SCREENING CHAPTER 29
CUSTOMS UNION

AGENDA ITEM 12: COMPUTERISATION

Country Session: The Republic of TURKEY
13-14 March 2006
Towards a Modern Customs Administration

HISTORY

1988-1998
GİBOS (Customs Administrations Integrated Automation System)

- Real-time process
  Customs automation system was implemented at three sites
- Batch process
  Production of foreign trade statistics

1996
EC-Turkey Association Council Decision No. 1/95 (completion of Customs Union)
Improvement of Customs Administration by means of Information Technologies

Mission of Turkish Customs Administration (TCA)

Using Information Technologies (IT);

- to facilitate legal trade
- to prevent illegal trade
A CHALLENGE: GEOGRAPHICAL CONDITIONS

- situated at the very east corner of the West and at the very west corner of the East.
- on the route of illicit trafficking of narcotics
- neighbouring eight countries with different economic and social structures
- with land border of 2753 km, and coastal border of 8333 km
NOT ONLY AUTOMATION BUT ALSO MODERNIZATION

Modification of customs legislation and procedures in line with the EU Legislation

Re-organization of customs administration

Development and implementation of IT systems for customs procedures
CUSTOMS MODERNIZATION PROJECT

Objectives

• selective but more effective customs control
• providing better service for trade community
• uniform implementation of customs legislation
• more effective human resources management
• more effective production of foreign trade statistics
• more effective tax collection
STAGES OF CUSTOMS MODERNIZATION PROJECT

1998

- BILGE was introduced as a pilot application at Atatürk Airport

December/1999

- A deployment contract was signed and automation studies were initiated on a schedule

January/2000

- An international bidding was completed to deploy BILGE at other customs sites
AS of DECEMBER 2005

71
Customs Directorates
&
16
Regional Directorates
automated

- the number of annual import and export declarations are 3.99 million
- 99.5 % of all transactions are under automation
- IT infrastructure of the remaining 54 customs directorates have been completed
Under this project;

- IT Infrastructures were established
- customs officers (2,500) and traders (14,000) were trained
- Customs Automation Software was developed
Submission of declarations to BİLGE

• through kiosks provided within the customs directorates

• via Internet

OR

• from traders’ offices through EDI (Electronic Data Interchange) messages
Approximately 600 PCs are available at 71 customs sites for the use of traders
TECHNICAL INFRASTRUCTURE OF BİLGE

• UNIX Operating System on server
  Solaris 9 version

• ORACLE RDBMS
  10 g version

• C ++ programming and ‘.net’ language

• Client-Server architecture
EDIFACT messages used in BİLGE

- CUSDEC (CUStoms DEClaration report message)
- CUSCAR (CUStoms CARgo report message)
- CUSRES (CUStoms RESponse report message)
Customs EDI Project Network Architecture

Frame Relay & ADSL

HALKALI
CUSTOMS SERVER BİLGİ + AMTrix

63 SITES

KARAKÖY
CUSTOMS SERVER BİLGİ + AMTrix

ANKARA
GATEWAY

AHL

GATEWAY

INTERNET

LL / Dial up

TRADER

GATEWAY

WEB SERVER

EDTI (Translator & Interpreter)

TRADER

EDTI (Translator & Interpreter)

EDTI (Translator & Interpreter)

TRADER (Internet Users)

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EDI Usage Rates

Rate of Export/Import (SAD) declarations processed by EDI increased from 8% in 2001 to 50.12% in 2003, and reached to 71.25% as of December 2005.
OTHER SOFTWARE INTEGRATED INTO BİLGE

- CONTAINER CONTROL
- BİLGE
- BINDING TARIFF
- TIR CARNET
- WAREHOUSE CONTROL
- RISK ANALYSIS
- GÜMSİS
- GÜVAS
- USERS CONTROL

SCREENING CHAPTER 29
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AGENDA ITEM 12: COMPUTERISATION
Establishment of Data Warehouse System for a more effective:

- management
- performance measurement
- foreign trade statistics analysis
- Anti-Smuggling Data Bank
- Valuation Data Bank
FUNCTIONAL SCOPE OF GÜVAS

- foreign trade statistics
- queries
- graphical analysis
- bulletin (graphical analysis)
- performance statistics of customs offices
- tracking & query of TIR, vehicle, container
- estimation & analysis
- Valuation Data Bank
- Anti-Smuggling Data Bank
- Judicial Information System (tracking smuggling cases)
- external users’ access to GÜVAS on web site

Oracle MOLAP Express, Discoverer, Web, ‘.net’ tools are used
Approximately 10,000 transactions
### Binding Tariff

