Intelligent Transport Systems (ITS): Opportunities and challenges for intermodal transport

Electronic trading in international supply chains: UN/CEFACT and ISO ITS solutions for intermodal transport

The Way Forward to Harmonised Electronic Trading for International Supply Chain

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Channels of standardization in Transport/Logistics

- **eBUSINESS electronic exchanges : EDI**
  - CEFACT / United Nations: Transport / Logistics Domain
  - CEN / ISSS Information Society Standards Systems / eBES eBusinees
    European Standards : Transport EEG2
  - Liaison with ISO/TC154 and OASIS / W3C

- **Intelligent Transport Systems**
  - ISO TC 204 (liaison with UN/CEFACT Transport)
  - Other ISO committees: TC 104 Containers, TC 8 Maritime...
  - CEN : TC 278 Road Transport Traffic Telematics (RTTT)

- **Telecommunications:**
  - ETSI European Telecom Standards Institute - User Group and others -
    exchanges with mobile vehicles, interoperability, human factors...
This phrase refers to international projects ITS « Intelligent Transport Systems and Services » and includes the concept to get benefit from the ICT - Information and Communication Technologies - for the freight management.

The word « Smart » (or Intelligent) which basically means « able to receive, process and forward information » has a much greater extent since the Transport Systems have strong social implications and contribute to the policies for the road safety, energy savings, environmental protection and more generally sustainable development.

Source JFJ / MTI
the focal point for eBusiness
Methodology and Technology

Sectoral

Regulatory

Supply Chain

Trade and Transport Facilitation

Programme Development Areas

Plenary

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Plenary Bureau

Programme of Work

Methodology and Technology

Sectoral

Regulatory

Supply Chain

Trade and Transport Facilitation

• Trade Facilitation Implementation Guide
• Annex to Trade Recommendation 6
• Revision of Trade Recommendation 11
• Revision of Trade Recommendation 12
• Trade Recommendation 34
• Trade Recommendation 35
• Trade Recommendation 36
• Consultation Models for Public and Private Sector Consultation
• Business Process Analysis
• International Supply Chain Reference Model

Project Teams

Organization after July 2011 Plenary Assembly
## UN/CEFACT Registry of Domains

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PDA Trade and Transport Facilitation

- Trade Facilitation Recommendations
- Electronic Business Standards
- Governmental & Business Processes

- Transparent and effective processes for global trade
PDA Structure

Domain Coordinators

- International Trade Procedures (Johan Pontén)
- Transport and Logistics (Dominique Vankemmel and Michael Onder)
- Customs (SP Sahu)

Vice Chairs
- Mats Wicktor
- Viktor Dravitsa

Trade and Transport Facilitation PDA

UN/CEFACT
The scope and deliverables of the standardization of Electronic Exchanges

- BSP  Buy – Ship – Pay  International Supply Chain
- EDIFACT Standard Messages (UNSM) and relevant Directories
- Data semantic harmonization
- Business Process Modeling
- Interoperability
- ebXML
International Supply Chain Reference Model

BUY
Export
Commercial Procedures

SHIP
Transport
Transport Procedures

PAY
Prepare for Import
Regulatory Procedures

Import

Prepare for Export
Financial Procedures
UN /CEFACT TRANSPORT

50 EDIFACT standard messages for Transport/Logistics among total 250

- **EDIFACT messages for Multimodal Freight - examples**
  - Transport Order - Bordereau groupage : IFTMIN – IFCSUM
  - Status report : IFTSTA
  - Transport Booking : IFTMBP/BF/BC
  - Manifest : IFCSUM ( EDIMAN)
  - Transport contract ( CMR, CIM, Bill of Lading, Air Way Bill..) : IFTMCS
  - Dangerous goods notification : IFTDGN
  - Containers mouvement, maritime and inland : CO….
  - Stowage plan ( Bayplan ) : BAPLIE
  - Berth management : BERMAN
  - Waste disposal : WASDIS
  - Logistics, cargo handling : HANMOV
  - Invoicing : IFTFCC – INVOIC
  - **Customs** : Manifest, declaration, response : CUSCAR, CUSDEC, CUSRES
CEFACT Transport / Logistics Domain

Domain Coordinators ex TBG3 Chair

Ex Vice Chair

Ex Vice Chair

Standardization Project Teams
Technical/secretarial support provided by BEST (Business Group for eCommerce Standards in Transport/Europe)

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Interoperability: a key issue

5 layers/dimensions

Cooperating partners having compatible visions, and focusing on the same things.

The appropriate synchronization of the legislation in the cooperating MS so that electronic data originating in any given MS is accorded proper legal weight and recognition wherever it needs to be used in other MS.

The processes by which different organisations such as different public administrations collaborate to achieve their mutually beneficial, mutually agreed eGovernment service-related goals.

Ensuring that the precise meaning of exchanged information (concept, organisation, services, etc) is preserved and well-understood.

The technical issues involved in linking computer systems and services (open interfaces, interconnection services, data integration, middleware, data presentation and exchange, accessibility, and security services, …)

Source: UN/CEFACT

UNECE WP 65 Nov 12
International Consortium:
• UN / CEFACT
• OASIS Organisation for Advancement of Structured Information Standards (Internet world W3C)

Launched Sept 1999

Objective: develop specifications for XML exchange architecture

Standardisation roles split between:
• UN/CEFACT, : **semantic contents** data and business models based on the considerable asset of EDIFACT
• OASIS : technical infrastructure allowing to share registries / dictionaries

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Other standardization committees Transport/Logistics

- **ISO** (liaison with UN/CEFACT Transport)
  - TC 204 « Intelligent Transport Systems » -
    - WG7.1: data and messages for intermodal freight road-aircargo-road, EFM Electronic Freight Manifest *(focused on transport security)* - Governance of Electronic Freight Management
    - WG7.2: data and messages for transportation of dangerous goods and emergency services
    - WG7.3: Freight conveyance content identification and communication architecture - Application profile *see example*
    - WG4.4: cooperative telematics applications for regulated commercial freight vehicles (TARV)

- **TC 104** Containers (identification, electronic seals..)

- **TC 8** Maritime in liaison with IMO International Maritime Organisation:
  - Security of the International Supply Chain
  - Electronic Port Clearance

- **CEN** TC 278 Road Transport Trafic Telematics (RTTT), european counterpart of ISO TC 204

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Norm@Fret: the French Standardization program


- Created 2004, administered by TTP / I-Trans World Class Industrial Transport Cluster (Pôle de Compétitivité Nord/ Pas de Calais/Picardie)

- Participation of Groups of road carriers, railways, air cargo, ports, maritime, inland waterways, shippers / distribution and Customs.

- Objectives:
  - Strengthen the participation in international standardisation instances UN/CEFACT, CEN and ISO - Chairmanship of UN/CEFACT Transport
  - Publish normative documents, implementation guidelines, reference guides of «good practices»...
  - Promotion, dissemination to entreprises (SMEs) and Users of standardized solutions for «intelligent freight» in the transport and logistics sector

- Support to the French Standardisation Committee of BNEVT (Bureau de Normalisation de l’Exploitation, de la Voirie et des Transports) in delegation by AFNOR

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Usefull URL Links

- UN/CEFACT Secretariat
  www.unece.org/cefact

- UN/CEFACT TBG3 Transport / Logistics Group
  www.smdg.org/tbg 3

- ITIGG International Transport Implementation Guidelines Group
  www.smdg.org/itigg

- Norm@FRET French program on « Fleet Management and Commercial Freight Standardisation »
  www.normafret.org
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Thanks for your attention

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