origin.
Ministry of Agriculture (Director General): Licence.
Ministry of Agriculture (Department of Animal Health): Licence, visa/certification.
Ministry of Agriculture (Department of Animal Health Protection):Prohibited merchandise, sanitary certificate, visa, certificate of origin.
Ministry of Agriculture (Department of Agricultural Health Protection):Visa/certification, analysis and production certificates, export conformance certificate, agricultural sanitary certificate, laboratory inspection certificate, pre-visa.
Ministry of Agriculture (Farming Unit): Visa/certification.
Ministry of Agriculture (Silk Office):Pre permit.

Ministry of Economy and Trade: Licence.
Ministry of Economy and Trade (Office of the Minister or Director General): Licence.
Ministry of Economy and Trade (Office of the Director General): Licence.
Ministry of Economy and Trade (Technical research Centre-Pricing Policy): visa/certification.
Ministry of Economy and Trade (Consumer Protection): Visa/certification.
Ministry of Economy and Trade (Fraud Prevention Unit): Visa/certificate.

Ministry of Economy and Trade (after approvals by: Minister of Information, MPT, Council of Ministers, Army, Minister of Interior, Ministry of Health: Various products: Permit, pre-licence, licence.

Ministry of Posts and Telecommunications: Permit, pre-visa.
Ministry of Posts and Telecommunications (Office of the Minister): Pre-permit.

Ministry of Tourism/General Directorate for Antiquities: Licence.

Ministry of Petroleum: Licence.
Ministry of Petroleum (General Directorate for Petroleum): Licence.
Ministry of Industry: Licence, pre-licence, visa/certification, passage permit.
Ministry of Industry (General Directorate for Industry): Licence.

Ministry of the Environment: Visa/certification.

Each of these agencies issues the relevant controls according to its mandate. Exports as well as imports need controls, for example Certificates of Origin are endorsed by MOI. Similarly visas and certificates are issued to prove (and approve) provenance for Lebanese exports, as are "industrial attestations".

Regulations are changing daily. For example, in April 1998, the Prime Minister issued a memo requesting a rationalisation of the range of controls. This followed a series of complaints and investigations regarding the time taken to clear imports and exports, and the costs involved. Since Customs are legally bound to scrutinise documentary evidence of a trader's compliance with all of the regulations of Restrictions and Prohibitions, they have to be most careful with their document examination and the follow up physical inspections.

Additionally, it is necessary to visit each issuing agency (Ministry) personally, in order to obtain an approved technical control document. Ministries are generally only open for half of the private sector's working day, from 8/8.30 AM until 11.00 AM-2.00 PM, depending on the Ministry, the day and the season!

And each approval requires stamps, several signatures and costs money!

In practise, many companies send messengers, but they cost money and transport expenses too.

From the preceding notes it will be apparent that there are many Government departments involved in Prohibitions and Restrictions; 79 different controls, at least 44 different Ministries and agencies, plus several private sector agencies. In addition, from Customs records, there are at least 1,000 HS codes and sub-codes processed each year. As QR and other rapid replenishment systems are introduced into the global trade networks, declarations are expected to increase at around 20% per annum, and so will HS code varieties.

A typical transaction needs an average of three controls, for example a pre-licence, a licence and a Certificate of Origin (often endorsed or attested). The possible

permutations from the application of these controls is arguably as high as over 11 million combinations, which may be presented to Customs. This bewildering potential for combinations and permutations of pre licences, licences, certificates, visas and so on is supported by a single, immutable constant: the Ministry of Finance's involvement in payments, for stamps, for approvals and for taxes.

One final observation. Customs is traditionally chosen as the choke point for trade. They have to act as the republic's policemen under present systems (see Appendix, written by Mr T Hayes of CCC, now WCO). A typical example occurred only recently. Since Y2000 presents all nations with a potential problem from non-compliant computer software, Customs were asked (unofficially) to consider adding an extra control to check incoming software to ensure that it was Y2000 compliant. Apart from the request being virtually unenforceable, it would require Customs to acquire quite specialist experience and to add another red channel control (***Note: All technical controls automatically cause NAJM to route goods through the red channel for physical inspection***). Whereas the real-and obvious-solution is to require that all software providers furnish the Government (no Ministry is mentioned, to save blushes) with a statement that affirms that they are Y2000 compliant. Failure to do so will result in them being excluded from Government business. Incorrect affirmations will cause severe financial penalties.

This is a typical, practical approach to avoid the abuse of technical controls. There is no need to add costs and delays by using the Customs service as a gatekeeper.

3.60 Delays: Some Explanations

From the tables and diagrams it can be seen that the range of days for a green channel importer is 5-11, for a red channel importer it is 8-17 and for an exporter it is 5-7.

Such consistent and extreme delays are no accident. And the figures are no exaggeration. They have been confirmed many times over. If anything, they are on the low side of the times experienced.

There are numerous examples, but they come down to a few simple reasons.

The first reason is that each player (Ministry, BCCI, Port, Customs, Trade Professional, Importer and Exporter) operate "islands" of systems. Their systems are in-house systems. On their own, they are probably quite efficient. For example it may only take 5 minutes to obtain a certificate from MOE-T. But it can take half a day to get there, to wait, to go to the MOF to pay the tax, and then to try to get to another Ministry. On average, it takes around three days to obtain all the technical controls required for an international transaction.

And not all of the controls are necessary. Many are merely in place for the sake of statistics. Others are for fairly trivial reasons; some for quite indefensible reasons. Customs are trying very hard to reduce the number and variety of controls. Some Ministries are trying to implement the Prime Minister's requests for reductions and simplification, from his letter of April 1998.

The second reason is that the systems all revolve around and depend upon paper. Paper for the forms, for the signatures, for the stamps and for the payment process.

Paper is fast becoming obsolete in modern business systems, for each of these purposes. There are now well established technology options, which reduce the time to transact business from hours or days, down to seconds. And they require no personal visits or face to face negotiations, as demanded by Lebanon's current technical controls.

Even the SAD is still in a paper format, although Customs will soon (during 1999) be introducing an EDI (electronic data interchange input) option for advanced traders.

A third reason concerns traditional systems in both the port and in Customs, post NAJM. Physical inspections are the problem. The sheer volume of inspections, the Customs "gatekeeper" mindset, the implications of unpacking containers to count and inspect the goods, and other traditional Customs processes are guarantees of delays.

The Custom's tradition is complemented (in a negative fashion) by the port's present administration systems. The process of obtaining a paper cargo manifest and of delivering it to Customs; of recording-and correcting-all container locations against manifest details, and then informing the port takes an unnecessary length of time. It is absolutely certain to cause significant delays, in virtually every case. It can take 5-8 days to obtain a reconciled manifest at Customs and the port, from a shipping agent and container handler yard managers. Often much longer.

And all of these delays clog up valuable capital resources at the port and at Customs and add extra costs to traders and consumers alike.

And this brings us to *the fourth reason*, the worst aspect of the whole serpentine mixture of systems. Because the process provides literally dozens of opportunities for manual intervention, for assistance or hindrance, for threats, blackmail and outright intimidation. There are officials who abuse their office; there are also those who use the threat of "national security" as a reason-or a threat-to open and to inspect, and sometimes to despoil goods. This informal method of supplementing incomes thrives at the expense of the trader and the consumer-and the Government.

Bribery and corruption is not new to port and Customs process. It has arisen-and has been eliminated-in most countries in the world. The practice has four elements, all aimed at obtaining extra money for a service for which the officer is already being paid.

There is the "goodwill" aspect, where the trader gives "gifts" to ensure continued good services. There is also the implied withholding of services (e.g. *I am very busy*, or *I am going home now*!). And then there is the blackmail aspect (*pay me some money or I will make things very difficult for you*!). And finally, there is the physical intimidation, coupled with the threat of throwing goods onto the floor, and possibly breaking or despoiling them. The military personnel at the port/Customs gate are well known for this practice.

These practices have insinuated every aspect of Lebanese trade. From the Ministry who accept gifts for speedy approvals, to the Chamber of Commerce who charge the people who pay their wages for the privilege of doing the job they are already paid for, to the

blackmail and threats at the port and at Customs. This is a cancer that must be removed, else the anarchy that is now evident will see the end of competitiveness for Lebanon's external trade.

And finally, it is evident that these practises are rampant, not only at the technical control-granting agencies, and at the port and at Customs, but also among the trade professionals themselves.

The solution will need to be radical. Nothing short of a strong, determined and co-ordinated effort will succeed.

3.70 Cost Summaries

Costs for Importers and exporters comprise a complex mix of known, formal costs and a range of unpredictable and informal costs. As an example, the following charts illustrate the range of costs and time taken for a typical import and export. Some assumptions have had to be made. For the sake of ease of calculation, we have used a 40FCL container, goods invoice value of US$20,000.

Based on Port container figures and trade figures, and assuming that 50% of trade by value is containerised (an arguable proposition, naturally) then we see the following:

Average 1998 export container value: US$26,800
Average 1998 import container value: US$28,570

Hence an average of US$20,000 appears to be reasonable.

Costs fall into several main areas:

Firstly, the costs of obtaining technical controls. These comprise: messenger time, costs of stamps, formal costs of controls from the public sector and the "informal" costs of controls.

Note: "Informal" is a euphemism for under the counter payments, gifts, bribes, blackmail and corruption-and any other appropriate epithet.

Then there are the formal costs involved with domestic transportation, with Customs, with the port, with international transportation and with the trade professionals. There are also "informal" costs associated with the port, with Customs-in its several guises, uniform and non-uniform-and with the trade professionals.

Only informal costs are detailed in this report. The Phase Two report contains more detail.

3.71 Informal Costs

Customs	(US$150-250), say	US$175
Port	(US$100-150), say	US$125
Customs Agent's "Miscellaneous"		

Range US$50-200, say	US$125
Technical Controls	US$50

Sub Totals

Transport Costs	US$75
Customs Costs	US$180
Port and Container Handler Costs	US$300
Trade Professionals Costs	US$510
Informal Costs	US$475
Totals/ FCLContainer	**US$1240**

The same costs apply both to importers and to exporters, except for container rentals. In general, these costs do not tell anyone too much. Except that informal costs are $475 per container; that they are shared between the Ministries, BCCI, the port and Customs. Customs agents also receive their share, through their "Miscellaneous" non-receipted costs.

3.80 Delays

Time is another important factor. From our interviews and from the questionnaires we received, the following were the average delays:

Table 7: Times Taken in the Trade Process

Activity	Importers (days)	Exporters (days)
Technical Controls	2-4	2-4
Customs Clearance	3-6	1-2
Port/CH Processes	5-10	1-2
Road Transport	1-5	1-5
Best Port/Customs	**5**	**1**
Average	**8**	**2-3**

Technical controls are not necessarily to be added on as a sequential figure. Provided that the importer's/exporter's documents have arrived from their trading partner, then that can be achieved off the critical path. It is a different matter if the papers have not arrived in time.

However, the figures do show that there is an irreducible minimum of between 8-16 days to obtain imports and 2-6 days for exports.

3.90 Conclusion: Gaps, Barriers and Redundancies

By now, most of what follows should be self evident. In restating the weaknesses of current systems the following is not meant to be an unconstructive criticism. It is a precursor to a discussion of the changes that must take place if things are to improve. This section is not concerned with causes, nor with solutions, merely today's symptoms.

3.91 Inhibitors/Barriers

The barriers and inhibitors to Lebanese trade efficiency-and to trade generally, are legion. They can perhaps best be summarised: complexity, time, costs and attitude.

If we first look at the time to clear goods, in either direction. The number of days (working days) that it takes to clear goods represents a significant proportion of the time it takes to sell or to add value to those goods. Looked at another way, it represents a reduction of the time that Lebanese industry has to add value before exporting their own product. Clearance time adds to costs in both cases.

The number of steps and the application of the Customs choke point, through which everything must travel and be physically inspected, unless a green channel clearance is selected, also adds time and costs-formal and informal. Any declaration which requires a technical control automatically requires that those goods receive a physical inspection. That inspection may be delayed because the appropriate Ministry personnel are not available. This particular circumstance is aggravated because of the public service working hours, or the need for overtime outside those hours, which are normal working hours for the private sector-both in Lebanon and in most trading partner countries.

The trade process is clerically based for the most part, sequential and requiring multiple face-to-face interactions between the public sector and the private sector. The results of these interactions include: delays, mistakes (and/or undue caution), misunderstandings, confrontation, extra costs-as well as fees and stamps for approvals-time, and the costs of time in people, administration, stock and investment. Most importantly, it also engenders a climate of mistrust between the public and the private sector that is extremely damaging in its own right. Damaging to trade and to society at large.

The sheer complexity and range of controls and steps in the process, together with the process itself, introduce many delays and uncertainties. These extend to costs and time involved because of uncertainties about exactly what controls are needed, when and if they have been modified-and how. The legal system which enables government agencies to use Customs as their policeman, without a proper regard for the effect on trade, represents another time consuming, expensive uncertainty. This is possibly the most serious inhibitor, after informal costs.

Lebanese businessmen are subjected to extra costs from the time and complexity of the trade process, from time taken in the process and from investment necessary to make allowances for this time-in stock, in people, in work-in-progress. They are also subjected to frequent, often unjustified, fines and a multiplicity of informal trade-related costs that would be regarded as illegal in many other regimes. This is particularly damaging for SMEs, who complain-with justification-that it is impossible to export consignments worth

less than US$2,500 because they actually lose money up to that break even point. And this is the sector that the country looks to create jobs, wealth and growth!

Some technical controls, particularly the Consular Invoice, actually damage the country's trading reputation and present a barrier to trade, forcing trade to occur with the second stratum of trading partners, or to face penalties from the top stratum. This damage to the country's reputation is not to be taken lightly, especially when measured against the relatively small amount of revenue that the control produces. This damaging reputation impacts both Customs and the (present) port operations-both air and sea, in addition to the reputation that their current systems have earned with overseas traders.

Paper systems are one of the basic barriers to trade efficiency. They are incompatible with each other; paper forms are created from paper source documents, provided by the document originators, in many of the steps in the process. Originals are only used as back up evidence of authenticity. Signatures upon signatures are required on these paper forms, followed by paper payments, paper (fiscal) stamped and signed receipts. Apart from NAJM, there is virtually no use made of computers in the trade process area, especially in the public sector.

And finally, the most important inhibitors include mindset. The public service's prevailing attitude that the private sector-or traders at least-are not to be trusted, to be ignored or delayed at will, that they are, at best, an inconvenience-unless of course, they are paid extra for their valuable services, is at the heart of many of the problems described here. It is clear that not everyone is the same; there are-there must be-exceptions, but they just prove the rule. And it also creates the opposite effect. The system has created a climate for indiscipline, for confrontation and for corruption.

3.92 Redundancies and Duplications

The system is riddled with duplicated and overlapping efforts. For example, every time an original document is submitted for the granting of a technical control, a new document is raised based on the accurate source document. That takes time, costs money and introduces the potential for errors. This reproduction of paper forms from, often, computer generated source documents, takes place for technical controls, Certificates of Origin, and Customs declarations (SAD).

In addition, in both public sector and private sector documents, computer generated or not, much of the data is duplicated. For example, virtually every document in the process requires:

Dates, part numbers, catalogue numbers or item numbers, descriptions, quantities, values, delivery data, manufacturer and source data, transportation data, customer data, etc. Each time this information is transcribed it may be represented in a different format, depending on form design. It may have to be abbreviated or expanded. It can certainly be the subject of transcription errors every time it happens. It has long been accepted that over 70% of output trade data is someone else's input data. It is also accepted, from UNCTAD figures among others, that around14% of the costs of world trade is represented by the costs of information. As QR accelerates these proportions may even increase, especially in paper-based systems.

The types of documents in which this duplicated data may be needed include:

- Invoice/ Statements/Debits/Credits/ Adjustments/ Payment Orders/ LOC/TTs/ Debit Advice/ Credit Advice/ Remittance Advice
- Packing lists, Manifests, BOL, Bay Plans, Booking Requests and Advices
- Technical Controls, Certificates of Origin, Consular Invoices, SAD
- Government departments, agencies, traders and logistics operator's internal systems.

Another form of duplication in the process is the multiple visits needed for technical controls, to different agencies, to different Ministries, to different locations and to different people. And yet all technical controls have much of the required data in common. There is no indisputable logic to the need for different locations, different people and different forms.

Finally, the hierarchy of payments made during the process. In order to make payments concerned with the trade process, visits are necessary to MOF (fees and stamps for each technical control), COC, Customs (taxes, fines), the port, the harbour, trade professionals and a multiplicity of informal payments. Payments are made by cash, stamps and cheque (bankers cheque).

3.93 Gaps

Trade processes run on information. While equipment is clearly necessary for logistics purposes, and insurance and finance play their part, the movement of goods, and payment, is controlled by information. And the absence of information gives rise to caution, or risk avoidance. That leads to overstocking based on uncertainties-and an expectation of the worst. Which leads to price increases. For example, importers and exporters only know when their goods have moved, or arrived when someone tells them. There is no source of information in the Lebanese process which enables traders to establish the status of their declaration, the location of their goods in the port or container park, the status of their goods in the queue for inspection, nor the planned date for availability. It all has to be found out by personal visits, or by using intermediaries. Compare this to today's couriers, who collect and deliver goods and provide Internet-based track and trace systems, to enable their customers to know exactly where their goods are at any time and what date/time they are expected to complete delivery. By comparison, Lebanese traders operate in the dark. They have to invest to cover the unforseen risks, which is bound to increase their costs and those of consumers.

There is no central, up to date, reliable source for current trade regulations, for prohibitions and controls and for changes in the pipeline. This is even true for Customs, so what hope is there for traders and for trade efficiency? Since traders know that regulations can change very rapidly, they have to pay professionals to keep up to date

for them, which adds to their costs-and loses potential revenue for the pubic sector, who could charge traders for a reliable service.

There are no central reliable sources for transport schedules, for freight rates, for space availability, for trade opportunities, for insurance and trade finance options. There is only personal knowledge and anecdotal information about the local supply and skills infrastructure. There is no feedback on approvals given versus those used; no feedback on use and misuse of the technical control systems, no grading of traders, no grading of suppliers, no performance standards for Ministries or Government agencies, the port and harbour, etc.

And so on. Modern systems operate on information, timely and accurate information. Where that information is held on paper or in people's heads-or not at all, then the system suffers competitive disadvantages against those who have automated and integrated their processes. And this is the case with Lebanon.

4.00 PRINCIPLES AND REQUIREMENTS OF REDESIGN

To repeat an allusion from several earlier comments. Although references may be made to certain private sector industries, such as banking and finance, insurance, telecommunications and logistics, these are not the primary focus of this report and recommendations. This section focuses on what can be directly achieved by the public sector through its legitimate spheres of interest. Government agencies, operations which are influenced through Government licencing or mandate, traders and trade professionals all fall into this category. Those mentioned earlier do not. Government would find it difficult to direct any purely private sector enterprise or industry to comply with an external set of recommendations unless there was an early and demonstrable commercial return. Since the returns for these operations are likely to be long term and indirect, this report will restrict itself to comments on those enterprises and industry sectors. See the section on the Implementation Agency for a fuller discussion of these issues.

Overwhelmingly, information is the key to trade process reform and systems redesign. Even with the best banking and finance sector in the world, the best insurance companies and the best transportation and warehousing operations, it is doubtful if the current trade process would be much improved. Because without improved information processing and information handling, Lebanon would still be saddled with a sequential, paper driven system, surrounding several isolated islands of competencies, representing the main players.

Before attempting to redesign systems it is necessary to articulate the vision for the new systems. This vision is based on a top down approach to systems design, taken from best international practise. The only other design choice is to take a bottom up approach, based on current local competencies. While this might work, in time, it will never enable Lebanon to catch up with world best practise. By taking a top down, visionary approach, it will be possible to leapfrog the normal learning steps that other nations have invested in and endured. Thus it will be practical to start at the current evolution of best practise and to impart a particular Lebanese flavour as it is installed and developed for local conditions.

In brief, the vision is to provide traders with a trade process system that clears goods through Customs and the container handlers in 48 hours or less. It will be designed so as to eliminate informal payments-and the opportunities for informal payments. Technical controls will be re-engineered so that they do not have an impact on the time taken to move goods through Customs and the port. The overall system will be designed to reduce current costs, time, the number of steps in the process and to make best use of the Government's and the private sector's investment in infrastructure, so as to create opportunities for growth in profitable trade for all concerned.

The system will be designed and implemented with a view to redefining the legal basis for trade based on electronic commerce and new trade process principles. It will also be designed so as to allow the investments in technology and skills to become self funding over time, even profit making.

Key components will include a very broad education programme, self certification of professionals and trading partners and compliance with international treaties and business practises. Naturally, the system will deploy the latest in proven technologies. Clearly, these systems will not be installed, complete and functioning, overnight. It may take over five years to achieve the objectives, perhaps even seven years. But, a properly planned implementation will ensure success.

The remainder of this section covers the overall vision for the system. Succeeding sections then cover separate components of the recommendations. The section on implementation will look at the sequence and suggested steps which will comprise the overall implementation plan. Naturally, this plan will need to be refined and agreed with a large number of potential participants and influencers. It is anticipated that this project, Implementation, could take much of 1999 to complete, even if a start was made straight away.

4.10 Specific Objectives

The primary objective is to reduce clearance times to 48 hours or less. Why 48 hours?

Firstly, many ports and container handlers already achieve sub 60 minute targets. Secondly, discussions with the NAJM/ Customs and MOF executives allow us to believe that Customs can clear goods through NAJM to a sub 24 hour timetable, with a very much higher proportion of green channel clearances together with automated physical inspection processes. In addition, the Port of Dubai (the container handling terminal contractor) achieves sub 24 hour processing on a normal basis, using the latest electronic commerce technologies and techniques.

The NAJM system is capable of being upgraded to the required electronic commerce technology requirements; the port already has on order the latest in container handling equipment, including GPS and container tracking systems and door-to-door tracking.

48 hours is achievable. 24 hours may become possible.

Individual sets of recommendations will cover what each of the participants need to do, and in what sequence, in order to play their part in the implementation of the overall vision.

4.20 Choices

In order to reach the stage that many trading partners have already reached, such as USA, Canada, UK, much of Europe, Finland, Sweden, Australia, New Zealand, Singapore, Malaysia, Korea, Hong Kong and Taiwan it is necessary to make choices. One choice would be to do nothing; comfortable perhaps, but certain to lead to an even larger gap between Lebanon and its trading partners and competitors. Equally impractical is the idea of abandoning all current systems to replace them, at one fell swoop, with a best practise, technology driven solution.

Some may think that a little tinkering around the edges of current systems would be the best approach. It might be less expensive, and would certainly be less controversial and

at the same time keep many people within their comfort zones. But in the long run, that would be as bad as doing nothing because it would be change without either a vision, real understanding or commitment.

The only practical and realistic choices are to accept and to endorse the vision as articulated, and then to devise a plan to enable the process to be reformed, and the new system implemented in small increments, while operating under the present system until it is incrementally replaced.

And that is the point of these recommendations. To create a plan that will give Lebanon the best of the new systems and to implement them in small steps, seamlessly, with the minimum of disruption, until the existing systems have become best practise systems.

