The European Union's TACIS programme
for "Moldova and Ukraine"

Feasibility for the Improvement of Road and Rail Border crossings between Moldova and Ukraine, and for the upgrading of the Multimodal terminals in Moldova and Ukraine

Progress Report

This project is funded by
the European Union

A project implemented by
EURECNA

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Contract: Europe
Aid/113199/C/SV/MULTI-4

"Feasibility for the Improvement of Road and Rail Border crossings between Moldova and Ukraine, and for the upgrading of the Multimodal terminals in Moldova and Ukraine"

Progress Report 2

August 2003

release 1.0

Project Title : **Feasability for the Improvement of Road and Rail crossings between Moldova and Ukraine, and upgrading of the multimodal terminals in Moldova and Ukraine**

Project Number: **EuropeAid/113199/C/SV/Multi, 27530**

Country : **Moldova, Ukraine**

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Date of report: 01/09/2003
Reporting period: 01/06/2003-31/09/2003
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Glossary of Abbreviations:

BC	*Border Crossings*
CIS	*Commonwealth of Independent States*
DFR	*Draft Final Report*
EBRD	*European Bank for Reconstruction and Development*
EC	*European Commission*
EIA	*Environmental Impact Analysis*
EIRR	*Economic Internal Rate of Return*
EU	*European Union*
FIRR	*Financial Internal Rate of Return*
FR	*Final Report*
FSU	*Former Soviet Union*
GDP	*Gross Domestic Product*
IGC	*Inter-Governmental Conference*
IFI	*International Financial Institution*
IR	*Inception Report*
IT	*Information Technology*
MSA	*Monthly Summary of Activities*
OPO	*Overall Plan of Operation*
OPP	*Output Performance Plan*
PR	*Progress Report*
PSC	*Project Steering Committee*
SA	*Summary of Activities*
TA	*Technical Assistance*
TACIS	*Technical Assistance to the CIS*
TEN	*Trans-European Network*
TOR	*Terms of Reference*
TRACECA	*Transport Corridors between Europe, the Caucasus and Asia*

1.Project Synopsis

Project Title:	Feasability for the Improvement of Road and Rail crossings between Moldova and Ukraine, and upgrading of the multimodal terminals in Moldova and Ukraine
Project Number:	EuropeAid/113199/C/SV/Multi, 27530
Date Financing Agreement:	
Countries:	Moldova, Ukraine
Start Date – actual:	23/12/2002
End Date - planned:	23/12/2003
End Date - likely:	23/12/2003
Primary Commitment:	1.700.000€

Overall objective(s):

Support to the region to improve the freight transport facilities by road and rail through a reduction in cross-border travel time and by the development of multimodal terminal facilities within the framework of the TEN and TRACECA corridors

Specific objective(s):

Prepare conditions for upgrading selected border-crossings and multimodal terminals in order to improve freight flows between Moldova and Ukraine, and to foster intermodal traffic, by the preparation of bankable studies to encourage investment

Planned outputs:

Module A Border Crossings

A.1 Existing Border Crossing Points analysed
A.2 Border Crossing Points for upgrading selected
A.3 Engineering design for selected BC Points prepared
A.4 Bankable projects for selected BC Points prepared
A.5 Selected BC Points promoted with IFIs

Module B Multimodal Terminals

B.1 Existing terminals in the region analysed
B.2 Forecast of freight traffic volumes in the region done
B.3 Intermodal transport model for the region developed
B.4 Recommendations on Phase 2 Activities made
B.5 Engineering designs for selected terminal improvements prepared
B.6 Bankable projects for selected terminal improvements prepared

Project activities:

Module A

A.1.1 Catalogue international rail and road crossing points
A.1.2 Collect technical documentation on crossing points
A.1.3 Preparation of database and classification parameters
A.1.4 Site visits to all points
A.1.5 Classification of Points and descriptive reports
A.1.6 Feeding data into database
A.1.7 Hand the database of BC Points over to local counterparts

A.2.1 Prepare justified recommendations for the Steering Committee
A.2.2 Database delivery and recommendations formulation
A.2.3 Advise the Steering Committee and supply additional info on request

A.3.1 Site visits and surveys of selected locations
A.3.2 Agree formats and standards with interested IFIs
A.3.3 Prepare engineering design
A.3.4 Supervise specialist inputs and surveys
A.3.5 Site visits for final verification and agreement
A.3.6 Complete tender documents as necessary
A.3.7Engineering designs, BoQ, Unit Prices and Tender Docs prepared

A.4.1 Prepare pre-feasibility for initial discussion with clients
A.4.2 Complete and finalise economic and financial feasibility
A.4.3 Support presentation to beneficiaries and IFIs
A.4.4 Advice on removal of procedural bottlenecks at crossings
A.4.5 Bankable projects for selected BC points prepared

A.5.1 Advise governments on approach and negotiation with IFIs

Module B
B.1.1 Site visits to 4 terminals
B.1.2 Preparation of report and classification of terminals
B.1.3 Second site visit and agreement on draft plans
B.1.4 Preliminary study for intermodal terminals submitted

B.2.1 Desk research of available data and models
B.2.2 Commissioning and supervision of surveys and interviews
B.2.3 Prepare the Manual of Operation of the forecast model
B.2.4 Feeding the data and test the forecast model
B.2.5 Training counterpart staff and hand-over system to beneficiaries
B.2.6 Traffic forecast model taken over by beneficiaries

B.3.1 Initial research for intermodal modal

B.4.1 Advise the Steering Committee and supply additional info on request
B.4.2 Decision made on Phase 2 activities

B.5.1 Site visits and surveys of selected terminals
B.5.2 Agree guidelines with interested beneficiaries/investors
B.5.3 Prepare Technical specifications
B.5.4 Supervise specialist inputs and surveys
B.5.5 Site visits for final verification and agreement

B.6.1.Complete and finalise economic and financial analysis
B.6.2 Advise on presentation to beneficiaries and investors/IFIs
B.6.3 Provide consultancy advice to terminals

Target group(s): Moldova: Ministry of transport and Communication, Border Committee, Customs Department, Moldovan Railways
Ukraine: Ministry of Transport, State Committee of Border Guards, State Customs Service, Ukrainian Railways

Project start date: 23 December 2002

Project duration: 12 months

2. Introduction

This second Progress Report is issued in accordance with the requirements of Section 7.1 of the TOR and serves as the second Interim Report. As this report contains details of the activities undertaken up to the end of August 2003, no MSA will be issued for this month.

The Project Synopsis has been revised in accordance with the recommendations made for Module B – Phase 2, which have been accepted by the beneficiaries, and is attached as the first section of this and subsequent reports. The Logframe is again attached as Appendix A, the Overall Plan of Operations (OPO) as Appendix B, and the Output Performance Plan (OPP) as Appendix C. It is not possible to allocate the resources exactly in the manner in which the Guidelines propose, as the construction of the Project Budget differs from normal TACIS contracts in that the fees element contains the re-imburseable air-fares and per-diem allowances for all the international experts on an all-inclusive basis, and all other expenditures are covered by the Incidental Expenses Budget already approved by the EU.

As the project starts in January, and ends in December, there is exact alignment between "project month" and calendar months. For the sake of clarity and convenience, month 1 is therefore referred to as January, month 2 as February, and so on. This protocol will be maintained for this and future reports.

The remainder of this report is structured as follows:

- Summary of overall Project Progress
- Project Plan for the remainder of the project
- Project progress in the reporting period + Tables
- Project Plan for the next reporting period + Tables.

3. Summary of Project Progress

3.1 Inception Report Period

The project commenced early in January, with the first visit to the region being in the middle of January. The first tasks were to establish the project offices in Chisinau and Kiev, and select local support staff. Local experts were advertised for and interviewed during February, and initial meetings were held with the Beneficiaries and EC offices in both countries. Field work commenced on both Modules. Details of the project activities during the first 2 months were included in Chapter 3 of the Inception Report.

3.2 March – May (1st Progress Report Period)

On March 6th the CVs and inputs of both the local experts and the international short-term experts were approved by the EU, and the Inception Report was issued to, and approved by, the Beneficiaries. Nominations to the PSC were made, and Project Registration completed in Ukraine.

Field visits to the Border crossings continued throughout the period and were completed in May. The Template for the BC database was completed at the end of April and the database constructed and demonstrated at the May PSC.

Data collection and traffic forecasting continued throughout the period and is largely complete for Moldova. Additional information has been sought from Ukraine, and this activity will continue during the fist half of June.

The first visits by short-term experts were completed during the period. The IT expert supervised the construction of the database, and prepared the documents for the sub-contracting. The Customs and Transit advisor visited a number of BCs, and produced a preliminary paper of the current procedures. The intermodal team visited in May and carried out a series of visits to the existing and potential multi-modal terminals.

The first of the three PSC meetings was prepared for and held in Chisinau on 22nd May; project progress to date was reported on, and a summary of the recommendations for Phase 2 (Module A) was given. Presentations were also made on Traffic Forecasting and Investment Appraisal by the project economist, and the database was demonstrated. Preparations were also made for the Study visits which will be held in Italy and Slovenia during the first two weeks in June.

3.3 June – August (2nd Progress Report Period)

Project progress during this period was slightly slower than anticipated and an extenton of time and some re-allocation of man-days has been requested from the Task Manager on 26 th August. There is no change to the budjet.

Project planning is now based on a contract end date of February 22nd, 2004.

The study visits were successfully completed during the first two weeks in June in Italy and Slovenia. The Team Leader and staff from the Contractor's home office accompanied the delegates on both visits, and were supported by the project engineer for the Module A visit.

A number of discrepancies were found in the BC database, and an exercise to revisit all the BCs was initiated. The results of this revision are now being incorporated into the document; it is still hoped to issue this document early in September.

The recommendations for Module A were accepted by the Beneficiaries by the middle of June, and the confirmation letters requested by the Task Manager were received in July. Arrangements were then put in hand to prioritise the tasks, following a request from TRACECA to fast-track some of the deliverables to enable them to present the projects to the TRACECA I.G.C. in October. The initial survey and design work will be completed by August; tender documents are under preparation and will be completed by mid-September.

The recommendations for Phase 2 of Module B were prepared and issued at the beginning of July, together with the Intermodal Strategy paper, and have also been accepted by the beneficiaries. Some difficulty was experienced in obtaining the neccessary traffic forecasts and business plans from the multimodal terminals to enable the feasibility studies to proceed, but these issues have largely been resolved by the provision of additional information during August.

The traffic forecasts are substantially completed and the methodology paper is under preparation by the project economist.

The second Project Steering Committee meeting is being arranged to take place at Iliychevsk on September 4th, 2003.

4 Project Planning for the remainder of the Project

This section summarises the project planning for the remainder of the project. Planning is based on the assumption that an extension of contract time from 23rd December 2003 till 29th February 2004 will be granted by the Task Manager

4.1 Project Management Activities

The second PSC meeting will take place in Iliychevsk on the 4th September, and will be hosted by the Iliychevsk Port Authority and the third and final PSC meeting will take place towards the end of November in Kiev. Both meetings will be combined with some secondary partnership activities to maximize the use of Beneficiary and EU resources. At the second PSC meeting this will include a visit to the port facilities, including the container terminal. At the third PSC meeting it is hoped to arrange a workshop on the private financing of transport infrastructure projects as outlined in previous reports.

The Draft Final Report is now scheduled for the end of December, with the deadline for Beneficiary comments being 1st February, and the Final report being submitted during the second half of February.

Throughout the project the short-term experts will continue to write their technical papers, and these will be attached as Appendices to the reports as they are completed.

4.2 Module A activities

During September the information gathered from the BC visits and revisits will continue to be collated, formatted and translated, and this will be issued as a stand alone document. The revised information will also be entered into the database, which will be issued electronically.

The initial survey and design work for the fast-tracked projects will be completed in September, and the tender documents issued no later than the end of the month, as requested by TRACECA. The tendering process for the other service contracts for topographical, geo-technical and environmental assessments will be completed, and the activities will be finalized during October. Preliminary design and costing work, and the preparation of the deliverable tender documents will continue through the period until the delivery of the Draft Final Report. Work will also continue on the preparation of bankable project documents and the promotion of schemes to IFIs where appropriate.

4.3 Module B activities

The descriptive analysis of the multimodal facilities will be finalised during September and issued as a technical paper. The forecast for multi-modal traffic will also be completed in September.

Following the acceptance on the recommendations for Phase 2, the Technical specifications and outline cost estimates for the refurbishment of gantry cranes at both Chisinau and Kiev will be completed by the September deadline and issued to TRACECA. Outline design for the new access road at Liski will be completed by December; the consultancy advice proposed for Phase 2 of Module B will be arranged at a date suitable for both the Contractor and the Beneficiaries during September or October. Economic and financial analysis for both Modules will continue throughout the planning period. During November it is proposed to hold a "Transport Infrastructure Investment" workshop and seminar in Kiev, to which the Beneficiaries and other government and private sector organizations will be invited. If possible this will coincide with the 3rd PSC meeting

5. Project Progress in the Reporting Period

5.1 Introduction

In this Chapter of the report we outline in greater detail the progress made in the project during the reporting period from 01.06.03 - 31.08.03. This covers the period from the First Progress Report to date. In accordance with the request from the EC Delegations, an additional Monthly Summary of Activities (MSA) has been prepared and distributed electronically providing a summary of activities for June and July.

This Chapter divides the activities into:

- Project management activities
- Module A activities
- Module B activities.
-

and is followed by the tables stipulated in the Guidelines

5.2 Project Management Activities

5.2.1 Personnel inputs

There has been no change to the composition of the local expert team, which was given in Table 4.2 of the IR. There are a total of 42.68 person/months approved (939 person days), and up until the end of July some 58% of this amount (544 days) had been used.

The use of the International short-term experts has been relatively low over the reporting period, as there has been a natural break in activities between the production of the Phase 2 recommendations and the commencement of the Phase 2 work, combined with the main holiday period both for the Beneficiaries and the Contractor. Up until the end of July 158 days (42%) had been utilized. The Team Leader has used 125 days (57%) and the long Term Experts have used 279 days (63%).

5.2.2 Progress Report

The first Progress report was issued early in June, and accepted by the beneficiaries and the Task Manager. This included the Contractor's recommendations for Phase 2 of Module A, which were discussed with the beneficiaries in both countries and with the TRACECA office in Odessa. Following these discussions a set of priorities was produced and issued. This is attached to this report as Appendix D.

5.2.3 Project Steering Committee

Arrangements and an agenda for the 2nd Project Steering Committee meeting have been made. The meeting will be held in Iliychevsk on 4th September, and the Iliychevsk Commercial Sea Port Authority have arranged a visit for the delegates to the port to see the general cargo operations and the operation of the container terminal.

5.2.4 Study Visits

During June the Contractors organised the Study visits to Italy and Slovenia in accordance with the provisions of the Technical Proposal. The Study Tour comprised 2 components in line with the 2 Modules of the project. The Multimodal visit took place between 3-6th June, and included visits to terminals, railways, forwarders and warehousing companies in both Padova and Verona. The Border Crossing visit took place from 9th – 11th June at of the two principal border crossing points on the Italy-Slovenia border, and included visits to Customs facilities, Border Guards facilities, freight terminals, and passenger terminals.

A comprehensive report on the activities undertaken is included as Appendix E.

5.3 Module A Activities

5.3.1 Analysis and Description of BCs (Task A.1)

This task has been ongoing throughout the reporting period, and it has not been possible to complete the report yet. Much of the original data collection was carried out under very difficult field conditions, during periods of deep snow, heavy frosts and local road closures. It has subsequently become apparent that there were a number of discrepancies in the original data collected, and also that there had been a number of changes since the original field work both in the physical attributes of the BCs – for example the closure of some buildings, and the completion of on-going improvement works – and also in the composition and numbers of staff deployed.

A decision was therefore taken by the Team Leader to re-visit all the sites to up-date the information. This document is an important deliverable to the Beneficiaries, as it can be used after project completion and well into the future as the basis for on-going decision-making on the investments that may be needed to improve the facilities at all the international BCs between the two countries. It is therefore important that the information it contains is as accurate and up-to-date as possible. The document will be issued both in hard copy and electronically as soon as it is completed, and this is anticipated for the end of September.

5.3.2 Selection of BC points for up-grading

The selection of BC points for further study in detail and possible up-grading was outlined to the PSC during the previous reporting period, and included in the last progress report. In June these recommendations were accepted by the Beneficiaries, and confirmed by the Task Manager. Following a period of discussion with the Beneficiaries in both countries and with the TRACECA office in Odessa, a paper on prioritization was produced, as outlined in 5.2.2 above. The discussions have been on-going in view of the request of TRACECA to fast-track certain deliverables in time for the TRACECA I.G.C in October.

There were requests for additional work to be done for the railways in both countries, in particular on the Kuchurgan-Causeni-Etulia-Reni-Giurgulesti-Galati line, which forms an important link between Ukraine and Romania, and passes through Moldova. These requests had to be declined in the prioritization paper as they would have involved the Contractor both in additional tasks at an additional BC, for which resources are not available, and also in BC points on the border with Trans-Dniestria, which have already been excluded from the project in the IR (4.5.2)

The recommendation paper identified the following BC points for further work in Phase 2:

- Otaci-Mogilov Podolski (road)
- Tudora-Starokazacie & Palanca-Maiaki/Udobnoe (road)
- Kriva-Mamaliga (road)
- Giurgulesti-Reni (rail)

The criteria for this selection of road BCs included the volume of traffic, and the gap between the need and the existing situation. A further study of the Kriva-Mamaliga BC, which had the least traffic of the three, also showed the lowest needs gap, and it was therefore decided to drop this BC from the list, which is reduced to 3 BCs as per the ToR.

