Economic Commission for Europe
Inland Transport Committee

Working Party on the Transport of Dangerous Goods

Joint Meeting of the RID Committee of Experts and the Working Party on the Transport of Dangerous Goods
Geneva, 19-29 September 2017
Item 8 of the provisional agenda
Accidents and risk management

Overview of the future framework of guides on Inland TDG Risk management (2017-INF.7)

Transmitted by the European Union Agency for Railways (ERA)
European Union Agency for Railways

Overview of the future framework of guides on
Inland TDG Risk management (2017-INF.7)
UNECE-OTIF Joint Meeting – September 2017
Background

Scoping phase

[2013]
EC Study on harmonized approach of Inland TDG risks

[2014]
Potential for a future multi-modal Directive on Inland TDG risk management

Development phase

Implementation phase
First inputs:

• 2013
  A background document presenting the scene of the recurring TDG issues
  *(Background discussion document)*

• 2013
  A Study procured by EC on the feasibility to establish harmonised risk acceptance criteria in the context of inland transport of dangerous goods
  *(EC Study report by DNV GL)*
Identified issues:

• Increasing demand for safety

• Diverse answers developed within EU-MS

• Sub-optimisation and potential risk shifting between states

• Potential un-controlled transfer of risk between modes of transport

• Potential global increase of risks for EU citizens

• Call into questions the effectiveness of TDG risk management system
• Policy needs

- Necessary to establish an **harmonised Risk-management framework**

- as a first feasible step, **Technical Guides**
Scoping phase

Development phase

[2014]
Launching of the TDG Roadmap project by ERA at the UNECE/OTIF Joint Meeting spring session (2014-INF16)

[2014 - 2017]
Collaborative development of an integrated framework of TDG guides

Implementation phase
(one or several participations)

- International institutions
  EC/DG-MOVE, ERA, OTIF, UNECE

- Member States, ADR/RID/AND Competent authorities, National authorities & bodies...
  AT, BE, DE, ES, FR, HR, IT, LU, LV, NL, RO, SE, SL, UK, CH, NO
  + IPA countries (Albania)

- Operators, Infrastructure managers, concerned companies, followers...
  BE, CZ, FR, IT, LT, LU, NL, PL

- Representatives of Transport and Industry associations
  AEGPL, CEFIC, CER, ECTA, EIGA, EIM, RSSB, UIC, UIP

- Experts from National scientific/research/consulting organisms
  BAM, DNV, INERIS, RIVM, Science Industries
• TDG Roadmap is a multimodal project for railways, roads and inland waterways

• ERA acted as a facilitator in collaboration with all interested parties
  - organising workshops and technical discussions in workgroups
  - reporting progress to relevant Committees (including UNECE/OTIF Joint Meeting)
  - developing guides on the basis of WS contributions and reviews
New draft version of guides

11 Workshops over 36 months

Proposed drafting & amendments

Terms of Reference
- Background document
- TDG Roadmap launching information
- Principles and method of working

Smaller workgroup meetings (for detailed technical contributions)

External contributions (also possible via Extranet +90 members)

Development inputs
- Technical notes
- Analysis of relevant data
- Review comments
Establishing a harmonised approach allowing:

- Transparency of risk-based decision-making (RBDM)
- Harmonise existing Risk Estimation approaches (not a revolution)
- Assistance to decision-makers (not a press-button decision)
- Independence of risk estimation process and decision-making process
- Mutual recognition of RBDM between interested parties
- Harmonised framework scalable to various type of risk situations and actors
The framework of guides

- Framework guide
- Guide for risk estimations
- Guide for decision-makers
- Glossary

List of relevant data for the framework implementation
(input to Joint Meeting)

Recommendations from TDG Roadmap participants
(follow-up actions)

BEGINNING 2018
Framework guide

Begining 2018

Framework guide

Guide for risk estimations

Guide for decision-makers

Glossary

List of relevant data for the framework implementation
(input to Joint Meeting)

Recommendations from TDG Roadmap participants
(follow-up actions)
Framework guide

- **Overview of the Risk management objectives**
  -> CONTINUOUS RISK REDUCTION AND OPTIMISATION

- **Scope of application**
  -> ALL THE TRANSPORT CHAIN FROM FILLING/LOADING TO UNFILLING/UNLOADING

- **Potential users**
  -> GOVERNMENTS, COMPETENT AUTHORITIES,
  -> AGENCIES,
  -> PARTICIPANTS TO THE TRANSPORT CHAIN
  -> REPRESENTATIVE BODIES
  -> CONSULTANTS

- **Introduction to the technical guides**
  -> GUIDE ON RISK ESTIMATION
  -> GUIDE ON RISK MANAGEMENT AND DECISION MAKING
  -> GLOSSARY

- **Framework maintenance**
  -> PROCESS
  -> USER GROUP
Guide for risk estimations

Begining 2018

- Framework of guides (Introduction)
- Guide for risk estimations
- Guide for decision-makers
- Glossary