4.30 Specific Problems to be Solved

The first and major problems to be solved are to reduce the time and the number of steps in the trade process. That will lead to cost reductions for traders.

The second set of problems to be solved is to eliminate the informal tax regime, and the opportunity for informal payments, throughout the complete system.

In order to make both of these possible it is necessary to automate Government technical controls, to integrate approvals and to reduce to the absolute minimum the time taken to obtain approvals and clearances. And to make sure that the complete technical control process takes place off line and off the critical path, thereby introducing no delays into the system whatever.

That leads to the need to reduce red channel physical inspections to the irreducible minimum. Even under the existing systems Customs have hopes of a 70% green channel ratio. A design level target for this reformed system is 95% green channel, 5% red channel, on a consistent basis. A long term target should be 98%-99%!

It will be necessary to make sure that the technology for such targets and techniques is in place by the time that it is needed, and that it is available to all players in the trade process, equally and economically. The technical standards need to be to world best practise, to use universally approved standards and, naturally, to be year 2000 compliant.

Technical support and expertise will be necessary; legal support will also be necessary to ensure harmonisation of practise with legal requirements. The level and type of technical support will include marketing, technical and implementation skills, development and standards/ electronic commerce message mapping skills. Industry participants will ensure cooperation and compliance with contemporary practises by the banking and finance sectors, insurance sectors, road, sea and air traffic scheduling and practises. Support groups on specific industries, and specific topics such as QR, ECR and JIT, together with bar coding and automatic ID systems will also be needed.

And most importantly, education and training for all players, regularly tested and updated, will be vital. Education and training will be the bedrock upon which self regulation, and trust, will develop.

There are numerous other groups of specific problems to solve but these will emerge as the report delves deeper into individual areas for change.

4.40 What Can We Build On?

There are five groups of competencies that need to be considered: the port and container handlers, Customs, technical controls, trade professionals and the trader community.

By some time in the year 2000 the port and Customs will be re-equipped to the highest standards. Although we do not yet have specific details on the exact technologies and equipment that they will be utilising, based on the (container handling contractor) port of Dubai, there is little doubt that it will be adequate for our purposes, and that work practises will be the equal of the world's best. Naturally, that needs to be confirmed in depth during the implementation planning phase. Nevertheless, we can plan with some confidence that the port and the container handlers will be ready for the reengineered trade process system.

At the technology level, the same is true of Customs and their NAJM system. It is not true, however, of their general work practises, of port and harbour security and much of the inspection regime. This is especially true of the areas where NAJM has not yet had an effect, even of some where it has already had an effect, such as the data entry bureau. Overmanning, work practises and informal taxation methods all need to be tackled during this project. The number of people needed by the re-engineered system will be dramatically reduced from today's manning levels.

The trade professionals are probably the hardest group to build on. They are not well equipped or automated; they are part of the problem of time and delays, and particularly of informal payments. With a few exceptions, we cannot rely upon the trade professionals to be of much help. They may see themselves as having too much to lose. But as things change, as traders begin to adopt new systems, the trade professionals will come round. Their numbers will inevitably be reduced and they will have to submit to retraining, testing, certification and regular retraining before they are able to become a full part of the new trade process regime. They will also have to become more professional in self regulation and in the way they organise their industry.

Traders will essentially adopt and comply with anything that will improve matters. That has been unequivocally made clear to us. They will even pay a special levy to fund the technology if we are able to deliver lower clearance times and to eliminate informal payments.

Technical controls is probably the biggest problem, as they are implemented today, with current systems. They need a radical revision of the way they are authorised, issued and controlled. They need to be automated and integrated with other systems in the trade process system. Separate proposals are included for technical control agencies. The

steps that are necessary here include: analyse, rationalise, simplify, automate and eliminate.

In order to implement the new redesigned systems and processes therefore, we need to start with the technical systems of Customs, to refine them based on the container handler's and the port's systems, to select a few competent traders to pilot and to modify the first stages.

At the same time we need to take the first steps to make technical controls less complex and easier to obtain and approve. This will mean selecting a single agency to begin with, perhaps a few specific controls, and to implement improved systems, in harmony with the pilots being run with Customs and the port.

As the technology is introduced, almost certainly under the control of external specialists in the first place, and as the implementation agency begins to play its part, we can ramp up the numbers of users, the numbers of controls covered and to introduce commercial documents into the system.

In time, a critical mass of technology users will develop, as will the systems to automate controls and approvals. At this stage we can begin to reintroduce the trade professionals into the system, after suitable training and certification. Thereafter, the programme should hit critical mass, and be handed over to local management to run and to complete the programme.

4.50 Principles of Systems Redesign

There are a few principles of redesign that are sacrosanct. In order to succeed they must not be compromised. They apply specifically to the final version of the implemented system, the vision. It will take some time and many different stages to get there but it is necessary to articulate and to clarify the vision for the ultimate system.

1. Transparency and separation of functions: the opportunity for face to face transactions and interactions between traders and trade professionals and the public sector must, in time, be eliminated. This will eliminate the opportunity for informal payments as these interactions become automated.

2. The critical path is represented by the time it takes to transport goods to or from an overseas port and to handle them through port facilities to Customs. The critical path is the least possible time it can take to deliver goods to the buyer. The critical path is the datum for systems design. The closer the time gets to the critical path, the more successful the system.

3. Green channel approvals will have a design level of 95%, growing to 98% over a 7-10 year period.

4. Except in the most exceptional circumstances, physical inspection will not, repeat not, involve unsealing containers. New technology will be utilised so that all Customs and technical control inspection, when absolutely necessary, takes place in a central

control room, using electronic means for viewing the goods and for correlating the documentation.

5. All technical controls and approvals/authorisations will take place using electronic means, without any face to face interactions.

6. All payments and signatures will take place using electronic means.

7. The technology to make possible all of these changes will initially be funded by the public sector. It will be paid for by traders from a special levy for each trade clearance. The management and supervision of this technology operation will be to commercial, private sector standards. The technology organisation charged with managing the technology will also be tasked with implementation, development, support, liaison, marketing and the ultimate integration of industry systems, legal frameworks and commercial targets. It may also embrace the technical controls technology infrastructure.

4.60 Fundamental Techniques to be Used in Re engineered Systems

There are a number of key concepts to be used in the reengineering of the Lebanese trade process that may be better defined here than within the text of the recommendation and proposals. The Appendices, the Glossary, and selected web sites contain more information on all of the technologies and techniques. These concepts include:

Automated Systems

In the trade process context this refers to the use of information technology (IT) to efficiently replace the functions formerly performed by paper based, clerical, or part automated systems. It does not apply to merely automating existing systems.

Critical Path

The shortest possible route between two points. The set of activities that represent the shortest time to complete an activity or project. Critical path techniques involve separating essential from non-essential tasks and then prioritising them and arranging the least time or least cost approach.

EDI Mapping

The use of an EDI translator software program to automatically select and fit data from in-house computer systems and files to EDI message standard's requirements.

EDI Messages

Formatted EDI messages for specific functions. There are several types of message standards in use: private, for specific organisations; hub or group, for selected groups of organisations; industry standards, national standards and international standards. There

is only one standard for international trade, UN/EDIFACT. UN EDI For Administration, Commerce and Transportation. Some sample EDIFACT messages include:

CUSDEC	(Customs Declaration, an Automated SAD)
PAYORD	(Payment Order)
BAPLIE	(Container Bay Plan)
INVOIC	(International Invoice)

There are over 400 EDIFACT messages now in use or in various stages of development. See Appendix on UN/EDIFACT for more detail. See also referred web sites.

Electronic Data Interchange (EDI)

The electronic exchange of standard formatted messages using information technology, electronic networks and EDI message standards.

Electronic Commerce

A generic name for the sourcing and acquisition of goods and services, information and soft product delivery, using information technology and inter operable networks, particularly the Internet.

Integrated Systems

The connection or inter operation of IT systems. Used here to refer to the inter operation of trading partner's systems in the trade process.

Internet Service Provider (ISP)

An ISP provides a simple email/messaging system, similar to but with less business functionality than a VAN. Also provides a broad range of Internet based multimedia, web and email services.

Merchant Servers

The Internet host (or virtual host) that provides business to consumer and business to business electronic commerce services, across the Internet. It may also be integrated with call centres, fulfilment and distribution centres, payment services, track and trace services and data warehousing services to provide a full electronic commerce service for traders and trader information.

Performance Standards

An agreed set of standards or measurements against which a supplier's performance may be measured. It may include price, time, quality standards and a range of specific deliverables, pre agreed by both parties.

Pre Authorisation/ Pre Approval

See pre clearance. Applied to formalities and technical controls rather than the goods themselves.

Pre Clearance

The approval of formalities and channel selection before the goods are presented to Customs for inspection. Pre clearance is also applied to some international passenger travel, especially by sea. Customs formalities can be completed on board, before arrival. Air passenger pre clearance is now commonplace on Pacific routes. It deploys an EDI message called PAXLST (Electronic Passenger Manifest) so that incoming Customs and Immigration authorities may scrutinise passenger details before they arrive, and therefore clear them immediately on arrival.

Pre Event Auditing

See post event auditing. Goods are inspected and/or paperwork audited before they leave an exporter's premises, in time for scheduled export.

Pre Shipment Inspection (PSI)

The process of inspecting or evaluating goods at source, before they are exported from the country of origin. The PSI organisation validates specifications, function, provenance, invoice and price details, quality and quantity (depending on their contract), prior to export. It then allocates a certificate of conformance (COC) to the goods, for the benefit of the importing technical control organisation.

Expense and reliability perceptions make this an unpopular course of action for many categories of goods.

Post Event Auditing

The process whereby goods are pre cleared and immediately delivered to the buyer (or the importer), even when subject to technical controls or other reasons for physical inspections. Physical inspection may then take place on the importer's/buyer's premises together with a document audit. This may take place after every transaction or selectively, depending on the level of risk management deployed.

Risk Management

The use of computer records and selectivity to decide the level of risk of a certain event happening. For example, a trader might export certain categories of goods every month, and may have done so for years. Even though the goods are subject to technical controls that particular trader might never have been found to have flouted the regulations. In short, he is a good corporate citizen. In this case the computer may only select red channel for post/pre event auditing on one occasion in ten, for example, depending on the algorithms or computer logic used by the Customs system.

The same rationale may be used for traders, for goods categories or HS numbers, for destination country (or supplying country), for suppliers, for times of the year, for carrier, and so on. As experience is built up and as results are compared to computer selections, as the selectivity criteria are refined, then risk management becomes a very effective tool for control. See Appendix for paper on risk management.

Self Certification

The process of setting and testing performance and quality standards. Self certification is undertaken internally within an organisation but to internationally recognised standards. Self regulating organisations are regularly audited by external authorities.

Self Regulation

The conformance to a set of pre agreed standards by an exporter, a manufacturer, a service company, organisation or agency. ISO 9000 protocols are good examples of self regulation (and self auditing) quality standards. Self regulation by well established, large and reputable companies is a valid alternative to Consular Invoices and PSI.

Trading partner Agreement (TPA)

A national or industry based contract which substitutes an individual company's terms and conditions of trade with electronic commerce protocols. TPAs are agreements to replace paper with electronics, to agree the details of exchange and receipt, and to preserve their right to utilise common law in cases of dispute.

See legal issues in this report and in web site references.

Transparency

A system whereby all activity is open to scrutiny; where there is no opportunity for hidden transactions or corrupt practises.

Value Added Network (Services) [VANS]

The computers and networks which enable any agency or trading partner to establish an indirect connection (via a mailbox) between their computer systems and those of their trading partners in order to exchange formatted messages used in the trade process. A VAN is compatible with all current technologies. It facilitates the secure exchange of messages between trading partners. It maintains billing systems, audit trails, backup, archives and performs checks on incoming messages to ensure that they are to/from registered trading partners, that they conform to approved standards, for specific transaction and message sets, for specific trading partners.

5.00 OVERVIEW OF RECOMMENDATIONS

The systems as described in this section represent the final stage of the vision for trade processing reform and systems in Lebanon, as adumbrated in earlier sections. All of the following descriptions in this section assume that the system has been implemented in full. Later sections will then deal with the suggested means, and the stages, by which the vision will be realised. Nevertheless, it is important to reiterate earlier statements that an implementation plan for a project of this magnitude requires a team approach and a great deal of consultation and negotiation before a fully detailed plan can be agreed and documented. This report is the precursor to such an implementation plan.

5.10 Introduction

Section 4 discussed the philosophies and techniques that determine the systems and processes utilised in the vision, commencing with the key measurable objective of reducing current clearance times down to 48 hours. The system is based on the exchange of information in an electronic format, typically EDI message formats. There is a considerable amount of information on automated Customs systems and on the UN Message standards (UN/EDIFACT) in the Appendix, together with comprehensive web site references. Therefore these descriptions will work on the assumption that the reader has a basic grasp of the concepts of electronic trade facilitation and of EDI.

The overall system has two components.

1. The pre competitive component, during which traders source products or customers, research their trading partner's technical control requirements and reach the point where they are ready to complete an international, i.e. cross border, business (buying/ selling) arrangement.

   This component also includes the pre transactional activity during which insurance is sourced, transport is sourced and the contract and financing (normally Letter of Credit, or LOC) is negotiated and agreed.

   Note: LOCs are by no means the only form of payment instrument used in today's global supply chain. Account payments, payment on delivery, or on acceptance of contract (pre payment), 30-90 day supplier credit, FOB terms and promissory notes (up to two years credit terms) as well as commercial bank loans and credit terms (sometimes backed by guarantee schemes) are also commonly used. Electronic commerce is automating many of these payment systems, in addition to introducing the concept of credit cards, debit cards and charge cards for trade payments.

   This first component also involves obtaining the required technical controls from a new automated multi-agency organisation, called the Trade Information Service, or TIS, for the purposes of this report.

2. The second component concerns the exchange of information that is necessary for today's international trade. It starts with the international invoice, and then other documents (electronic messages) to prove that packing the precise goods into containers has taken place, and that those containers have been loaded onto a

container ship, and the exact location and number of the container. The ship's details, scheduled arrival time and berth allocation is then exchanged, complete with electronic versions of bills of lading, technical controls (prohibitions and restrictions, certificates of origin, etc.).

At this stage, when the importer, or his trade professional, has sufficient information about when and where the goods are due to arrive, then they can submit a Customs declaration a (UN/EDIFACT CUSDEC, or a newer version of the NAJM SAD). This CUSDEC is then matched against the Invoice details, the electronic cargo manifest and container location, received via trade professionals, who in turn, received them from the exporting trader, trade professionals and transport companies. NAJM now has all of the information it needs to evaluate the goods and to issue a tax assessment for payment before the goods can be collected. And all of this happens before the goods have actually arrived at the dockside or terminal.

NAJM issues an electronic valuation, the trader (or the trade professional) then pays the tax (by electronic means, or the funds are debited to the traders account by the Customs tax accounting system). NAJM also makes its familiar determination regarding whether or not the goods require a physical inspection, by using Customs risk management systems and, in the case of technical controls, taking input from an automated technical controls approval system.

If the green channel is selected, then the goods may be collected immediately, subject to port and container handling payment requirements. If the red channel is required, there are two options. The first is to allow the goods to be collected and to make a later visit to the customer's premises in order to examine the goods and/or documents in more detail on the premises. The second option is to use an automated inspection system (container scanners), whereby all of the physical inspection team view a scanned image of the goods, from several angles, complemented by multimedia images and sound. The container remains sealed during this process. If there is, most unusually, a remaining reason to inspect the goods after this process has been completed, then the container is removed to a special location for an unsealing ceremony and a full, physical inspection, possibly at some later date.

The majority of the red channel, physically inspected goods, are allowed to be released as soon as the inspection is complete.

This complete process will enable goods to be released and collected for delivery to importers within 48 hours of arrival at the dockside/terminal. The process makes maximum use of pre clearing processes and post event auditing for inspections; pre event auditing for export inspection and approvals.

Trade information is exchanged electronically is specially formatted messages between the computers of the participants in the trade process. The messages are transmitted over electronic networks, so that there are no delays in transmission of information. The message formats are designed so as to enable each of the computers in the process to automate the transmission, the processing and the

receipt of information, in exactly the format that each of the individual computers in this trade process expects to receive the information.

The technology to enable the electronic exchange of information is based on a new Lebanese Value Added Network service and Internet service called LibanFac. The interconnecting communications network network is called L.Net. More about both in following sections.

In addition to technology, in order to work, this schema requires considerable re engineering of work practises throughout the complete process. It also depends, crucially, upon an in-depth education programme for all trade participants, an education and certification programme for the trade professionals involved in this reformed and re engineered system. And last, but by no means least, it requires that a new authority is established to manage the implementation and the change processes. This new organisation is included, for the purposes of this report, in the LibanFac mandate.

5.20 Sequence of Events in the Re Engineered Lebanon Trade Process

In a little more detail the specific messages and their sequence, starting with the foreign trading partner, is illustrated in the following diagram, **Diagram 4: Trade Process Message Flow**. Please note that this description only mentions the key messages, not any of the special or proprietary messages and formats, modifications, enquiries and administration messages, faxes, emails and phone calls. In addition, many of the messages are (apparently) sent out of sequence, in order to facilitate the clearance and pre authorisations, as described earlier.

5.21 Foreign (Exporting) Trading Processes

The Trader: The foreign trader receives trade enquiries, provides quotations, negotiates terms and conditions, including finance and insurance requirements. On completion of negotiations, the trader requests a contract or purchase order. Once the order has been received, or at least, once the trader has confidence that an order will be received, on or by a given date, he makes transport arrangements. This involves making enquiries, booking and receiving confirmations that capacity is available and has been allocated.

Trade Professionals: With the help of his trade professionals the foreign trader obtains the necessary technical controls and makes arrangements to deliver the goods. The goods are packed into containers and a packing list completed for each. The containers are then delivered to the Customs area while the Customs declaration is made. By this time the trader has also issued his invoice (international invoice) to the Lebanese trader, and, where necessary, the certificate of origin.

Customs: Customs complete their processes, make fiscal assessments, duties are paid and goods released to the shipper.

Shipper and Container Handler: The containers are loaded onto the container ship. The Container shipping company raises bills of lading and cargo manifests. The shipper also completes a bay planning exercise including discharging and recharging lists for each

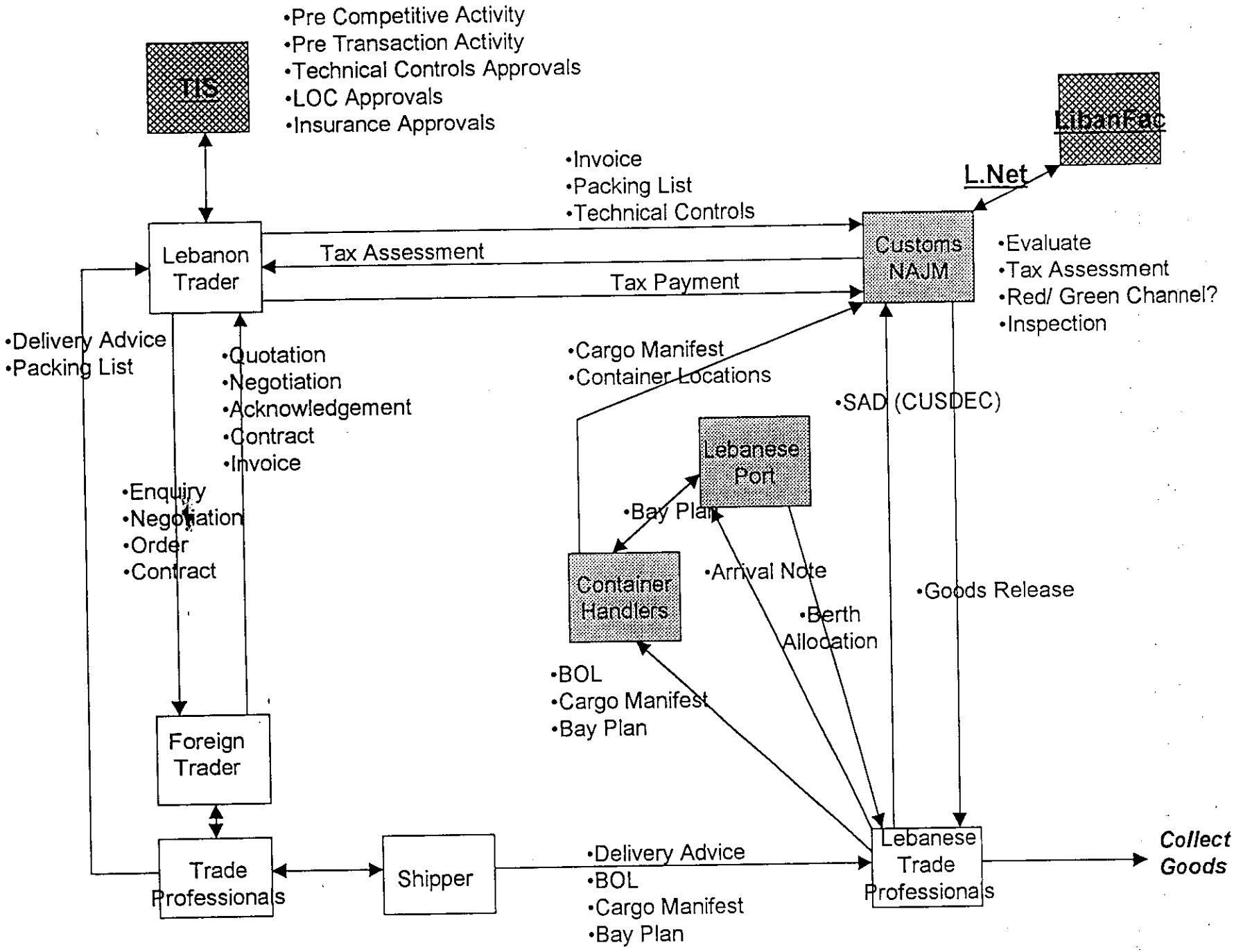

Diagram 4: Trade Process System Message Flow

port to be visited. They may also issue delivery advices for trade professionals, and the destination port/s.

At this stage, the ship is given permission to depart by the port and harbour authority and heads for Lebanon, either directly or indirectly. The trade professionals forward arrival details to their Lebanese counterparts or to the trader. The shipping company transmits copies of the bill of lading and cargo manifest to their Lebanese representatives.

5.22 Lebanese (Importing) Trading Processes

Lebanese Traders: The trader has already arranged trade finance and prepared all of the information and controls needed for a clean import. The Lebanese trade professional takes charge from here.

Lebanese Trade Professionals: Copies of cargo manifests are transmitted to Customs and the port/ container handler, prior to goods arrival. The bay planning detail is also transmitted to the port/ container handler. The port and container handler are informed of the arrival berth, and the shipping company informed.

Lebanese Customs: Customs receive a Customs declaration (SAD/CUSDEC), together with messages on invoice details, technical controls, bills of lading and packing lists. Where NAJM selects the green channel, goods are pre cleared for immediate collection on arrival, following payment of taxes and dues. Customs are now able to open a system to model the discharge of a ship's manifest and container discharge lists, before the ship's arrival.