A letter received from the Ukraine Ministry of Transport emphasized the importance they placed on the development of a new BC in the Otaci region, and listed the opening of the Ungurri-Bronnitsa BC as a priority. This will involve completing the road projects already started some years ago to link the new bridge at Ungurri with the national road networks on either side of the river Dniestr, which forms the border at this point. This BC is subsequently referred to as "Ungurri-Bronnitsa.

At the Tudora-Starakazacie, and Palanca-Maiaki/Udobnoe BCs, a number of issues were clarified at the meetings. These may be summarized as:

- It would be very expensive to develop the Maiaki site due to the ground conditions

- The existing arrangement whereby the 7.77km of road within Moldovan territory is used jointly as a domestic road within Ukraine and as an international road between the two countries is unsatisfactory
- There are 2 international crossings within 10km of each other, which implies some rationalization is possible
- An ideal solution – for a joint BC at Palanca on Moldovan territory – will require a strategic agreement between the two countries, and a change to the existing BC treaty.

For the rail BCs, progress has been complicated by the fact that the improvements already identified by the beneficiaries as being required at Giurgulesti-Reni, and, in the case of Giurgulesti, specifically identified in writing by Moldovan Railways, have in fact already been designed, costsed and in some cases either already completed, or at least started. Further work to identify the appropriate options for this BC were therefore started in the project reporting period, and will be completed in September.

5.3.3 BC Engineering Design

Work started in July on the preliminary engineering design for the works at Ungurri-Bronnitsa and Tudora-Starkazacie. The first stage at Ungurri-Bronnitsa will be the road connections, and a service contract under the emergency procedures to up-date the topographical and geological information for the road connection on the Moldovan side of the border commenced at the end of July.

5.3.4 Preparation of Bankable Projects

It has become increasingly apparent throughout the reporting period that it will not be possible to produce "bankable" projects, in the sense that any financial analysis will provide sufficient return to attract commercial investment in the project. Border crossings are essentially a state function, performed for the benefit of the state in terms of its security in the broadest sense. The investment appraisal which started during the reporting period will therefore concentrate on the economic benefits and return.

5.4 Module B activities

5.4.1 Analysis of Multimodal terminals (Task B.1)

This task has now been completed in the reporting period. The reports and documentation are currently in preparation and will be issued in September. They will include the analysis of the three terminals examined, a discussion paper on the possible development of Ungheni, and the Mechanical Engineers technical paper on the current state of the lifting equipment at each terminal inspected.

5.4.2 Freight Traffic forecasts (Task B.2)

Data collection for this task has continued throughout the first part of the reporting period in both countries and is now completed; The freight forecast is under preparation.

5.4.3 Initial Research for Intermodal Model (Task B.3)

As outlined in the May PR, it was decided to prepare a paper on the future of intermodal traffic in the region. This intermodal concept paper was issued together with the recommendations paper for Phase 2 and a copy is attached as Appendix F.

5.4.4 Recommendations for Phase 2 (Task B.4)

The recommendations for Phase 2 of Module B were issued at the end of June, and have been accepted by the beneficiaries and the Task Manager. One key issue is the very low volume of traffic currently using the terminals and the difficulty faced by both the beneficiary organizations in identifying and planning for future growth. We consider it essential that both countries maintain and operate a multimodal terminal, at least in the capital cities, to cater for long term economic growth in the region and the continuing growth of containerisation worldwide in international maritime traffic.

The recommendations therefore include:

- Refurbishment of at least one gantry crane at the terminals in Kiev and Chisinau to extend the life of the essential handling equipment
- Outline design for an improved access road at Liski (Kiev) for environmental reasons
- Provision of consultancy advice on improving customer focus and marketing for both organizations to enhance their business planning skills.

5.5 Supporting Documents

In accordance with the TACIS Guidelines, these tables follow this section:

- Project Interim Report for the period
- Resource Utilisation Report
- Output Performance Report.

The Resource Utilisation report gives the utilization of resources up till the end of July, as the reporting period runs till the end of August, but the Contractor's financial reporting system runs till the middle of each calendar month. The recourses utilization report expresses the consumption of the Incidental Expenses Budget in Terms of percentage utilization of the lump sums agreed as there are no unit measments in the approved budget

PROJECT INTERIM REPORT

Project title : Feasability for the Improvement of Road and Rail crossings between Moldova and Ukraine, and upgrading of the multimodal terminals in Moldova and Ukraine	Project number : EuropeAid/113199/C/SV/Multi, 27530	Country : Moldova, Ukraine	Page :1
Planning period : 01/06/03-31/08/03	Prepared on : August 2003	Contractor : Eurecna CNA Veneto International Services	

Project objectives :

Overall objective(s): Support to the region to improve the freight transport facilities by road and rail through a reduction in cross-border travel time and by the development of multimodal terminal facilities within the framework of the TEN and TRACECA corridors

Specific objective(s): Prepare conditions for upgrading selected border-crossings and multimodal terminals in order to improve freight flows between Moldova and Ukraine, and to foster intermodal traffic, by the preparation of bankable studies to encourage investment

No	ACTIVITIES IMPLEMENTED	TIME FRAME			INPUTS 01/05/03-31/07/03					
					PERSONNEL INTERNATIONAL		PERSONNEL		EQUIPMENT AND MATERIAL	OTHER
		June	July	August	Planned	Utilised	Planned	Utilised	Utilised	Utilised
A 1.1/A1.2	Catalogue international rail and road crossing points, collect technical documentation on crossing points				1. 56 days 2. 116 days 3. 127 days		4. 301 days	301 days	66.33%	(see next table)
A1.4	Site visits to all points									
A1.5	Classification of Points and descriptive reports									
A2.3	Advise the Steering Committee and supply additional info on request									
A3.1	Sites visits and survey of selected locations									
A3.3	Prepare engineering design									
A3.4	Supervise specialist inputs and survey									
A3.6	Complete tender documents as necessary									
A4.1	Prepare pre-feasibility for initial discussion with clients									
B1.2	Preparation of report and classification of terminals									
B1.4	Preliminary study for intermodal terminals submitted									
B2.3	Prepare the Manual of Operation of the forecast model									
B3.1	Initial research for intermodal modal									
B4.1	Advise the Steering Committee and supply additional info on request									
B4.2	Decision made on Phase 2 activities									
	TOTAL				299 days		301 days			

RESOURCE UTILISATION REPORT

Project title : Feasability for the Improvement of Road and Rail crossings between Moldova and Ukraine, and upgrading of the multimodal terminals in Moldova and Ukraine	Project number: EuropeAid/113199/C/SV/Multi, 27530	Country : Moldova, Ukraine	Page :1
Planning period : 01/05/2003- 01/08/2003	Prepared on : 25/08/03	Contractor : Eurecna CNA Veneto International Services	

Project objectives :

Overall objective(s): Support to the region to improve the freight transport facilities by road and rail through a reduction in cross-border travel time and by the development of multimodal terminal facilities within the framework of the TEN and TRACECA corridors

Specific objective(s): Prepare conditions for upgrading selected border-crossings and multimodal terminals in order to improve freight flows between Moldova and Ukraine, and to foster intermodal traffic, by the preparation of bankable studies to encourage investment

RESOURCES/INPUTS	TOTAL PLANNED	PERIOD PLANNED	PERIOD REALISED	TOTAL REALISED	AVAILABLE FOR REMAINDER
PERSONNEL					
1.Team Leader	220 days	56 days	56 days	125 days	95 days
2.Long Term International Experts	440 days	116 days	116 days	279 days	161 days
3. Short Term International Experts	374 days	127 days	127 days	158 days	216 days
4. Local Experts	939 days	301 days	301 days	544 days	394 days
Sub-total	1973 days	600 days	600 days	1106 days	867 days
EQUIPMENT AND MATERIAL				66.33%	33.67%
Sub-total					
OTHER INPUTS					
1.Office and Local expenditure				47.1%	52.9%
2.Travel Costs and Per Diem				56.7%	43.3%
3Studies, Interviews and Surveys				0.00%	100.00%
4.Partnership Activities				29.2%	70.8%
5.Seminars, Workshops and Training				73.3%	26.7%
6.Publications, Marketing				5.1%	94.9%
Sub-total					
TOTAL					

OUTPUT PERFORMANCE REPORT

Project title : Feasability for the Improvement of Road and Rail crossings between Moldova and Ukraine, and upgrading of the multimodal terminals in Moldova and Ukraine	Project nr : EuropeAid/113199/C/SV/Multi, 27530	Country : Moldova, Ukraine	Page :1
Prepared on : 25/08/03		Contractor: Eurecna CNA Veneto International Services	

Output number	Output results	Deviation original plan + or - %	Reason for deviation	Comment on constraints & assumptions
A.1	Incomplete	-10%	Volume of information to be formatted and translated, and entered to Database , + need for re-visit	Will be completed by end of September
A.2	Complete	Nil		
A.3	Ongoing			
A.4	Ongoing			
B.1	Completed			
B.2	Completed			
B.3	Completed			
B.4	Completed			
B.5	Ongoing			Replaced by Technical Specifications
B.6	Ongoing			Replaced by feasibility for crane refurbishment

6. Project Planning for the Next Reporting Period

6.1 Introduction

In this Chapter we describe in greater detail the project planning for the next reporting period, which runs from 01.09.03 - 31.12.03. This covers the period between the second Progress report and the delivery of the Draft Final Report, and is based on the following assumptions:

- As agreed with the EC Delegations, Monthly Summaries of Activities will continue to be produced against which progress can be measured, and these will be issued at the end of September, October and November
- An extension of time will be granted.
- A period of 4 calendar months between this report and the Draft Final Report is acceptable, and that no additional Progress Report will be required at the end of November

This Chapter divides the activities into:

- Project Management Activities
- Module A activities
- Module B activities.

6.2 Project Management Activities

6.2.1 Project Steering Committee

The second Project Steering Committee meeting is scheduled for the first week in September, and will be held in Iliychevsk. The principle items on the agenda will be project progress to date, a discussion of the contents of the second Progress report, and the arrangements for a proposed Transport Infrastructure Investment workshop to be held in November in Kiev, and to which all the Beneficiaries, and other government and private sector parties will be invited.

In order to maximize the benefits and make best use of the considerable resources in time that the joint 2-country PSC meetings require, we intend to combine the PSC meeting with some additional "Project Partnership" activities, and these will include:

- Visit to Iliychevsk Port facilities
- Visit to Iliychevsk container terminal
- Discussion and feedback review of the Study visits

6.3 Module A Activities

6.3.1 Completion of BC database (Task A.1.7)

The up-dating, revision, translation and formatting of the description of the BC points is still ongoing and is now expected to be completed by the end of September. This will then be issued as a separate document as soon as it is available.

The computerised database will also be completed, and the arrangements made for the 1-day training course to teach selected staff from the Beneficiaries – primarily the Customs department – how to use it. The training will be designed as a "Train the trainers" exercise, so that it can be cascaded down through the Beneficiary organizations. Courses will be held in Chisinau and Kiev. The arrangements for training will be discussed at the 2nd PSC meeting in September

6.3.2 Service Contracts for surveys (Task A.3)

As outlined in the IR, much of the preliminary survey work for the engineering tasks will be performed by local companies under service contracts, as provided for in the Incidental expenditure budget. Tenders are currently being issued and evaluated in accordance with TACIS procedures for:

- Topographical surveys for the selected sites, including the production of any additional drawings required on a scale of 1:500
- Hydrological and geotechnical surveys to establish ground condition data and for input into the environmental impact analysis
- Environmental impact analysis to EU and local standards applicable to transport infrastructure projects, and covering both the construction and operational phases of the development. Particular attention will be paid to the effects of traffic disruption, increased traffic flows, socio-economic benefits to the local areas, and improved employment opportunities.

The surveys will be conducted according to the agreed list of priorities.

6.3.3 Conceptual layout and design (Task A.3)

Preparation of conceptual design documents for the infrastructure improvements will continue throughout the reporting period, following further more detailed site visits to the chosen locations by both the international and local engineers.

Detailed material specifications and cost estimates will continue to be finalized using local materials wherever possible. Where imported materials proposed, the percentage will be identified to identify the foreign exchange requirement and risk. All cost estimates will differentiate between material and labour costs.

Conceptual design and drawings will be discussed with the beneficiaries throughout the process and in liaison with both the national and local authorities who have the responsibility for approving transport infrastructure projects of this type.

6.3.4 Production of Tender documents (Task A.4)

The task of producing the tender documents will also continue during the reporting period and will be supervised by the Transport Infrastructure engineer, with support as required from the short-term experts. All Tender documents will conform to standard EC procedures and will comprise:

- Formal Instructions to Tenderers
- EU contract for works - General and Special Conditions
- Technical specifications for the work
- Price schedule
- Design documents.

This task will be ongoing throughout the reporting period, and the completed documents will form a part of the Draft Final Report. In accordance with the ToR, tender documents will be produced for the Module A improvements only.

6.4 Module B activities

6.4.1 Engineering designs for terminal improvements (Task B.5)

The only terminal improvement recommended is for the outline design of a new road to connect Liski terminal (Kiev) to the city ring road to replace the existing heavy vehicle access, which passes through residential areas on narrow roads. The sub-contracted surveys for topographical, geotechnical and environmental design will follow the pattern already outlined in section 6.3.2 above. These will then be followed, with the conceptual designs and drawings for approval by the relevant authorities and the Beneficiaries..

6.4.2 Financial and economic Analysis for Bankable documents (Task B.6)

The financial and economic analysis for the selected developments for the Module A recommendations will continue throughout the period. The investment appraisals will cover 3 scenarios:

- The "Do-Nothing" option, where any investment is strictly limited to basic repair and maintenance
- Efficiency improvements to improve quality and appearance and promote joint border crossing points for passenger traffic

- Overall reform of the border crossing points and procedures and the establishment of joint border crossing points for both passenger and freight traffic.

The analysis will cover the financial costs and revenues to arrive at a FIRR, and the economic analysis will be carried out in accordance with standard practice to arrive at an EIRR. Benefits will include the reduction in vehicle and passenger time, the benefits of the time saved, environmental and socio-economic benefits, human resource benefits, improvement of national image, and other external benefits.

These analyses will form a key part of the bankable documents, and the task will be ongoing throughout the reporting period.

PLAN OF OPERATIONS FOR THE NEXT PERIOD (Work programme)

Project title : Feasability for the Improvement of Road and Rail crossings between Moldova and Ukraine, and upgrading of the multimodal terminals in Moldova and Ukraine	Project number : EuropeAid/113199/C/SV/Multi, 27530	Country : Moldova, Ukraine	Page :1
Planning period : 01/08/03-30/11/03	Prepared on : 25/08/03	Contractor : Eurecna CNA Veneto International Services	

Project objectives :

Overall objective(s): Support to the region to improve the freight transport facilities by road and rail through a reduction in cross-border travel time and by the development of multimodal terminal facilities within the framework of the TEN and TRACECA corridors

Specific objective(s): Prepare conditions for upgrading selected border-crossings and multimodal terminals in order to improve freight flows between Moldova and Ukraine, and to foster intermodal traffic, by the preparation of bankable studies to encourage investment

No	ACTIVITIES	September	October	November	Inputs (...../months) International	Inputs (...../months) Local	Other
A.1	Existing Border Crossing Points analysed				1	1	(as per Incidental Expenses Budget approved by EU
A.3	Engineering design for selected BC Points prepared				5	16	
A.4	Bankable projects for selected BC Points prepared				5	1	
A.5	Selected BC Points promoted with IFIs				2		
B.5	Technical specifications for crane refurbishment prepared				1.5		
B.6	Consultancy advise provided				1.5		
Other	PFI Seminar and workshop				1.5		
				TOTAL	17.5	18	

APPENDIX A

Logframe

LOGFRAME MATRIX

	Intervention Logic	Objectively Verifiable Indicators	Sources of Verification	Assumptions (External Factors)
Overall Objectives	Support to the region to improve the freight transport facilities by road and rail and by the development of multimodal terminal facilities within the framework of the TEN and TRACECA corridors	• Reduced travel times • Improved railway operations • Increased multimodal traffic • Increased trade activities	• Customs and border guards statistics • Railway operating timetables • Intermodal throughputs • Trade statistics	• Sufficient financing available • Beneficiaries proceed to construction
Specific Objectives	Prepare the conditions for up-grading selected Border-crossings and multimodal terminals in order to improve freight flows between Moldova and Ukraine and foster intermodal traffic, by the preparation of bankable studies to encourage investment.	• Completed analysis of 22 BCs and 5 MM sites • Approval of selected options • Adequacy of design • Completeness of cost indicators • Completion of bankable studies	• Progress Reports • Delivery of MM terminal pre-feasibility study • Completion of Design documents • Indication of approval by national and local authorities • Acceptance by IFIs and other potential investors	• No difficulties in the fieldwork • No delays in approval of selected options • Adequacy of local survey and design capacity
Outputs	<u>Module A</u> 1 - Analysis of BC points and selection of options for improvement 2 - Forecast of freight traffic 3 - Preparation of Engineering designs and bankable studies 4- Promotion of BC projects with selected IFIs <u>Module B</u> 1 – Analysis of Multimodal terminals and recommendations for Phase 2 activities 2 – Forecast of freight traffic volumes 3 – Development of an Intermodal model 4 – Preparation of engineering designs and bankable studies	• Description of facilities • Pre-feasibility study for MM terminals • Preliminary work on Intermodal Model • Adequate pre-design surveys • Completeness of cost data • Completed traffic forecast • Design to approved standards • Completeness of tender documentation • Strategic plan for MM terminal development	• Computerized database • Completed study • Topographical survey • Hydrological and geotechnical survey • Traffic forecast model • Environmental Impact Analysis • Approved conceptual design • Price schedule/Bill of quantities	• Adequate data available • No major geotechnical problems • Full cooperation of beneficiaries • No delays in approvals
Activities	<u>Module A</u> 1- Site visits and collection of technical information 2 - Completion of Descriptive reports 3- Preparation and hand-over of BC database + training 4- Selection of Options for BCs and advice to PSC 5- Completion of surveys and EIAs 6- Completion of designs and Cost estimates 7- Preparation of tender documents 8- Cost Benefit, Financial and Economic Analysis 9- Preparation of summary documents, bankable studies, and discussions with IFIs	Means Project Team Inputs Local Expert Inputs Sub-contracting of some activities (see Resource tables and Work Plan)	Costs Fee costs as per Contract Incidental Expenses (as per budget)	• Quick approval of CVs by EC • Cooperation of Beneficiaries • Early approval of selected options (EC and Beneficiaries)