**Bağlayıcı Tarife Bilgisi**

<table>
<thead>
<tr>
<th>BTB No</th>
<th>GTİP</th>
<th>Eşyanın Tanımı</th>
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| TR000001 | 040669000000 | "Premier" Brand Digital Camera Bildiricilere da kullanılabilecek ek bir görüntü kamera. Yüksek çözünürlüklü 16, standart çözünürlükte 22 görüntüyü mahfuz hale getirebilir. 2 MB ile 8 GB takvimi kadar bellek kapasitesine sahip, PC ve bağlı kaynak video konferans için bilgisayarın camını oluşturunuz, komşuları ve arkadaşlarınızın görüntüsünü kaydedin. |}
| TR010001 | 746710000000 | ORTALAMA B MH ZAPYADA %93.9 ORANINDA BAKIR İŞİNE RAPİNE BAKIRLI ISI BAKIRLI EŞYA'DA EK İŞİNE RAPİNE HELINE KİLİT GÖZGÜNLERİ ALANINDA BAKIR KABLO ÜRETİMİ |
| TR020002 | 025240100000 | RIVER RL-2224 HARECİ BİR GÜÇ KAYNAĞI İLE GÖRELENDİRİLEBİLİR KOMBİNE HALDEKI ŞİBALK VE RAYDÖYAN OLURUŞU OLUŞU |
| TR030003 | 032791000000 | DİĞ FİRSAT - DİĞ MACİYİNDEN OLURUŞ BİRLİKTE EŞYA. DİĞ FİRSATIN ELE TÜŞÜNME ÖZELDENİ 650 BİR HAZINE İŞİNE RAPİNE DİĞ MACİYİ YER ALMAKTADET. DİĞ MACİH İLE DİĞ FİRSATIN ELE TÜŞÜNME YOKSA BELİNİ PLASTİK İLE DÜŞÜK ÜNİFİKATAN VE DÜŞÜNÜNÜK ÖNÜMDE CEVİRİLMESİTLİ HAZINE ÇİCARMA BIÇEĞİ MACİH FİRSATIN OLURUŞUNU ÖRNEK OLMAKTADET. |}

http://www.gumruk.gov.tr
CURRENT AUTOMATED TIR CARNET SYSTEM

Entry/Departure Office

Real time data entry of Volet1 by Customs Officer
Inspector is assigned automatically by the system

For Export Procedure Volet 1 data created by Summary Declaration Data of BİLGE

Destination/Exit Office

Real time data entry of Volet2 by the Customs Officer
Inspector is assigned automatically by the system

Summary Declaration Data in BİLGE Created by Volet2 data
Import Procedures in BİLGE going on

General Directorate of Customs Control

WAN

Local DB

Local DB

Customs Data Warehouse (GÜVAS)

All TIR Data collected on GÜVAS to be analysed

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PROCEDURES OF USER CODES FOR БİLGE (1/3)

Declarant

Application Information

Program for Request of User Code
Procedures of User Codes for Bilge (2/3)

- when the request of user code is transferred to the system it is also transferred to the Customs Transactions Unit
- it is approved by User Approval Program
Procedures of User Codes for Bilge (3/3)

• user is requested to have a password to enter BİLGE system

• user is not given password directly for security reasons

• user is requested to activate password defined by him/herself on http://uygulamalar.gumruk.gov.tr
SCREENING CHAPTER 29
CUSTOMS UNION
AGENDA ITEM 12: COMPUTERISATION

GÜMSİS PROJECT
(Customs Border Gates Security Systems)

- System Control Centre
- Closed Circuit TV (CCTV) System
- Cryptographic Communication System
- Vehicle and Container Inspection System
- Nuclear Detection System
- Transit Vehicle Tracking System
- Licence-Plate Scanning System
- Integration of the Existing System into the Planned Systems

Implementation Sites
From national Budget; Bulgarian, Greek, Georgian, Iranian, Iraqi Borders
From EU Loan; Syrian and Azerbaijan Borders
Ro-Ro Ports (5)
Tracking System of Transit Vehicles (1/2)
Licence-Plate Scanning System (1/2)

- Licence-plates of vehicles to/from the country automatically scanned by cameras are converted into texts and controlled by Program for Tracking Vehicles and Denounced Smuggling Events at Land Border Posts
National Anti-Smuggling Databank

- all information on paper about narcotics, arms and ammunition and commercial seizures was started to be collected at one centre and the anti-smuggling databank was fed by data entry

- after re-designing the software, all information has been entered by Customs Intranet and stored on GÜVAS

- this databank is basically used to get information about smuggling cases and to prepare risk analysis

- it has been expanded to include the information from international organizations
MONITORING SYSTEM OF WAREHOUSES