Lebanese Container Handling and Port: The container handler company then readies appropriate equipment and storage conditions, and updates computer records.

The goods then arrive and are unloaded. Container locations are recorded and Customs informed of locations to match against manifest/CUSDEC details. Goods requiring Customs attention are identified by the container handlers. Those destined for free zone locations are also identified and removed to the free zone, without Customs intervention.

Lebanese Customs and Technical Controls: Where NAJM selects the red channel and physical inspection cannot be accomplished by post event auditing, then goods are submitted to the container scanner process, during which all relevant technical control and Customs inspection staff are present in the control room. Following scan inspection, the goods are released to the trader, after payment of taxes. There may, exceptionally, be a need for retaining the goods for special scrutiny, in which case they are removed to a Customs controlled area awaiting further action.

Goods are then delivered to the importer, or delivered to a storage location for transhipment or await collection for domestic use.

Wherever possible, all information is exchanged in EDI formats. Some may be exchanged in private or proprietary formats between trading partners and their suppliers/ trade professionals. It is implicit in the complete process that the exchange of electronic

information is facilitated by computers, that automatically collect national trade statistics and the data required to fulfill ministerial mandates on technical controls. Technical controls themselves are automated as far as possible, by use of risk management, pre approvals and post and pre event audits.

Properly implemented, this process will yield the target 48 hour clearance process, and ultimately less than 24 hours, in addition to achieving the other benefits resulting from transparency and off-line, off critical path, pre and post event activities. For a breakdown of the times taken in this new systems design, see **Diagram 5: The Re Engineered Trade Process System.**

Note that the stages "collection" and "delivery of goods" in this diagram is based on today's somewhat dated and under-equipped processes, using the existing road network, driving practises, haulage equipment, warehousing and distribution systems.

Significant improvements are possible, although specifically outside the TOR for this project. Nevertheless, at the appropriate points, recommendations will be made for a project to investigate and to recommend on the potential for road transport and logistic improvements in Lebanon, in a new re engineered multi modal transport and logistics system. For example, introducing road improvements, enforcement of road disciplines, the introduction of modern container haulage and handling equipment (outside the port container handling facilities), the introduction of regional container handling terminals, and a national hub and spoke distribution arrangement, including 24 hour operations by all concerned, major improvements are possible.

See sections on LibanFac for further details and recommendations.

Finally, Lebanese export processes can be taken to be very similar, if not identical to the Foreign export processes, from section 5.21.

How Information is Converted into an EDI Format and Sent to a Trading Partner

Assume that a foreign trading partner wishes to send an invoice to his Lebanese customer, using EDI. The trader's computer system raises the invoice in the normal way. Presumably product details are already on computer files, as are trading partner details (accounts receivable or sales ledger systems). Specific quantities of product, discount and trade terms added (including mandatory Arab region disclaimers) and self regulated inspection exemption approval numbers. Totals are accumulated and edit processes completed.

When the daily invoice run is processed on the trader's computer, then all electronic invoices (selected by partner/account number) are placed into an electronic "out tray". At a later stage the out tray contents are processed through a program that selects particular data elements (i.e. "fields" of data, such as date, product number, etc.) and places them in another "out tray", or storage location. Note that all data elements do not need to be selected. If invoices are to be sent electronically they do not normally require the postal address of the sender to be included, for example. Similarly, invoice standard

terms and conditions have been pre agreed by a Trading Partner Agreement, so they are not included.

When this subset of data elements has been completed it is run against another program that establishes the trading partner details, e.g. electronic addresses, any special communications protocols, EDI standards ands levels of standards sent and received, types of documents sent and received, security levels, electronic digital signature requirements, digital certificate requirements, encryption algorithms required, public /private key requirements, and so on.

Finally, all of the data selected is translated, electronically enveloped with communications and other information from the range described above, and sent to an outbox awaiting transmission.

At a pre agreed time, often during the night when off peak telecommunication charges care at their lowest, the computer sets up an electronic connection with their VAN supplier. After acknowledgement and appropriate handshaking, the file of translated messages is transmitted to the VAN, where it is deposited into the foreign trading partner's own mailbox.

Prior to depositing the file into the mailbox, identified by an electronic address in the file header, the VAN computer system validates that all of the messages contained in the incoming file are from a registered, valid source. It also checks that the trading partner destination addresses are valid, that the message types and standards, and standards levels, are also valid. Only after this process is successfully completed does the file transfer take place. Any mismatches cause the whole file to be rejected, for repair or correction.

When the file is deposited into the destination mailbox then a real time sweep program reads the destination trading partner addresses and distributes them into the correct trading partner' mailboxes in the VAN. If there are some messages that, legitimately, need to be switched to another VAN, they go into the VAN outbox for onwards transmission.

The Lebanese trader now has messages awaiting his collection in his own mailbox. The process of receiving an EDI message or file of messages s the inverse of that described here. This process, although using an international invoice as an example, is virtually identical for all incoming and outgoing message types sent electronically between trading partners.

The complete process typically takes less than one minute. Over 95% of all EDI exchanges take place by normal dial up connections. By some estimates, over 65% of all world trade already takes place in this manner.

With the addition of appropriate software at each end, the Internet is also perfectly adequate for most of the basic VAN tasks.

The trading partner software that facilitates this process is called an EDI Translator. The VAN has its own proprietary software, although standard interchanges between VANS

generally utilises an ITU standard, X.400, since it helps preserve an audit trail between VANS.

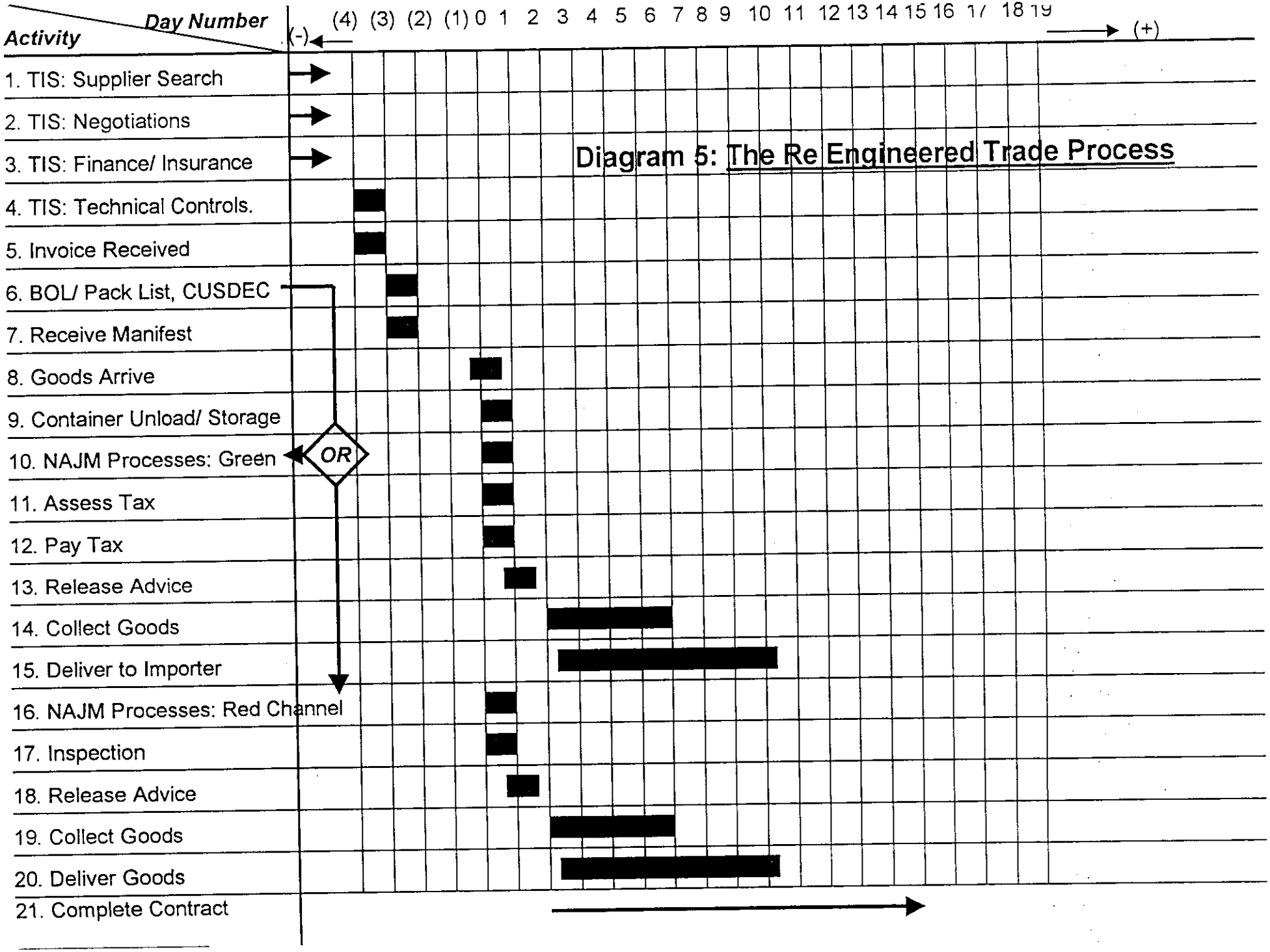

Diagram 5: The Re Engineered Trade Process

6.00 STATE OF READINESS

Before looking at the details of each of the recommendations, it is worth repeating, once more, that the scheme so far presented represents a vision for the ultimate system that will be operating in Lebanon one day. That it will be installed at some stage is beyond debate; the only real question is "when?" In order to place that statement and question into some perspective, and therefore to give the reader some confidence that this report is not an academic paper exercise, but is a deadly serious attempt to prove that it is possible, it will be worthwhile to review the state of readiness of the participants. This section complements earlier comments on "what we can build on".

By "the participants" we refer to:

- Overseas/foreign trading partners
- Foreign Customs
- Foreign technical controls/authorities
- Foreign ports, harbours and container handlers
- Foreign trade professionals
- Foreign technology infrastructures
- Lebanese Customs
- Lebanese technical control authorities
- Lebanese ports, harbours and container handlers
- Lebanese trade professionals
- Lebanese logistics organisations
- Lebanese banks, financial institutions, insurance companies
- Lebanese traders
- Lebanese technology infrastructure

Clearly, it is not possible to make judgements except in overall terms. There are literally thousands of potential and actual trading partners although, from the Ministry of Finance's statistics on letters of credit, it appears that around 450 Lebanese traders represent over 70% of Lebanese trade. Applying Pareto's Law to those figures shows that there are approximately 2000 regular Lebanese traders. Naturally, it can be argued that these figures represent value, not volume. But for the sake of argument, they appear to be a reasonable starting point. Nevertheless, they are not all regular traders; there must be a reasonable amount of "churn" in these assumptions. Hence there are probably around 5,000 active and occasional international traders in Lebanon.

Note: This figure of 5,000 does not fairly reflect the number of companies directly supporting the import/export trade. It more accurately reflects the number of entities that deal direct with Customs for import and export. These include trade professionals, who may total 700-800. There are over 500 in the Beirut region alone. Merchants and the larger, more competent direct importer/exporter comprise the remainder. The number of companies that they represent could be as much as 5-10 times the "regular trader" figure.

6.10 Selecting Foreign Electronic Commerce Trading Partners

There are about 220 potential different countries that can trade with Lebanon, although MOET statistics show that the majority of trade is with about 20 countries. Once again we can apply Pareto's Law.

In general terms, the more advanced the economy, the more EDI and electronic commerce has penetrated their trade systems. Aggressive trading nations such as Singapore, Taiwan, Hong Kong, Australia and New Zealand have had national initiatives to encourage the uptake of EDI for the trade process, or trade facilitation, for the last 10-15 years. In fact "trade facilitation" has long been accepted as the generic term for the electronic trade process. "Trade efficiency" is a term that is now being promoted by UNCTAD. So far, the concept is rather academic. It includes the pre competitive and pre transaction stages of trade, trade transactions and the banking, finance, insurance and transport/logistics sectors. Many of these sectors are outside the sphere of influence of the UN and UN agencies. They are driven by private sector requirements and do not easily conform to public sector ideologies. Advanced trading nations have been pursuing their own national versions of trade facilitation and trade efficiency systems since the early 1980s. In addition to those mentioned above, countries such as Ireland, Finland, Poland and Hungary and some African and South American countries have established national initiatives, often based on public sector start up financing and participation. The more advanced countries have based their initiatives on providing incentives to the private sector. This often results in "port centric" initiatives, such as in the USA, Canada, the UK, Germany and France.

The most advanced trading nations with the most developed trade facilitation systems, with the best technology infrastructures and those most aware of potential benefits are clearly those from North America, the EU, and some Asian countries such as Singapore, Hong Kong, Taiwan, Australia and New Zealand. In overall terms, the UK is the most advanced. Much of the initiative for EDI standards came from the UK, particularly for international trade. The US has largely concentrated on domestic standards, particularly for the supermarket industry, retail, auto manufacturing, transportation, domestic banking and latterly, defense, health and federal Government systems. They are a late entrant into the EDIFACT world, although they are now enthusiastic practitioners.

So the most likely early participants in international trade partnerships are Governments, technical control agencies and the private sector trading partner communities from:

- The UK
- Germany
- Holland
- Scandinavia
- The USA
- Canada
- Singapore
- Taiwan
- Hong Kong
- Australia
- New Zealand

The most advanced ports, harbours and Customs communities, and by association, technical control regimes, are from:

- Felixstowe
- Southampton
- The Port of London
- Hamburg
- Le Havre
- Rotterdam
- Marseilles
- East coast ports in the USA, plus Atlanta
- East coast ports in Canada
- Singapore
- Port Klang (Malaysia)
- Taipei (Taiwan)
- Hong Kong
- East coast China ports
- Dubai
- Auckland, New Zealand
- East coast Australian ports

Airports with advanced systems include:

- Schipol, Amsterdam
- Frankfurt
- Heathrow
- New York
- Chicago
- Atlanta
- Los Angeles
- Singapore
- Kuala Lumpur (Malaysia)
- Hong Kong
- Taiwan
- Tokyo
- Osaka

The technology companies are overwhelmingly headquartered either in the USA or in the UK. Of course, there are other companies in other countries but the international efforts are driven mainly from those two centres, principally because of language. English is the language of trade and of electronic commerce.

Note: a corollary to this statement is that there are , as yet, no Arabic versions of EDI standards nor relevant technology products. Early adopters will need to be capable in English as a result. Moreover, it is most unlikely that any pilot foreign trading partner, outside the Arab trading nations, will be prepared to trade using Arabic standards, even if, and when, they do exist. The first Arab region UN/EDIFACT co- ordinator is based in Iran.

So the first sets of trading partners should come from those countries mentioned above, from those ports and airports. One of the first rules of electronic commerce: do your learning with someone who has already learned the lessons of electronic commerce!

More detail on overseas/foreign experiences is contained in the two volume World Bank publication: IT for Competitive Advantage. In addition, the web sites referenced contain a great deal of information about the current status of international electronic commerce for trade facilitation and trade efficiency. See particularly SNS, Tradegate and IAPH for practical experiences and current information.

A later section of this report will detail current best foreign and overseas practise.

6.20 Selecting Lebanese Trading Partners

Customs is the most experienced public sector agency and will undoubtedly lead early efforts to implement the next stages of electronic commerce for trade facilitation. The container handler organisation is also critical and must be expected to play a leading role, subject to further knowledge of plans, and performance level agreements.

The MOIET is by far the most experienced of the technical control agencies; the installation of a Government Intranet as recommended in the recent IT study can only help. The Chamber of Commerce is lagging a little but it should not take too much effort to catch up. A proportion of the 450 or so major traders have enough experience, resources, motivation and potential to benefit to become highly motivated early adopters. This project evinced sufficient evidence to be confident of the enthusiasm of Lebanese traders for the idea.

Some shipping agents have a little experience with electronic trade facilitation; one or two other trade professionals also have some experience but that sector cannot be relied upon to be in the vanguard of early adopters. The same is currently true of the road transport sector, although an enlightened self interest could soon change that situation.

The banks are currently installing a WAN for inter bank settlement but cannot be expected to pioneer any of the trade facilitation pilots. The same is true of the insurance companies. Perhaps it is unfair to characterise whole industries in this way but, nevertheless, it is painfully true that banks and insurance companies, the world over, have never been in the forefront of electronic commerce initiatives, especially in the international trade arena. Special, local, considerations may possibly make a difference but, the Central Bank apart, it seems unrealistic to count on either of these industries for anything other than enthusiastic observation.

Hence Customs (NAJM), the container handlers, some traders and a couple of shipping agents will become the pioneers, or early adopters of electronic commerce based trade facilitation. The MOIET will become the key technical control agency, supported at a second stage by the Beirut Chamber of Commerce.

Most Ministries and most trade professionals will have some way to go before they can fully participate.

6.30 Pioneers

So we are able to see who the early adopters might be, and who they might trade with using electronic means. The actual selection, prioritisation and timing will, of course, be subject to the implementation planning phase. Nevertheless, it is clear that there is already something to work with and to plan on.

The biggest gaps are in the technology infrastructure. There is virtually no relevant local experience of electronic commerce for international trade facilitation. There are very few products, none of which are in use in Lebanon today. Additionally, there is only one VAN, which has no customers, no experience and very little in the way of resource.

Internet capabilities are marginally adequate for the task, and will no doubt adapt very quickly, but the international nature of the trade process demands experience, which is just not currently available in Lebanon.

Finally, and crucially, there is no management experience or project management experience for projects of this magnitude, with the obvious exception of NAJM.

These technology gaps must be filled if the plan is to succeed. There is much less doubt about users and trading partners.

7.00 DETAILED RECOMMENDATIONS

This section looks at specific recommendations for each of the (future) main players in the re-engineered systems for the Lebanese international trading process. It also provides an overview of suggested implementation steps, as an illustration of the way that the project may be managed. Naturally, these steps have to be agreed and refined as this plan evolves. For the purposes of this section of the report, the six major groups of participants discussed are:

1. Traders
2. Trade Professionals
3. Customs
4. Ports, Harbours and Container Handlers
5. Technical Control Agencies
6. The Implementing Agency

Each of these will be covered from the perspective of what it is necessary for them to do in order to achieve competence in the electronic trade process. Because of the chosen sequence and because many of the recommendations will actually cover more than one of the participants, recommendations will be summarised at the end of this section.

Section 8 IMPLEMENTATION AGENCY will include a coverage of the major supporting sectors and other issues of importance to the primary group. That will include:

-Technology
-Legal Issues
-Payments
-Training and Education
-Banking, Finance and Insurance
-Transport and Logistics
-SMEs
-Trade Promotion and Export Development

7.10 The Lebanese Trader

The prime objective is to help upgrade the skills and capabilities of Lebanese traders, to enable them to make a greater contribution to the economy, to increase the volume of trade of the Republic, to increase exports, to develop substitutes for imports and to create more employment. The strategy suggested by this report is to provide the means and the incentives to ensure that all Lebanese traders ultimately become electronic commerce-capable, especially for international trade.

Clearly, this is not an insignificant task, so the first action is to prioritise those traders who will benefit most and who will provide the leadership and models for others to emulate. In practise, this means that we first select around five of the most suitable traders to undertake the first pilot. The next stage will be to raise the number of participants to about 50 and then to implement a roll out plan for the next 200-500. This will take about five years, until the core group, that is the majority of Lebanese

international traders, are technically competent and able to trade electronically. The actual selection and recruitment criteria will be a function of the implementation plan.

The next task is to select the first document to turn into an EDI/electronic commerce message set to exchange with the lead agency in the project. Assuming that, for the first phase of the project, Customs is the lead agency, then the obvious message to target is CUSDEC, and DTI for the existing SAD. Thereafter, the choice becomes a matter for consensus. From an objective viewpoint it should be the international invoice. However, the cargo manifest may be of more overall value, so that would suggest that shippers, shipping agents, the port and the container handling agency would be next group, rather than a second document from traders. Yet a third option is to do both and to overlap two pilots; there are also variants on this approach.

Whatever the decision of the implementation agency and the implementation team, the next message for traders is almost certain to be the invoice. Packing lists, bills of lading and payment orders/electronic payments are likely to follow. This is at least a five year plan.

There is another set of considerations. It may be decided, after proper discussions and negotiation with traders, key players and the implementation agency, that it is better to pilot the total message set with a small number of traders first. And only when all of the problems have been ironed out with this pilot group do Customs and the other participants open up the system to a wider group of traders.

This latter approach is more elegant and more likely to yield faster results. But it will exclude the vast majority of traders for quite a while. This is likely to prove difficult to justify in the Lebanese environment. Once again, this requires a full plan, democratically agreed by all key players.

7.11 Technology

The basic technology requirements for an electronic commerce compliant trading partner include:

1. A computer (W95 capability upwards; Y2000 compliant software). Unix and other currently supported operating systems are also generally satisfactory. Apple Macs, if they are of current vintage, are also acceptable, but have some limitations.

Note: DOS, in any version, is no longer recommended.

2. A modem or more sophisticated communications device, together with appropriate communications software.

3. An EDI translation package, with mapping and security capabilities. The package must support UN/EDIFACT at the current levels (D98B) and at least three years of previous levels. Its vendor and support organisation must commit to consistent, prompt reaction to the twice yearly standards update and changes.

4. A VAN, or appropriate network connection. This will, as a matter of practical necessity, include an Internet electronic mail connection, used for support and communication with the implementing agency and project managers.

   Note: If the Internet is chosen as the EDI transmission medium, then an encryption and acknowledgement package will be required, at each end.

5. Training and education in the use of the VAN and EDI software (three to five days for selected personnel).

6. Dedicated, and backed up, personnel. This is obviously more important for early adopters than for later entrants, who will, by then, have a support infrastructure to call upon.

7. A reliable vendor of software and support.

8. Well established relationships with electronic commerce-compliant foreign trading partners, with Lebanese trade professionals and with Customs. Once again, this is more important for early adopters than for those who follow.

7.12 What to Look For in a Pioneer

Correct selection of the initial trading partners is vital. Mistakes in selection can take years to overcome. With the public sector it is different where there is the potential to compel compliance. With the private sector, there is always a choice. Some of the factors to look for in pioneer trading partners include:

-Competence; it is important to minimise "learning on the job" for the pilot phase.

-Motivation; the desire to be the first and to be seen as a leader.

-An awareness of the benefits, apart from the PR value of being first. These include becoming an electronic extension of a trading partner's business: a preferred, trusted trading partner. They also include, ultimately, cost savings, efficiencies and the ability to do more with the same resource.

It also means extra costs to begin with, and the need for extra resources, together with some distractions from the main business of the enterprise.

-An awareness of other applications of EDI and electronic commerce: for example the use of the Internet for buying and selling, integration into a Quick Response distribution system, connection with local and regional traders for supply and distribution, etc.

7.13 Costs

The costs of electronic commerce/EDI are not normally a major impediment to adoption; they are more than outweighed by benefits, such as cost reductions, efficiencies and more business from EDI-capable customers.

Assuming that a typical trader has to buy everything from scratch, which is not necessarily the case. The costs fall into two parts, one off, i.e. start up, and repetitive costs.