	Module B 1- Site visits and collection of technical information for multimodal terminals 2- Forecast of freight traffic volumes 3- Preparation of pre-feasibility study 4- Preliminary study for Intermodal model 5- Recommendation on Phase 2 activities and advice to PSC 6- Completion of surveys and EIAs 7- Completion of technical specification and cost estimates 8- Cost Benefit, Financial, and Economic Analysis 9.Provision of consultancy advice			

APPENDIX B

Overall Plan of Operation

OVERALL PLAN OF OPERATIONS

Project title : Feasability for the Improvement of Road and Rail crossings between Moldova and Ukraine, and upgrading of the multimodal terminals in Moldova and Ukraine	Project number : EuropeAid/113199/C/SV/Multi, 27530	Country : Moldova, Ukraine	Page :1
Planning period : 23/12/2002- 22/02/2004	Prepared on : March 2003	Contractor : Eurecna CNA Veneto International Services	

Project objectives :

Overall objective(s): Support to the region to improve the freight transport facilities by road and rail through a reduction in cross-border travel time and by the development of multimodal terminal facilities within the framework of the TEN and TRACECA corridors

Specific objective(s): Prepare conditions for upgrading selected border-crossings and multimodal terminals in order to improve freight flows between Moldova and Ukraine, and to foster intermodal traffic, by the preparation of bankable studies to encourage investment

No	MAIN ACTIVITIES	TIME FRAME 2003												INPUTS		
														PERSONNEL(person/months)		OTHER
		1	2	3	4	5	6	7	8	9	10	11	12	International	Local	
A.1	Existing Border Crossing Points analysed															(As per Incidental Expenses Budget approved by EU)
A.2	Border Crossing Points for upgrading selected															
A.3	Engineering design for selected BC Points prepared															
A.4	Bankable projects for selected BC Points prepared															
A.5	Selected BC Points promoted with IFIs															
B.1	Existing terminals in the region analysed															
B.2	Forecast of freight traffic volumes in the region done															
B.3	Intermodal transport model for the region development															
B.4	Recommendations on Phase 2 Activities made															
B.5	Technical specifications for crane refurbishment															
B.6	Consultancy advice given															
										TOTAL				36.5	43.18	

APPENDIX C

Output Performance Plan

OVERALL OUTPUT PERFORMANCE PLAN

Project title : Feasability for the Improvement of Road and Rail crossings between Moldova and Ukraine, and upgrading of the multimodal terminals in Moldova and Ukraine	Project number : EuropeAid/113199/C/SV/Multi, 27530	Country : Moldova, Ukraine	Page :1
Planning period : 23/12/2002- 22/02/2004	Prepared on : March 2003 (Reviserd 08/03)	Contractor : Eurecna CNA Veneto International Services	

Outputs		Agreed Objective Verifiable Indicators	Constraints and Assumptions C/A
Description	Target Date		
A.1 Existing Border Crossing Points analysed	1/10/03	• Database completed and delivered	• Sufficient financing available • Beneficiaries proceed to construction • No difficulties in the fieldwork • No delays in approval of selected options • Adequacy of local survey and design capacity • Adequate data available • No major geotechnical problems • Full cooperation of beneficiaries • No delays in approvals • Quick approval of CVs by EC • Cooperation of Beneficiaries • Early approval of selected options (EC and Beneficiaries)
A.2 Border Crossing Points for upgrading selected	1/6/03	• Recommendations made to Beneficiaries	
A.3 Engineering design for selected BC Points prepared	26/12/03	• Survey and Design completed • Cost data completed	
A.4 Bankable projects for selected BC Points prepared	26/12/03	• Completed Tender documentation	
A.5 Selected BC Points promoted with IFIs	23/12/03	• Advice given to Beneficiaries	
B.1 Existing terminals in the region analysed	30/6/03	• Pre-feasibility study completed	
B.2 Forecast of freight traffic volumes in the region done	23/8/03	• Traffic forecast completed	
B.3 Intermodal transport model for the region developed	23/11/03	• Strategic plan for multi-modal development issued	
B.4 Recommendations on Phase 2 Activities made	30/6/03	• Recommendation made and accepted	
B.5 Technical specifications for crane have refurbishment prepared	01/10/03	• Survey completed • Cost data completed	
B.6 Consultancy advice given	23/11/03	• Advice given to Beneficiaries	

APPENDIX D

Module A –Phase 2 prioritisation

Module A – Prioritization

Dear Sirs

1. Following the acceptance by all the Beneficiaries of the Contractors recommendations for Phase 2 of Module A as described in the Progress Report dated 01.06.03 in Appendix E, and taking into account comments made by both the Ministry of Transport (Ukraine) and Moldovan Railways, a series of meetings have been held in both countries with the Beneficiaries, the EC Delegation in Kiev, and TRACECA.
2. The Contractors Terms of Reference require him to produce detailed documents in Phase 2 for "2 or3" Border crossing Points.
3. TRACECA require some of the documents to be prioritized and ready by mid-September in order to prepare appropriate Terms of Reference for projects to take place during calendar year 2004.
4. Discussions have therefore been about prioritization in terms of the Contractor's time for Phase 2 in order to meet these requirements.
5. Following the request of the Beneficiaries, initial reviews of options have been done for the Palanca-Maiaki and Otaci-Mogilov Podolsk road BCs.
6. Although the Palanca-Maiaki BC carries the greatest volume of traffic movement, the design of infrastructure improvements, including the closure of the temporary Maiaki border post and its relocation to Palanca will require inter-governmental agreement at a strategic level, and probably amendments to the existing legal agreements between the two countries. We do not anticipate that these can be forthcoming in sufficient time to enable the Contractors to meet the TRACECA deadline.
7. The alternative solution for this BC is for Palanca border post to revert to a national crossing, jointly operated by both countries, and for the extension of the infrastructure and improvement of the access roads at the alternate Tudora-Starakazacie BC. This alternative would also require inter-governmental agreement, and although possibly less controversial, is also unlikely to be forthcoming in time for the Contractors to meet the TRACECA deadline.
8. The replacement of the Otaci-Mogilov Podolsk BC by the development of access roads and suitable infrastructure connecting the new bridge at Ungurri will not require any intergovernmental action. This project is seen as a priority by both countries, and will produce substantial benefits, including environmental improvement through the abstraction of heavy traffic from the town centres, improved security by removal of the BC from built-up areas, and the release of valuable land for more appropriate town centre activities.
9. This project will require co-financing and will need to be staged.
10. The Contractor's first priority will therefore be to develop sufficient documentation for the replacement of the Otaci-Mogilov Podolsk crossing by the new bridge at Ungurri. The design will be for a combined BC encompassing control points on each side of the bridge without intermediate gates. This will meet the agreed strategic recommendation that at least one design should be for a combined BC.
11. The Contractor's second priority will be for the rationalization of the Palanca-Maiaki and Tudora-Starakazacie BC and the up-grading of facilities and access roads. This will meet the second strategic recommendation for rationalization of BC points where appropriate.
12. The Contractor's third priority will be for minor works to improve rail BC facilities at Giurgulesti-Reni.
13. These 3 BCs will therefore comprise Phase 2 of the Project, and no further work will be undertaken at Criva-Mamaliga
14. Ukrainian Railways have requested additional work to be done for Kuchurgan. This rail BC is on the Trans-Dniestrian section of the border, which has already been excluded from the project. On the other hand it is a key crossing point on Corridor 9. Moldovan railways have requested the inclusion of additional works at Etulia-Frikatsei and Giugulesti-Reni; this is a key section of line linking Ukraine and Moldova to Romania and, ultimately, into the EU.

15. The Contractors see these requests as reasonable but they cannot be accommodated within the scope of the present project (apart from the minor works already suggested for Giurgulesti-Reni). The Contractors will therefore approach the Project Manager in Brussels for an extension of time and budget to incorporate this additional work into the project.

With respect,

Chris Haig-Prothero

Team Leader

APPENDIX E

Study Visit Report

This project is funded by
the European Union

Contract: Europe
Aid/113199/C/SV/MULTI-4

"Feasibility for the Improvement of Road and Rail Border crossings between Moldova and Ukraine, and for the upgrading of the Multimodal terminals in Moldova and Ukraine"

Study Visit Report

August 2003

release 1.0

Project management:EURECNA CNA VENETO International Services
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Table of contents

Introduction

The provision of two Study Visits – one for each Module – was an important element of the Contractor's Technical Proposal. As outlined in the Progress Report, the Module B Study Visit to Multimodal Terminals was to take place in Italy, at Padova and Verona, and the Module A Study Visit to Border Crossings to Crossing Points between the Trieste region of Italy and Slovenia.

Padova and Verona are both substantial industrial cities in the north-east of Italy. Situated in the Po valley region, they are major centres of modern manufacturing industry, specialising in consumer goods, textiles, engineering products etc. Goods are exported world-wide from the region, primarily by intermodal transport. Italy has an extensive railway network, carrying a high percentage of freight traffic. Most major cities and ports are connected by scheduled intermodal services. Exports and imports go either over the major Italian Ports of Genoa, La Spezia, and Ravenna, or through the major north European ports in the Hamburg – Antwerp range. The provision of modern, purpose-built intermodal facilities is seen as an important contribution by the state towards the promotion of trade in general and exports in particular. First class multimodal facilities – known as Interportos in Italian – are considered to be of strategic importance for Italy. Both Padova and Verona have facilities in the first class category.

The current border between Italy and Slovenia forms the current boundary of the EU. Motorway connections between the Italian network and Ljubljana mean that the border crossing at Sezana forms part of a key transport corridor from southern Europe through the former Yugoslavia and on to south-eastern Europe, Turkey and the Middle East. This corridor carries heavy international traffic, particularly during the holiday period, and has to accommodate several thousand vehicles per day. Substantial investments have been made to improve the facilities for both passenger and freight traffic, and the border crossing points are combined into single facilities; each country has its own facilities for control, but there are no intermediate check points, and there is close communication between the authorities on each side. On Slovenia's accession to the European Union in 2004 this border will disappear; all new investment in Slovenia is therefore concentrated on upgrading the border with Croatia.

This report is structured in two sections. The first section provides details of the Study Visit for Module B – Multimodal Terminals, and the second section provides details of the Study Visit for Module A – Border Crossings. The report is supported 6 Annexes. Annex A provides a list of participants. Annex B gives details of the persons met, Annex C provides a selection of photographs for the multimodal terminal visit, and Annex D provides a selection of photographs for the Border crossing visit, Annex E provides a copy of the final programme, and Annex F contains a copy of the follow –up questionnaire which all delegates have been asked to complete.

Module "B" Study Visit:
Multimodal Facilities

1. Visit to Padova Interporto

1.1 Description of Padova Interporto

Mr. Pandolfo, chief of external relations office, welcomed the Study Visit group and introduced Padova's Interporto background and its history. In Padova in the 1930's, most trucking companies were established along the city ring road. However, by the 1960's they were absorbed into the city centre, causing great road traffic congestion and environmental problems to residential housing sites which had grown up in that area. The need to achieve both an urban rationalisation and the end of troubles caused by trucks downtown, led to the establishment of a purpose-built Interporto, in 1973.

The Interporto is sited in Padova's industrial area on the Northeast side of the city, which houses about 1.200 companies and 25.000 employees, and is one of the most important commercial-industrial and advanced services sites in the Northeast of Italy. Situated in the middle of the Northeast of Italy, Padova Interporto is linked with both national and international rail and motorway networks. It is crossed by the A4 Milan – Venice and by the A13 Bologna - Padova motorways, and has two motorway exits nearby, one to each motorway. The area is linked to the Railway Central Station by an independent connection which links the Container Terminal with the Trieste-Venice-Verona-Milan-Turin axis and with the Padua-Bologna-Rome axis. Currently a river route to the Adriatic sea by the way of an artificial canal called the Padova-Venezia Waterway is under construction., designed to accommodate vessels of up to 2.000 tons.

Thus the location has a great strategic value, bringing local enterprises close to the most important intercontinental markets; in fact, the 75% of the container traffic goes abroad. National and international transporters look at the Padua's Interporto as one of the main gateways to Livorno, La Spezia, Trieste, Genoa and Rotterdam ports.

Legal changes approved in 1991 have widened the range of the services the Company can provide, allowing it to work outside Padova municipality through the implementation and management of other intermodal facilities, such as other Interporto facilities, truck parks, and freight complexes. The Company's current objectives are stated as being:

- to study, promote, co-ordinate, develop and manage all the activities related to the creation and the development of an Interporto in Padova;
- to integrate the land, sea, river and air freight system in order to provide easier loading operations, handling and temporary storage of the goods in the Interporto area;
- to provide a logistic organisation for the production and distribution of goods
- to act as a free port;
- to provide services in order to help transport operators.

The Company can also:

- manage, directly or indirectly, general and specific services to other public or private companies;
- furnish planning and consulting in the industrial, commercial and handicraft sectors and freight sector with particular regard to the intermodal activities.

1.2 Visit to Idroesse for additional Information

Delegates moved to the office of Idroesse for a further explanation of Interporto activities by Mr. Attilio Siviero, a Eurecna Advisor and the chief executive of Idroesse – a major Italian Engineering consultant

with a long history of association with Interporto. This was to understand how the "Interporto di Padova S.p.a." works.

Its principal services are:

- supply of fully equipped intermodal areas and of complete transport and management services, including controlled temperature facilities;
- implementation and management of computer services.
- sea freight and customs facilities
- primary transport
- quality and quantity control
- bar code applications
- advanced computer supports at all levels
- warehousing, planning and picking
- management of deliveries
- management of returned and damaged goods
- printing of transport documents
- order consolidation
- packing
- printing of despatch lists
- product customisation
- preparation of accessories
- shrink wrapping

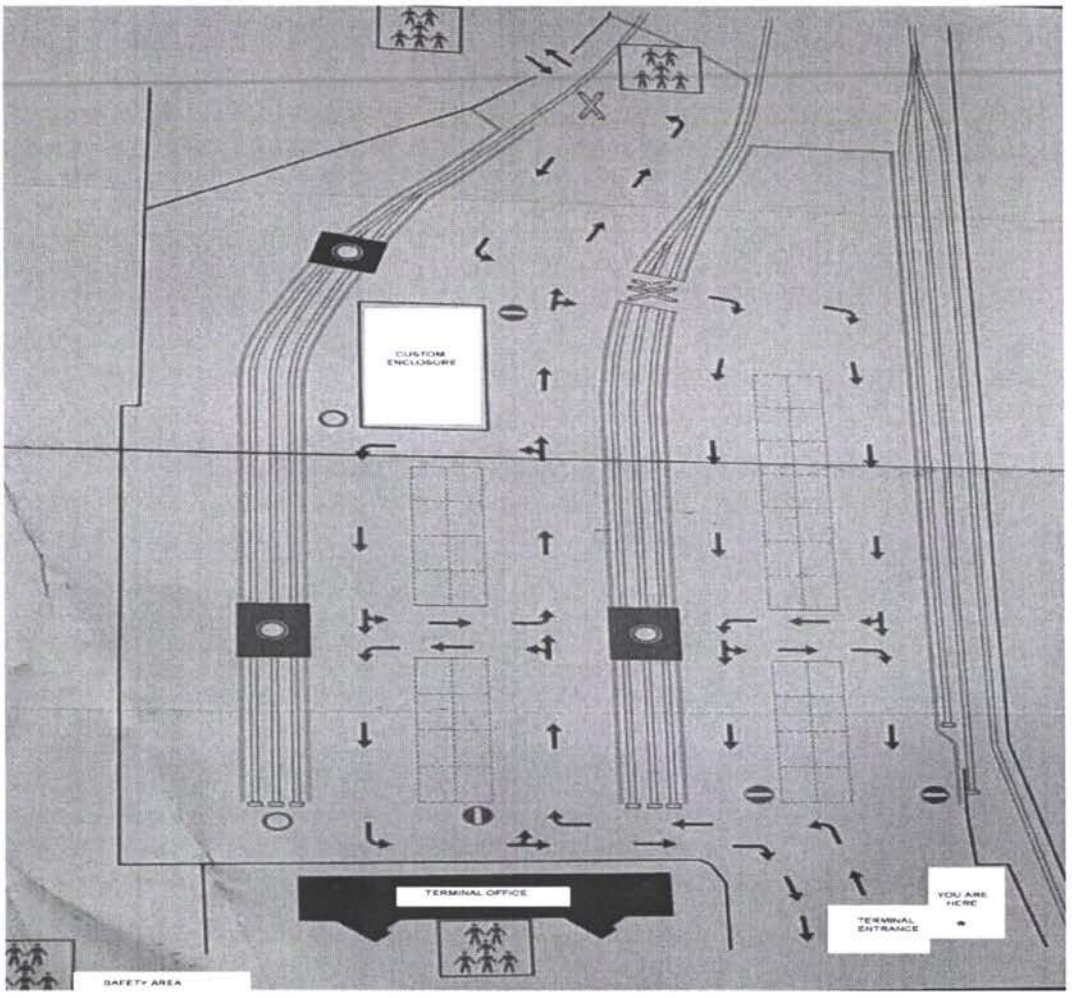
1.3 Conducted tour of Interporto facilities

The Delegates were taken on a brief tour by bus of the Interporto facilities. The route taken is shown on the map following. The delegates were able to observe at first hand the types of handling equipment used and operation of the terminal, which is serviced by a reachstacker system.