• it is obligatory to furnish A type warehouses with electronic devices through camera systems and to set up electronic measuring devices at fuel warehouses and to provide a central tracking environment for customs administrations through Internet
• this system has been initiated as of 01.01.2006
• records are stored in the system on the 7/24 basis for 3 months and tracked on-line. Thus, possible changes in the amount of fuels are also tracked on Internet
AGENDA ITEM 12: COMPUTERISATION

http://medbim.gumruk.gov.tr/antrepo/
CONTAINER CONTROL
(Temporary Entry and Exit Procedures) (1/2)

• it will be implemented by the end of June 2006
• operator will submit the container information via internet or web services to Customs Server
• container records will be automatically linked to summary declaration records
• additional data will be entered at entry office and an inspector will be assigned automatically by the system
• when the Container exits from the country, entry records will be accessed and discharged by the exit customs office
CONTAINER CONTROL
(Temporary Entry and Exit Procedures)  (2/2)

Results to be achieved;

• risk analysis will be performed for anti-smuggling measures by considering routes of containers

• containers’ staying period in the country will be monitored
INSTITUTIONAL COOPERATION

Ministry of Transportation

Exporters Union

Banks

E-GOVERNMENT

Ministry of Finance

Undersecretariat of Foreign Trade

Turkish Statistical Institute
one of the most remarkable benefits of automation is facilitation of verification process in export transactions

a network is established between the Undersecretariat for Customs and Ministry of Finance

the export declarations are transferred electronically to revenue administration

by using declaration details, revenue administration can struggle effectively against VAT refund frauds
ELECTRONIC PAYMENT (E-PAYMENT)
DATA EXCHANGE ON INWARD PROCESSING BETWEEN CUSTOMS AND UNDERSECRETARIAT OF FOREIGN TRADE

• declarants enter line number of Inward Processing Licence while completing their declarations
• during registration, declarations under electronic Inward Processing Licence get approval after electronic verification of Inward Processing Licence issued by Undersecretariat of Foreign Trade
• after approval, special requirements are viewed by inspector on inspection screen
• import declarations completed are transferred electronically to Undersecretariat of Foreign Trade
COOPERATION WITH MINISTRY OF TRANSPORTATION (1/2) (ULAŞNET)

At customs border posts;

- effective control of licences (CEMT) required for foreign vehicles
- quota control
At customs border posts;
Effective control of licences (CEMT) required for foreign vehicles
Quota Control
TURKISH CUSTOMS
NETWORK INFRASTRUCTURE
“…technical infrastructure of Turkish Customs Administration is modern and up to date …

… existing technical infrastructure (Network, Facilities, Hardware, and Software) of Turkish Customs Administration is capable to cope with the implementation and operational service of the CCN/CSI communication infrastructures …”
### HARDWARE PROFILE AT HEADQUARTERS

- **Servers (small, medium, large)** .................................................. 56
- **Network devices (router, switch, hub, modem)** ........... 112
- **Personal Computers** ................................................................. 1226
HARDWARE PROFILE AT CUSTOMS SITES

- Servers (small, medium, large) ........................................ 72
- Network Devices (router, switch, hub, modem) .......... 425
- Personal Computers ..................................................... 3665
### E-MAILING and INTERNET AT CUSTOMS

<table>
<thead>
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<tr>
<td>e-mail</td>
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<tr>
<td>internet</td>
<td>all staff</td>
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</table>

- Customs Official Web Site: [www.gumruk.gov.tr](http://www.gumruk.gov.tr)
- e-commerce web site: [www.customs-edi.gov.tr](http://www.customs-edi.gov.tr)
- Intranet web site: [http://medbim.gumruk.gov.tr](http://medbim.gumruk.gov.tr)
- Data Warehouse: [http://guvas.gumruk.gov.tr](http://guvas.gumruk.gov.tr)
Department of Data Processing and Communication
(IT Department)
## HUMAN RESOURCES

### HEADQUARTERS

- 61 Officers
  - IT experts (statisticians, mathematicians and engineers)
  - system operators
  - technicians
  - support personnel

### REGIONAL OFFICES

- 98 Officers
  - IT experts
  - system operators
  - technicians
  - customs officers trained on IT
e-TRANSFORMATION TURKEY PROJECT

- e-transformation Turkey Executive Board was established by the Prime Ministry Circular No. 2003/48 of 04.12.2003 to realize e-Transformation Turkey Project

- e-transformation Turkey Short-term Action Plan for 2003-2004 was prepared and studies have been initiated

- 73th Action Plan for 2003-2004 have been defined, and Undersecretariat for Customs has been assigned for “sharing information and documents used in foreign trade electronically”

- short-term Action Plan for 2005 was prepared and studies have been initiated

- preparations for Short-term Action Plan for 2006-2009 are going on
 ACTIONS OF e-TRANSFORMATION TURKEY PROJECT