One off costs include:

A computer, modem, basic application software.	$5,000
An EDI translater program.	$5,000
Mapping, say five documents in total.	$7,500
Training, two people, total	$5,000
Mailbox and VAN registration	$1,500
TOTAL ONE OFF COSTS	$24,000

Repetitive costs depend upon volumes, typically	$250 per month
Monthly support costs, say	$250 per month
TOTALS:	$24,000 one time
	$6,000 per annum

In practise, EC/EDI costs are likely to be considerably less than those itemised here. These are just a guide at this stage. Since there is no local price list, and no local competition, prices are the source of conjecture. However, later proposals concern the technology infrastructure, which may give a better guide to supplier pricing. In other countries it normally costs about $7,500 one time (on average), and less than $5,000 per annum for repetitive costs, per trader.

Once the pilot phases are complete and the process becomes a production commodity, then a per transaction levy of $100 will apply. So that every time a trader clears a consignment through Customs and logistics the implementing organisation makes a charge of $100. This is a temporary charge to cover the costs of technology.

Bearing this levy in mind, and assuming that the Government initially fund the technology, then there may be no other charges.

Additionally, smaller traders may wish to use the TIS (Trade Information Service) clearance service instead of investing in their own technology and staff. The TIS will offer a clearance bureau service for a "per transaction" fee. See section 7.50 on technical control agencies.

7.14 Inhibitors

There are some inhibitors to the adoption of EDI and electronic commerce by traders. There is the normal resistance to change of any sort; there may be resistance to costs and an unwillingness to be first. The additional skills required are not a small issue and may cause negative reactions. The fact that this is likely to be a Government initiative-if it is to be solely a Government initiative–would be a serious inhibitor. However, many traders are aware of the uptake of electronic commerce in its wider context; many of them already send and receive orders via the Internet. Most of the major international

traders have heard of, spoken to or have seen examples of electronic commerce for trade facilitation. In the event, neither costs nor the effort involved is likely to be a serious impediment to early adoption.

Ownership of the technology, management of the facilitation effort and the selection/priority processes will cause more problems. More on this topic in the section on the implementation agency.

There are numerous issues resulting from the current legal code and regulatory regime in Lebanon. Clearly, a dramatic overhaul is necessary covering existing regulations and prohibitions (technical controls) and the current legal trading environment. This would soon become inevitable, notwithstanding the requirements of the trade process reform proposals. Section 8.00 disusses legal options and requirements.

7.15 Recommendations

Assumptions: That LibanFac is financed by the Government (see Section 7.60) and that LibanFac and TIS (see Section 7.50) are established as described in this section. That an Implementation Plan is completed and that LibanFac takes overall (project management) charge of the implementation project. That Customs implements EC/EDI, risk management modules and revised physical inspection procedures. That the port and container handlers implement their part of the trade process reform project.

Recommendations:

i. *That five traders are recruited as pilots for the first phase of the trade process reform programme. That their first trading partner is Customs, with the CUSDEC message set, supported by DTI.*

ii. *That the second trader message is the international invoice.*

iii. *That the first five traders complete the implementation of all five major messages, with Customs, before any other traders or groups of participants are admitted to the pilot programme.*

iv. *That the roll out of the Libanfac programme next encompasses 50 traders, thereafter 200-500 traders.*

v. *That UN/EDIFACT is adopted as the message standard and that Lebanon, through LibanFac, becomes an active member of the UN/EDIFACT process.*

vi. *That a suitable vehicle is established or chosen to enable communications between the pilot traders and Customs/ LibanFac, for example the Chamber of Commerce*

vii. *That trader's professional representative organisations (e.g. Chambers of Commerce, Industrialists, Merchants, SME organisations, etc.) become stakeholders in LibanFac.*

viii. *That, as soon as possible, TIS becomes a participant in the pilot in order to develop clearance facilities for SMEs.*

ix. *That the training courses to be developed/commissioned by Customs include special modules for traders.*

x. *That, through LibanFac, traders participate in the design of re-engineered work practises with Customs, trade professionals, the port and container handlers, and the technical controls agencies.*

xi. *That traders participate in the development of a Lebanese Trading Partner Agreement (TPA) with the LibanFac stakeholders. That this work also covers the general legal trading requirements of an electronic trading environment and the background for a revised technical controls agency.*

7.20 Trade Professionals

The objective for trade professionals is that they become a smaller, more highly qualified and more effective group in the facilitation of international trade. That they begin to offer multi faceted services to their clients, encompassing a wider range of professional services. That they begin to offer value added services for specific sectors of the economy and for niche industries. That they become part of the solution rather than part of the problem of the trade process. That they play a leading role in the transparency aims of this project. That they play a full and active role in eliminating informal payments and unnecessary delays.

The technology component of these recommendations is that they become EC/EDI capable, exactly as the traders plans have been described in Section 7.10. The technology and costs are much the same for both traders and trade professionals.

The selection of the early trade professional participants depends on Customs and the early EC/EDI adopting traders, in addition to LibanFac. The message sets will begin with CUSDEC and DTI, thereafter the cargo manifest and release notes. They will extend to bills of lading and packing lists. They will be further extended by freight consignment notes, freight and carrier enquiries, bookings, confirmations and payments. In addition, trade professionals may become the (private sector) focal point new technology technical controls, depending on their reactions to the new climate created by the developing trade process environment.

The key to the participation of trade professionals in this programme is a new, formal training course, run by Customs. This course will, ultimately, become the basis of formal Lebanese tertiary qualifications in international trade facilitation. Course attendance, and qualification, will become mandatory for all Lebanese trade professionals. From an agreed date, Customs will not process submissions from any trade professional who has not qualified at the Lebanese trade professionals' institute. A trade professional will also need to be registered with his professional organisation; NAJM will be upgraded to contain a profile of all registered trade professionals. This NAJM feature will be an integral part of the Customs risk management system. By evaluating a trade professional's history as well as a trader's history, product risks, importing/exporting

country risks, carrier risks and seasonal and special factors, together with an automated technical controls regime, Customs can automate approvals with a much higher confidence level.

Finally, the trade professionals national organisation needs to play its part in this process. Self certification and truly professional, policed and enforced self-regulation will become crucial in the new era of IT facilitated trade processes. This will be as important for foreign clients as it is for Lebanese clients.

7.21 Technology

See 7.11

7.22 What to Look For in a Pioneer

See 7.12

7.23 Costs

See 7.13

7.24 Inhibitors

See 7.14. In addition to the generic inhibitors itemised in the Traders section, the requirements for education and training, certification and self regulation are certain to cause some dismay and adverse reactions. However, the present environment has been discredited and proven to be inefficient. These recommendations merely place Lebanese trade professionals at the same level as those in the more advanced trading nations. Ultimately, implementation of these new requirements will be to everyone's benefit.

The previous section touched on the restrictions caused by the current legal environment for trading. The same applies to trade professionals. There are numerous issues resulting from the current legal code and regulatory regime in Lebanon. Clearly, a dramatic overhaul is necessary covering existing regulations and prohibitions (technical controls) and the current legal trading environment. This would soon become inevitable, notwithstanding the requirements of the trade process reform proposals. Section 8.00 disusses legal options and requirements.

7.25 Recommendations

Assumptions: That the Customs training institute is established, as discussed in Section 7.30, and referred to in 7.10. That Customs implements EC/EDI, risk management modules and revised physical inspection procedures. That LibanFac is financed by the Government (see Section 7.60) and that LibanFac and TIS (see Section 7.50) are established as described in this section. That an Implementation Plan is completed and

that LibanFac takes charge overall control (project management) of the implementation project. That traders, the port and container handlers implement their part of the trade process reform project.

Recommendations:

i. *That the Customs training institute establishes a syllabus for the training and certification of trade professionals. That this training regime encourages an industry and functional rationalisation. That the syllabus includes sections on overseas/foreign trading partners' systems, their cultures, the English language, business practises, new supply chain management and IT based practises, specific messages needed for clearances, basic computer awareness and skills, keyboard skills, legal aspects of new procedures, technical controls, risk management, audit and control processes.*

ii. *That the trade professional's industry organisation becomes an active member in systems development, in piloting new applications and results evaluation. That they become stakeholders in LibanFac.*

iii. *That Customs and trading partners actively encourage knowledge sharing and skills enhancements through this course, study tours, conferences, seminars and workshops.*

iv. *That participants actively co-operate in order to enhance the status of this course until it becomes a tertiary standard, first for Lebanon and then for the region, thereby potentially generating export revenues.*

v. *That, through LibanFac, trade professionals participate in the design of re-engineered work practises with Customs, traders, the port and container handlers, and the technical controls agencies.*

vi. *That trade professionals participate in the development of a Lebanese Trading Partner Agreement (TPA) with the LibanFac stakeholders. That this work also covers the general legal trading requirements of an electronic trading environment and the background for a revised technical controls agency.*

vii. *That at a second phase, trade professionals participate directly in the EC/EDI message exchange with traders, Customs and the port/container handlers.*

7.30 Customs

The objective for Customs is to develop their clearance systems, their inspection systems and their computer systems to the point where a 24 hour clearance, whether for red channel or for green channel, is regarded as exceptionally long. Additionally, to ensure that Customs becomes a benchmark for efficiency in the Lebanese public sector. Further objectives include full compliance with the Kyoto convention and the adherence to measurable performance in terms of transparency, integrity and consistency of the application of Lebanese trade processing rules.

The outcome must be reduced clearance times and an elimination of "informal taxes". A simplified technical controls regime, together with a streamlined Customs declaration and information handling system must also lead to a reduction in inhibitors to clearance facilitation and a simpler, and transparent, fines regime.

Customs is the key agency in the trade processing regime. It is on the critical path, along with the port and the container handlers. No other participants in the re-engineered trade process are on the critical path of goods clearance and movement through the import/export logistics facilities.

NAJM is just the start. Customs will need to adopt EC/EDI in order to become, ultimately, a paperless operation. It will need to re-engineer work practises in the goods clearance and inspection process, leading to a significant rebalancing of work between a much reduced number of Customs officers.

Customs will need to adopt pre- and post-event auditing as an integral part of their clearance processes. In moving toward new Customs practises it will also need to embrace the WCO objectives of integrity and consistency of rules application.

As part of this migration Customs will need to either develop or to acquire a risk management software module. This software module can be integrated with NAJM or may be either a pre- or post-processor to NAJM. There is likely to be some design and coding necessary for this project, although the first risk management packages are now appearing on the market.

Most important to the success of the new systems approach is the conversion of the Customs' mindset (and that of the public sector's in general). In the new culture, traders are "clients"; Customs provide a service to these clients. Clients are entitled to expect service. Developing this hypothesis, under the new container handling contract, Customs will operate-exclusively-outside the port gates. Free zones will become true free zones, operating outside the control of Customs and security, unless goods move through the gate. Trans shipments will be subject to the irreducible minimum of controls, consistent with Customs' mission and international trading agreements.

A significant change in the physical inspection process will be the introduction of container scanners, outside the container handling area. These devices enable full inspection of sealed containers, in just a few minutes per container. Together with risk management techniques, pre and post event auditing, traditional physical inspections at the port gates will become an extreme exception. The technology allows all Customs officers and inspectors, all technical control personnel and observers, to monitor scanned images of container's contents, together with programmable multi media facilities. These facilities enable drugs, armaments, etc. to be detected and then to set off audible alarms, to display specially coloured images and to generally draw unmistakable attention to the presence of unwanted imports. At the same time, using EC/EDI techniques, full trade documentation can be displayed in the control room simultaneously with the scanning process.

It will be evident that attitudinal change will be vital to the success of these recommended systems. To that end, it is suggested that Customs follow an emerging

trend and establish a Customs training institute. The prime mission of this institute is to help retrain Customs personnel in the new processes, to inculcate new attitudes in order to become a service oriented, customer focussed organisation. Additionally, this institute will be used for training and retraining (and certifying) trade professionals, and for educating traders. Ultimately, this training institute may become an international trading University. The international trading process is too important to be left to chance; there is no reason why they should not be the subject of academic disciplines, leading to degrees and other qualifications.

Measurements of performance will be necessary, in order to measure improvements and to monitor cost/benefits. One suggestion is that Customs, and the trading community in general, adopt a TEI, or Trade Efficiency Index. The TEI can be made up of the number of hours/days to clear consignments over a given period, say weekly. Volumes of clearances can also be measured; the average number of clearances per Customs officer; revenue per Customs officer; proportion of red: green channel selections; effectiveness of risk management processes measured against pre and post event audit results, and so on.

An important extra element in the new system will be the approval of a "performance agreement" with the new container handling authority. This will specify and monitor the time taken to move goods into the Customs area, to notify Customs of container locations, to fully identify locations against a cargo manifest, etc. These issues will need to be specified and agreed in precise detail between Customs and the container handlers. They are crucial to the efficient discharging of manifests and the time taken to clear consignments.

Customs will need to become a stakeholder in LibanFac; they will need to play a leading role in TPA development, in redesign and negotiation of new work practises and in selection of message sets and pilots for the early adopter phases.

The NAJM group, or something set up in a similar fashion, will be the core Customs group charged with the implementation of these and other changes necessary for trade process reform.

7.31 Technology

NAJM will be the basis for the IT upgrades for Customs requirements. There are a range of options. For example, NAJM can be upgraded with an EDI ASYCUDA module to enable NAJM to send and to receive CUSDEC, cargo manifest, international invoice, bay plan, etc. Optionally, it may prove be more convenient and cheaper to install a front end processor/gateway for external communications, EC/EDI and access to the Government Intranet or gateway, and TIS. Decisions on the techniques to be adopted will be the subject of a separate Customs project, recommended in this report.

Note: For a systems schematic see *Diagram 8: Proposed Lebanese Trade Process System*, section 7.60.

Risk management systems and software will almost certainly have to be developed by Customs. There is only one known commercially available package; it is doubtful

whether ASYCUDA will have anything appropriate available for some time. The development options are to modify NAJM or to develop a separate front end or back end processor. An additional project to define risk management systems and to explore technology options should be part of the extra Customs project referred to earlier in this section.

The final Customs technology considered by the report is the container scanner. It is believed that two scanners will be adequate for Lebanese volumes and for back up. However, it will be necessary for Customs to confirm the correct technology, models, and work practises surrounding scanning. This work should form a third component to the separate Customs project referred to earlier in this section.

7.32 Success Factors

The key determinant in the success of the Customs component of trade process reform is the attitude that Customs personnel and management take towards reform. Hence, redesigned work practises based on electronic commerce techniques, and retraining, are crucial to the desired outcome. A service oriented mindset is central to the operations of a modern Customs and trade process regime. Therefore, the core staff chosen to undergo retraining and to operate the new regime, need to be carefully selected and tested for suitability. The role of middle management in Customs now becomes pivotal. They need to oversee and to manage the successful introduction of new processes, and to monitor performance. Performance will become the subject of evaluation and reporting under the TEI recommendation. TEI results and targets may-indeed should-play a role in Customs compensation in future.

7.33 Costs

Costs will be subject to Customs' own investigations and decisions. However, as a guide for budgetting purposes, the following are included, based on previous experience and external input.

Consulting advice, project expenses	$500,000.00
NAJM upgrades, EC/EDI module	500,000.00
Risk management module	500,000.00
Two scanners @ $1.5 million	3,000,000.00
Customs Training Institute	3,000,000.00
Initial Budget Estimates Total	$7,5000,000.00

Note: these are initial estimates only. They must be confirmed from the output of follow up Customs working party and consulting projects. The budget estimate for consulting and project work and for expenses necessary to confirm and modify these recommendations and estimates is initially set at $500,000. A full TOR and quotation process will be needed to confirm this figure.

Quotations for equipment and software supply, service, maintenance and training will also be necessary for NAJM upgrades, the risk management module and the container scanners. Prices will obviously depend on specification and timing, and will be subject to a separate TOR/RFI/RFP process.

The Customs training institute has a great many variables. It may be developed from scratch, with new buildings, new people and a brand new syllabus; it may be competitively quoted for by existing institutions. Or it may be one of a wide range of hybrid options. The figure of $3 million is taken from a similar, Arab speaking, Customs regime in North Africa. That figure is for the development of a training institute from scratch.

Therefore, as a budgetary estimate, it is recommended that a figure of $7.5-$10 million total is used for fully migrating Customs to the reformed trade process regime.

This estimates **do not** include any budget for costs associated with staff reductions nor for any other downsizing of Customs.

7.34 Inhibitors

In this case, inhibitors are the reverse of success factors (section 7.32). In addition, there is no guarantee that the investment to support these proposed reforms will be forthcoming. But without that investment there is a much reduced possibility of eliminating delays and informal taxes. Hence, very little likelihood of improving trade performance.

It will also be seen, in Section 8.00, that there is a genuine possibility of subsidising these investments, even to actually making an operational profit as a result, in addition to the national benefits that will accrue.

Previous comments about the legal and regulatory regime also apply.

7.35 Recommendations

Assumptions: That LibanFac is financed by the Government (see Section 7.60) and that LibanFac and TIS (see Section 7.50) are established as described in this section. That an Implementation Plan is completed and that LibanFac takes overall (project management) charge of the implementation project. That Customs implements EC/EDI, risk management modules and revised physical inspection procedures. That the port and container handlers implement their part of the trade process reform project.

Recommendations:

i. *That Customs set up a professional working group, similar to, or based on the NAJM project team. That this team investigate, confirm and refine, and finalise recommendations based on the recommendations contained in this report. That they employ appropriate external professional advice and help to transparently and successfully conclude this work. That this work also includes a component to identify legal contraints and to make practical recommendations for changes to*

the legal and regulatory code for facilitating legislation for an electronic commerce based Customs system, as described within this report and to be specified in detail by the Customs working party.

ii. *That Customs instigate a consulting project to redesign work practises, to rebalance work loads and flows, and to redesign staffing requirements based on the recommendations in this report, specifically electronic commerce based trading, physical inspection and risk management. Extra components to include interfacing with other participants in the trade process, and the Training Institute.*

iii. *That Customs implement container scanning processes, outside the port gates.*

iv. *That Customs processes all take place outside the port gates; that procedures for trans-shipment and free port Customs procedures are re-evaluated in the light of new practises and the requirements for speed, elimination of informal taxes, logistics, infrastructure efficiency, and national competitiveness.*

v. *That Customs implement an EC/EDI software module to facilitate paperless communications with traders, trade professionals, TIS (technical controls), the port, the harbour and container handlers.*

vi. *That Customs implement a risk management regime, based on a software upgrade/ addition to NAJM, pre- and post-event auditing and an automated technical controls regime (TIS).*

vii. *That Customs implement a Customs Training Institute for the education, training, retraining and certification of Customs officers, traders, trade professionals and other affected professionals directly involved with the trade process, and with trade process reform. That an export revenue potential component be built into the feasibility plan for this project.*

viii. *That performance management indices (TEI) are established: for internal monitoring of staff effectiveness and external comparisons against goals; for technical interfacing with TIS, with Government Intranet and gateway services, with LibanFac, and particularly with the port and container handling computer systems.*

ix. *That Customs become a founding stakeholder in LibanFac, that they become an integral part of the consultative process on interface standards, on EC standards, on TPA and legal issues, new payment processes, and on other associated working party topics initiated by the LibanFac organisation.*

7.40 The Port, Harbour and Container Handlers

The objective here is to assist the physical logistics infrastructure to maximise their ability to meet the redesigned trade process system's requirements for speed and information exchange. It is recognised that these institutions are operated as independent organisations and, as such, fall, outside of the direct mandate of this project. However, the recommendations in this report acknowledge and reinforce the

need for full integration and inter-operability beween the computer and communications system's of each of the players in the trade process system. These include Customs' NAJM system, including risk management and EC/EDI systems, especially for the electronic cargo manifest, bay planning data, booking, reservation, acknowledgement systems and payment and release systems. In addition, the technological integration of LibanFac and TIS are an important pre requisite for eventual, full system's integration.

It is further acknowledged that system's requirements specifications for each of these institutions may not yet have been completed, because of the early stage of the container handling operator's system's integration. It is assumed that the container handler's systems areat least on a par wuth those operated out of the port of Dubai and that the port systems are based, as anticipated by port system's staff, on the ASYCUDA-marketed ACS systems.

The role of LibanFac, as the bridge between the public and the private sector becomes important here.

This being the case, the infrastructure will operate to industry best practise; this needs considerably less than 24 hours for clearance and delivery to Customs. Container location is automated by the straddle cranes, particularly by container tag scanning or satellite scanning systems (GPS). Pre arrival electronic messages include bills of lading, cargo manifests, bay plans, delivery advices and a range of special messages (e.g. hazardous cargos, etc.). These are added to by port and container ahndling systems and passed onto Customs, some before arrival, some within a few hours of arrival.

7.41 Technology

There is no new technology required by the container handler; however, there may need to be changes to the priority and timing of the introduction and implementation of the software technology they already possess. The same is true of the port and harbour. There is bound to be a need for committee/working group participation on specifications and interface/timing reuirements for electronic messaging. From the commercial perspective, it is assumed that these are "sunk" costs, absorbed by the operators because of the commercial benefit to them. The same is true for more proprietary system's integration between the logistics operators and NAJM/Customs systems.

7.42 Success Factors

Cost is less likely to be a factor here. It is probable that the advocacy efforts of LibanFac and Customs executive and project management will be the critical success factor. The logistics operators need to be convinced of the national importance and of the costs/benefits to themselves in order to secure their commitment and co-operation in the whole process. Because of global trends and existing initiatives in other regional ports and with shipping lines, this effort does not reqwuire anyone to become a pioneer, merely to reconsider priorities.

7.43 Costs

There are no unplanned, extra costs involved here. It might be that some costs are brought forward because of a re-evaluation of priorities. Theremay be some unanticipated costs in connection with committee work, working parties and possible consulting efforts. In the main, these are seen to be "sunk" costs, or items already budgetted for within existing staffing levels and work plans. Any promotional work and/or trading partner recruitment will be significantly (but indirectly) subsidised by LibanFac.

7.44 Inhibitors

The main negative aspects of this part of the proposal are likely to be existing management plans and NIH. Management plans include internal budgets and staffing levels, priorities and personal commitments to stakeholders in their companies by senior executives. NIH stands for "Not Invented Here". It implies thatno one actually disputes the validity of a new idea but that, because it was not the original idea of certain key staff, there will be some emotional, less than objective responses to the changes requested. A carrot and stick approach will be necessary in this case, from LibanFac. The carrot will comprise incentives and a presentation of the benefits-at organisational and at the personal level. The stick, if required at all, comrises a reminder of the needs of the customer, and the details of agreements on performance standards.

To repeat what has been said in every other section; there are numerous issues resulting from the current legal code and regulatory regime in Lebanon. Clearly, a dramatic overhaul is necessary covering existing regulations and prohibitions (technical controls) and the current legal trading environment. This would soon become inevitable, notwithstanding the requirements of the trade process reform proposals. Section 8.00 disusses legal options and requirements.