The Interporto handles in total some 6m tonnes of traffic per year, of which nearly 40% is rail traffic. Containers handled are in excess of 250,00 TEU per year, of which some 75% are export containers. There are four railheads, each comprising 3 tracks of between 370m and 500m in length. New rail facilities are being constructed which will give a railhead length of 750m, sufficient to handle the standard European freight train length without splitting the set.

There are also rail-connected warehouses, terminal and administrative buildings and some 245,000 square metres of warehousing space available, including cold storage units. Over 80 transport, distribution and warehousing companies operate within the complex, which is equipped with full Customs facilities.

Delegates were provided with information packs to take home which give a full description of the facilities, layouts, investments made and services provided. The packs also include a description of the financial structure of the company, and the relationship between the private investors and the state authorities.



1.4 Visit to "Italsempione" freight forwarder

The delegates then visited "Italsempione", a national freight forwarder founded in Domodossola in 1955. The company was originally involved in the transportation of foodstuffs and afterwards began dealing in raw materials for the national industries. The company specialises in groupage transport and with logistics and transportation of perishable goods, including sea and air transport, and offers the following services:

- surface transportation (movements by truck, rail and a combination of both)
- sea freight (all types of shipments to all major overseas destinations)
- air freight
- logistics, including transportation, storage, picking and distribution
- foodstuff products and frozen goods logistics
- customs clearance procedures and document compilation
- warehousing

Mr. Besazza, Padua's Branch manager, gave the group a tour inside the working area, explaining how goods are progressively marked and positioned. Cartons or boxes containing goods are usually marked in three sides: on the front, on the top and on the right side. A specific office has been built up to print the labels that are attached. They contain all the information about contents. This technology

allows staff with a scanner to read immediately what a box contains, where it is coming from and its final destination. Mr. Besazza advised that this system is absolutely necessary to compete with national and international freight forwarders.

Warehouses that use this computerised stock control are tidy. Mr. Besazza was proud to declare that they haven't lost a single carton in the last five years, and that electronic data interchange systems, bar coding and digital stock control provide the complete answer to logistic problems.
The delegates also visited the warehouse loading/unloading areas of the building, including both road and rail access points.

1.5. Visit to local transport operator "Autamarocchi"

"Autamarocchi" is an Italian transport company, established in 1986. It provides complete range of national and international transportation services, acting as a Multimodal Transport Operator, choosing the most suitable mode of transportation for the distance and type of product handled and developing a parallel service of logistic assistance. Its fleet is made up of a number of tractors and semitrailers, capable of handling all types of containers. Its core business is handling 20' and 40' containers, high-cube, refrigerated containers, conventional and hazardous materials, and small lots.

The strategic centre of the company is in Trieste, with warehouses located all over Italy, both in the main ports on the Tyrrhenian and Adriatic coasts and in the interports and in industrial areas.
The Padova branch is equipped with flexible modern equipment.

Mr. Hares, the guide, explained the working methodology. They are connected with the other terminals and can provide information on all goods moved. The Autamarocchi computer and data communication structure interfaces with the different management systems of the company, providing on-line connection between the offices, the operating units and the vehicles. The structure also gives the company's main customers the possibility of on-line access for a real-time check on the progress of their orders.

The terminal is provided with fork-lifts to handle the containers and telescopic cranes for the maximum use of the vertical spaces in the areas assigned to hold the containers and the pallets. Sometimes Autamarocchi provides split, pack, and pre-pack services for the major household appliance companies.

2. "Magazzini Generali" and warehouses visit

2.1. Description of "Magazzini Generali"

The Padova Interporto also accomodates the Customs Department, the Mail Mechanisation Centre, the Fruit and Vegetable Market and the General Warehouse Company – "Magazini Generali".

Mr. Zanini welcomed the delegates at Padova's "General Warehouses". It is an intermodal centre where fast moving goods are packed, stored for short periods, and distributed.
The premises cover 200.000 sq. m. including:

- 73.000 sq. m. of covered warehouses
- 50.000 cubic m. of frozen storage facilities
- 40.000 sq. m. of truck and rail parks
- 6000 sq. m. of office space for forwarding agencies and international freight forwarders
- Management office for Padova's Customs Department
- Finance officers' (Guardia di Finanza) office
- Banks
- Restaurants and bars

The delegates paid a brief visit to the various facilities. During a Question and Answer session delegates were particularly interested in relations and agreements between private companies and the public sector. Mr. Padovan, Customs officer, explained how these agreements arose and work.
i.e. Italian State Raiways created a company called "Trenitalia" that works as a private enterprise. This is due to the fact that the Italian State has a policy that customers services are assigned by tender to private sector operators, while the fixed assets remain property of the State.

2.2. Visit to "Italcontainer" freight forwarder

There are a number of private rail freight companies in Italy, including ItalContainer, Sogemar, Cemat, LTI, ITC, ICF, and CS. They act as middlemen between customers and FS. The delegates visited the office of ItalContainer, which specialises in intermodal freight by rail, and were welciomed by Mr. Brugnotto. He briefly introduced his Company's mission, which is to arrange complete trains all over Italy and from Padova to the North of Europe.

Italcontainer's specific activities include:

- Operation of block trains to/from all major Italian ports
- Operation of block trains for internal connections between major Italian cities
- Rail/Truck intermodal transport (in order to cover every aspect and/or client needs)
- Provision of pure road haulage services through operating and managing specialised hauliers
- International rail movements in partnership with the European Intermodal Operators such as INTERCONTAINER-INTERFRIGO, which permits them to organise rail transport for both containers and swap bodies between Italian and European rail stations, including countries in the FSU
- Rail transport for casual spot movements (movements of imports, exports, empties and loaded containers throughout the whole of the Italian rail network)

The Ukrainian delegates had particularly requested this meeting as they would like to organise a rail link between Kiev and Padova. Italcontainer advised that one of its experts, Mrs. Raimondi, had already studied future rail links between Padova and Kiev and that currently they could arrange one train to Kiev per week. They could be interested in future agreements with Moldovan and Ukrainian transport officers, and it was agreed that future meetings should be organised.

2.3. Visit to local Railway Station / Yards "Fascio Base"

Italian State Railways (FS) started working inside Interporto di Padova S.p.a. as a common shareholder. Lately it has been directly involved in planning the infrastructure of the Interporto and has made investments in fixed assets. The delegates visited the local railway station and freight yard, where they were welcomed by Mr. Inclimona, executive in Trenitalia's Cargo Department. He explained the key moments in the creation of the facility.

- In 1987 railway freight management was moved from Padova Central Terminal to the container terminal.
- In 1988: FS and its private companies Cemat and General Warehouses started container traffic operations
- In 1989: the head office was moved from the Materiale Rotabile building in Padova Terminal to the Fascio base.

Mr. Miccoli, another executive of Trenitalia said that the Fascio base comprised the following:

- 3 unelectrified tracks for movements to and from the factories sited in the industrial zone and for traffic exchanged to General Warehouses.
- 11 electrified tracks for train arrivals and departures.
- 1 track for locomotive stabling
- 6 storage tracks where wagons can be marshalled and trains made up.

Rail freight movements between Italy and other countries can be made by different companies under the overall control and responsibility of Trenitalia. When the train arrives in Padova the connection with the customer begins. It is necessary to check the goods and to deliver them, and the customer then pays the account for the transport services undertaken. Trenitalia liability ends at this point, and then Padova Handling Service takes care of the subsequent activities, including unloading the train. The time limit to discharge the train is four hours, and for additional time the Padova Handling Service has to pay.

Every train has its mechanical overhaul every 30.000 km. Other overhauls are made according to time limits or the required inspection and maintenance regime for the particular asset.

3. Visit to Verona's Interporto Quadrante Europa

3.1. "Consorzio Zai". The local development agency

The delegates first visited the offices of Consorzio Zai, which was founded to develop land, and acts as the operating arm of the City Council, the Province and the Chamber of Commerce. It was constituted in 1948 and has the task of urban planning and of driving the global economic development of the region.

Zai was originally the main industrial base of the province of Verona, which is a main base for shoe-making and other manufacturing industries, together with Bassona, another model industrial zone. Then it developed Quadrante Europa (QE), which is a large inland port complex which handles international traffic.. Finally Consorzio Zai promoted a science and technology park in response to the demand for innovation in North-East Italy.

The QE Interporto is situated at the crossroads of the main lines of communication in the Verona region, connecting it to the rest of Italy and the gateways to South-Central-East Europe. These latter include the Brenner motorway (north-south direction), the "Serenissima" motorway (east-west direction), the corresponding railways and not far away the Rovigo waterway Interporto on the Milan-Cremona-Mantova-Legnano-Rovigo-Po di Levante canal. The QE Freight Village also has a direct connection with the "Catullo" airport of Verona-Villafranca. The area covered by this infrastructure system extends over 2,500,000 square metres.

The Verona Freight Village is an essential meeting point for national, international road, rail and air traffic. It deals especially with international goods traffic to and from central and northern Europe, France and Spain and Eastern European countries. The zone contains: Services area, Forwarding Agents Centre, International Forwarding Centre, Railway Terminal, Customs, Railway Station, Road Transport Centre and the General Warehouse. Effectively the QE Freight Village is an organic and integrated system of high level logistic services.

3.2. Visit to "Cemat" freight forwarder Terminal

The delegates then paid a short visit to CEMAT - a private freight forwarding company whose core business is the development of intermodal transport by seeking to offer the market high-quality products to satisfy the various needs of its customers.

Through the development of intermodal services, CEEMAT also intends to contribute toward:

- a greater respect for the environment
- a high degree of safety in freight transport
- a more effective and efficient logistics network at the service of the market.

Mr. Tambone, the QE guide who organised the visit explained that his branch of CEMAT basically worked with rail freight traffic. It acts as middleman between customers and winners of the State Railways' tenders who now actually operate the services

The Study Tour Group was particularly interested to see trucks moved by rail – Trailer on Flat Car (TOFC) system which is widely used in Western Europe for north-south traffic to avoid heavy truck congestion in crossing the Alpine region. The delegates were able to watch the unloading procedure of a train. A specific junction ramp connecting the end of the train to the asphalt pavement was moved into place to permit the trucks accommodated on the train to disembark easily. On this type of transport operation there is a strict rule is that the truck drivers must not stay inside their trucks, so they are allowed to sleep in a reserved sleeping compartment at the end of the train.

3.3. Visit to logistic warehouse "Saima Avandero"

The delegates then paid a brief visit to "Saima Avandero" - a national transport company that provides warehouses and distribution services to production enterprises. The delegates were met by Mr. De Toni, chief director, who presented the Verona Branch's activities and conducted a short visit to look inside the sheds. Saima Avandero leases whole sections of its warehouses to single companies on a long term basis. The delegates were able to look around the section which warehoused and distributed a wide range of forklifts and other cargo handling equipment throughout Italy.

3.4. Visit to logistic warehouse "Corsi S.p.A"

The visit then continued to Corsi S.p.A, which is the foremost Italian company specialising in chilled and frozen food storage and distribution, and especially in the transport of fruit and vegetables. The delegates were hosted by Mr. Corsi himself, the company founder and chief executive, who showed the delegates his enterprise's frozen storage facilities.

Mr. Corsi demonstrated how different sheds were used for the storage of various types of perishable foods. Each one had a particular temperature. The coldest one was set at -30° Celsius. Tomatoes, strawberries, exotic fruits, milk derivatives, high fermentation alcohols, yeast, meat and so on, all need a different temperature for correct storage. Corsi S.p.A.'s experience succeeds in providing both high quality storage and fast deliveries. The delegates were particularly interesting to see the system of gates that divide the various parts of the shed into different cold areas. When an entrance gate was opened all the others automatically closed to prevent the internal shed temperature from rising.

This visit was in one way particularly welcome as the external temperature was 35° C.

3.5. Visit to logistic warehouse "Autogerma S.p.A"

The delegates then moved on to visit Autogerma S.p.A. which is a logistics centre belonging to the Volkswagen group of companies. Its function is to distributes Skoda, Audi, Seat and Volkswagen car parts through Italy. It covers an overall area of 150.000 sq. m. Parts range from complete engines and body panels to the smallest items such as screws and washers. Its facilities include a large road vehicle handling and loading area, and two rail tracks for the receipt of rail freight from the manufacturing companies. The warehouse is equipped throughout with mechanical handling equipment of the latest design and technology.

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One of the main characteristics of Autogerma S.p.A. is the mechanized and digital management of its warehouses. The delegates were particularly interested to view in operation the completely automated system for picking the smaller spare parts. These are contained in over 50,000 boxes stored in automated racking systems Every box contains a different spare part; the operators key in the code number of the individual piece that they need to make up the order on a keyboard. Computer-controlled handling systems immediately select the required box and deliver it via a series of conveyor belts to the operators' individual work stations, where the operator takes the box, opens it and takes out the number of parts needed. The box is then returned to the conveyor system, which replaces it in the racking.

Everything throughout the entire warehouse is digitally accounted for and there is stated to be no possibility to steal. The employees are financially responsible for any spare parts that are missing. The most expensive pieces are locked in a specific caged area with security locks and stored in areas overseen by video surveillance.

The delegates found this to be one of the most impressive days of the entire study visit.

3.6. Wind-up question & answer session

The Delegates then returned to the offices of Conzorcio Zai for some final questions which were answered by Ms. Merlo Banda. She explained in answer to various questions that:

- The Verona Freight Village unites three main classes of operator – production operators, forwarding and transport companies, and logistic operators.
- It interconnects different shipping modes (rail, road, air), concentrates traffic flows, and gives access to the maritime ports. It is the maritime ports. It is completely cabled with a telematic network, and offers services such as data, audio and video transmission, and access to international databases.
- As a freight Village it also works, in a network, through "Assointerporti", with nationally important Italian Freight Village and through "Europlatforms" with those having Europe-wide importance.
- A freight village such as QE provides a number of fundamental services, including offices and human resources, Customs services, Rail facilities, logistics centres, warehouses, parking areas, and centres for transporters and forwarding agents.
- An agricultural and "food centre" is under construction.

4. Wind Up Meeting

The final session of the Multimodal Study Tour was spent for discussing the delegates' impressions from the previous study-visit days. This was hosted in the Idroesse office.

The Team Leader summarised the various activities and visits that had taken place throughout the visit. He reminded them that they had seen:

- Two different types of intermodal terminal. The terminal in Padova was operated entirely by reachstacker operation, whereas the one in Verona was a mixture of reachstacker and the more traditional rail-mounted gantry crane operation.
- Five different types of transport operation.. These included:
  1. International maritime container traffic in 20' and 40' ISO containers, originating from or destined to the principal seaports both in Italy and in northern Europe. This was a strong element of Padova's business and was carried by the rail freight companies on a scheduled block train basis, with additional capacity to forward rail wagons to other destinations when required. Exports formed the bulk of the movements.
  2. Domestic intermodal traffic between EU countries, particularly between Italy and northern Europe. In this type of traffic the swapbody predominated, and it provided a better payload and greater capacity that the ISO container.
  3. Some conventional rail traffic delivered in rail wagons direct to warehouses, including car parts. However this traffic account for only a very small percentage of the traffic handled and was seen by the operators as a declining market.
  4. "Rolling Road" traffic, with accompanied trucks being conveyed by train for part of their journey. The drivers were able to take their legally-required rest periods on the train, and there were obvious environmental benefits
  5. Truck to truck intermodal transport, with the freight platform being used to receive in goods in bulk, warehouse, store and distribute also by road. They had seen a number of added value activities, including labelling and re-packaging

He also summarised the way in which delegates had been able to investigate from the various organisations that they had met the way in which the State could work together with the private sector to provide the necessary infrastructure development. They had witnessed this for themselves in two of the major industrial cities of Northern Italy. There were very clear environmental benefits in concentraing the transport, warehousing and distribution activities in specified and purpose-built locations away from the residential areas of the cities, where they were originally established many years ago.

The provision of logistics centres well-connected to the main road and rail transport corridors was of obvious benefit both to the operators and the industry they serve. The growth of logistics services provided socio-economic benefits in the provision of both skilled and unskilled employment – the industrial area of Padova alone provided 12,000 jobs.

Also important was the way that the provision of infrastructure by the state allowed the private sector to develop its own business. The delegates had seen in practise the way in which small companies had grown and flourished through this system

A number of other issues were discussed, including the role of the Ministry of Transport and the way in which funding could be provided for development through selective subsidies for some types of operations, and tax incentives. There was also a discussion on the way that investment could be used to improve/reduce the unit costs of transport.

Both Mr Baldan and Mr Siviero emphasised to the delegates the importance of understanding how the market in transportation works. The key issue is the change from a "production led" industry to an "offer based" industry. Customers for transportation have a choice of both modes and service providers because of competition. It is therefore essential that transport providers adopt a customer focussed approach to all their investment decisions. This requires a strategic marketing approach, and above all the willingness to listen carefully to customer requirements. Bi-lateral agreements between governments to encourage traffic to move by a certain mode are increasingly irrelevant in the modern freight transport industry.