List of relevant data for the framework implementation (input to Joint Meeting)

Recommendations from TDG Roadmap participants (follow-up actions)
Guide for Risk estimations

• Compatibility with
  -> GENERAL GUIDELINE ON THE CALCULATION OF RISKS (RID / ADR – Chap. 1.9)
  -> REGULATION (EU) 2013/402 and 2015/1136 - CSM on RISK EVALUATION AND ASSESSMENT
  -> EXISTING PRACTICES

• Scope of application
  -> PRACTICAL ASSISTANCE TO HARMONISED RISK ESTIMATIONS

• Input
  -> DESCRIPTION OF A RISK SITUATION

• Output
  -> HARMONISED DESCRIPTION OF A RISK SITUATION
  -> HARMONISED METHOD OF RISK ESTIMATION – STEP BY STEP

(CONDITIONNED TO THE DEVELOPEMENT OF A RISK ESTIMATION ENGINE)
-> RISK ESTIMATION RESULTS - QUANTITATIVE/QUALITATIVE
  -> RISK PROFILE/PERFORMANCE
  -> GROUPED FATALITY RISKS
  -> INDIVIDUAL RISKS
Guide for Risk estimations
Guide for
Risk estimations

• **Flexibility / Adaptability**

  -> USER SETTINGS ALLOW FOR ADAPTATION OF THE MODEL TO SPECIFIC CASE STUDY

  -> FIXED PARAMETERS OF THE MODEL ALLOW FOR MUTUAL RECOGNITION OF RESULTS

• **Maintenance**

  -> PERIODIC REVIEW FOR ALIGNMENT WITH RID/ADR/ADN

  -> PERIODIC REVIEW OF RISK MODEL PARAMETERS / REFERENCE VALUES SETTINGS

  -> PERIODIC REVIEW OF THE GUIDE BY THE USER GROUP
Guide for Decision-Makers

Begin 2018

- Framework of guides (Introduction)

- Guide for risk estimations

- Guide for decision-makers

- Glossary

List of relevant data for the framework implementation (input to Joint Meeting)

Recommendations from TDG Roadmap participants (follow-up actions)
• **Compatibility with**
  -> GENERAL GUIDELINE ON THE CALCULATION OF RISKS (RID / ADR – Chap. 1.9)
  -> REGULATION (EU) - CSM on RISK EVALUATION AND ASSESSMENT
  -> EC GUIDELINES ON IMPACT ASSESSMENT
  -> EXISTING PRACTICES

• **Scope of application**
  -> PRACTICAL ASSISTANCE TO HARMONISED DECISION-MAKING

• **Input**
  -> DESCRIPTION OF A RISK SITUATION
  -> DESCRIPTION OF A DECISION-MAKING CASE

• **Output**
  -> IDENTIFICATION OF STAKEHOLDERS
  -> DEFINITION OF THE TARGET RISK SITUATION
  -> IDENTIFICATION OF RISK MANAGEMENT OPTIONS
  -> MANDATE FOR USERS OF THE GUIDE ON RISK ESTIMATIONS
  -> ASSESSMENT OF DECISION MAKING PRINCIPLES
  -> RANKING OF MOST EFFICIENT OPTIONS FOR REACHING THE TARGET SITUATION
  -> QUALITY / JUSTIFICATIONS / COMMUNICATION
Guide for Decision-makers

Description of the DM-case

Triggering a DM-process

Identifying optimal target situation

Validation / End of process
• **Flexibility**
  - APPLICABLE TO VARIOUS CATEGORIES OF USERS
  - APPLICABLE TO DIFFERENT TYPES OF RISK SITUATIONS
  - NO FIXED CRITERIA FOR THE DECISIONS
  - A PROCESS ASSISTING THE DECISION-MAKERS

• **Maintenance**
  - PERIODIC REVIEW OF PRACTICAL EXAMPLES BY THE USER GROUP
  - (POTENTIAL FUTURE DEVELOPMENT) RISK ACCEPTANCE CRITERIA
Phase II

Scoping phase

Development phase

Implementation phase

[beginning 2018]
Publication of TDG framework guides

[2018-2020]
Use case examples (when ready)
Expert users group and TDG website,
Improvement of reporting regimes (JM)

[2021 - 2025]
Re-evaluation of the relevant risk management legal framework
Phase II

Begin 2018

- Framework of guides (Introduction)
- Guide for risk estimations
- Guide for decision-makers
- Glossary

- List of relevant data for the framework implementation (input to Joint Meeting)
- Recommendations from TDG Roadmap participants (follow-up actions)
Inland TDG Website

Expert users group

2018 – 2020
(Implementation phase)

Re-evaluation of the risk management legal framework

List of relevant data for the framework implementation
(input to Joint Meeting)

Recommendations from TDG Roadmap participants
(follow-up actions)

Risk estimation engine

Inland TDG Website

Public user feedback

Expert users group
Making the railway system work better for society.

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