7.45 Recommendations

Assumptions: That LibanFac is financed by the Government (see Section 7.60) and that LibanFac and TIS (see Section 7.50) are established as described in this section. That an Implementation Plan is completed and that LibanFac takes overall (project management) charge of the implementation project That Customs implements EC/EDI, risk management modules and revised physical inspection procedures. That traders and trade professionals play their part in the adoption and implemention of the trade process reform programme.

Recommendations:

i. *That the port implement the ACS system from UNCTAD for ship to trader control and tracking.*

ii. *That the port and the container handling authority agree performance standards concerning the electronic exchange of information and of timing requirements between Customs and themselves.*

iii. *That the container handling authority implement the electronic cargo manifest and the bay plan message sets.*

iv. *That the container handling authority implements the interface as requested between Customs systems and their own proprietary systems.*

v. *That, where feasible, container handling computer systems and port computer systems are "opened" to traders and trade professionals, as part of the open information exchange demanded by modern trade processes.*

vi. *That the port and harbour and the container handler become stakeholders in Libanfac and play their full part in the working party/committeee work required by LibanFac's mandate.*

vii. *That any statistics input required by the Lebanese Government is reported by way of TIS/ the Government Intranet.*

viii. *That the port, harbour and container handler authorities contribute toward syllabus and course development for the Customs Training Institute.*

ix. *That the port, harbour and container handlers help amend any facilitating legislation affecting their operations under an electronic commerce regime. That they participate in the wider work concerning the Lebaneselegal and regulatory environment, and the changes to be made to facilitate the new electronic commerce based regime.*

7.50 Technical Controls

Technical controls represent the Government's attempts to influence trade for the good of the nation, according to the mandate's of a number of individual Ministries and Government agencies. The systems by which approvals are applied for, granted, paid for, collected and applied-at both the point of import and export-have a significant impact on trade efficiency.

The technical control regime is the single part of the overall trade process that could be changed, to the benefit of all, independently of the full trade process reform programme. While acknowledging that to be true, this report recommends an integrated approach. The upgrading and automation of a technical controls regime would not, on its own, specifically reduce clearance times nor dramatically reduce informal taxes. It is only the integration and implementation of re-engineered systems that will have that effect.

The objective for technical controls is to devise a plan that will eliminate any delays in obtaining technical controls. The plan must take them off the critical path of trade clearances. It must simplify and cheapen the process for traders. Ultimately, the agencies responsible for issuing and monitoring technical controls must, like the trade professionals, become part of the solution, not part of the problem for trade clearances.

Approvals will, in time, become automated. Any subsequent physical inspection approvals process will follow the path set out for Customs, and will utilise pre approvals

and pre-and post-event auditing. All automated physical inspections will take place in a control room, where sealed containers' contents will be viewed, as part of the scanning process.

The information gathered for trade controls will form part of the input for an automated trade statistics regime, delivered to Statistics through a Government Intranet.

The technical controls skills and information base, after computerisation, will become the foundation for trade development and ultimately for export development, possibly export promotion. The vehicle will be a new Trade Information System (TIS). The TIS will become a revenue-generating and profit making agency, possibly in joint public/private sector ownership. TIS will operate to normal commercial working hours and conditions.

The regulatory regime, and the base of prohibitions and restrictions represented by today's paper-based technical controls will be rationalised, reduced, automated and then, as far as is possible, eliminated. This process will take place co-operatively, with all agencies, including private sector agencies concerned (e.g. the Chamber of Commerce), all public sector agencies (see section 3.00, pp. 44-47) and Customs. A separate follow up project for implementation planning will identify the steps, timing and sequence of each step in the process.

Implementing the TIS

"To start at the very beginning": Initiate a debrief and training/education programme to fully explore the potential of the TIS and its associated reforms. Arrange for a senior figure, or influential group in the Government to take ownership of the project, at Ministerial level.

Set up a working party comprised of all affected agencies (or their proxies, e.g. MOIET might represent Agriculture, for example). Customs, legal representatives for MOJ and a representative from the Chamber of Commerce, on behalf of the private sector may also be represented.

Agree a set of objectives, the work plan, timing and the content/format and measurables of outputs.

Select a single Ministry to become the pilot for evaluation and rationalisation of controls; the Ministry of Industry, Economy and Trade is an obvious candidate, based on their approvals variety, volume, experience and knowledge of computerisation.

MOIET and the working party to draft a memorandum for circulation to all agencies who issue technical controls. The memo to be signed by the Prime Minister, the President or the Council of Ministers. This memo to state that, from a given date (say 180 days from the date of the memo), all technical controls will be eliminated. The working party and Customs will entertain applications for the replacement or retention of technical controls against certain pre-agreed criteria. It will also state that the establishment of technical controls by Ministerial decree will no longer be acted on by Customs, without a new, approved instruction from this working party. In future, any decrees which affect trade

need to be evaluated by this group, or an alternative with the same function and responsibilities.

Working party then to agree on criteria for acceptance of retained or new technical controls. The control application must be in a standard format, for all agencies, payment methods and the method of calculation of fees must be standardised for all agencies. The content and layout to be based on mandatory data, preferred data and optional data, as per UN/EDIFACT syntax and protocols. These criteria to be based on a firm understanding of the principles of automating applications and technical controls, and of automating import and export approvals at the border, i.e. Customs points. Pre clearance and pre-and post event-auditing will be the guiding principles for the new systems design. Criteria, procedures and sampling methods to be drawn up for all pre clearances, pre-event and post-event auditing.

MOIET then sets up a one-stop shop for issuing paper-based controls. Controls will be created and stored on computers, and statistics and other data selected and delivered to appropriate agencies, overnight, by use of the Government Intranet and EC/EDI principles.

***Note:** It may become necessary to install a whole-of-Government Intranet to facilitate this process. However, the assumption is that OMSAR are already acting rapidly to install this Intranet, for other purposes, under previous Prime Ministerial approvals.*

Controls will be printed out on computer stationery and signed as presently. Fiscal stamps and duplicate signatures will be eliminated for this process. Any resulting revenue shortfall will be made up by an increase in approvals fees. In order to facilitate rapid payment, a MOF payment booth will be empowered to be opened on the MOIET premises, in the one-stop shop.

The next step may be to pilot credit/debit card payments for approvals. The ultimate payment objective is to eliminate cheques and cash for any Government payments. Telegraphic transfers, FEDI and stored value cards may also be trialed following the first credit card/debit cards, depending on the level of interest of the banks and the status of the inter-bank WAN. Ultimately, the TIS may become a node of this WAN, under contract to the Central bank, or an acceptable alternate contractor.

By this time the project may be into the second year of operation. Other agencies may now join the MOIET in a one-stop shop operation. It may now be timely to establish separate, special purpose premises for the technical controls issuing and monitoring agency (TIS). By the end of the project, all technical control agencies will have a presence at this one-stop shop, including the Chamber of Commerce. It will by now be operating to commercial hours, at least 8.30 a.m. until 5.00 p.m., and Saturday mornings. Out-of-hours operations may be considered, based on demand and potential for revenue generation. The location of the premises needs to be selected based on accessibility and parking.

At the same time as the range of agencies is being expanded and consolidated into a single location, and as payment options are being explored, the first web based approvals can be piloted. This involves a client completing a web based form (on a

merchant server (see Appendix on electronic commerce). Initially, the form will be electronically edited and returned for correction, as presently, does the NAJM DTI module. Corrected forms are then approved, given a pro forma approval number and returned to the client for printing out and signature. The client then attends the one stop shop in person and presents the form to a special fast track booth, set up for the purpose. The pro forma approval number is all that the approvals official requires for the issuance of a control form, which has already been printed out, awaiting the clients personal attendance. Payment is made and the client is then able to take his approvals away, in a minimal time.

This process will be complemented by a database of traders, whose details are gradually built up with application data. This data base will also form the core of the data for the automated approvals module. In time, traders will be able to submit their applications over the web, to sign them digitally and to receive approvals over the Internet, in few minutes, well in advance of the goods arrival or departure. Payment will by then be made electronically, by card, by FEDI, by TT or by direct debit, or by account from funds deposited and topped up , in advance (for approved, category one trusted trading partners, i.e. from the lowest risk category).

By now, systems will be integrated with Customs risk management and NAJM, through the Government Intranet or gateway. All approving agencies will be participating in the automated approvals and monitoring process. It is anticipated that this implementation process will take around five (5) years.

In addition to technical controls issuing, approvals and monitoring, TIS will have other functions. For example, it may offer a bureau service for declarations and clearances for SMEs who are unequipped for the purpose or who prefer, for reasons of economy, lack of skills or pure convenience to use TIS for the purpose. In that case, TIS becomes a surrogate Customs bureau; a place where TIS staff can create a CUSDEC (and other EC/EDI messages) and submit them to Customs for pre clearance. TIS may collect payment on behalf of Customs, as an option and after agreement between the two organisations. TIS will provide this service for a fee per clearance.

A further series of functions will include a range of pre-transaction information services. These services will be available to members of TIS, against a monthly usage amount and an annual minimum membership fee. Services may include, for example:

- *All agreed and updated technical controls; access to these may also be sold to foreign clients.*
- *All current Lebanese trade agreements; the World Trade Organisation requirements (GATT), the EU, Arab Free Trade agreements, and any other relevant agreements.*
- *Any available information on technical controls needed for trading partner's countries, for import and export.*
- *Value added services, for a higher level of membership-and fees-will include electronic brochures (web pages) for Lebanese traders. This service will include the design, upgrading, catalogue building, order taking, electronic payment, track and*

trace, data warehousing and statistics monitoring for any member of TIS. Call centre support is another option. This service may also include web hosting, or may be sub-contracted to a competent supplier. Foreign clients will also be accepted, possibly at a different fee regime. Other facilities will include secure ordering, secure inventory availability, secure price lists and secure payment facilities.

- *A similar service will be offered to foreign traders, or links for Lebanese traders to foreign trader's web sites.*

A further level of value added services will include a marketing data base, mailing-and electronic mailing-services, together with a range of research data bases. These data bases may include local and overseas/foreign freight availability, schedules and rates, capacity and availability, discounts and special offers and surcharges. The same will be true of insurance companies, rates, availability's, terms and conditions. Equally, trade finance details will be made available together with electronic LOC facilities.
In addition, electronic AWB for small shippers and couriers, track and trace systems for courier and parcel deliveries will be made available through the TIS.

Connections to electronic trade opportunities will also be made available. These will include ETOs from TradePoint (UNCTAD), Ibex from AT&T/GEIS, and Silk Road, plus other relevant, specialised opportunity sources.

A further service offered will include the ability for Lebanese mnufacturers and stockists to (exclusively) place their surplus inventory on TIS-designated web sites and to auction it to members. TIS will offer this service for a percentage of the sales value to the auctioning company, plus a basic membership fee. Ordinary clients/traders will receive this service for their enhanced membership fees.

At the technical level, TIS will transparently offer all relevant communications protocols, to enable access and interconnection to all web sites, all internet service providers, selected VANS and selected proprietary networks and the Government Intranet.

Members will be offered a hierarchy of fees, from basic membership fees, say $100-$500 p.a., depending on size/turnover, up to enhanced services at $1000-$2,500 p.a. depending on the range of services taken up. Additional fees and charges will accrue for web site development and hosting, secure services, auction services and out-of-hours service and support. This is in addition to revenue obtained from the issuing of technical controls.

The result will be a self funding-even profit making operation-offering cost-efficient and virtually instantaneous technical controls, with automated approvals, input and assistance to risk management systems for significantly less cost and less time than existing systems. And the TIS will offer full transparency; the opportunity for informal taxes will be much diminished, aand hopefully eradicated from this process.

Diagram 6: Proposed Trade Information Services Systems, illustrates the concepts of the TIS.

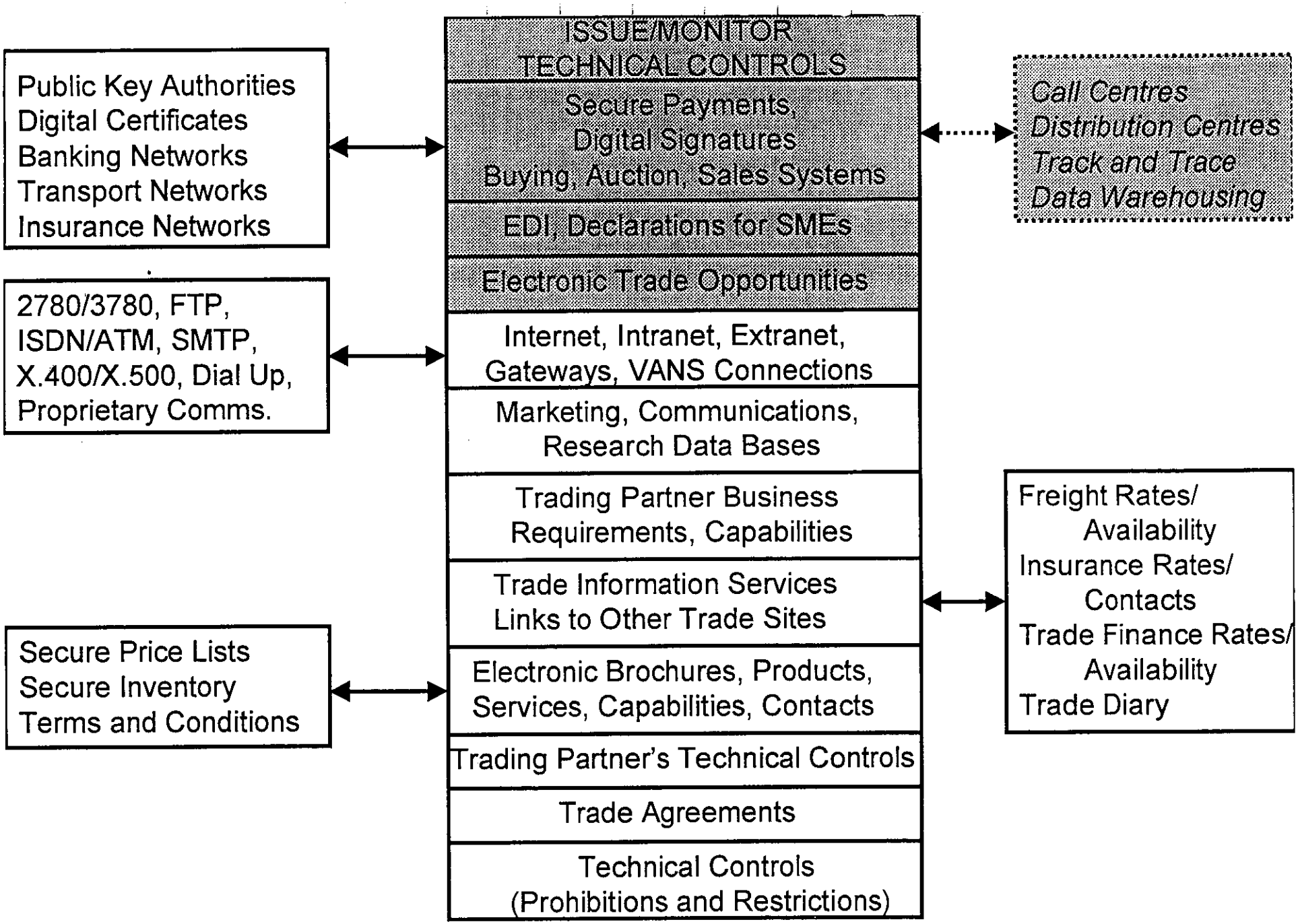

Diagram 6: Proposed Trade Information Services Systems

The automated approvals system need some explanation. This is likely to be the final stage of the system, and the most important to the completion of the technical controls contribution to trade process reform.

In order to automate trade approvals the client/trader completes his application form on the TIS web site. He submits it to the web site for approval. In real-time the TIS system reads the form, edits for mandatory data (e.g. trader name, risk category, i.e. TIS pre-allocated account number, date, product data, carrier, supplier details, etc). Similar checks are made for preferred and optional data, and against submission of electronic invoices, bills of lading, and any other messages required at this stage. Input will be compared to file data on the trader, the products and suppliers concerned and any other risk management information. At this stage the form can be rejected as incomplete or inaccurate, and a resubmission demanded. Or it can go forward into the risk management system, whereby each of the agency's computer systems concerned with this category of goods and trader, examines the data and compares it to their technical controls' requirements. The communications medium is an Internet or VAN connection to the TIS, through a security firewall and access password. The interconnection of technical control approvals systems is through the Government Intranet, possibly front ended by a proxy server, and firewall for security purposes.

Where the control application is interfaced with a CUSDEC, the approved messages go through the Customs CUSDEC/SAD and risk management system.

After all repeats for editing and corrections, and resubmissions, approvals for entry, exit and goods release are given, with electronic approval numbers. These are written to file on each of the computer systems concerned for subsequent approvals, for audits, for post event-auditing, etc. and for input to Statistics.

This overview is, of necessity fairly brief. It requires a complete implementation and project plan, and a follow up project to determine that plan.

Diagram 7: Schematic of Automated Technical Controls Approval System follows.

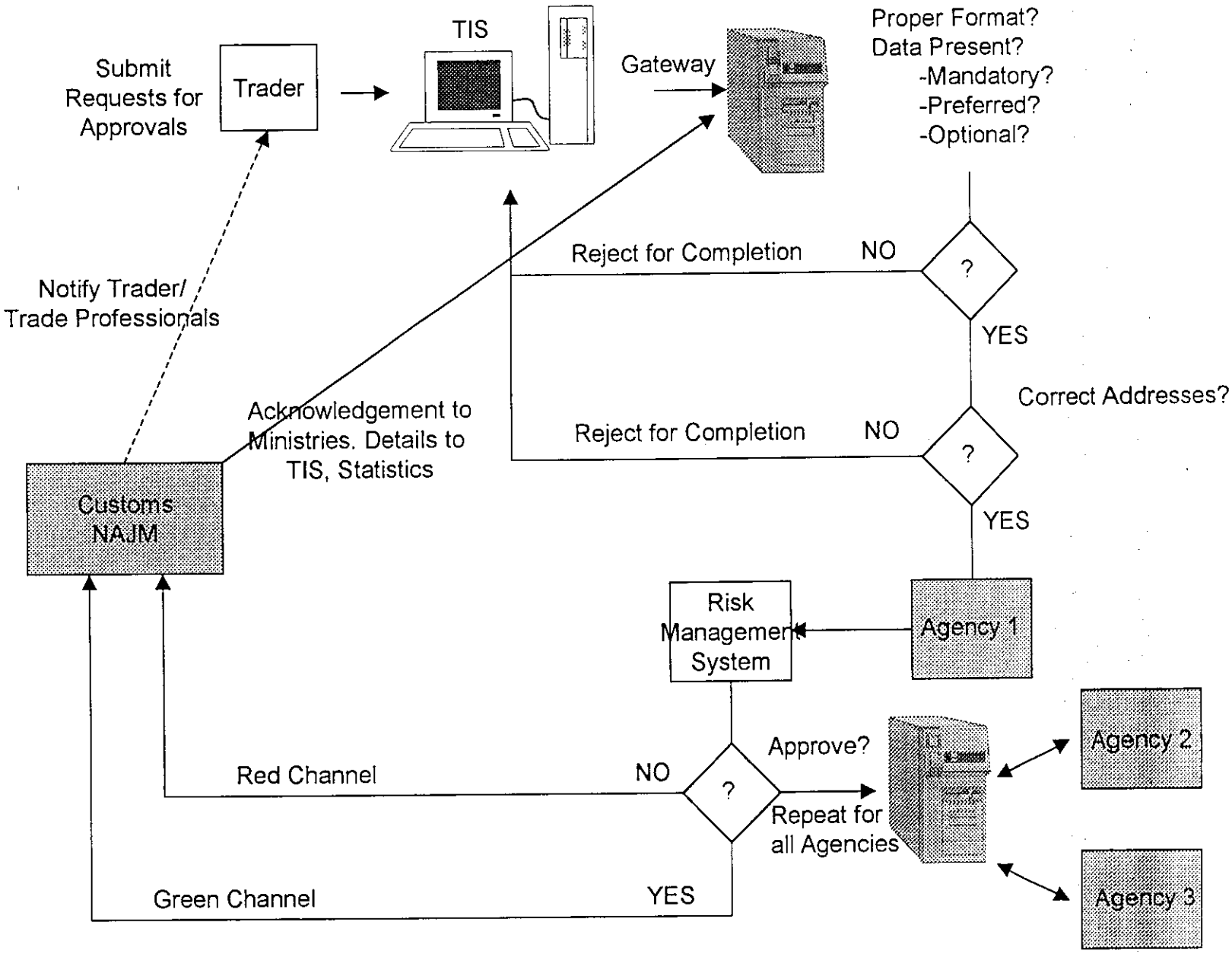

Diagram 7: Schematic of Automated Technical Control Approvals System

7.51 Technology

TIS will be based on an industry standard operating system, Windows/NT or Unix. It will require a Local Area Network (LAN) for operations within the TIS and connections to VANS and internet/Intranets. Other communication protocols needed will include 2780/3780, X.400/X.500, SMTP and any proprietary protocols needed to access Government systems. Dial up and ISDN are telecommunication options. At least 64K capacity will be required; probably much greater as the system's usage develops.

The system will require good log on security, firewalls, and access to pka for digital signatures and certificates.

Application software will be based on merchant or site server technology, with secure access for inventory, price lists and payment services. Good web site authoring software and data base/catalogue building software will be required.

Good archiving, audit trail, billing systems, client registration and data base systems will also be required.

An EDI module will also be necessary.

Much of the user data will be created by third parties or accessed through other network sites. However, there will be significant efforts required to build Lebanese data, for technical controls, trade agreements, trade information services, mailing services and so on. Some of this can be captured from existing sources; much will need to be created. Custom built data, such as electronic brochures, auction catalogues, etc. will be created at commercial rates.

7.52 Success Factors

The comments applied to Customs also apply here. For the TIS to be a success requires that the public sector mindset adopts a client/service attitude. This may be achieved by utilising the Customs training institute for TIS staff, although that is not a direct recommendation; it is a possibility. The operations of TIS must mirror the private sector working hours and work ethic. The more likely way to achieve this is, ultimately, through some form of joint venture between the public sector and the private sector. Hence, at some early stage in the development of the TIS it may prove necessary to agree on equity sharing and external management.

As the requirements for technical controls diminish, under the influence of the international trade organisations, and as trade becomes even more competitive, the role of the TIS will increasingly move towards trade development and trade promotion. This also needs to be taken into account during ownership discussions.

7.53 Costs

The costs of TIS will vary dramatically depending on the types of service adopted and the service demanded by the level of take up. As an initial estimate, the technology, which includes the hardware, operating system, network and communications (12-20 workstations), security and utilities will cost in the order of $100,000.

Merchant server software, secure options, firewalls, web site building utilities can cost between $100,000 and $500,000, depending on the implementation/customisation required.

Data base building, e.g. technical control requirements, trade agreements, etc. is assumed to be a function of the permanent staff of the TIS, as is the technology of web site building, catalogue development and maintenance. Some data bases may be bought or leased; others may be cost free access. The RFI process will provide more detailed information on what is commercially available and what is free, at thedate of tendering.