Mr Baldan then concluded the discussion by thanking the delegates for the real interest they had shown throughout the intensive series of meetings and visits, and wished them an enjoyable weekend before the commencement of the second Study visit (Border Crossings) which would take place the following week.

Module "A" Study Visit:
Border Crossings

5. Visit to San Andrea freight Terminal

5.1. Introduction

The Study Visit for Module A – Border Crossings – required minor alterations to the programme due to the necessity to obtain visas for the delegates to visit Slovenia, which required their personal presence at the consulate in Trieste. This process was completed on the first morning.

5.2. Visit to "SDAG" Terminal / Border Station

The first visit was made to the S.D.A.G. border station, which is situated on the main connecting road from Italy to Gorizia and northern Slovenia. It is one of the busiest BCs on TEN Corridor 5 and is linked directly to the Italian motorway system. The last link in Slovenia's motorway system, from the BC to Ljubljana, is currently under construction.

The visit was made to the Italian side of the border at St. Andrea. The delegates were welcomed by four members of S.D.A.G. staff:

- Mr. Monti, chief of S.D.A.G. customer service
- Mr. Apisada, responsible for S.D.A.G. employees' safety
- Mr. Podbersig, S.D.A.G. Chief Director
- Mr. Baiocchi S.D.A.G. Assistant Manager

With the coming into effect of the Peace Treaty between Italy and Yugoslavia, the International Border Crossing and the Customs Vehicle Inspection Complex of Sant'Andrea-Vrtojba were set up at Santa Andrea near Gorizia. In 1991, with the creation of Slovenia as an independent nation, both the International Border Crossing and the Customs Vehicle Inspection Complex launched a progressive and functional integration with a view towards the future expansion of the EU to include Slovenia.

The Common Customs Area was set up in 1999 to enable Italy and Slovenia to coordinate and simplify customs procedures for imports and exports; the regulations governing this area are common to both countries.

S.D.A.G. is the company that runs the Border Station and the Customs Vehicle Inspection Complex (CVIC) of Gorizia, and offers the following services:

- storage services in Customs, VAT fiscal and national warehouses
- operation of the BIP (Border Inspection Point) for the transit traffic
- inspection and temporary accommodation for live animals
- weighing of cargo
- a telematic network for links with Customs Data Processing Centres and other handling services

5.3. Visit to freight Terminal facilities

The delegates then moved on to visit the Customs Vehicle Inspection Centre. Gorizia's CVIC is a service centre covering an area of 250.000 sq. m. that includes:

- management office accommodation
- offices for international shipping and transport companies
- parking areas
- storage facilities
- goods sorting and distribution facilities

- drivers assistance centre
- equipment to handle containers and bulky and special loads
- official border doctor, phytopathologist, and mycologist, to check and certify all products intended for human consumption

This Freight Terminal is also provides specialised services for the transport of livestock with the following facilities:

- 8 lairage stalls, of which 4 are equipped for large animals and 4 for small animals. This facility is able to accommodate up to 400 head of cattle or horses, and up to 5.400 sheep at the same time
- special rooms equipped to accommodate pets
- disinfection and cleaning of lorries used for the transport of live animals
- B.I.P. (border inspection point) created to ensure that community laws as well as rules concerning the welfare, cleanliness and feeding of animals during transport are respected.
- medical and health office.

Customs department control who can work within the complex. Companies that work inside S.D.A.G. have to be officially registered as freight forwarders and have to respect the transparency principles.

Custom's control of freight traffic is carried out according to the following formula:

- no control at all – vehicles are allowed to proceed
- document control – vehicles are stopped for the inspection of their documents
- material control of goods – vehicles are pulled from the line, and have all or part of their cargo inspected

Much of the control system is based on the exchange of data with other enforcement and similar agencies, using a system of risk assessment. Data comes from Police services, other Customs services, and from S.D.A.G.itself, and is up-dated every three months.

5.4. EU enlargement impact

The entry of Slovenia into the European Union in 2004 will bring about an important transformation in the functions of all the Italy-Slovenia Border Crossing points. Effectively they will disappear as Customs control and immigration points, as these controls will be transferred totally to the external border of the EU, between Slovenia-Croatia and Hungary-Romania on these transport corridors.

An investment of €15m will made to re-arrange the complex as a Transborder Trading centre specialised in services for international trade through the establishment of Customs Warehouses with issue of warranty documents, a Commodity Exchange, a management Centre with exhibition areas, a Chamber of arbitration and a Telematics Centre. S.D.A.G. hopes that the new Trading centre will become the main logistics platform for the increasing flow of goods and services characterising trade in Central Eastern Europe.

S.D.A.G.'s chief executive (Bruno Podbersig) finally expressed his high interested in future agreements with Moldovan and Ukrainian transport operators. He advised that San Andrea Freight Terminal is planning to create a logistics platform for intermodal transhipment between rail and road, and he hoped that future meetings could be organised.

Following this visit the delegates were taken by road across the border to Slovenia, crossing at the Sezana BC, and were able to observe at first hand the speed at which the crossing could be made despite the fact that they were all subject to visa-controlled entry.

6. Visit to Sezana BTC freight Terminal

6.1. Visit & discussion of Customs facilities

The following day the delegates had a whole day visit to the Blagovno Transportni Center (BTC) freight facility which is adjacent to the main border crossing point on the direct motorway between Trieste and Ljubljana, near the town of Sezana. The first part of the visit was to the Customs department office and facilities.

Slovenia has 9 Regional Customs Offices in the country. This one was established in 1991. It has five departments:

- administrative procedures
- control and audit
- personnel and general affairs
- accounting and procurement
- excise duties

The Customs office currently has 251 officers. Their principal functions are to control the work completed by freight forwarding agencies, check the physical movement of goods through the BC and assist the Border Guards as required in controlling immigration. The office covers 9 road crossing points at:

:

- Sežana
- Fernetti
- Lipica
- Kozina
- Starod
- Jelšane
- Ilirska Bistrica

In addition it is responsible for three railway crossing points at Sežana, Kozina and Ilirska Bistrica.

Delegates were advised that the Customs Directorate currently uses the Investigation Analytic Information Centre (IAIC) software for controlling the movement of persons and goods. It is linked with all major European systems and databases which operate under the control of national police and Customs authorities. They also make use of similar sources on information in the Balkans region.

The BC is extremely busy as it is on a key corridor for both east-west and north-south traffic. Currently some 9m tonnes of freight and 31m passengers cross the border every year. This represents an average of 800 trucks per day, and some 9m passenger cars (+ some buses) every year

On average the Customs department detects some 700-800 Customs violations per year (false documentation, undeclared goods etc), and up to 100 Excise violations (involving the avoidance of excise (taxes) such as those on tobacco products, alcohol, and oil and fuel products) per year. Responsibility for the collection of Excise duties was only taken over by Customs in 1999.

Customs provided a very interesting presentation showing pictures of some of the items detected in the previous year, including substantial quantities of gold, silver and jewellery products which were being smuggled from Italy without declaration and the payment of import duties, seizures of drugs from criminals, and a particularly interesting example of the professional smuggling of diesel fuel oil disguised as agricultural fuel in a specially constructed tanker.

The meeting concluded with a brief discussion of how the Customs activities would be re-invested in the Slovenia-Croatia border after the accession of Slovenia to the EU in 2004.

6.2. Visit & discussion of freight Terminal facilities (warehousing, transhipment, forwarding agency)

The delegates then moved on to the BTC freight terminal and were met by its General Manager, Mr. Lindič, who explained that the development strategy of the company is directed to constant fulfilment of the market needs. The headquarters is in Sežana, and subsidiary companies are sited in Ljubljana, Vrtojba and Maribor. It is also trying to expand in the ex-Yugoslavian Republics and owns offices in Belgrade and Skopje.

BTC Terminal covers the role of an integrated logistics provider. It can arrange the following services:

- national and international transport of goods by both company vehicles and contractors
- 20.000 sq. m. of storage areas and warehouses, including facilities for Hazardous cargo (ADR), chilled goods, frozen goods
- container handling facilities
- customs clearance
- preparation of goods (split, pack, pre-pack) for onward delivery
- groupage services

Ms. Brajdih, BTC's Assistant Director, advised the delegates that all transit charges through the terminal are waived both for empty containers and for humanitarian aid cargoes. She also said that the terminal has three special dedicated traffic lanes, for empty vehicles and containers, for live animals, and for hazardous cargo.

The delegates visited the various warehouse and transport facilities of the terminal.

7. Visit to Sezana passenger Terminal

7.1. Border Police facilities

A detailed visit to the offices of the Slovenian Border Guards (Immigration) was arranged. The officers were able to spend a lot of time in a detailed explanation of their functions and activities and were able to introduce the delegates to their field work and show how the system operates on a practical basis.

The actual crossing points operates as a combined crossing, with separate controls for each country. There is no physical barrier between the two sets of controls, so vehicles passing through the Italian side drive immediately and within less than 100m to the Slovenian entry point. There were 3 lanes open for cars, and a separate lane for buses. There were also two completely segregated lanes for trucks. All loaded trucks do their paperwork etc outside the immediate area of control, and so are only subject to routine procedures within the border crossing area itself. The car and bus lanes are equipped with booths to enable the car drivers to hand their passports directly to the Border Guards on duty without getting out of the car – this is normal practise at EU borders now. The delegates were interested to note a number of factors:

- very few passengers required their documents to be stamped. This is because there is generally no requirement for visas between the EU and Slovenia, and persons are allowed to circulate freely
- in cases where passports are required to be stamped, the cars can easily be pulled out of the general traffic flow, and parked to one side while the procedures are completed
- the role of the Border Guards is therefore generally limited to checking that the passengers actually have a valid passport, and this procedure normally only takes less than 10 seconds per car
- generally only one lane was open for cars, but as soon as any queue of more than 4 – 5 cars built up, another gate was manned and opened
- the head of the border guards actually did not allow his staff to sit in the booths provided, but made them stand up – he felt that they worked quicker that way!

The visit then visited the internal offices, where the delegates were able to see the computerised procedures for immigration control. There was a detailed explanation of the exchange of information which is a continuing process with the Italian police and immigration authorities. There are common software programs which work with key-words, and can highlight the movement of people known to be wanted, or who should be refused entry. This enables the border guards to have advance warning of possible movements, so that each person on duty can be warned to look out for such people at the beginning of his shift.

There then followed a demonstration of the visual scanning apparatus that the border gaurds use to detect false passports, forged documents, and counterfeit money

7.2. Visit to freight Terminal ancillary facilities (bank, restaurant etc.)

The Sežana Freight Terminal is also provided with extensive facilities both for truck drivers aand for passenger cars whose occupants require them. The facilities are situated adjacent to the terminal offices, and immediately outside the border crossing itself. They include a bank, a duty free shop, two restaurants and a bar, together with toilets, washing and shower facilities. There is also a motel.

7.3. Wind-up session

As with the Module B Study Visit, the final sessions consisted of a wind-up session and a general discussion on the visit. The Team Leader started the meeting by summarising some of the key points about the Border crossings visited. These included:

- Both border crossings visited were generally similar, both in layout and operation. Both were very busy crossing points on key transport corridors. There was substantial local traffic, as well as long-distance traffic. Both were subject to peak traffic movements between Europe and the holiday areas of the Slovenian and Croatian coasts during the summer months.
- In each BC cars and trucks were completely segregated. Facilities were provided within the freight terminals for trucks to park, to complete paperwork and Customs procedures, without hampering the flow of general traffic through the actual BC itself
- The delegates had experienced both at first hand (for themselves) and by observation the speed at which vehicles were processed through the BC. Much of this was due to minimal requirement for processing normal passenger traffic.
- The delegates had seen at first hand the additional facilities – warehousing, customs clearance agencies, freight forwarding, transport and distribution etc that were provided in the BC areas. These provided "added-value" services.
- Customs and Border Guards operated very much on intelligence and risk analysis, rather than the "check everyone, but catch no-one" system still prevalent at many BCs outside Europe. Risk analysis was seen as a crucial tool in the detection of smuggling and illegal immigration. There was very close cooperation between the authorities on both sides of the border, and with external agencies such as the police forces.

There then followed a general discussion by the team members and the delegates. The following issues were highlighted:

- The delegates understood well the principles of a combined border crossing point. These were already in existence at some points between Ukraine and Poland. There was a good exchange of information between the authorities of both countries at these points
- There was a need for additional infrastructure and communications and other facilities at a number of BCs between Ukraine and Moldova
- The forthcoming entry of Slovenia into the European Union will bring about an important transformation in the functions of the Italian-Slovenian complex. Some of the police and Customs officers working on the borders between Italy and Slovenia will be need to be retrained for other jobs.
- Police and Customs staff with expertise in Schengen procedures gained from their experience on the Italy - Slovenia border will be moved to the border between Slovenia and Croatia.

7.4. Visit to Sezana's Business Innovation Centre

Following the wind-up sessions the delegates paid a final brief visit to the Sežana's Business Innovation Centre where Mr. Gorup and his staff from Sloveneta explained its purpose and history.
The Centre was established to assist small and medium enterprises and to encourage regional development. It will have a significant importance in the economic development of the region when the BC is transformed into a Transborder Trading Area.

The Business Incubator has the advantage of a favourable geographical location on a key transport corridor for both goods and personnel. Enterprises sited here can easily choose between the competitive advantages that Italy and Slovenia offer. This visit was particularly helpful in enabling the

delegates to appreciate that an effective border crossing point can stimulate regional economic development.

Appendices

ANNEX A	*Participants*
ANNEX B	*Contact Details*
ANNEX C	*Photographs of Multimodal visits*
ANNEX D	*Photographs of Border Crossings visits*
ANNEX E	*Final Programme*
ANNEX F	*Questionnaire*

ANNEX A

Participants

Moldova

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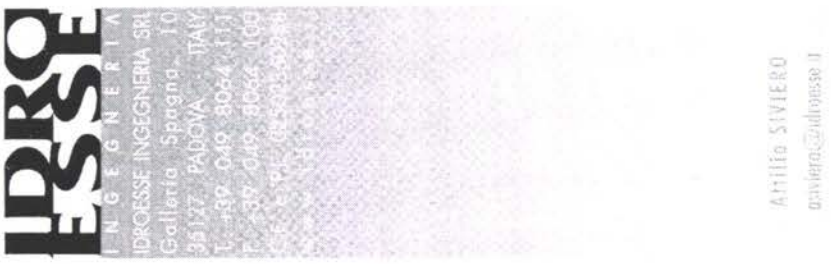
ANNEX B

Contact Details

PADOVA INTERPORTO VISIT

►Description of Interporto Padova (Mr. Pandolfo, Chief of External Relations Office)

►Wind-up question & answer session (Mr. Siviero, engineer)



►Conducted tour of Interporto facilities

►Visit to "Italsempione" freight forwarder (Mr. Besazza)

italsempione
spedizioni internazionali

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Branch Manager

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IATA

►Visit to local transport operator "Autamarocchi" (Mr. Hares, Chief Director)

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"MAGAZZINI GENERALI" AND WAREHOUSES VISIT

►Description of Magazzini Generali (Mr. Zanini, Chief Manager)

►Wind-up question & answer session (Mr. Padovan, custom officer)

MAGAZZINI GENERALI PADOVA

Rag. ALESSANDRO PADOVAN
Responsabile Doganale

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CODICE FISCALE E PARTITA I.V.A. 00205830284

►Visit to "Italcontainer" freight forwarder (Mr. Brugnotto, executive)

ITALCONTAINER®
35127 Padova - Corso Spagna, 14
Tel. 049.8703389 - Fax 049.6988027
E-mail: brugnotto@italcontainer.it

Valentino Brugnotto

GRUPPO FS

►Visit to local railway station / yards "fascio base"
(Mr. Miccoli / Mr. Inclimona, executives in Trenitalia's Cargo Department)

VERONA INTERPORTO VISIT

►**"Consorzio Zai". The local development actor** (Mr. Tambone, surveyor)

►**Visit to "Cemat" freight forwarder terminal** (Cemat's Chief Director)

►Visit to logistic warehouse "Saima Avandero" (Mr. De Toni, Chief Director)

SAIMA AVANDERO

VALERIO DE TONI
Direttore

MEMBER OF ABX

SAIMA AVANDERO SpA
Filiale di Verona
Via Sommacampagna, 22/A
37137 VERONA, ITALIA
Tel. +39 045 8028411 /dir. +39 045 8028401
Fax: +39 045 8062449 - Email: vdetoni@saima.it

►Visit to logistic warehouse "Corsi S.p.A" (Mr. Corsi, Chief Director)

CORSI VERONA
LOGISTICA - GROUPAGE
CELLE FRIGORIFERE - DEPOSITI

FRANCESCO CORSI
Cell. 335-7261441

AUTOTRASPORTI FRIGORIFERI - NAZIONALI INTERNAZIONALI
E SPEDIZIONIERI
Quadrante Europa - Verona - Tel. 045 8622207 15 linee r.a. - Fax 045 8621595

►Visit to logistic warehouse "Autogerma S.p.A" (Autogerma's Master Builder)

►**Wind-up question & answer session** (Ms. Merlo Banda, QE's Chief of Mkt. Department)

MEETING ORGANISED BY EURECNA

►**Visit to "Idroesse" office** (Mr. Baldan, Assistant Director)

VISIT TO "SAN ANDREA FREIGHT TERMINAL"

►**VISA procedures** (Mr. Gorup, Chief Director, and Sloveneta's staff)

SLOVENETA d.o.o.
Ekonomski inženiring, svetovanje in poslovne storitve
1. tankovske brigade 9, 6210 Sežana, Slovenija
telefon : +386 5/73 44 600, 73 44 601, telefax : +386 5/73 44 602
E-pošta: sloveneta@siol.net

STOJAN GORUP, univ. dipl. ekon.
direktor

►**Visit to "SDAG" terminal / border station**
(Mr. Monti, Chief of S.D.A.G. customer service / Mr. Apisada, responsible for S.D.A.G. employees' safety / Mr. Podbersig, S.D.A.G. Chief Director / Mr. Baiocchi, S.D.A.G. Assistant Manager)

Dott. Bruno Podbersig
Direttore Generale

**STAZIONI DOGANALI ED
AUTOPORTUALI DI GORIZIA
S.p.a.**

Autoporto di Gorizia
34170 Gorizia (Italia)
Tel. 0481-520344 r.a.
Fax 0481-521809
Cell. 348-4427467
e-mail: bpodbersig@sdag.go.it

Geom. Aldo Baiocchi
Vice Presidente

**STAZIONI DOGANALI ED
AUTOPORTUALI DI GORIZIA
S.p.a.**

Autoporto di Gorizia
34170 Gorizia (Italia)
Tel. 0481-520344 r.a.
Fax 0481-521809
Cell. 348-4427467

►Visit to freight terminal facilities

►Wind-up question & answer session on UE enlargment impact

VISIT TO "SEZĂNA BTC FREIGHT TERMINAL"

►Visit & discussion of customs facilities

►Visit & discussion of freight terminal facilities (warehousing, transshipment, forwarding agency)
(Mr. Lindič, General Manager / Ms. Brajdih, Assistant Director)

BTC TERMINAL sežana d.d.