- Information Society Strategy
- Technical Information and Information Security
- Training and Human Resources
- Legal Infrastructure
- Standards
- e-Government
- e-Health
- e-Trade
  - sharing information and documents used in foreign trade electronically
PROJECT ON E-DOCUMENT IN FOREIGN TRADE

- to carry out foreign trade transactions, with a standardized “e-Document” among organizations involved in business process in order to create effective, efficient, fast and reliable e-Business infrastructure

- to establish a “Single Window Environment” enabling presentation of all information to a single body in order to satisfy all requirements concerning foreign trade for all parties
AGENDA ITEM 12: COMPUTERISATION

e-Document Project (SINGLE WINDOW)

Single Window

Trader

Min. of Health

Min. of Industry and Trade

Transporter

Undersecretariat for Customs

Min. of Industry and Trade

Undersecretariat for Customs

Min. of Health

Min. of Industry and Trade

Transporter

Trader
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OBJECTIVE OF E-SIGNATURE

- e-Signature Law No. 5070 (OG No. 25355, dated 23.01.2004)

- aims to solve the problems caused by customs procedures carried out by using original signatures along with e-signatures and to accelerate the procedures

- e-Signature is planned to be used for customs declarations by EDI and e-Document Project in customs and foreign trade
EU FUNDED PROJECTS

- adaptation of NCTS into BILGE
- adaptation of TARIC into BILGE
- establishment of CCN/CSI
- translation of BILGE to WEB-Based Application
Consultancy to translate BİLGE to web-based technology

- description of the current situation

- definition of the high-level strategy allowing TCA IT department to reach the objectives specified by the TCA

- description of the possible technical options and their various implications (technical, functional, financial, organisational, …)

- definition of the web-based future developments strategy (using state-of-the-art IT technologies)

- procurement and installation of web and application servers
RISK ANALYSIS
AGENDA ITEM 12: COMPUTERISATION

Increase Revenue

Facilitate Trade

Customs

Control & Security
Tools and Modules for Risk Analysis

- Risk Analysis Module
  - Risk Analysis / Profiles
  - Violation Database
  - Line Determination and Direction

- Customs Data Warehouse System
- Declarant’s Registration Info and Tax Number Module
Risk Analysis and Assessment Process

System Validation/Approval

Risk Profiles

Random

Summary Declaration (Manifest)

Detailed Declaration (Import/Export)

SAD

Red Channel

Yellow Channel

Blue Channel

Green Channel
AGENDA ITEM 12: COMPUTERISATION

Risk values

Trader Compliance History

Result tables

Matched Transactions

Random % ..of total import and export

Declaration

Inspection

Release

Risk profiles+

risk scores from violation

Non-trapped items

Random % ..of total import and export

Declaration

Inspection

Release
**Profile Formulation**

Field for specific inspection instructions to guide the examining officer.

---

### Profile Formulation

<table>
<thead>
<tr>
<th>Field for specific inspection instructions to guide the examining officer</th>
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### Table

<table>
<thead>
<tr>
<th>No.</th>
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<th>Value 2</th>
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<table>
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<th>Profile Code</th>
<th>Definition of Profile</th>
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<tr>
<td>443-459</td>
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<td>Firm E % X-Y Red</td>
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<td>480-491</td>
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<tr>
<td>492-586</td>
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<tr>
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<td>MFIRE50-10 Red</td>
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<td>416</td>
<td>B type Simplified Procedures (SP) - Accredited Firms I-Blue</td>
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<td>417</td>
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<td>418</td>
<td>A type with SP AO I-Blue</td>
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<td>A type w/h SP AO I-Yellow</td>
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<td>420</td>
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Priority of Risk Criteria

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Phases of a Risk Analysis Study

1. Determination of the Subject
2. Sectoral Analysis
3. Legislation Scanning
4. Statistical Analysis
5. Assessment of Violations
6. Conclusion
‘Conclusion’ Phase includes:

- targeting
- determination of ‘high risk’ firms to be inspected and controlled
- creating risk profiles and transferring these profiles to Declaration Processing System of BİLGE
- proposals for new arrangements of legislation and risk profiles
Inspection Instructions

For each rule inspection instructions can be attached in order to instruct and guide the examining officer.

Check types;
- full unpack/full count
- spot check
- sampling
- detained for documentation reason
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Risk Analysis/Report Screen

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Feedback

• examination findings must be entered by the officers before goods can be released
• risk analysis system is continually updated and enhanced by evaluation of results fed back into the system
EU FUNDED PROJECT

RISK MANAGEMENT - 2004

• improvement of the risk based control mechanism

• strengthening specialized enforcement units at regional level

• development of infrastructure at border posts

• supply of vehicle and container scanning systems
THANK YOU