By the time the TIS is fully operational, it will have two types of staff. The first is assumed to be Ministerial staff (although there are several options). They will be charged with technical controls approvals and monitoring. The second are the staff responsible for the technical information and commercial assistance for members. Once again, there are options. The most logical option is to merge existing TIS staff, from the Ministry of Industry and Economy, together with the existing staff from the Information Centre at the Chamber of Commerce. Naturally, there will need to be discussions and negotiations before decisions are made.

In the best business case, there will only be a small number of extra staff, for the more technical functions. The centre should operate with no more than 12 people, plus staff for out of hours operations, perhaps a maximum of 20 people. Section 8.00 contains more information on the business case for the TIS and other recommendations.

The costs of a new location and fitted out offices should also be included.

7.54 Inhibitors

There are the usual reasons not to do anything. It involves change; people do not generally like change. But the case for change is dramatic, including: savings of up to three days for obtaining technical controls, cost savings, reductions in physical inspections, elimination of informal taxes, a more efficient and productive trade process and trade information system, and career opportunities for well qualified Lebanese professionals.

Costs are another reason. The next section includes a scenario whereby the TIS can be self funding. But it will take some time to achieve that situation. There is no doubt that a form of subsidy, most likely a public sector subsidy, will be needed for the first two-three years. Funding priorities could have an impact. But the case is very strong, and the reformed trade process needs an efficient technical controls regime, automated to the fullest extent.

7.55 Recommendations

Assumptions: That LibanFac is financed by the Government (see Section 7.60) and is established as described in this section. That an Implementation Plan is completed and that LibanFac takes overall (project management) charge of the implementation project That Customs implements EC/EDI, risk management modules and revised physical inspection procedures. That the ports, harbours and container handlers adopt the requirements of EC/EDI and the reformed trade process. That traders and trade professionals play their part in the adoption and implementation of the trade process reform programme.

Recommendations:

i. *That a separate organisation is established for the granting and approval of all technical controls, called the Trade Information Service (TIS).*

ii. *That the organisation comprises staff (or the functions) of all of the Ministries and agencies involved in the technical control regime, optimally including private sector agencies.*

iii. *That the organisation operates to commercial standards of service and hours of work.*

iv. *That the MOF also set up a payment facility at TIS.*

v. *That the TIS occupies separate, specific-function premises, conveniently located for traders and trade professionals, with adequate parking facilities.*

vi. *That all technical controls are reviewed by a multi-agency working party in order to rationalise and then to minimise Lebanese technical controls.*

vii. *That the process for issuing technical controls, and the legal basis for technical controls is reviewed and overhauled, with the objective of tightly controlling a much smaller-and diminishing number-of technical controls in future.*

viii. *That future technical controls may only be issued following the approval of the TIS working party; that Customs will not apply technical controls without the prior approval of the working party.*

ix. *Following an audit, and a dramatic reduction in the number and variety of technical controls, a common format, common application, common payment and approval procedure is developed and adopted by TIS.*

x. *That the new procedures include automated applications and approvals, and payments.*

xi. *That a system of automated technical control approvals for both red and green channels is developed and applied.*

xii. *That the process of technical controls approvals integrates automated risk management and pre-and post event auditing.*

xiii. *That the TIS becomes the basis for an automated technical information centre.*

xiv. *That a range of membership options is developed, together with a range of services for members and the general public. This will also include a Customs declaration and clearance service for smaller organisations.*

xv. *That the technology base of the TIS enables remote applications and services, ultimately to be offered as a "virtual service".*

xvi. *That TIS ultimately becomes a self-funding, commercially operated organisation, with equity spread between the public and the private sector.*

7.60 The Implementation Authority

Lebanon is not alone in having a shortage of qualified and experienced IT people. This shortage is currently a global problem. Similarly, the technology infrastructure of the country is somewhat lacking, especially in the inter-organisational area. Many organisations have their own IT installations, but with the exception of electronic mail, some web applications and some electronic banking there is very little inter-organisational computing in Lebanon.

Finally, but most importantly, there is only limited experience of implementing large national IT projects, except in the banking business and NAJM at Customs.

Hence, the objective for the implementation phase of the trade process reform project is:

1. to establish the inter-organisational technology;

2. to ensure that there are adequate technical and management resources to operate the technology efficiently and economically;

3. to provide an overall resource, and focus for project management, implementation and development of the trade process reform programme, and for IT induced and assisted business practises in general.

There are few options by which these objectives can be achieved. Clearly it will require experienced people, although many can be trained locally, and overseas. The technology can either be bought or contracted, as can its operation. But the conditions of its application, i.e. 24 hours a day, seven days a week, 365 days a year, fault tolerant, non-stop, manned continuously, will not be cheap. There can be no down time in a 24x7x365 international trading operation.
These conditions tend to mitigate against public sector management and operation, although not necessarily ownership. The situation actually requires a strong element of public sector control and influence, but to private sector standards of performance and competitive costs.

The agency can be totally sub contracted, or outsourced. But that can be expensive, and it does nothing for the development of local skills and experience. The agency can be totally owned and operated by the public sector, but is unlikely to match private sector efficiencies and performance standards, for the familiar reasons of skills availability, experience, salaries, motivation and staff rotation.

The most common solution, especially in developing countries is to set up a hybrid organisation, which this report calls LibanFac for the purposes of discussion. LibanFac will be, initially, public sector funded. Section 10.00 illustrates that it may take between 48-72 months to break even. The two World Bank reports circulated with this report describe most of the agencies set up for this purpose around the world, and their costs and revenues. Web sites referenced also illustrate this type of data. See www.tradegate.org.au for their 1997 balance sheet. These case studies also show that it is possible to attract minority private sector funding in the early stages, with a possibility of fully, or majority privatising, after commercial operations are seen to be viable.

LibanFac needs expert professional management for the first few years. That specific type of experience is quite rare. It is likely that an overseas search will be necessary to find the right person. Some technical expertise is also likely to be needed from overseas, although this can be limited to a very small number, perhaps one or two. The remainder can be recruited locally, and trained.

If the ownership is entirely in the hands of the public sector to begin with, the influence must be cross-sector. LibanFac will not succeed without the whole hearted co-operation of the private sector. So that, from the very beginning, there needs to be a non-executive board of directors representing users, i.e. from both the public sector and the private sector. Candidates include Customs (MOF), the ports and harbours, the container handlers, MOIET (as representing TIS and other Ministries), the banking association, the Central Bank (for experience of this type of operation), Chambers of Commerce, the trade professionals organisations, and some private sector organisations. Technology companies are normally excluded, unless they have a share holding. The same rationale is true of cross directorships and conflicts (or potential conflicts) of interest.

Diagram 8: Proposed Lebanese Trade Process System, illustrates the technology. It comprises an access network (L.Net) which provides connections to all LibanFac users organisations, to the Government Intranet, to the TIS, to NAJM, to banking networks, to insurance networks, to other VANS and ISPs and a range of other networks. At the heart of the network is a computer system that manages electronic messages through a mailbox system. It controls access security, message types, user message standards and versions, logging, archiving, audit trail and billing. It also controls all communications. In addition to VAN and Internet services it may offer a range of commercial services, complementary to the TIS. A LibanFac ISP is essential for some of these additional services.

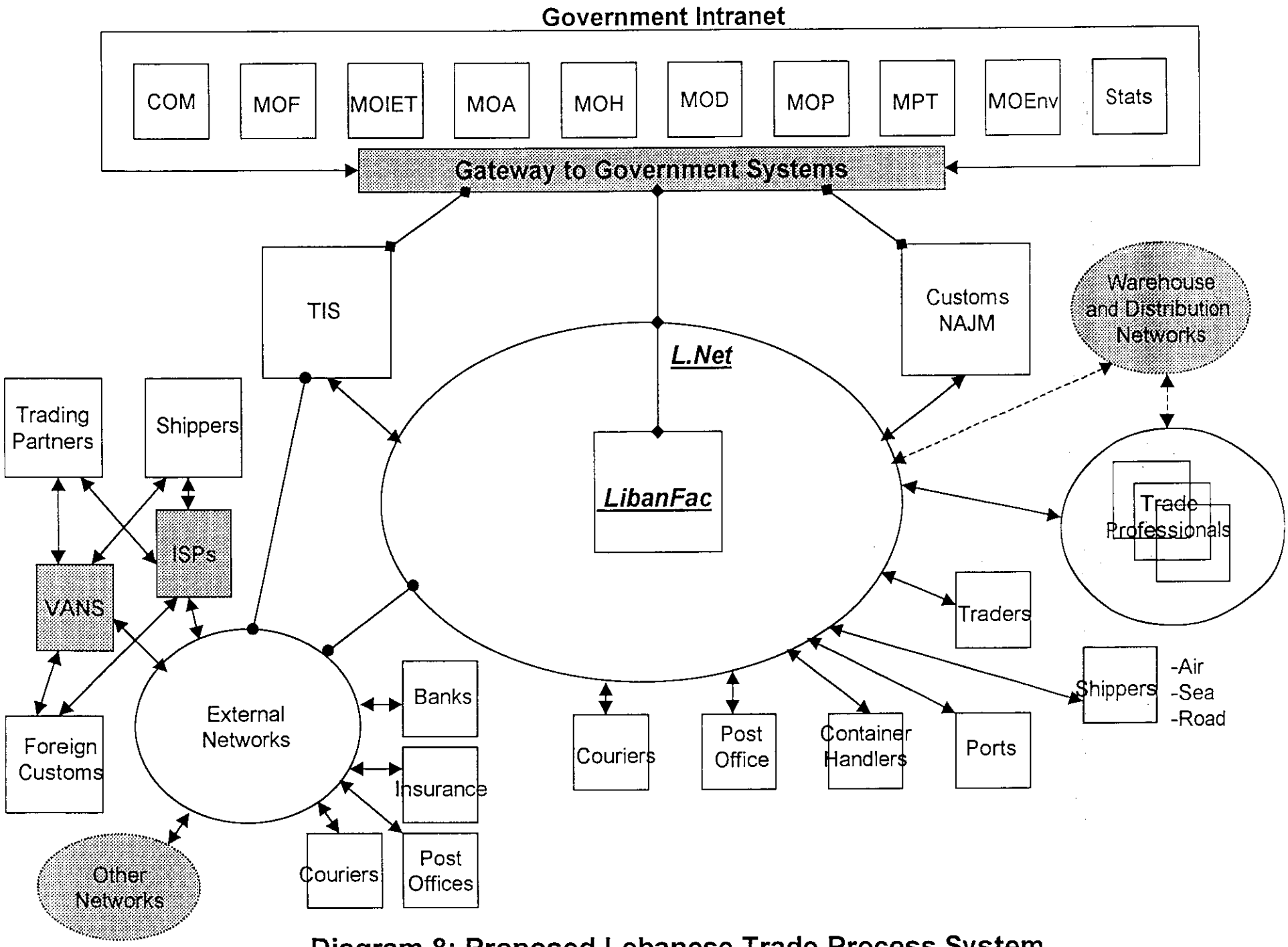

Diagram 8: Proposed Lebanese Trade Process System

Users may connect to LibanFac in a variety of ways. They may have permanent leased line connections, they may access the service through a dial up connection (the majority are likely to use this option), or through access via other networks, for example another Internet Service provider. Network interconnections may use Internet protocols, or the more robust international ITU standards, X.400.

The day to day operation of LibanFac is more prosaic. *Diagram 9: LibanFac Functional Diagram* illustrates its work and organisation.

There is a secretariat and management group, concerned with administration, commercial activities and the maintenance of the Libanfac bulletin board and external communications, web sites and email systems.

There is also a support group for users of L.Net and LibanFac. This support must include hot line and help desk options, initially for 12-16 hours a day, ultimately 24 hours a day.

The special interest groups are described in some detail in Section 8.00. Essentially, they are the secretariat and focal point for implementation co-ordination between the major users and pilot groups, for promotion of new applications and trading partner recruitment, and the central source of information and help.

Revenues come from transaction processing and monthly minimum charges. There may be value added charges for extra services. They may sell and support a range of software which might not otherwise be commercially available. They might provide implementation services, EDI mapping, message development and so on. The detail of LibanFac's commercial offerings will emerge following the implementation plan project.

7.61 Technology

On the assumption that LibanFac will be establishing its own VAN, the central server will be based on an industry standard operating system, such as Windows/NT or Unix, unless there is an overwhelming case for a proprietary system. The EDI/mailbox manager/gateway/ISP system may come from a range of suppliers, most of them supporting one or both of the standard (open) operating systems.

The network needs to be a fast, high capacity, extremely reliable (latticed for preference) and have standard, multi option access protocols. The technology needs to be current and locally supported. ISDN or ATM are options.

7.62 Success Factors

LibanFac would be counted a success on several counts. The first is the achievement of its business plan. The second is on the number of users, against a roll out plan. The third is in its revenue generation. The fourth, less tangible but most important, is its contribution to the overall trade process reform programme. This can also be tangibly measured, for example through use of the TEI.

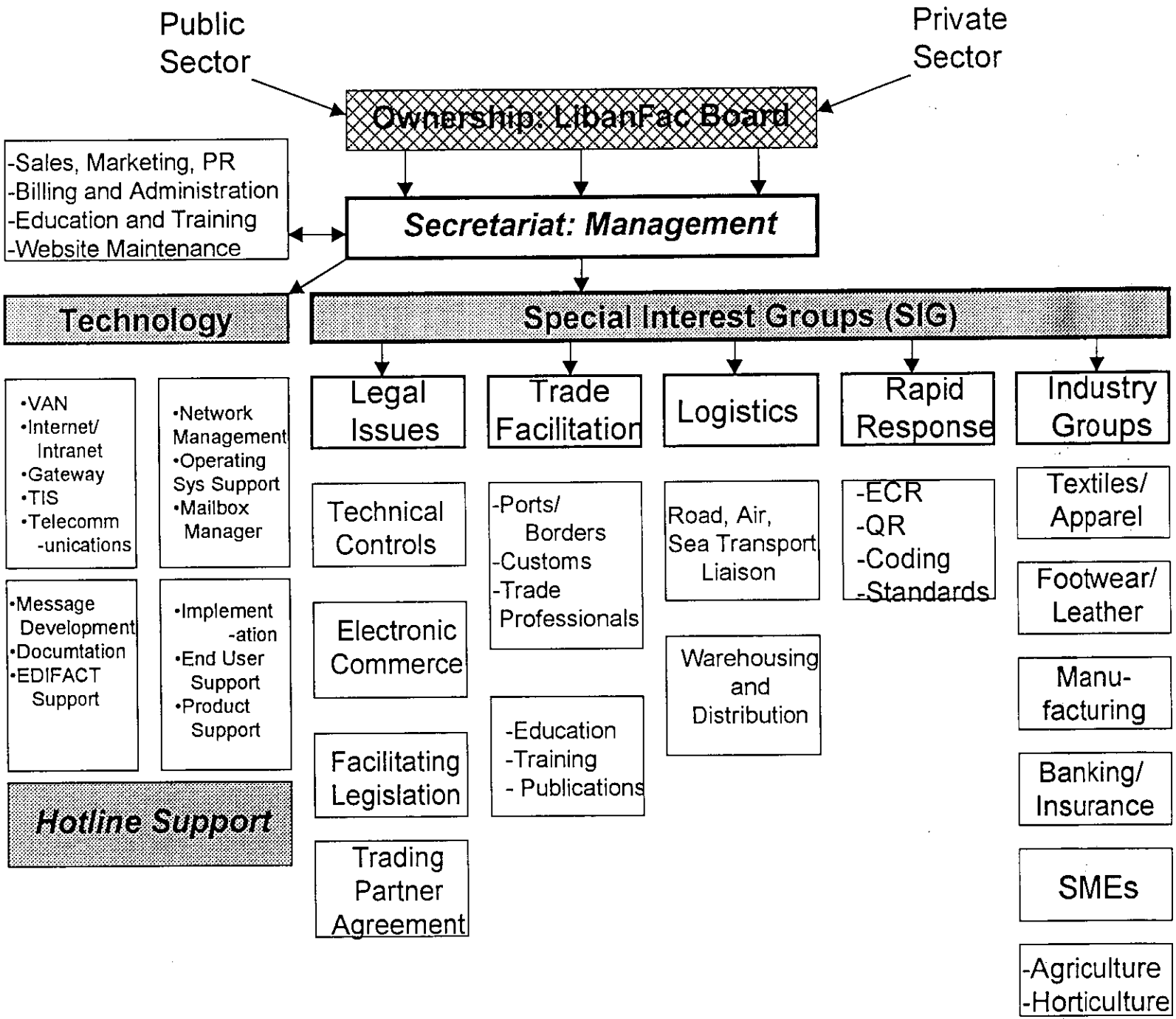

Diagram 9: LibanFac: Functional Diagram

This last point will reflect not only technical competence and management expertise, but also a quality of advocacy and understanding of local factors, and the ability to overcome problems.

It is assumed from the start that an externally appointed CEO will contribute outstanding motivational qualities and the ability to inspire the work ethic. LibanFac people will have to lead, to inspire and to drive the efforts to complete the trade process reform programme. While they do necessarily carry the responsibility, they have to ensure that everyone who is an actual or a potential LibanFac trading partner-from either sector-will maintain their enthusiasm and keep to the plan.

Success factors for LibanFac, and their measurement, will be a mixture of quantitative and qualitative criteria.

7.63 Costs

The costs of hardware, operating system and network is likely to fall into the region $200,00-$300,000. Repetitive costs depend upon network usage but may largely be recovered through user fees.

Mailbox/gateway/ISP software will be in the region of $250,000

Total maintenance costs may add up to $50,000 p.a.

Consulting costs for implementation may add a further $250,000.

Implementation planning and consulting will be in the region of $150,000.

The total costs of operating LibanFac, say by end of year three, including all personnel costs, facilities, expenses and technology, are likely to be in the order of $1-1.5 million. Total expense before achieving a revenue break even is likely to be in the area of $3 million-$4 million.

These figures exclude the potential special trade facilitation levy for the first few years, since it is assumed that MOF will collect the majority of that levy, in order to fund the complete programme. MSee Section 10.00 Business Case.

7.64 Inhibitors

The major inhibitors surround decision making. There is no precedent for LibanFac in Lebanon. Overseas examples are never exactly comparable. It is not inexpensive. Its function is arcane to the non technician. It would be easy to defer making a decision or a recommendation.

But there really is no choice. The private sector will not solve the problems alone. The private sector infrastructure is inadequate, untested and based on dubious commercial propositions. If the problems of the Lebanese trade process are to be solved, Lebanon needs an organisation such as Libanfac; there is no valid, current alternative. Ownership, equity, business plan, staffing and management can all be discussed during

the implementation planning phase. But the decision to set up a LibanFac type of organisation is unavoidable-and urgent.

7.65 Recommendations

Assumptions: That there is a general agreement on the need for trade process reform. That Customs, Government agencies, traders and private sector agencies agree on the need for reform.

Recommendations:

i. *That a decision in principle is made to establish a LibanFac organisation.*

ii. *That LibanFac becomes the focal point and overall project manager for the trade process reform programme.*

iii. *That LibanFac implement the first five EC/EDI messages as part of the trade process community effort.*

iv. *That Libanfac integrates with TIS and with Customs risk management operations.*

v. *That a follow up Implementation Planning project is defined and commissioned.*

vi. *Prior to the acceptance of that plan, that LibanFac, or an acceptable alternative name is registered.*

vii. *That the function, organisation and business plan for LibanFac is developed.*

viii. *That informed opinions are canvassed on the ownership of LibanFac, for the short term and the long term.*

ix. *That an initial board of directors is appointed, as described in this section.*

x. *That a search is initiated for a suitable CEO.*

xi. *That the functions of LibanFac are integrated into the overall trade process reform implementation plan.*

xii. *That the technology be subjected to an RFI, requesting information on technology outsourcing, contracting and outright purchase.*

xiii. *That the local telecommunication companies are included in the RFI process, as are the local technology companies, where appropriate.*

xiv. *That a search is undertaken for potential local employees and assignees.*

xv. *That funding is agreed and allocated for the first three years of operation, to be reviewed annually.*

xvi. *That the implementation plan is put into action as soon as practical, using mid 1999 as the initial target.*

8.00 LIBANFAC

LibanFac was introduced in section 7.00. It is to be the central technology source for inter-organisational purposes and the overall project manager, supervising some aspects of projects and co-ordinating those aspects of projects having their own project manager. For example, Customs and the container handlers will have their own project managers. Traders probably will not have an industry project manager, nor will other trading partners.

LibanFac will (optionally) own, and operate the technology. It will provide appropriate levels of support for all categories of users. It will also undertake some development and contracting work. It will charge fees for transactions and basic services. It will also undertake paid development and contracting work, within its mandate of trade process reform and electronic commerce.

8.10 Organisation

Diagram 9 in section 7.00 of this report illustrates the organisation and functions of LibanFac. In the early stages of its development it will need to concentrate on technology installation, and training and education for its own people and early EC/EDI adopters in the trade process systems area. It will probably need to develop or to commission training courses to begin with.

One aspect of support, apart from the IT services, is in the area of message development, mapping and installing EC/EDI messages. LibanFac will need to help early users to map UN/EDIFACT messages to their own internal IT systems. This is a labour intensive effort to begin with. A single message for one trader can take a day to map, then to set up an account on the LibanFac network and EC/EDI system and to test the message might take another day. Since the pilot will involve around 10 trading partners initially, including at least five traders, and each will need at least two messages to be mapped, at least two expert UN/EDIFACT technologists will be needed immediately. Productivity improves with experience but it is unlikely that the number of EDI experts can ever be allowed to fall below two. The private sector EC/EDI industry may soon be able to help, as awareness and demand builds.

UN/EDIFACT support will include defining message sets that are unique to Lebanon. It might also be necessary to provide Arabic translation for EDIFACT documentation, even, possibly, data elements. Once this path has been chosen, there is a commitment of time to the UN/EDIFACT process, which also involves a travel budget for overseas meetings.

EC/EDI and other technology and services support will be generic to LibanFac. There is also a range of industry and activity-specific support which involves time and resource. These activities generally revolve around sub-groups, working parties or committees from member organisations and invited guests. These groups are normally known as Special Interest Groups, or SIG.

8.20 Special Interest Groups (SIG)

The support for special interest groups reflects member's own needs and requirements. Initially, they are bound to involve trade facilitation and electronic commerce fundamentals. This first catered for by seminars, workshops and training courses. Reference visits and inspection tours are also commonly employed to speed up the awareness and learning processes. Attendance at overseas conferences is particularly valuable in accelerating take up and awareness building. LibanFac may, indeed it is recommended, become the Electronic Commerce Association of Lebanon. There are many other similar organisations overseas. Information exchange and visits between members is particularly useful. The oldest of these EC/EDI Associations, the UK, dates back to 1984!

The diagram shows some suggested SIG that might be set up as experience develops and the membership grows.

8.21 Trade Facilitation

This SIG represents the participants in the trade process project: traders, trade professionals, Customs, technical controls agencies, ports, harbours and container handlers. A SIG starts off as a mutual support group with people from the same industry. They speak the same jargon; they share the same problems. In this case, they share the need to understand and to participate in the project.