MARKO LINDIČ, OEC.
GENERAL MANAGER

BTC TERMINAL SEŽANA D.D.
PARTIZANSKA CESTA 79, P.P. 242
6210 SEŽANA - SLOVENIJA
TEL.: 05 731 22 00
05 731 22 01
FAX: 05 731 22 19
http://www.btc-terminal-sezana.si
E-mail: btc.terminal-sezana@siol.net

BTC TERMINAL sežana d.d.

TATJANA BRAJDIH, DIPL.OEC.
POMOČNIK DIREKTORJA

BTC TERMINAL SEŽANA D.D.
PARTIZANSKA CESTA 79, P.P. 242
6210 SEŽANA - SLOVENIJA
TEL.: 05 731 22 00
05 731 22 09
FAX: 05 731 22 19
GSM: 031 36 18 13
http://www.btc-terminal-sezana.si
E-mail: btc.tatjana@siol.net

VISIT TO "SEZĂNA PASSENGER TERMINAL"

►Border police facilities

►Visit to freight terminal ancillary facilities (bank, restaurant, etc.)

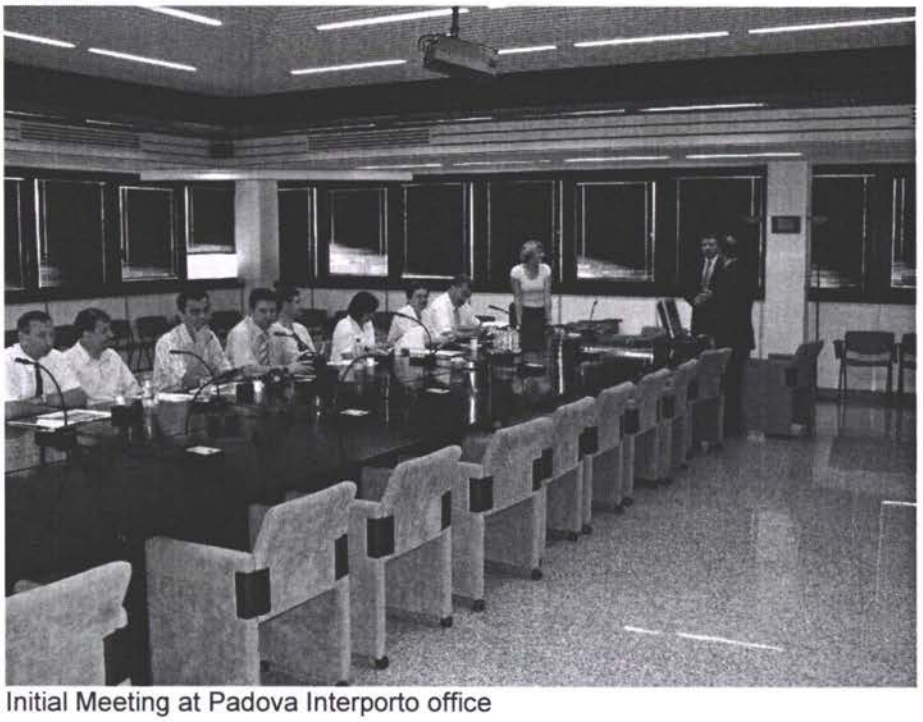
►Wind-up session, questions and answers

►Visit to Sezana's "Business Innovation Centre" and discussion on free zone issues
(Mr. Gorup and Sloveneta's staff)

ANNEX C

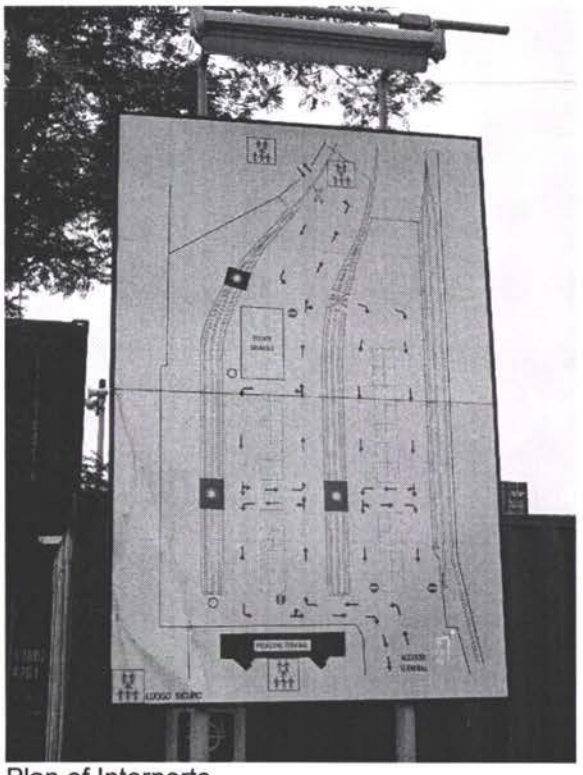
Photographs of Multimodal visits

Visit to Padova



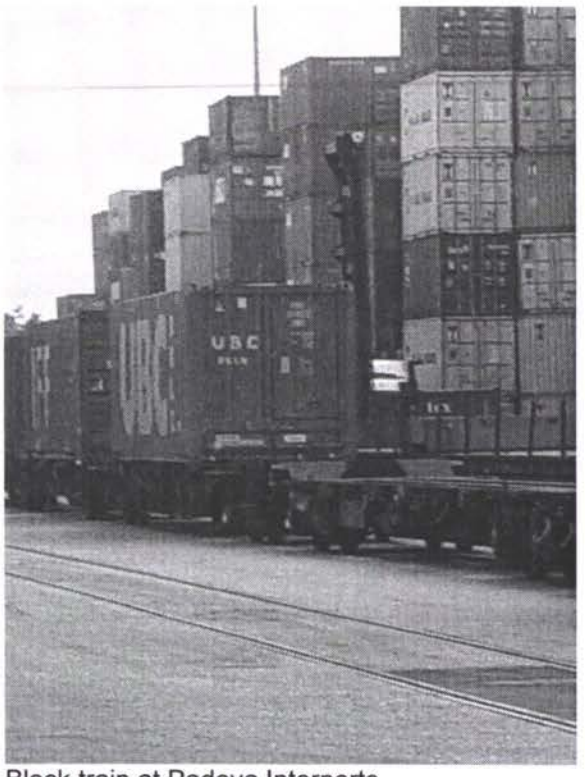
Initial Meeting at Padova Interporto office

Meeting at Indroesse office



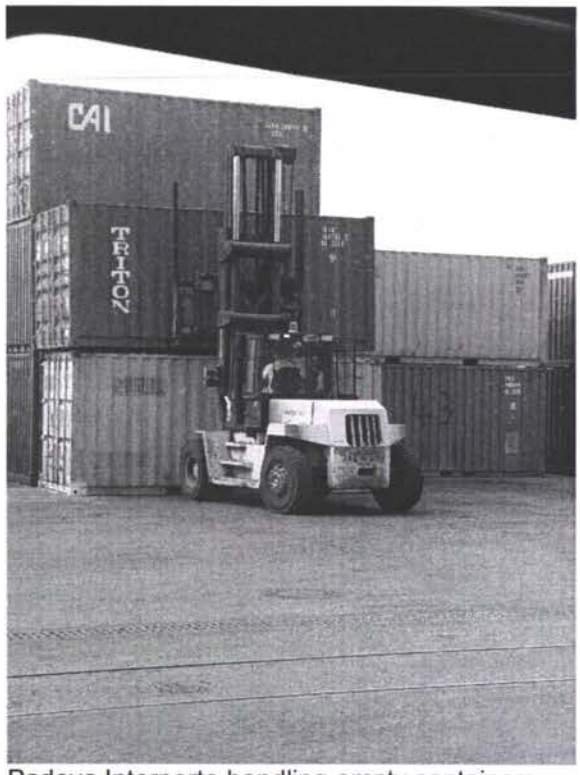
Plan of Interporto

Container handling at Padova Interporto

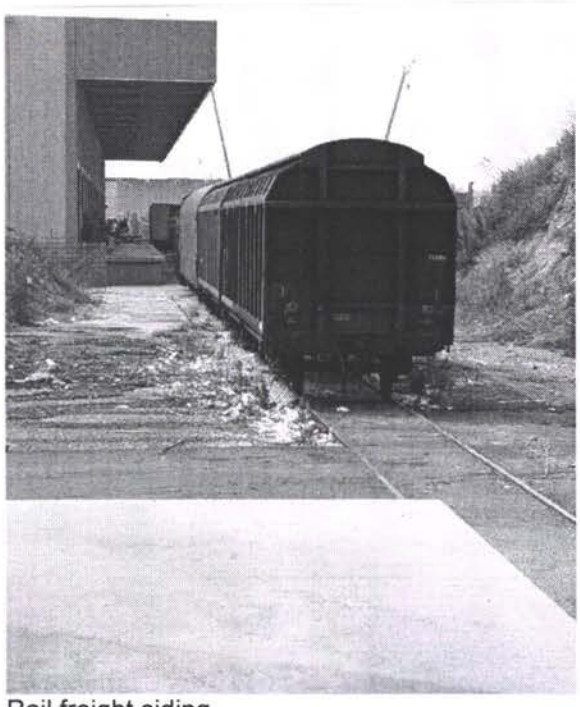


Block train at Padova Interporto

Padova Interporto Stacking Area



Padova Interporto handling empty containers



Rail freight siding

Warehousing and distribution facilities

Warehousing and distribution facilities

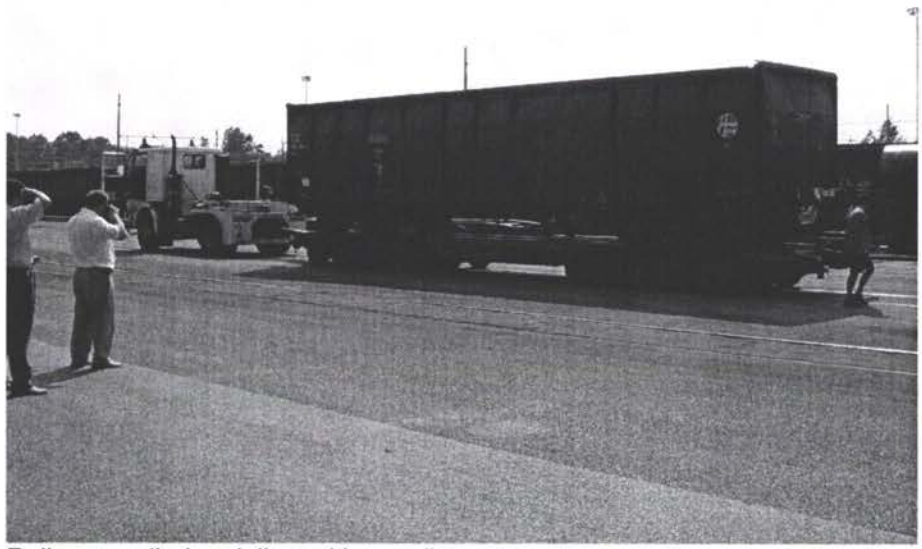
Warehousing and distribution facilities

Visit to Magazzini generali

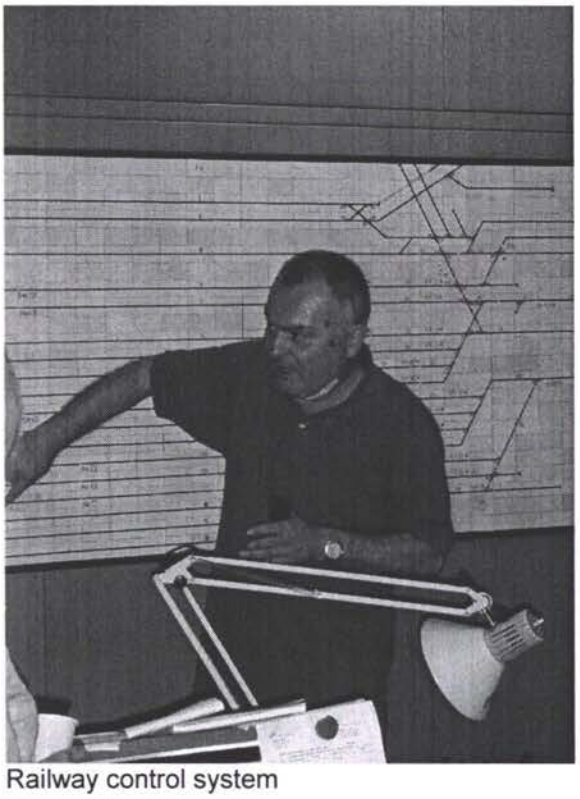
Initial meeting (Magazzini generali)

A lively discussion

Rail freight container storage



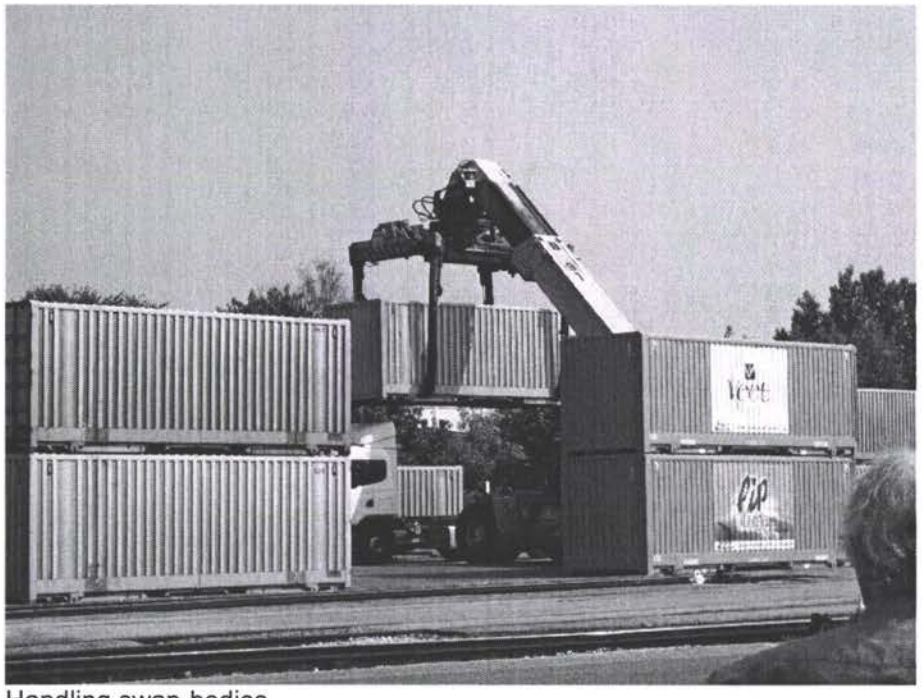
Rail wagon (being delivered by road)



Railway control system

Handling standard European swap-body by bottom-lift reach stacker

Padova rail freight yard



Handling swap-bodies

Padova rail freight yard

Verona Interporto visit

ROLA Train at Verona showing ramp about to be positioned

ROLA train at Verona ready to unload

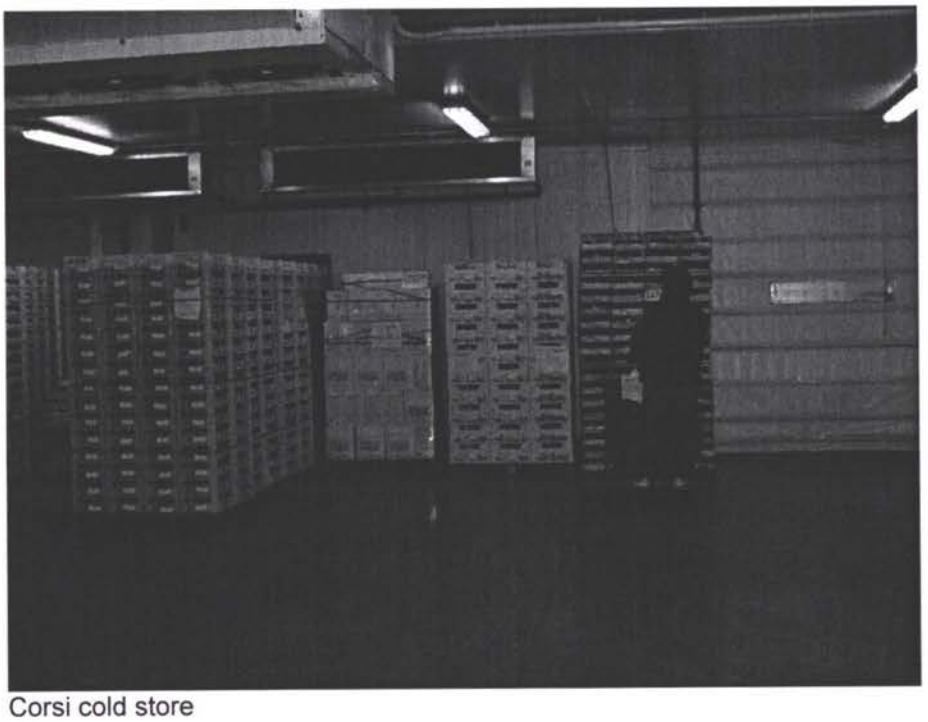
Verona Interporto RMG operation

ROLA train at Verona unloading in progress

Presentation of "Saima Avandero"