Many of the people in the SIG will not be part of the pilot group. They join to learn, to prepare and to gain experience at second hand. They also get to meet the influential people in the project and obtain some insights into the technologies and techniques being used. They also become priority members of the next tranche of participants.

A SIG is a place where competitors meet to exchange information that is non sensitive or competitively privileged. They share information for the good of the industry. People who hoard information, who will not share experiences ultimately tend to be the losers in electronic commerce. EC/EDI systems are "community systems", implemented for the good of all participants, not for the competitive advantage of the few. Nevertheless, early adopters tend to be those who obtain an early advantage; that is inevitable. As are higher costs for early adopters.

This SIG will evolve an understanding of the complete information flow of their industry, from end to end. They will see the interaction of information, and the unnecessary duplications-and gaps-in trade information. This leads to a much better understanding of inter-organisational information needs. Which leads to an understanding of the structures, syntax, protocols and content of electronic messages. In turn, this leads to a much better appreciation of what can be achieved by the use of EC in their own organisation, leading to improved systems design. Many of the early US and UK adopters of EC/EDI now run totally paperless operations, with negligible levels of administration staff. Their inventory levels have fallen dramatically now that EC/EDI drives the supply chain. These and many other benefits evolve from membership and active participation in SIGs.

See web site references for SIG activities in foreign EC/EDI Associations.

8.22 Legal Issues

One of the most important facets of EC/EDI is the legal infrastructure that is developed to support it. In many countries, the legal profession does not recognise, or even know about EC/EDI, yet it goes on, in spite of that. There are over 150,000 users of EDI around the world, including almost all of the world's top 1,000 companies. Very few of them operate in a legal regime that recognises and protects EC/EDI users. Their protection is through an industry or national agreement, facilitated by national the EC/EDI Association. This Trading Partner Agreement (TPA) stipulates the terms under which trading partners will replace paper with electronic communications, specifically EC/EDI. It generally also stipulates the legal code under which any disputes will be resolved. To date, there is no publicised case of any dispute involving electronic commerce going to court. That is not to say that they have not occurred; just that if it has happened, it has not been publicised.
In order to create the correct climate for EC/EDI a legal SIG needs to be established as soon as possible. The first priority is the TPA, thereafter redrafting of the Evidence Act, The Customs Act and the creation of an Electronic Commerce Act are the priorities. In the case of Lebanon, much of this work has already been done overseas. See EC/EDI Association's web sites for examples of TPAs. See UNCITRAL and the Baker and McKenzie (APEC) web sites for legal issues and electronic commerce legislation.

Technical controls has already been covered in some detail. This legal issues SIG is the ordinary members' opportunity to provide input to that process of review and rationalisation. It may be of special use when trying to lobby for an alternative for such approvals as the Consular Invoice, for which several alternatives have been suggested in this report-in addition to abolition!

8.23 Logistics: Transport

The transportation and logistics sector is considered to be outside of the trade efficiency project TOR. This sector is purely private sector owned and operated, with the exception of the ports and harbours and some national shipping lines. Any recommendations produced as part of this report can only be offered as comments, since they are unsolicited by the industry. These comments do not carry any force of compulsion nor formal advice, since the public sector can exercise very little control over the industry, apart from regulatory supervision. The industry is bound to act only as individual members, and then for their own competitive advantage, and that of their owners. Nevertheless, in the context of the critical path of goods delivery, everything that is imported into Lebanon, and exported from Lebanon, travels by road transport for at least part of the way. The time to deliver goods from the docks to the importer, and vice versa, comprises the longest leg of the redesigned trade process system.

The role of a transport and distribution (i.e. warehouses and distribution centres) SIG is that of coordination and negotiator. The SIG can attract requests for change, for new services and systems, particularly EC/EDI based systems.

Any comments on the distribution sector in Lebanon would have to acknowledge the generally poor state of the roads, generally outdated equipment and undisciplined driving standards. All of these require long term and very expensive solutions, including driving standards. The state of the container carriers (trucks and tractors) is of particular concern. Modern, low loader, flat beds are more efficient to load and unload, and to operate.

The port fulfils the function of a container terminal, by default. There must be efficiencies to be achieved by implementing a full multi-modal terminal infrastructure (obviously excluding rail at the moment). These terminals act as intermediate dropping off and collection hubs and spoke terminals. This means that containers are delivered from the exporter to a hub terminal, by a local carrier. It is then collected by a specialist carrier that delivers to and from international terminals, such as the ports and airports. This approach would relieve the ports of the long term storage capacity needs and make better use of expensive waterside space. The same is true of airports.

Some freight forwarders offer this sort of service, but a national network, working to a schedule, would seem to offer a better opportunity for efficiencies.

The SIG will, in time, initiate discussions at harmonising and coordinating transport schedules, rates and making available adequate capacity on a seasonal basis with the industry. These data can then be published electronically and kept up to date by the industry. This effort applies to road, sea and land transport. It will include all terminals, i.e. ports, airports, container terminals and free ports/transhipment traffic requirements.

The use of the Distribution SIG for trade purposes gives rise to the opportunity for the use of EC/EDI for transport and distribution efficiencies through the use of information services. For example, the use of EC/EDI for booking capacity, for enquiring on schedules, for manifest and consignment note transmission, for track and trace on consignment location and estimated time of delivery, for invoicing and for payment are all commonly used elsewhere. EC/EDI hazardous goods reporting is also widely used.

One particular application has become quite popular. In a hub and spoke arrangement, trucks deliver goods to a terminal, which may, of course, be the docks. Quite often, these trucks return to their own yard empty, thereby increasing everyone's costs. By using an electronic bulletin board, traders and forwarders can advertise return loads and enable bid/negotiate/accept transactions in real time. Individual industries have developed their own standards for acceptance. For example, the chemicals industry will only accept bids up to two (2) hours before scheduled departure time.

See FIATA web site for further details on this industries technology developments.

Suggestion: In conjunction with the road haulage industry, the Ministry of Transport and the EC/EDI Association (LibanFac) commission a study of the transport and distribution industry and infrastructure with a view to making recommendations to reduce costs and time involved in delivering goods from terminals to importers, and from exporters to terminals.

8.24 Training and Education

This SIG will coordinate training courses for EC/EDI users, for pilot groups, for students and for industry-specific purposes. While the effort will initially be in support of the trade process application, very soon there will be other needs. For example, in coordination with the Customs training institute, it be may be useful to offer courses on the status and operation of rapid response techniques, such as JIT, QR and ECR. The role of cards and new payment instruments for business is another topic that requires exploring in Lebanon. EFTPOS and its role in the supply chain is also of especial interest overseas. EC/EDI courses, industry applications, success stories and incentives to attract new trading partners are all of use. The Internet as a trading medium, the use of call centres, data warehouses and new technology distribution centres are all topics of relevance to Lebanon and the region at large.

These courses may just be the odd one or two hour presentation, they may comprise regular formal lessons, they may be published electronically or in traditional formats, they may take place as workshops or seminars, reference visits, teleconferences or even email list servers. All are useful; a training and education SIG could be instrumental in coordinating these efforts. It may have a list server of its own. See Tradegate and SNS (Singapore Network Services) web sites for further examples of what is being done elsewhere. See also EAN web sites.

8.25 Banking and Insurance

The same comments apply to these two industries as those made of the transport and distribution sector. However, these finance industries have a more direct bearing on trade. A Finance industry SIG could provide significant value for international trade and for many other Lebanese industries.

The SIG could first update knowledge on the status of payment systems in Lebanon. There is a lack of knowledge in the use of credit cards/debit cards/affinity cards/stored value cards and smart cards. All of these have some relevance to international trade.

Then there is the status and need for FEDI, direct debits, direct entry systems, interactive account status, card enquiry systems and Internet/ Intranet account access. Electronic banking in general can be a major national competitive advantage. Lebanon is lagging behind in these facilities. A special purpose SIG could complement the work of the Bankers Association and raise awareness within the banking industry of what is needed to improve national competitive advantage.

Methods of finance for international trade have gone almost unremarked in this report. The topic was not raised by anyone. This can be partly explained by the fact that many Lebanese businesses are family owned and financed. Clearly, repatriated funds play a role here. However, the SME sector is penalised by the banking system in general because trade finance, loans, LOC, etc. is predicated by an application which looks at the traditional banking criteria such as assets and equity. SMEs often run their businesses on a shoe string. Apart from the time and costs-and frustrations of applying for trade finance-they are often turned down without a proper evaluation by the bank. It

takes as long to approve a loan of $5 million as it does for $50,000, so what does the bank do? Naturally, it concentrates its efforts on the higher yield products and clients.

Risk is another factor that militates against SMEs in the banking environment. If they can actually get an application to be considered, they often fail on an evaluation of the risk against asset cover. How does a company with only $100,000 in assets obtain trade finance to cover the costs of materials for a large order, say $5 million. This is not an uncommon situation, especially in the textiles, footwear and apparel industries. Some countries are beginning to offer export guarantees to these smaller traders, in order to encourage exports. This guarantee fund covers a bank against trade finance default when a loan has been approved which is not covered by assets. In those countries where this type of scheme is in place, defaults are very low. Exports to the value of 50 times the size of the fund have been experienced.

Suggestion: That the Ministry of Industry, Economy and Trade, together with the Ministry of Finance and with the participation of a range of SME traders and the appropriate SIG commission a study into the potential for export guarantee and other trade development funds for the growth of Lenbanese international trade.

Insurance has similar problems for Lebanese traders. The range of services, rates and choice is not generally known. People deal with the companies they know without necessarily getting the best deals and the best products. A valid activity for the Finance SIG would be to encourage the Insurance industry to set up a web site, complete with industry membership, contacts, products ands services, rates and special offers. Applications and enquiries can be made by using electronic forms over the Internet, or through LibanFac and/or TIS.

The same suggestions apply for LOC applications and banking members' details.

8.26 SMEs

This section has already touched on finance issues for SMEs. Earlier sections of this report discussed the export inhibitors of trade processing costs-formal and informal, delays and inefficiencies in the system. It was reported that SMEs could not make a profit on a consignment selling for less than $5,000.00 at a 50% margin, i.e. costs were around $2,500.00. The reformed trade process will take about $1,250-1,500 out of those costs, when fully implemented. But that still means that (tangible) exports of less than $2,500 invoice value will only be marginally profitable, if we continue to assume a 50% gross margin.

The other extreme is in the use of courier companies, who can carry up to 20Kg. There is a real gap between values of $1-$2,500 and for small consignments above 20Kg in weight. Using Internet sales techniques, literally thousands of companies around the world are selling products direct to consumers for anything from $10 plus delivery charges. Business to business applications sell consignments for as little as $50. There is a need to examine tariff options, transport options and expedited delivery techniques to help develop this SME sector, the engine for growth and for employment.

Suggestion: That the MOIET, the MOT and the MOF jointly commission a study, perhaps with the participation of the Chambers of Commerce, aimed at examining incentives, tariff options and delivery options for Lebanese SMEs. This project to have a measurable deliverable, e.g. for an investment of $X we can create an extra $Y of exports.

8.27 Telecommunications

In general, telecommunications has been only lightly touched on by this report. This is because the solutions envisaged by this report do not require a heavy telecommunications investment nor do they make heavy demands on the infrastructure. A dedicated L.Net will provide the necessary capacity for LibanFac. The backbone technology is adequate for today's level of EC/EDI services.

That is not to say that Lebanese telecommunication companies are helping trade efficiency. It is just that the requirements of data transmission do not require a new infrastructure. ISDN or ATM are the preferred technologies, but, providing the required capacity is available, current technologies will do the job.

Line splitting for ISPs will not be acceptable to L.Net. A latticed network is the preferred option, provided that the costs can be justified.

As one of the principal sources of revenue for the Government it is evident that the price regime in Lebanon is uncompetitive with trading partners and competitors. Price is a serious issue. Telecommunications costs can be an incentive or a disincentive to set up business. In the emerging world of electronic commerce, there is no doubt that Lebanon is not a popular country of choice to set up an electronic commerce-based business.

A communications SIG would serve to reinforce this and similar points. They could also be a useful test group for trailing new services and for helping to specify new products and services. Multimedia is going to be extremely valuable to several of Lebanon's industries, such as tourism, textiles and apparel (Fashion in particular), the entertainment industry, software development, engineering (test data, CAD/CAM, etc.), even agriculture (multimedia catalogues, product specifications, samples, etc.). These services need to be introduced based on demand and awareness. The Telecommunications SIG could play a useful role here. It could also act as a "friendly" business user group. The potential for EC/EDI VPNs from this group should not be ignored.

8.30 Other Industry User Groups

There is no limit to the usefulness of SIGs and hence LibanFac's role in the promotion of EC/EDI based business practises. Other industries typically represented at a national EC/EDI Association include manufacturing, textiles/apparel, footwear and leather goods, agriculture and horticulture, jewellery and precious metals/gemstones, retail, supermarkets, and so on. These are in addition to those dedicated to international trade and the trade process systems.

Whether the technology is owned or outsourced by LibanFac, its support and SIG functions as described here are essential. They cannot be provided by any other local source. An independent, commercially operated offering competitor-neutral help and advice is fundamental to the success of this trade process reform project.

9.00 INTERNATIONAL BEST PRACTISE

There is considerable confusion about the term "best practise", not least concerning the spelling! No country has adopted its particular version of best practise for reasons other than economic advantage, so that enthusiasm for any particular type of system can easily be misplaced because of the economic or political system that made it possible.

The largest differences in systems are between "open" economies, such as those of the UK, USA and Canada, Australia and New Zealand, and the "managed" economies, particularly in Asia. There is another factor too; the size of the economy.

9.10 Large Open Economies

The UK has three "islands of excellence" in the trade processing area, all surrounding ports. These are Felixstowe, the ports of London (including the London airports), and Southampton. Each has a port-centric system, with Felixstowe far in advance of the others. Felixstowe is a new container port, servicing the UK's European trade. The Felixstowe community, including the port, container handlers, Customs and technical controls, the traders and the trade professionals operate in a paperless environment. All controls are electronic, as are declarations and risk management systems. Extensive use is made of pre-clearance and pre- and post-event auditing.

Among the larger, open economies, the Felixstowe private sector effort is rated very highly. The technology providers are all from the private sector; they interconnect and compete. The port of Felixstowe is an active participant in the UN/EDIFACT process.

Other port-centric, open economy and large economy communities which use most of the same methods include: Hamburg, Rotterdam, Le Havre, some Scandinavian ports, Atlanta in the US, and some Canadian ports.

In addition to using the same principles as Felixstowe, but arguably not to the same levels of sophistication, some of the Western European ports are now using container scanners. Customs authorities from just about every major economy are now evaluating the use of scanners in their ports.

Each of the ports identified have created performance standards on container handling: best practise is currently 27 containers/hour/employee. They also have performance standards on the time that containers remain in storage; the time to release to Customs; and the time to clear Customs. The overall performance measurement is the time from-goods arrival at the dock/terminal to the time to release goods to importer/ from exporter. This varies from 48 hours to less than one hour. Some are now going further in the overall cargo management, measuring time from factory gates to release.

Rotterdam and Felixstowe are generally regarded as the best examples of overall current best practise in Europe and North America by the various groups of professionals involved. An informal survey was recently conducted at an international convention on risk management, which confirmed these choices.

9.20 Smaller Open Economies

Australia and New Zealand have smaller economies than those mentioned earlier. But they are aggressive exporting countries with a heavy dependence on the efficiency of the trade process infrastructure. Both have taken a national approach to the problem, as opposed to the private sector driven, port-centric approach of the larger economies. Both have taken steps to privatise port operations, New Zealand being two years further into the process than Australia. All of their (remaining) trade professionals are by now, after 10 years of automated clearance systems, fully automated and EC/EDI capable. All clearances are declared electronically, with very few exceptions, e.g. ships crew's possessions and baggage.

New Zealand stared with import declarations, Australia with export. Both countries now handle imports and exports. Both are automating technical controls; with a heavy dependence on livestock and agricultural exports this is not an easy undertaking, because of a plethora of international technical controls on these products. They pioneered the Sanitation Certificate (UN/EDIFACT SANCRT) for automated pre-clearance of agricultural and livestock products. Theyb have also pioneered the electronic passenger manifest (PAXLST) for pre-clearance of international air passengers from USA, Japan and between Australia and New Zealand.

Australia is probably the most advanced in the world at automating technical controls across the widest possible range of products. It is a pioneer of risk management for Customs and for technical controls. They are now planning to extend risk management to a national system of cargo management, from the factory, the producer or the exporter/importers gate, through to international transport. In this way, they will be able to pre-clear at a number of inland stations, track the progress of consignments, model the amount of Customs duty in transit, prior to declaration and help develop standard systems of reporting between all of the international ports, airports and private sector agencies involved in the process.

Australia has a national EC/EDI Implementation and Project management organisation, called Tradegate. It was founded by Customs, the national airlines and shipping lines, trade professional bodies, and some of the ports. It has since been privatised. Tradegate project manage the technology for the national trade process systems, in addition to providing a great deal of technical support, systems development and coordination of users and standards bodies. They also operate the national EC/EDI Association, ECA (Electronic Commerce Association of Australia). New Zealand piggybacks off much of the Australian effort. The private sector technology sector, in both countries, is an active partner with Tradegate, in many different EC/EDI initiatives.

Australia and New Zealand, operating as they do in a private sector environment but in a coordinated national fashion, heavily dependant upon technology, is a good model for best practise. Clearance times can be a short as 30 minutes. Export/Import approvals are automated in both countries. Approvals are contractually guaranteed by Customs to traders and trade professionals. The guarantee is 10 minutes in Australia; 20 minutes in New Zealand!

These clearance efficiencies, through the use of IT, help keep both countries exports and imports competitive, in spite of distance and labour costs.

9.30 "Managed" Economies

The term is used loosely. Economists would probably not consider any of the following examples to be from classic managed economies. However, in the case studies that follow, the Government has powers of compulsion and persuasion that cannot be applied by Governments from the economies discussed previously.

The following have national initiatives modelled on the Singaporean and the Australian approaches to trade efficiency and the trade process:

-Hong Kong
-Korea
-Taiwan
-Singapore

Other regional countries are making similar attempts, but are at earlier stages of implementation. They are generally experiencing lower levels of success, for a variety of local, largely cultural factors. These countries include:

-Malaysia
-The Philippines
-Thailand
-Indonesia
-India
-Mauritius

The international accepted model for best practise is, by any standards, Singapore. It has taken a national approach to the total trade process, based on the most modern and well equipped seaport and airport. Technical controls and Customs processes have been automated. Risk management, together with pre-clearance and per- and post-event auditing have been applied to the complete range of their significant international trade.

However, there are several unique factors about Singapore that make it a very difficult model to emulate. Firstly, the Singapore Government compelled compliance by traders and trade professionals. Secondly, the port drove the process, based on almost unlimited funding and a deeply researched understanding of what was possible. But most importantly, Singapore is a Free Port; it is an entrepot. Customs have little control and little influence over the majority of Singapore's trade, which is transshipment. Hence Custom's systems are comparatively primitive when compared to the previous examples.

The same is true of Hong Kong, except that, until last year, the Government had no power to compel. So in the case of Hong Kong, the powerful drivers are the major container handlers, particularly HACTL. Hong Kong, like Singapore and Port Klang in Malaysia has the best equipped ports imaginable, but none of them can be truly

considered to operate to overall best practise. Best results perhaps, but that may be due more the political system and trading climate than the application of technology to solve the problems encountered by other trading nations.

Taiwan and Korea both operate under a more rigid system of compulsion than any of the others mentioned. Both are extremely well equipped; both have extensive Government assistance and a benign system of technical controls. Both operate the fully automated best practise model. But commercial standards are secondary when compared to the first two categories of case studies. The Government has also given significant help to ensure that the redesigned systems are used to the fullest benefit of the country.

They are a good technical model to evaluate but special local conditions make it extremely difficult to consider emulating.

9.40 Model or Emulate?

The rules are changing. WCO and WTO are beginning to exert pressure to ensure that the rules are the same for everyone. "Fair Trade, not Free Trade", is the new catch phrase. These pressures, new trading blocs, new competitive pressures and the imperative to improve trading performance appear to offer very little room for manoevre. Lebanon has to change its trade process-and change it dramatically, and as quickly as possible.

The lessons of best practise are evident, even if best practise means different things to different people. Best practise examples raise the question: does Lebanon seek to emulate a particular system, or their level of performance? And, taking into account local conditions, is it possible to emulate either. Would it be better to build a model based on the best of best practise, and then apply it based on local conditions.

This latter approach is the conclusion of this report, with two enforcing caveats.

It is not possible to pick and choose specific areas for improvement, for example to select Customs systems, or technical controls, in isolation from the whole system. Improvement is only possible through a top down, integrated effort. This is one of the unpublicised lessons of the pioneers. Each successful case study will confirm that the reforms need clear and unequivocal Government support. There is no alternative to full commitment.

The effort needs a national coordinating and project management agency, fully supported by all of the players. The reform needs a single vision and a coordinated plan, managed professionally. Once again, this is a crucial lesson to be learned from the pioneers and the leaders in the application of best practise trade processes.

9.50 Motivation

And finally, what has Lebanon got to lose? Exports of $600 million and imports of $8 billion. Why not take the high ground. Why not aim for 48 hour goods release-or less- and a national effort based on LibanFac together with a committed international trade community. It can only improve matters.

10.00 THE BUSINESS CASE

This section comprises a brief overview of the potential business case for TIS and LibanFac. It can only comprise a cursory view because many of the details have not been discussed yet; there are many options which affect financial outcomes. The basic assumptions are that both organisations are established as recommended.

The figures detailed here are for general guidance. Details at a line item level can be found in the Tradegate 1997 balance sheet and in the World Bank reports, circulated with this report.

10.10 TIS Costs

Set up costs include:

Hardware	$100,000
Software	$100,000 to $500,000
Acquisition/Development of Risk Management modules	$250,000 to $500,000
Office fit out	$50,000 to $100,000
Consulting Project fees	$75,000
Miscellaneous Expenses	$100,000
Total One Off Costs	**$675,000 to $1,375,000**

Comments:

1. All costs are estimates at this stage, prior to agreement on specification, RFP results, timing and financing.

2. Risk management may be developed internally, over the course of the first two years and with help from similar efforts at Customs and LibanFac.

3. Local knowledge is needed to confirm costs of staff, premises, overheads, benefit costs, etc.

4. Private sector pay scales are assumed.

Repetitive costs include:

Debt servicing, assume 10% of $1,000,000 p.a., say $100,000 p.a.

Staff costs, assume 20 people, average burdened salary $30,000 p.a.

Premises, assume an annual cost of $100,000

Services, electricity, telephone, office services, etc. Assume $100,000 p.a.

Expenses, Miscellaneous: Assume $100,000

Software Maintenance, $15,000 to 100,000 p.a. Assume $75,000 p.a.

Repetitive Totals

Debt Servicing	$100,000
Staff	$600,000
Premises	$100,000
Services	$100,000
Expenses	$100,000
Software Maintenance	$75,000
Annual Costs	**$1,075,000 p.a.**

Comments:

1. Repayment of debt may be on a reducing balance or some other arrangement.
2. Premises may be considerably cheaper; they may even be donated for a period.
3. Staff costs are assumed to be charged to TIS but many of them may be regarded as sunk costs and be carried on the payroll of the relevant agency.
4. Services is just an estimate, without the benefit of local knowledge.
5. Costs are quoted for a fully implemented TIS, say after three years of operation. For the first few years, costs will be considerably lower. A cash flow and P&L should be developed as part of the Implementation Project.

10.20 TIS Revenue Potential

The estimates here are based on numbers of users and their level of membership.

Level One membership: Information Services only	$600 p.a.
Level Two: Information Services: Web Hosting	$1,200 average
Level Three: Transaction Processing	$2,500 average

By year three, a fully implemented TIS, assume:

Level One	500 members
Level Two	200 members
Level Three	100 members
Membership Revenue Totals (Year Three):	$790,000

Additional Potential Annual Revenues:

Technical controls fee for service, say	$200,000
Auction Yields, say	$200,000

Consulting, special web services, etc., say	$200,000
Total revenues, Year Three	$1,390,000
Total Costs, Year Three	$1,075,000
Contribution	**$315,000**

10.30 TIS Summary

Clearly, this is an academic look at the potential. The Implementation plan needs to survey the market in more depth and to establish price points against product and service levels. It also needs to evaluate the method of operation of TIS, cross-charging for TIS technical control services and the integration with the existing TIC and Chamber of Commerce operations.

Nevertheless, there appears a prima facie business case for TIS, in addition to the national benefits that will transpire from its successful introduction.

10.40 LibanFac Costs

Similar comments to the TIS section apply here.

Hardware	$200,000 to $300,000
Software	$250,000
Implementation consulting	$250,000
Implementation Planning	$150,000
Total One Off Costs	**$850,000 to $950,000**

Comments:

See 10.10 TIS

Repetitive Costs include:

Debt servicing, assume 10% of $1,000,000 p.a., say $100,000 p.a.

Staff costs, assume 12 people, average burdened salary $40,000 p.a.

Premises, assume an annual cost of $100,000

Services, electricity, telephone, office services, etc. Assume $100,000 p.a.

Expenses, miscellaneous: Assume $100,000

Software Maintenance, $20,000 to 45,000 p.a. Assume $35,000 p.a.

Repetitive Totals

Debt Servicing	$100,000
Staff	$480,000
Premises	$100,000
Services	$100,000
Expenses	$100,000
Software Maintenance	$35,000
Annual Total	**$915,000 p.a.**

10.50 LibanFac Revenue Potential

Estimated numbers of users and the basis for payment is different to TIS. LibanFac is based on a transaction processing algorithm, with a fee for each message and a monthly minimum service charge.

A typical user will pay around $200 per month. High volume users, such as TIS, the container handlers, etc. can pay as much as $1,000 per month.

Assuming a user base of 300 users by the end of year three and 1,000 users by the end of year five.

By year three assume two users @ 750 per month; 20 users @ 350 per month and the remainder @$200 per month.

By year five assume five users @ $1,000 per month; 50 users @ $500 per month and the remainder @$200 per month.

Year three processing revenues	$769,200
Year five processing revenues	$3,168,000

Additional revenues will accrue from consulting services; assume $100,000 in year one rising to $500,000 in year five.

Year Three revenues	$1,069,000
Year Three costs	$915,000
Contribution	**$154,000**
Year Five Revenues	$3,668,000
Year five costs	$915,000
Contribution	**$2,753,000**

10.60 LibanFac Summary

There is no account taken of the Trade facilitation levy @$100 per transaction. By the third year there will be around 300,000 transactions; By year five about 500,000. It is assumed that these funds go to the Ministry of Finance to fund the total trade process reform project. However, even if the revenue projections are inaccurate by as much as two years, they are still feasible. Competition will cause costs to fall; the Internet will have an impact, but there is no doubt that there is a good business potential for Libanfac to become self funding.

10.70 Business Planning

The overview business case for both TIS and LibanFac looks promising. Clearly it now has to be confirmed in detail during a market survey and business planning exercise. In previous experience, results of this kind have not been achieved so quickly, but with prudent planning and realistic forecasting, something approaching these results is possible.

11.00 PROJECT PLANNING

This section is an overview of the timing and effort needed to implement TIS and the trade process projects. While they are treated separately here, there may be merit in treating them as a single integrated project, installed under the project management of LibanFac.

11.10 Assumptions

This section is being presented as a very rough guide, an indicator based on the experience of other, similar projects in other countries. This guide is included to place recommendations in context with the overall scope of the problems to be solved. It should not be used, under any circumstances, as any sort of project plan. A plan can only be produced after detailed investigations and consultation with all parties potentially involved in these projects.

In order to make any projections about time, or the scope of work, it is necessary to make the assumptions:

1. The implementation goes according to the recommendations in this report; that there are no significant changes.

2. There is no delay or compromise caused by lack of resource, of any kind.

3. That the projects are preceded by detailed implementation planning work.

This section should be read in conjunction with the recommendations section, Section 7.00, pp. 80-112.

11.20 TIS Project

Diagram 10: TIS Project Management provides an overview of the timing and major modules of the project, as recommended. The steps are numbered according to the category of work being undertaken. The blocks used to represent the passage of time, from 1999 to 2006 (seven years) are only estimates, for the sake of illustration of the comparative scope of the module. The block colours are coded:

Black for the initial implementation, or introduction of the task or the technology; Patterned to illustrate the continuing nature of the task or use of the technology. It is also used to show that tasks and outcomes evolve over time.

11.21 TIS Implementation Steps

Very briefly, the steps represent:

1. Develop and agree an implementation plan. Agree method of operation, ownership, business plan, timing.
2. Search for and Appoint a CEO for TIS.

3. Complete tendering and selection for TIS technology; install and commission systems.
4. Recruit TIS staff, from public and private sector.
5. Make public announcement of TIS; conduct PR to ensure maximum awareness.
6. Establish the working party, appointed to rationalise and to approve technical controls.
7. MOIET establish the first one stop shop (OSS) for issuing relevant technical controls.
8. TIS begins to offer first IT products, trade and information data bases.
9. MOIET moves OSS to new premises, established specifically for TIS full range of services.
10. The first new Ministry joins MOIET' OSS and TIS operation at the new premises.
11. Other Ministries gradually join TIS at the new premises.
12. TIS develops a single, simplified, standard paper form for all technical controls. The form is based on UN/EDIFACT design principles.
13. Completion of all Ministries joining TIS.
14. Completion of first phase of paper technical controls rationalisation. Control of new restrictions, rationalisation and plans for automation continue.
15. Development of an electronic standard for technical controls.
16. Introduction of electronic payment for technical controls. Introduce electronic transaction processing services.
17. Introduction of electronic applications and issuing of electronic controls.
18. Development of technical controls risk management computer model.
19. Introduction of automated approvals at Customs and clearance points; introduction of pre-clearance and pre- and post-event auditing.
20. Cut over to full EC/EDI methods of application, issuing and approving technical controls. Full risk management techniques in operation.
21. Review TIS business results, equity and ownership.

Clearly many details have been omitted, but even this sparse overview illustrates a work programme extending for five to six years of innovation.

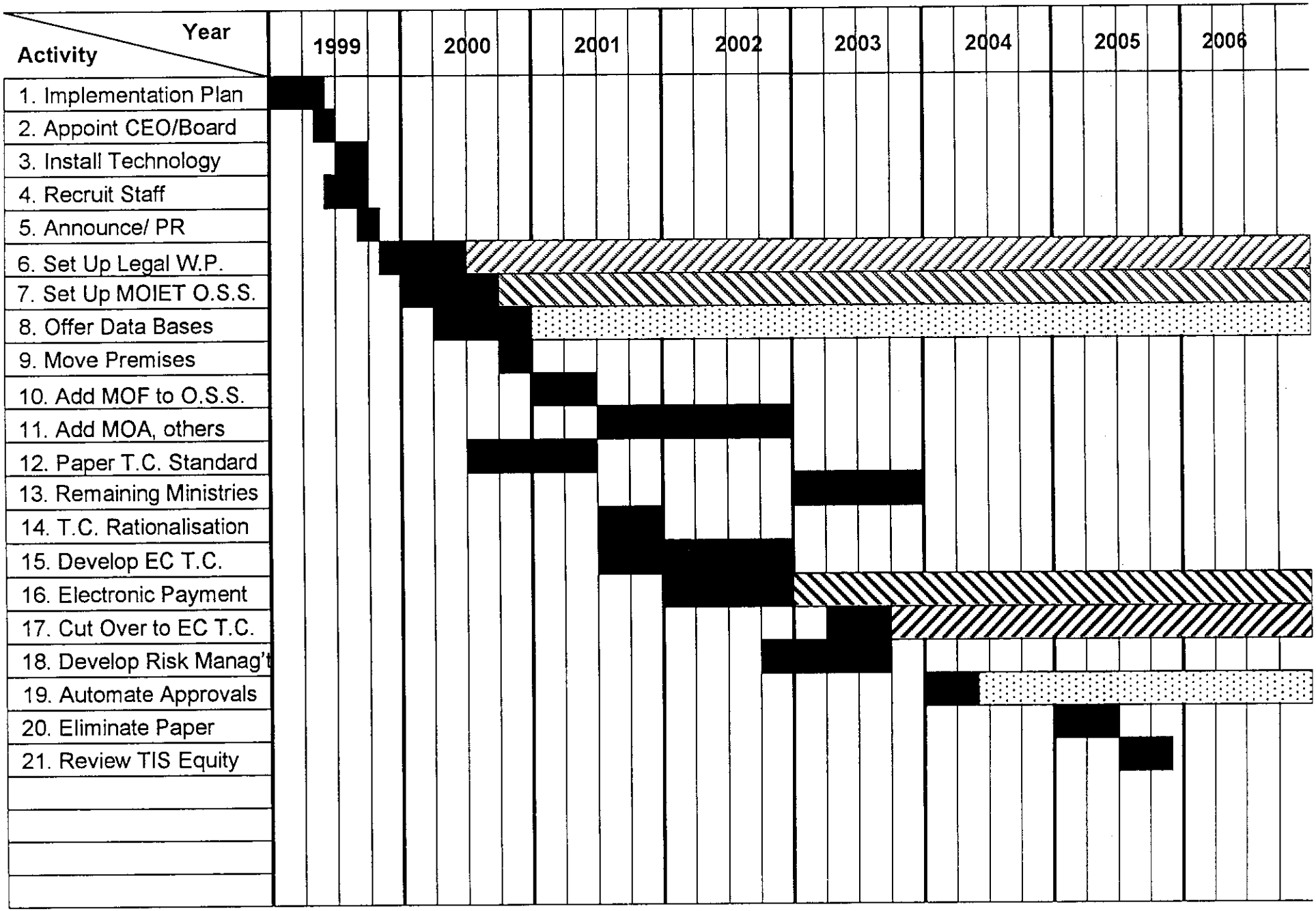

Diagram 10: TIS Project Management Overview

11.30 Trade Process Project

This project is more complex than TIS. It involves many public sector agencies and all private sector agencies and organisations concerned with international trade. The same caveats and comments made about TIS also apply to the Trade Process Project.

Diagram 11: Reengineered Trade Process Project Management Overview provides an illustration of the timing and major modules of the project, as recommended.

11.31 Trade Process Project Implementation Steps

Very briefly, the steps represent:

1. Develop and agree an implementation plan. Agree method of operation, ownership, business plan, timing for LibanFac.
2. Undertake a Customs reengineering and work flow study.
3. Search for and Appoint a CEO for TIS for LibanFac.
4. Upgrade NAJM or implement front end processor for EC/EDI Customs systems.
5. Complete tendering and selection for L.Net and LibanFac technology; install and commission systems.
6. Recruit staff, from public and private sector.
7. Make public announcement of TIS; conduct PR to ensure maximum awareness.
8. Recruit and train the first pilot group of traders.
9. Commence Phase One Pilot, submission of CUSDEC.
10. Introduce first container scanner on a trial basis.
11. SIG legal group commence work on agreeing TPA.
12. Map new EC/EDI messages, preparatory to later Phases.
13. Add the container handling company to the trading partner grouping. Modify Phase One Pilot.
14. Add the port and harbour to the trading partner grouping. Modify Phase One Pilot.
15. Develop the Customs-container handler interface to enable EC/EDI cargo manifest to be implemented.
16. Introduce scanners into full productive work. Progressively implement changed Customs work practises and manning levels.
17. SIG legal group working on EC/EDI legal issues.
18. Install whole of Government Intranet, preparatory to risk management and information sharing between departments.
19. Commence Phase Two Pilot. Electronic cargo manifest, bay plan.
20. Initiate Customs Training Institute and new education regime for Customs, trade professionals and traders.
21. Add TIS to trading partner group. Modify Phase One and Phase Two Pilots.
22. Commence Phase Three Pilot. Electronic invoices, packing lists, BOL.
23. Add trade professionals to trading partner group. Modify Pilots.
24. Commence Phase Four Pilot. Additional message sets.
25. Develop and implement risk management modules.

Once again, a great many details have been omitted, but the chart illustrates a full programme of work for several years to come.

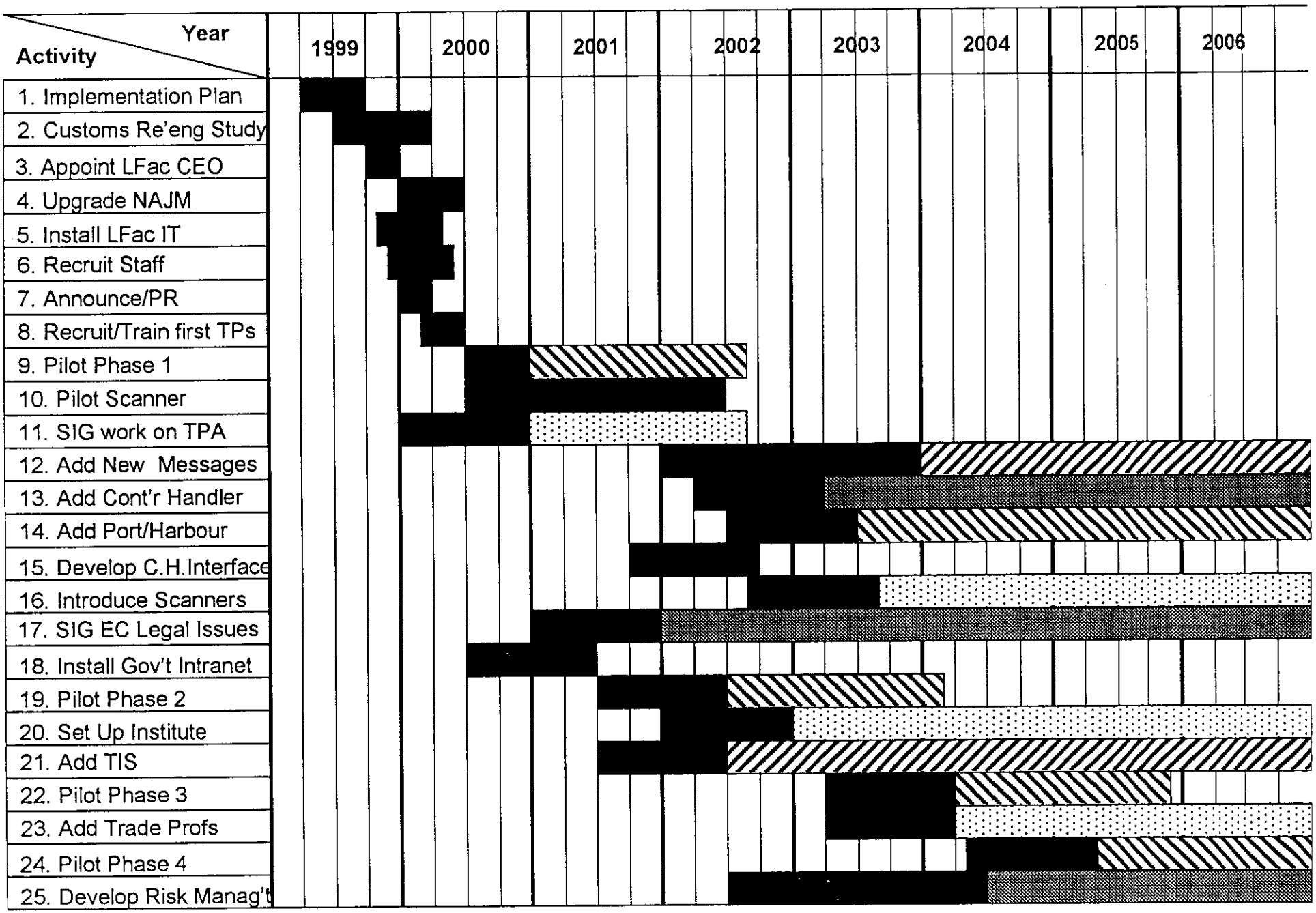

Diagram 11: Reengineered Trade Process Project Management Overview

12.00 SUMMARY

This report is the culmination of a six-seven month project. It ultimately covered a much wider range of the topic of trade efficiency than was originally planned. And that was because, due to conditions almost unique to Lebanon, the only approach to improve Lebanese trade efficiency is to take a top down, comprehensive view of all participants in Lebanese trade, and then to redesign a system that integrates a whole series of improvements. These improvements, including the reengineering of Customs and technical controls systems, when taken together, create a multiplier effect. It is only in this comprehensive and integrated approach that the requisite improvements are possible.

Improvements are vital. The costs of clearances, informal costs, the costs of delays and the scale of delays are a seriously debilitating factor for the national economy. They have helped create a low wage, high cost economy. An economy where bribery is seen almost to be a right when it comes to international trade processes. An economy where SMEs find it almost impossible to export; an economy soon to come under even greater competitive pressures from new WTO agreements, from EU partnerships, from regional trade agreements and the requirements of Customs authorities by the WCO.

The trade process system is ripe for reform. The timing could not be better. Indeed, much later and it could be too late. And reform is inevitable; it will come voluntarily or through compulsion. The only variable is timing. The longer the delay, the more painful, disruptive and expensive the reforms will need to be.

The process involves five groups of organisations: traders, trade professionals, Customs, the port, harbour and container handling authority, and the public and private sector agencies involved in technical controls. Customs have made a good start with the NAJM system; the new container handler is well experienced in the necessary techniques. So there is something to work with.

The system in which each of these organisations interact and exchange information is almost entirely paper based. It needs to adopt IT techniques in general and EC/EDI in particular if it is to approach world best practise. In addition, it needs to implement an upgraded NAJM system, implement a computer based risk management system, for both technical controls and Customs clearances. New technology container scanning equipment is also recommended as part of the Customs reengineering process. In addition, the principles of transparency in dealing with clients (not adversaries), of pre-clearance, of pre- and post-event audit, of 95% or more green channel selections and a system based on a client service relationship between the public sector and their private sector clients needs to be fostered. A Customs training institute will help achieve that goal, by ensuring that everyone in the reengineered and reformed system receives professional training, and in the case of trade professionals, certification.

The technology makes great use of IT systems. It also involves installing a "whole of Government Intranet" for assisting in automating technical control applications, issuing and approvals, in information sharing between Government departments, Statistics and other agencies. Systems for risk management will be developed by Customs, by a new inter departmental agency called the Trade Information Service (TIS), which also

provides a range of trade information and data base services, transaction processing and trade promotion/trade development services. A system that harmonises information exchange between the container handling authority and Customs is also recommended.

The results of this reform and reengineering will include clearances and release to traders in less than 48 hours; the elimination of "informal taxes" at the port and Customs, a fully functional Free Port and growth in trans shipment, SME's business and regional trade.

Trade process performance will be monitored by the application of a range of trade efficiency indices (TEI).

In addition to proposals surrounding the recommended new systems, three consulting projects are proposed: for implementation and business planning for TIS and a new agency, LibanFac, charged with the operation of the technology of the trade process reform project, project management and support. And a fundamental review of customs work practises, and the impact of the trade process reform systems, including rebalancing of Customs workloads.

Additional suggestions are made regarding projects in the transport/logistics sector and in the trade development/export finance guarantee area.

The capital costs of the technology and associated activities will be in the region $10-$15 million. Revenues generated by the two new agencies will begin to repay that amount within three years and show profits within four to five years. In addition, a special trade facilitation levy, of $100 per clearance transaction, will yield $30-$40 million p.a. within four to five years. The projects will pay for themselves; will make a profit, perhaps a capital gain for the Government, within five years. And this is in addition to the cost savings and efficiencies that it will provide for Lebanon's international trade.

The project will enhance Lebanon's skill base, provide well paid employment for its talented young people, and may even create a whole new industry in itself, since Lebanon will be the first in the region to adopt such an efficient system of trading through trade process reform.

The next step is to review the report, then to debrief senior figures in the Government. There after an inspection tour of countries who have adopted similar measures is recommended. The next step after that is to commission an implementation plan for LibanFac, a business plan and implementation plan for TIS and a reengineering, revised work processes study for Customs.

The project can be implemented by stages, the first being operational in less than 12 months. The business and technology cases are indisputable. The national benefits even more so. The only inhibitors are caution, compromise and delay.

But fortune favors the brave.

Epilogue

A group of men were sitting around a table in a humid, unlit and dusty space, just like an old building site. The heat was unbearable; the background noise was intolerable. The lights kept going on and off.

They sat there, listening to someone dressed all in black. He had dark and unpleasant features, a pointed beard and what looked like horns on his head.

"you must have all done very well in your bad works to have reached here" he said. *"Tell me what you did to be accorded such an honour."*

The spokesmen of the small group replied: *"Well sir, we have all spent our entire adult life working in the international trade business, in Beirut, Lebanon. We are all either Customs officers, Customs inspectors, port workers, container handlers and trade professionals, such as freight forwarders, shipping agents and Customs agents. It was our job, our right, to delay shipments; to make problems and place hindrances in the way of everyone who tried to import or export goods through the port of Beirut. We made our fortune by charging our own form of taxation, so that people would ask for our help and pay us generously, just to solve the problems we ourselves had caused."*

"We managed to create a situation in which Lebanon by now imports ten times more than it exports. We have helped create a high cost, low wage economy. We ruined the export trade. We were responsible for cost levels that made it impossible for small companies to export, or to employ people. We took a great pride in our achievements."

The dark figure said: *"Well, you certainly seem to have earned your place here. I have seldom heard of such a small group of people who caused so much damage to a whole country. It seems that everyone suffered except for yourselves. Congratulations."*

" If that's the case, why are our quarters so uncomfortable, why is there no air conditioning, why is it so hot, humid, noisy and dusty. And what about some light in here."

"You must learn to make the best of it. There are many people who are much worse off than you, you know. I tell you what. I occasionally invite a guest here as a sort of motivational speaker. I have just heard of some people who are in the same business that you were in. I'll ask them to come and talk to you tomorrow."

****

The next day, , two people dressed entirely in white, entered the same area. They had a pure and simple, angelic, trusting and naïve appearance. *"G'day"* the man said. *We are Paul and Mona. We are probationary angels. We only have one task to complete before we are allowed into heaven. We have been asked to speak to you poor unfortunates here in hell because we are in the same business you were in before you came here."*

"And what business is that?"