Saima Avandero warehouse

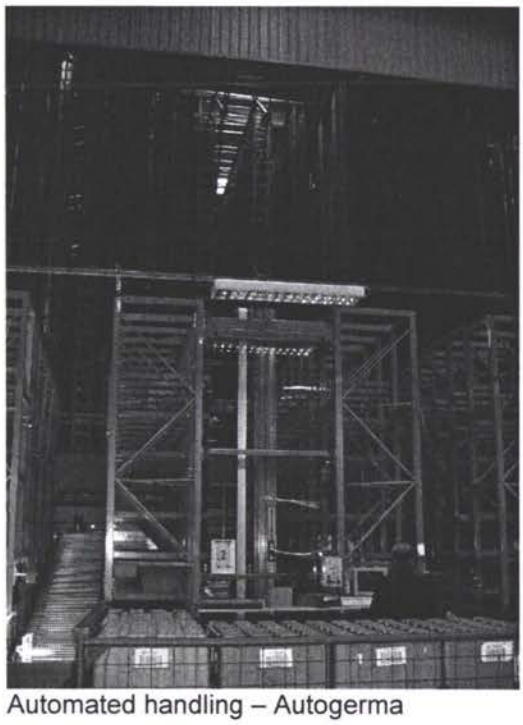
No shortage of handling equipment



Corsi cold store

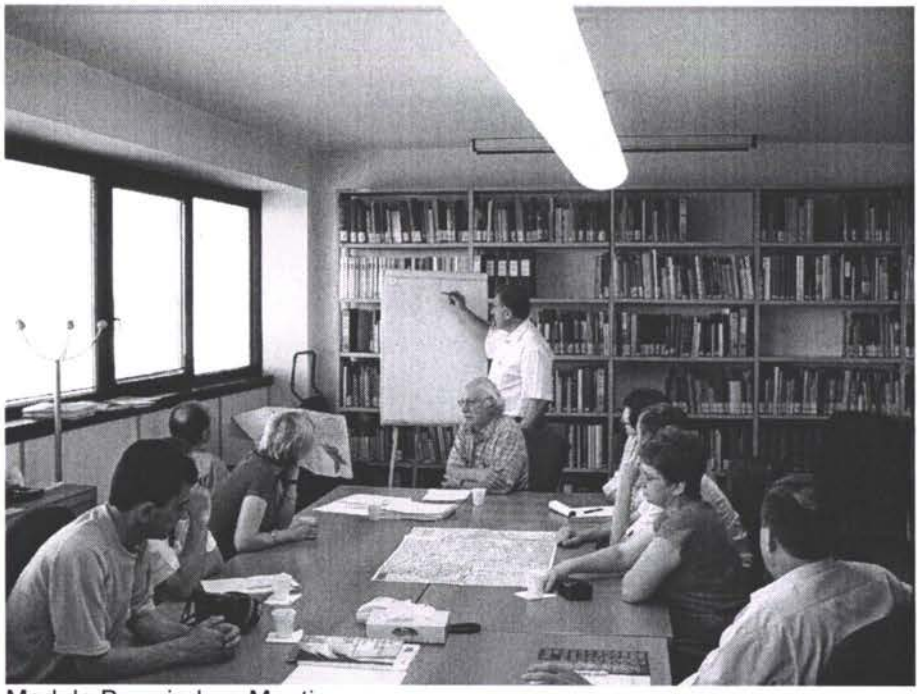
Autogerma warehouse


Autogerma warehouse



Automated handling – Autogerma

Meetings organised by EURECNA



Module B – wind-up Meeting

Module B - wind-up Meeting

ANNEX C

Photographs of Border Crossings visits

Visit to S. Andrea fright terminal

S. Andrea –Presentation and Discussions

Visit to Sezanne BTC freight terminal

BTC - freight warehouse

BTC-Container handling (straddle carrier)

BTC freight terminal

Sezana-passanger border point

Discussions with Slovenia Border Guards

ANNEX D

Final Programme

STUDY VISITS

Draft Programme

Monday 2nd June: ***Delegates travel from Chisinau/Kiev to Italy***

Tuesday 3rd June: **PADOVA INTERPORTO VISIT**

Welcome, Introductions, Coffee	09.00 – 09.30
Description of "Interporto Padova", covering:	09.30 - 10.30
1 History, Development	
2 Size/capacity, Equipment available	
3 Traffic throughput, Facilities available etc	
Visit to Idroesse for additional Information	10.30 – 11.30
Conducted tour of Interporto facilities with Question & Answer	11.30 – 13.00
Lunch	13.00 – 14.00
Visit to "Italsempione" Freight forwarder	14.00 – 15.30
Visit to "Autamarocchi" local transport operator	15.30 – 17.00
City Visit	

Wednesday 4th June: **MAGAZZINI GENERALI, WAREHOUSES AND CUSTOMS VISIT**

Welcome, Introductions, Coffee	09.00 – 09.30
Talk about "Magazzini Generali"'s facilities:	09.30 – 11.00
1 Storage of seized cargo	
2 Health/phytosanitary inspections	
3 Customs examination requirements	
4 Problems of mis-declared cargo	
5 Customs entry procedures	
Visit to "Italcontainer" national rail Freight forwarder	11.00 – 13.00
Lunch	13.00 – 14.00
Visit to "Fascio Base"local railway station/yards:	14.00 – 16.00
1 Intermodal train operations,	
2 Use of marshalling yards	
3 Traction and rolling stock allocation,	
4 Train dispatch systems	
5 Cooperation with other railways,	
6 Signaling and communication issues	
Wind up Question & Answer session	16.00 – 17.00

Thursday 5th June: **VERONA INTERPORTO VISIT**

Visit to "Cemat" Freight forwarder Terminal and Description of Quadrante Europa ("Consorzio ZAI"), covering:	09.00 – 10.30
4 History, Development	
5 Size/capacity, Equipment available	
6 Traffic throughput, Facilities available etc	
Conducted tour of Interporto facilities and Warehouses (logistics warehouses "Saima Avandero" and "Corsi S.p.A") , with Question & Answer	10.30 – 13.00
Lunch	13.00 – 14.00
Visit to major logistic Warehouse "Autogerma S.p.A"	14.00 – 16.30
Wind up question & Answer Session	16.30 – 17.00
City Visit	

Friday 6th June:	**WIND UP MEETING**	
	Welcome, Introductions, Coffee	09.30 – 10.00
	Meeting organized by "Eurecna S.r.l":	10.00 – 12.00
	Lunch	13.00 – 14.00
Saturday 7th June:	.....	
Sunday 8th June:	.....	
Monday 9th June:	**VISIT TO SAN ANDREA FREIGHT TERMINAL**	
	Visa procedures	09.00 – 13.00
	Lunch	13.00 – 14.00
	Visit to San Andrea freight Terminal and to "SDAG Border Station" facilities (warehousing, transshipment, forwarding agency)	14.00 – 17.00
	Wind up session Questions and Answers	17.00 – 18.00
	Return travel to Sezana	18.00 – 19.00
Tuesday 10th June:	**VISIT TO SEZANA BC FREIGHT TERMINAL**	
	Visit and discussion of Customs facilities	09.00 – 12.00
	Lunch	12.00 – 13.00
	Visit and discussion of freight Terminal facilities ("BTC Terminal Sezana" Company)	13.00 – 1700
Wednesday 11th June:	**VISIT TO SEZANA PASSENGER TERMINAL**	
	Border Police Facilities	09.00 – 11.30
	Visit to freight terminal ancillary facilities (motel, bank Restaurant etc)	11.30 – 12.30
	Lunch d wind-up session	12.30 – 13.30
	Visit to Business Innovation Centre and Zone (built under another Phare Project)	13.30 – 14.30
	Return travel to Italy	14.30 – 15.30
Thursday 12th June:	***Delegates return to Chisinau/Kiev***	

ANNEX D

Questionnaire

1. Support Arrangements	Yes	No
Were the arrangements made for your international transport satisfactory?		
Were the arrangements for local transport in the country visited satisfactory?		
Were the hotel arrangements satisfactory?		
Were the arrangements for your meals and catering satisfactory?		
Was sufficient interpretation provided to enable you to understand everything you were told?		
Comments		
2. Study Visit Content		
Did you meet the types of organization that you expected?		
Did they provide the type of information you needed?		
Did they provide enough information?		
Did they answer all the questions you wanted to ask?		
Was there sufficient time allowed for each visit?		
Were the visual presentations clear and understandable		
Was the wind-up session useful?		
Have you produced a report on the Study Visit for your manager?		
Have you been able to pass on useful information to your colleagues		
Comments		

APPENDIX F

Intermodal Concept Paper and Modul B Recommendations

INTERMODAL TERMINAL DEVELOPMENT IN MOLDOVA AND UKRAINE

1. Introduction

This paper seeks to identify issues that are critical to the development of a modern intermodal freight system and provide a rationale for providing an intermodal infrastructure.
The starting point is that both countries are committed to following market-based economic systems and will be much affected by both eastward expansion of the European Union and modernisation in Russia, which remains an important trading partner for both countries.

The European Union has adopted a common transport policy, in which competition and choice are central elements. While there is provision for financial support of socially necessary rail passenger services there is a requirement that rail freight services are provided commercially. At the same there are also provisions for basing freight infrastructure access charges on short-run marginal costs and for limited capital support. Most EU railways have separated passenger, freight and infrastructure activities and operate freight as a commercial business. Countries that aspire to EU membership are progressively adopting EU transport policies and requirements. While Romania and Bulgaria are not expected to join the EU in less than 5 years they too are introducing transport frameworks that broadly follow EU practice.

It is reasonably clear that intermodal freight development in Moldova and Ukraine will need to be provided on a 'commercial' basis, be competitive with liberalised road transport and be commercially viable. Commercial viability may, though, fall short of full viability and at some stage it will be necessary to define financial objectives more closely, together with criteria for limited financial support.
Essential elements of a viable intermodal network include:

- Provision of suitable terminals
- Development of a modern and competitive operating structure
- Provision a commercial infrastructure

While this paper is primarily concerned with terminal provision the other two requirements are discussed also because they are essential ingredients in developing modern 'competitive' intermodal services.

2. Terminal Development

2.1 Kiev

Darnitsa is a large, relatively well equipped, site that is currently active. Rail access is reasonably good and road access, while adequate only, can be improved and there is land available for further development.
The development rationale includes the following factors and assumptions:

- Kiev is a large city, well situated geographically in Ukraine and in relation to other FSU countries, with sufficient economic activity to make provision of a modern terminal potentially feasible
- The site is large, with space for further expansion, and has adequate rail and road access, both of which are capable of improvement
- A modern operating structure does not exist
- The necessary commercial infrastructure does not exist

Action required:

- Estimate traffic potential
- Develop terminal improvement plans
- Develop operating structure
- Develop commercial infrastructure

2.2 Odessa

Unlike Kiev there is little potential traffic to support an intermodal terminal in or around Odessa at the present time. The development rationale is broadly as follows:

- On the positive side the site at Usatovo is good and large, with satisfactory road access, albeit in the need of some improvement, and rail connections
- Facilities are largely obsolete and degraded but capable of limited improvement for low traffic levels
- The terminal is unsuitable for maritime traffic, because of its location, and other traffics are judged to be too depressed to support reinvestment
- There is lack of a modern service structure and commercial infrastructure.

Maritime container traffic, the most attractive and rewarding intermodal traffic available in Ukraine and FSU, is most unlikely to require facilities at Usatovo. Long haul rail maritime container traffic should move directly from the Black Sea ports to Kiev and other centres while local traffic will continue to be delivered/collected to and from customers by road transport. Usatavo is too far from the ports to be suitable for container storage or repair. Small private road-serviced storage yards have been developing around the ports.
A future for Usatovo depends on traffic potential for land-based services, for which operating structures and equipment do not exist.
However, Odessa has a population of 1.3m and the site may be 'mothballed' until such time as industrial activity increases significantly but it is very unlikely that all of such a large site will be required.

Action Required

- Review traffic estimates
- Prepare paper recommending 'mothballing' and retention of site

2.3 Chisinau

Prospects for a modern intermodal terminal to handle containers and wagons at Chisinau are sound if modest. The development rationale is as follows:

- The site is good and large, with space for growth , and has adequate road and rail access
- Chisinau is well situated as a centre to serve most of Moldova, handling traffics to and from the EU in the west and FSU in the east
- Modern operating structures will need to be developed
- Although an effective commercial infrastructure will need to developed the practice of working with the private sector is already being encouraged

Action required

- Estimate container and wagon traffic potential
- Develop plan for terminal improvements
- Develop operating structure
- Develop commercial infrastructure

2.4 Ungheni

The arguments for developing a modern intermodal freight terminal at Ungheni are essentially different from those for Kiev and Chisinau, which are economic, geographical and political centres. Ungheni is not a major town and is situated at the extreme eastern border of Moldova but it is a major rail centre with direct access to the European standard gauge (SG) rail network.
A terminal at Ungheni would be suitable for:

- Un/loading modern SG wagons for movement beyond Romania to EU and other countries (1.520m wagons, with SG bogies, cannot normally go beyond Romania or Bulgaria, and SG wagons are not designed for bogie exchange and cannot operate on 1.520m rail systems in the FSU.)
- Un/loading of 1.520m wagons to and from FSU, avoiding need for bogie exchange
- Transhipment between SG and BG wagons of goods and containers
- Associated storage and handling

There are two possible sites, Bereshti and Umtesti. These are currently satellite facilities of Ungheni and are large sites with development potential. A preliminary comparison of sites suggests that the merits of the two sites are finely balanced:

Bereshti	**Umtesti**
For: • A large site • Good road access • Good SG and BG rail access • Situated in an industrial area • Existing container terminals • Conveniently serviced from adjacent BG sorting yard	For; • A large site • Most of site would be available, expansion possible on agricultural land • Large warehouse on site • Good BG rail access
Against: • No apparent space for expansion beyond existing site • Part of site required for wagon sorting	Against: • Road access needs improvement • SG tracks out of use • Situated in rural area, possible planning/environmental objections

Action required:

- Develop operating rationale
- Estimate traffic potential
- Determine most suitable site

2.5 Summary of Terminal requirements

The following table lists facilities to be considered for each terminal:

Terminal	Facilities to be provided for:
Kiev	Maritime containers BG wagons Swap Bodies? Warehousing
Odessa	None required
Chisinau	Maritime containers BG wagons Swap bodies? Warehousing
Ungheni	SG wagons Swap bodies, to/from SG wagons Warehousing

3. Operational and Commercial Considerations

3.1 Intermodal Systems, Traffics and Traffic Potential

There are broadly four categories of traffic that can reasonably be taken as potential for the four rail terminals being considered. These are:

- Maritime container traffic
- International traffic to and from FSU countries
- International traffic to and from Romania, central and western Europe
- Domestic Traffics

The issues to be considered first include:

- Determining traffic categories for which each intermodal rail terminal will be competitive (traffic volumes will be estimated later)
- Determining what intermodal systems/ technology are most appropriate in order to plan/design facilities

The intermodal systems generally available are as follows:

1. Container on flat wagon (COFC), most suitable for maritime containers
2. Double stack
3. Swap bodies
4. Piggyback/Rolling Road techniques (TOFC)
5. Bimodal systems
6. Rail wagons, traditional/modern

I believe that we should discard systems 2, 4 and 5 but this should be discussed and confirmed. Double stack, carrying double-stacked containers on specially designed wagons, is widely used in north America and provides economic advantages but is not generally practicable where overhead electrification exists; many main lines in FSU countries, but not in Moldova, are electrified. Piggyback requires a generous structure gauge and is fairly widely used in Germany and to and from neighbouring countries. There are two broad categories: 'accompanied' and 'unaccompanied.' While the latter is more economic generally than the former it is being progressively replaced in Europe by swap bodies, which offer most of the advantages at lower cost. 'Accompanied' is popular with road transport operators and valuable where

increased road traffic can be harmful environmentally to sensitive areas but it is hugely loss making. Interestingly it is being considered for introduction between Kovel in Ukraine and Poland.
Bimodal systems use vehicles that are designed to operate on road and rail and are relatively new. Equipment has been exhaustively tested in some European countries but I am not aware of any large-scale applications that are successful.
Maritime container traffic is the most attractive intermodal traffic for railways; goods are already containerised, volumes are often sufficient to support unit train operation and it is growing quickly in most countries. It is also potentially very profitable if handled efficiently. Despite these obvious attractions UZ and CFM have not put in place the necessary operational and marketing improvements to make rail services competitive!
I have made no mention of containers for domestic or international traffic that does not involve sea crossings because I believe they are out-dated, inefficient and inherently uneconomic for this traffic.
Swap bodies are, I believe, the best system for non-maritime intermodal traffic and have largely displaced unaccompanied piggyback traffic and containers in western Europe. Advantages of swap bodies over the container include:

- Higher payloads
- Flexible dimensions, long and wide enough to accommodate most pallet sizes
- Full side access allowing mechanised loading

Conventional rail wagons will also remain competitive for some non-bulk traffics and should, I believe, be handled at intermodal terminals. Wagons generally accommodate substantially higher weights and provide greater volume than containers or swap bodies. At the same time modern wagons provide full side-access and reinforced floors for mechanised loading; wagons are also suitable for powders and liquids. In FSU countries large 'Russian' wagons, in the absence of swap bodies particularly, are likely to be much more competitive than containers for palletised and other high density traffics.
In the next sections systems 1, 3 and 6 are discussed further. First operating structures are considered and then commercial requirements, without which the railways will not generally be successful.

3.2 Operating structure

Reliability, competitive transit times, good security, freedom from damage and real-time monitoring are essential if rail-based intermodal traffic is to be competitive with privatised and efficient road transport. The less efficient rail is the longer the distances will be before it is competitive. Minimum requirements for competitive services for maritime containers/ swap bodies include:

- Regular unit/block trains, supplemented by very efficient sectionalised train working
- Efficient facilities at ports
- Efficient facilities and processing at border crossings
- Modern terminals
- Real-time 'tracking' and computerised documentation

This sounds easy enough but UZ and CFM have a long way to go to meet these requirements; indeed some EU railways have also been slow to put in place these minimum requirements.

3.3 Commercial Infrastructure

Commercial infrastructure is the third building block necessary to achieve competitive intermodal rail services and is as important as provision of modern terminals and efficient operating structures. Investment *and process* are both equally important.
An effective commercial infrastructure requires:

- Effective rail marketing, embracing customer relationships, market knowledge and intelligence, tariff flexibility etc

- Business management that effectives binds marketing and service provision together, so ensuring adequate service delivery and financial management
- Private participation and investment

3.3.1 Marketing

The railways require marketing expertise in order to develop competitive rail services and market them. There are a number of possible suitable approaches available and these include:

- Direct marketing to users, requiring considerable market knowledge and expertise
- Marketing through a specialist subsidiary
- Marketing through one or more private sector operators

Most railways that are successful at marketing intermodal traffic have a special sub-sector or sub-department for intermodal traffic at their headquarters with regional support staff. This is quite different from establishing a specialised subsidiary, the merits and demerits of which are discussed subsequently.

3.3.2 Business Management

Business management is taken for granted in most businesses but in railways it requires structural and cultural change. Traditionally railways have relied on functionally based organisations but in a competitive market there are substantial benefits from business management. Freight divisions increasingly have freedom to market and to determine service patterns and structures. They increasingly control or own resources, equipment and staff, and contract with technical departments for maintenance and overhaul. Business management provides a mechanism for providing competitive services at competitive prices. This effectively ensures that rail managements develop 'profitable' traffics for which rail enjoys economic advantages and discard traffic that can be more economically carried by road transport. Intermodal traffic management is generally one of a number of prime sub-sectors in a freight division/company.

3.3.3 Roles of rail-owned intermodal companies

In western Europe most state railways established specialist intermodal subsidiaries more than 20 years ago and generally these still exist. They continue to market, provide specialised services and operate terminals but do not have a monopoly of rail intermodal service provision. Piggyback type services are operated separately from container services through UIRR companies in which private, mostly road transport, interests predominate and the railways enjoy a minority share.
But there has been an important change in recent years and most railways now market directly to shipping lines for maritime traffic. This has arisen for two reasons: first EU competition rules discourage railways from giving specialist subsidiaries sole or dominant access to intermodal rail services and second as intermodal traffic has grown and other traffics have declined rail managers have preferred to market directly to the private sector.

Rail intermodal companies are not generally as efficient as private operators and do not generate their own traffic and increasingly are becoming 'niche' operators and few have grown more than marginally in recent years. Certainly companies like Liski provide some benefits and have expertise but can be an obstacle to private sector involvement. Railways should, I believe, seek to maximise rail carryings, their core business rather than protect subsidiaries from competition. One solution, widely adopted in EU countries, is to allow such companies to operate some but not all terminals and provide other services in competition with the private sector; they should not enjoy exclusivity, which will discourage private sector operators from using rail.

3.3.4 Private sector participation

Private sector involvement or participation in intermodal service provision, operation and management is widely recognised as beneficial, contributing 'know how', investment and 'providing' traffic. In some east

European, FSU and developing countries private participation frequently creates problem and yet it is essential, I believe. Railways should surely seek to concentrate on 'core' activities in a strongly competitive environment. Reluctance to work with the private sector usually include some of these real or perceived problems:

- They are too 'short term' in their approach, seeking to make super-profits quickly
- They achieve over-favourable deals through their greater market knowledge and influence
- They seek to dominate a market by attempting to achieve exclusivity, so keeping other operators/forwarders/shippers out

These are real problems but they are capable of solution.
The private sector's perceived 'short term' approach arises generally because they judge 'risk' to be high; this will be for a number of reasons. Public sector operators are subject to political pressures and priorities and without legally binding contracts risk is considered high, particularly where investment is involved, and is priced into agreements. If railways want to achieve the full benefits of private sector participation they need to obtain greater knowledge of the market and obtain freedom to negotiate contracts. This may require changes in legal frameworks and law but the benefits will extend well beyond intermodal transport. For bulk traffics there are even stronger reasons for obtaining private investment in terminals, industrial sidings and wagons.
Private operators should not enjoy exclusivity either through political influence or market dominance; in a market economy all users should enjoy free and fair access to a public sector provider. There are some advantages in rail subsidiaries operating terminals providing they are provided on a non-discriminatory basis and priority is not given to their own traffics.

4. Conclusions

There are, I believe, some powerful reasons for developing terminals and intermodal services in Moldova and Ukraine. These include:

- The geography with long-haul opportunities to western Europe and FSU countries
- Availability of well developed rail corridors
- Availability of fast growing and relatively long haul maritime container traffics
- Relatively poor quality road systems

At the same minimum requirements include:

- Provision of a relatively small number of well-equipped modern terminals
- Improvements to rail services designed to improve reliability and transit times and reduce costs
- Improved rail marketing supported by business management techniques
- Private sector participation in service provision and management

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June 2003

Module B - Phase 2 Recommendations

1. Introduction

This paper sets out the Contractor's recommendations for Phase 2 of Module B – Multimodal terminals, and is written in conjunction with the Intermodal Concept paper, which is attached. The paper contains sections on:

- History and background
- Current situation
- Criteria for recommendations
- Project funding
- Recommendations for Phase 2

The Beneficiaries and the Task Manager are required under the Terms of Reference for the project to approve the recommendations before work on Phase 2 can proceed.

2. History and Background

Transport of freight in the FSU was rail-dominated, and investments were made on a "predict and provide" basis. There was a substantial internal intermodal business, almost entirely using 2,3 and 6m containers. The international business was operated by Morflot, using primarily standard 6m ISO containers. Almost all the FSU's overseas intermodal trade passed over the Baltic, Black Sea and Far East ports (St. Petersburg, Odessa/Iliychevsk, and Vladivostock/Nakhoda.) All long distance internal transport was carried out by rail, and the existing terminals were originally constructed to service this traffic. All the terminals covered in this project are distinguished by the features that this type of transport required. They all have:

- Good rail access with substantial reception yards and associated freight sidings
- Inadequate or poor road access
- Rail-mounted gantry cranes of solid construction but outdated technological design
- Large areas for container storage, often unpaved
- Substantial administrative and other buildings
- Warehouse and other storage buildings which are generally inappropriate for modern multimodal operations
- Internal rail layouts which are generally unsuitable for modern cargo handling methods and the transfer of traffic from one mode to another.

They are still owned and operated by national railway organizations in one form or another. Current investment (where there is any) is based on state allocation, and is generally engineering-driven rather than customer-focused.

The terminals in Odessa, Kiev and Ungheni were studied as part of the TACIS-funded project on Corridors 2 & 9 some three years ago. That project addressed the issues facing the terminals *inter alia* in Ukraine and Moldova, whose activities were characterized by:

- A dramatic decrease in traffic since the collapse of the FSU, caused both by economic recession, and the diversion of Russian traffic from Ukrainian to Russian ports
- Lack of "block trains", generally poor service, and a lack of awareness on the part of the national railways of the needs of their new customers – the major shipping lines and forwarding agents
- Increased competition from road transport
- Lack of modern technology and investment

The project made a number of recommendations. These included:

- Closing down the 3-4 tonne "small container" business altogether
- Training in marketing and commercial focus skills
- Provision of point-to-point unit train services between Odessa/Iliychevsk and Liski
- Development of public/private partnerships in terminal operations
- Closure of underused terminals handling domestic traffic

3. Current situation

In the three years since the previous project the international maritime traffic over Ukrainian ports has more than doubled, there has been some growth in domestic 20' traffic, and the "small" container business has virtually ceased to exist. None of the recommendations from the previous project appear to have been implemented, rail has lost modal share in a growth market (maritime traffic), and those investments in terminals that have been made or are proposed do not appear to be based on any identified customer requirements.

As the Intermodal concept paper rightly points out, the provision of freight transport is considered by the EU to be a purely commercial venture in a free competitive market. As both countries aspire to conform to EU prerogatives, it follows that there will be little or no EU support for any project investment that is not commercially driven.

In this section we summarise the current situation at each of the terminals suggested in the Terms of Reference or identified in the Inception Report as having possible potential. A detailed description of the facilities, including photographs and drawings where provided, will be contained in the next Progress Report

3.1 Liski

Liski terminal covers some 27 ha in the eastern suburbs of Kiev. It has two container stacking platforms some 600 x 18m with 4 operating RMGs, and two rail-connected warehouses (one leased out), substantial office and maintenance buildings, a gatehouse, and a large unpaved area used for storing empty containers. There are a number of other RMGs of varying capacity and in various states of repair

Liski is a state enterprise reporting directly to Ukrainian Railways. It can retain operating profit for investment; other investment can be made in agreement with the Ministry of Transport.

Liski is the major container terminal in Ukraine. In 2002 it handled just under 16,000 TEU under the gantries, and 2981 conventional rail wagons through the sheds. The volume of both activities has risen over the past three year by some 30%, but is still well within the capacity of the space, handling equipment and staffing levels – a terminal of this size, with 4 RMGs, albeit of old design and slow operation, should be able to handle some 150,000TEU per year without difficulty. The increase in containers handled has been largely through the introduction of domestic (CIS) 20' services operated under UZ colours, and through the handling of empty containers. There is little international maritime traffic, and figures obtained from the seaports indicate that direct road transport has a 95% modal share of this growth market.

Liski has produced its own internal investment plans, including the provision of additional shed space and rail sidings. We have been unable to obtain any substantiated traffic forecasts or business plans to justify these investments, and in any case the provision of additional tracks within the terminal would impede, rather than assist, the terminal's operation. We cannot therefore support these plans through this project.

The four RMGs used for container handling are in varying states of repair, but all are operational. Refurbishment of the electrical systems will prolong the useful life of this equipment for several years.

The road access to the terminal is of poor quality and has environmental disbenefits as it passes through residential housing areas. A new road link to the Kiev ring road would abstract heavy traffic from local roads.

The management structure of the company as shown in its organization chart reflects its railway ownership. There is no separate structured commercial or marketing function at senior level, and consequently no evident business planning or forecasting capability. This seriously detracts from the organisation's potential for any outside investment from the private sector.

3.2 Usatovo

Usatovo terminal is situated some 8km north of Odessa and comprises some 5 ha within a large railway complex. In January 2002 the management of the terminal was handed over to the Liski company. The terminal has 2 RMGs over a single container platform. Overall the terminal is in a bad state of dilapidation, and the access road is extremely poor. There is a warehouse leased out to a private operator.

The terminal handled some 1200 containers in 2002, almost all of them empties. Despite the lack of traffic, money has been invested in renovation of the office building, and there are proposals to refurbish one RMG using local contractors. The terminal has aspirations to handle empty containers for a Turkish organization, and to attempt to get into the container export-stuffing business currently carried out by private operators in and around Odessa port. However there are no clear business plans to market these services.

The Intermodal Concept paper attached outlines the reasons why the Contractor feels that there is no future for the time being for Usatovo terminal, and recommends that the site be mothballed against future requirements if and when they arise.

3.3 Vinnitsa

Investigations at Vinnitsa were withdrawn from the project at the request of the Beneficiaries early in the project.

3.4 Chisinau

Chisinau terminal is on railway property, managed by the railways, and comprises an area of approximately 10 ha adjacent to the city centre. The container platform is some 500 x 70m and is equipped with 3 RMGs, 2 of which are stated to be operational. There is a rail-connected warehouse handling general rail wagons. Half is leased out to a private operator, and the other half is operated by the terminal on a commercial basis. There is an identified need to increase the capacity of this part of the facility.

The terminal has adequate office facilities and workshop areas, albeit in a generally poor state of maintenance. There are comprehensive rail facilities, including 5 sidings into the terminal itself and an adjacent 20-siding reception and freight yard.

Apart from the fully utilized warehouse operation, the terminal is under used, handling around 5000 international traffic containers a year. It is however strategically situated in the capital city and in the geographical centre of the country, and container traffic is stated to have increased by some 15% in the first five months of this year. Closure of the terminal would effectively mean that Moldova had no intermodal facilities at a time of overall growth, particularly in exports, and at a time when regional international container traffic through the nearest ports at Odessa/Iliychevsk is growing at 30% per year. Such an option would clearly be unacceptable.

3.5 Ungheni

Multimodal facilities at Ungheni were not specified in the original Terms of Reference, but the Contractor proposed an investigation of the possibility of using Ungheni as a multimodal transfer point for traffic passing through Romania into southern Europe.

Ungheni terminal is situated at Beresti some 4km north of Ungheni station on the northern line towards Balti. It is served by both Russian and standard gauge lines. It is adjacent to the main broad gauge marshalling yard.

The terminal facilities are of some 4 ha and include a container platform some 400 x 30m served by 2 RMGs, one of which is only of 10tonne SWL. The facilities are not used as a multimodal terminal, and the only current activity appears to be for train-to-train handling. In 2002 827.containers were handled. The standard gauge line is still in place, but is in a generally poor state of repair.

The Contractors also looked at an alternative site at Untesti, some 8km from Ungheni on the southern line towards Chisinau. The site comprises a large shed facility some 150 x 50m, accessed by 6 sidings. There are no lifting facilities, and a multimodal terminal would have to be built from scratch and supplied with rubber-tyred container handling equipment. The shed currently houses surplus rolling stock for Moldovan railways. The site has both broad and standard gauge connections to Ungheni, but the standard gauge line is derelict and would need to be rebuilt.

A key issue in the development of Ungheni will be the identification of the traffic potential, without which no further investment could be considered.

4. Criteria for Recommendations

The recommendations we make for Phase 2 are based on certain criteria. These are:

- Recommendations for investment in additional or enhanced facilities must be based on sound commercial judgment in a free competitive market
- Investment in freight facilities to increase traffic and/or revenue should be in accordance with EU strategic policy and should be sought where possible from the private sector rather than through state funding.
- Investments which provide economic benefits, such as improvements to the environment, should be considered even if they have a negative financial return
- EU funds should not be used to support basic engineering tasks – such as pavement repairs – which the Beneficiaries are easily capable of performing for themselves
- EU policy encourages transition from a command-led to a demand-led economy. State-owned organizations need assistance to become more competitive by understanding the workings of a market economy
- Phase 2 tasks may include consultancy advice as well as investment proposals. Additional consultancy advice should be targeted at improving operational or commercial viability through the transfer of technology and best practice.
- Multimodal traffic is a growth market worldwide, and each country should maintain at least one operating terminal
- No recommendations should be made for the "small container" facilities, as this business has virtually ceased to exist for rail-connected terminals.

5. Project funding

In accordance with the Terms of Reference we have had initial and informal discussions with the private sector to establish their view on investing in multimodal operations. There is currently a reluctance on their part to consider such investment in the Beneficiary countries for the following reasons:

- The existing facilities are state-owned and the private sector fears that they would not have a free hand in terminal operations, including staff employment levels and performance, and the setting of tariffs
- The success of the terminals is seen as dependant on the provision by railways of efficient unit train services on a timetabled point-to-point basis, and the railways are currently unable to provide a satisfactory level of service
- Apart from Kiev, the traffic levels are too low to justify investment; there is a perceived lack of commercial or marketing skills within the present organizations to produce customer-focused forecasts or business plans.

Our recommendations therefore also seek to address some of these issues.

6. Recommendations for Phase 2

We therefore make the following recommendations for Phase 2 of the project:

1. Preparation of technical specifications for the refurbishment of one RMG at Liski and one RMG at Chisinau. TRACECA have indicated the availability of a budget for this work to be carried out in 2004, and this recommendation should therefore have the highest priority. Refurbishment of RMGs will extend the availability of container handling equipment in the medium term and ensure the continued operation of the two terminals.
2. Outline design of a new access road for Liski and an initial assessment of the environmental benefits that the removal of heavy traffic from residential areas will bring. There is a possibility of some external funding for this project which is currently being explored by the Contractor.
3. Consultancy advice to Liski and Chisinau terminal management on the establishment of a customer-focused commercial and marketing activity to ensure that both terminals' long-term future is firmly based on market requirements.
4. Consultancy advice in conjunction with 3 above to both terminals on the acquisition of anchor private-sector tenants for an expanded warehousing and multimodal transshipment facility.
5. Preliminary market research to establish whether the traffic potential for a multimodal exchange facility at Ungheni justifies the need for a more detailed study.