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## Federal Environment Agency

### Dessau, Germany

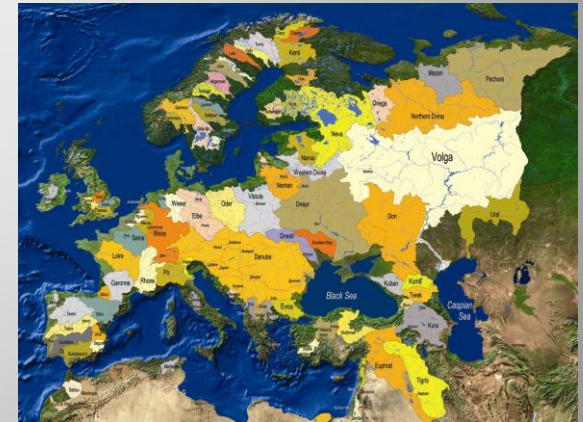


# UNECE-Strategy for Risk-Reduction

## Safety Guidelines and Checklists

### Safety Guidelines and Checklists

- Tailings Management Facilities
- Hazardous Industries (Seveso)
- Pipelines
- Oil-Terminals



# UNECE-Strategy for Risk-Reduction

## - Background -

- The UNECE member countries decided to draw up safety guidelines to assist the national authorities and the operators in ensuring and harmonizing an adequate safety level and an acceptable level of risk posed by such facilities, contributing to transboundary accidents.
- The UNECE guidelines are designed to prevent incidents and to limit the potential for negative impacts on environment, human health and infrastructure. They are based on accepted and published good practice procedures to ensure conformity with international standards.  
Security concerns and workers' safety are not within the scope of these guidelines.
- The guidelines constitute a minimum set of requirements to ensure a basic and harmonized level of safety for hazardous activities. They highlight aspects to be considered to achieve an acceptable level of safety through applying different policies, measures and methodologies.

# UNECE - Sources of Risk

There had been a number of accidents with dramatic regional and even transboundary impact within the UNECE region, such as accidents at **Tailing Management Facilities**



Red Sludge Spill, 2010



Baia Mare, 2000



# UNECE

## Safety Guidelines for Tailing Management Facilities

### Principles & Recommendations

- UNECE-Parties
- Authorities
- Operators



Baia Mare, Baia Borsa 2000

Information:

<http://www.unece.org/env/teia/guidelines.html>

# Annex

## Technical and Organizational Aspects

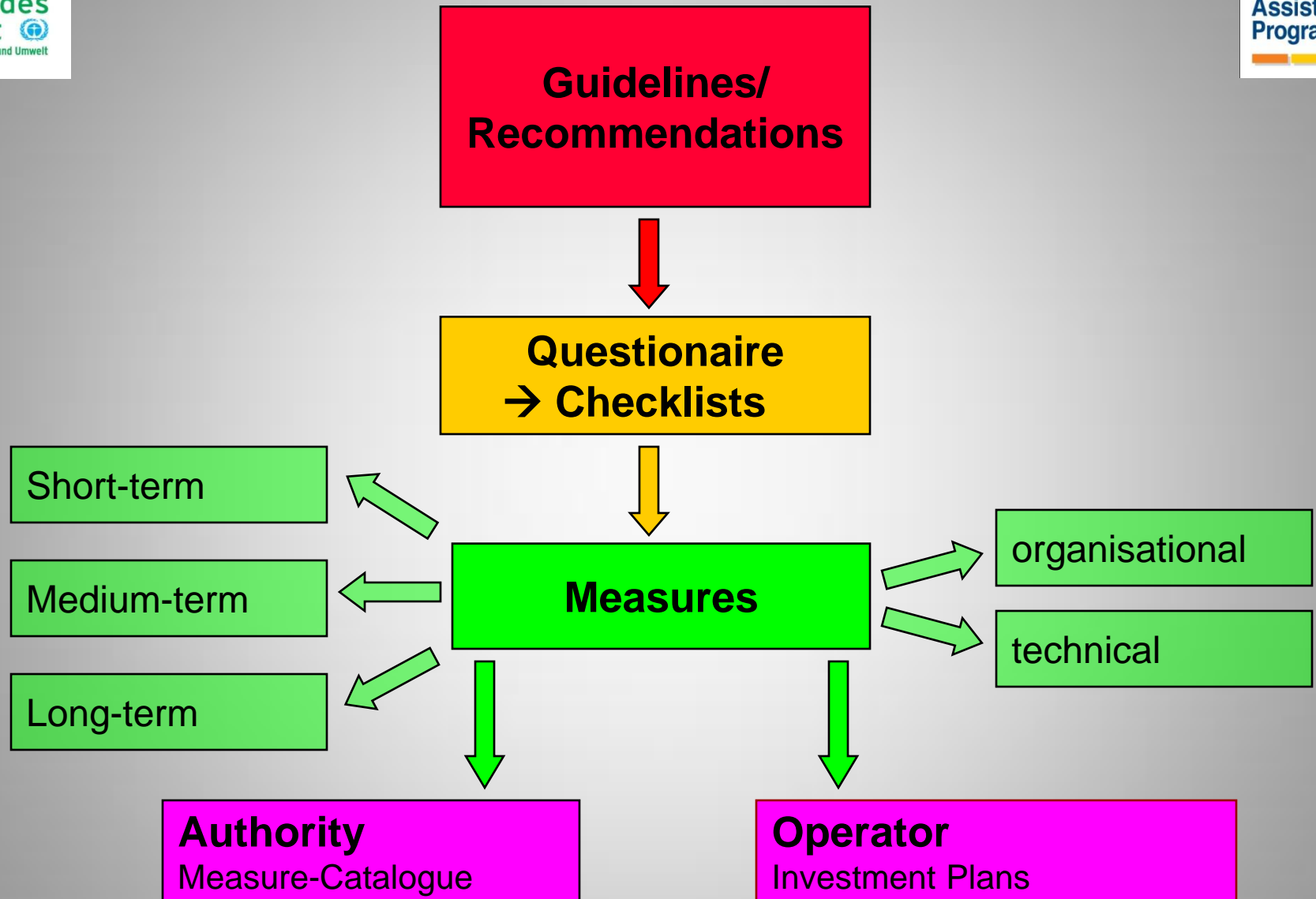
- I. PRE-CONSTRUCTION AND CONSTRUCTION**
- II. OPERATION AND MANAGEMENT**
- III. EMERGENCY PLANNING**
- IV. INSPECTION**
- V. IDENTIFICATION ASSESSMENT AND MANAGEMENT OF ABANDONED SITES**

# UNECE-Strategy for Risk-Reduction

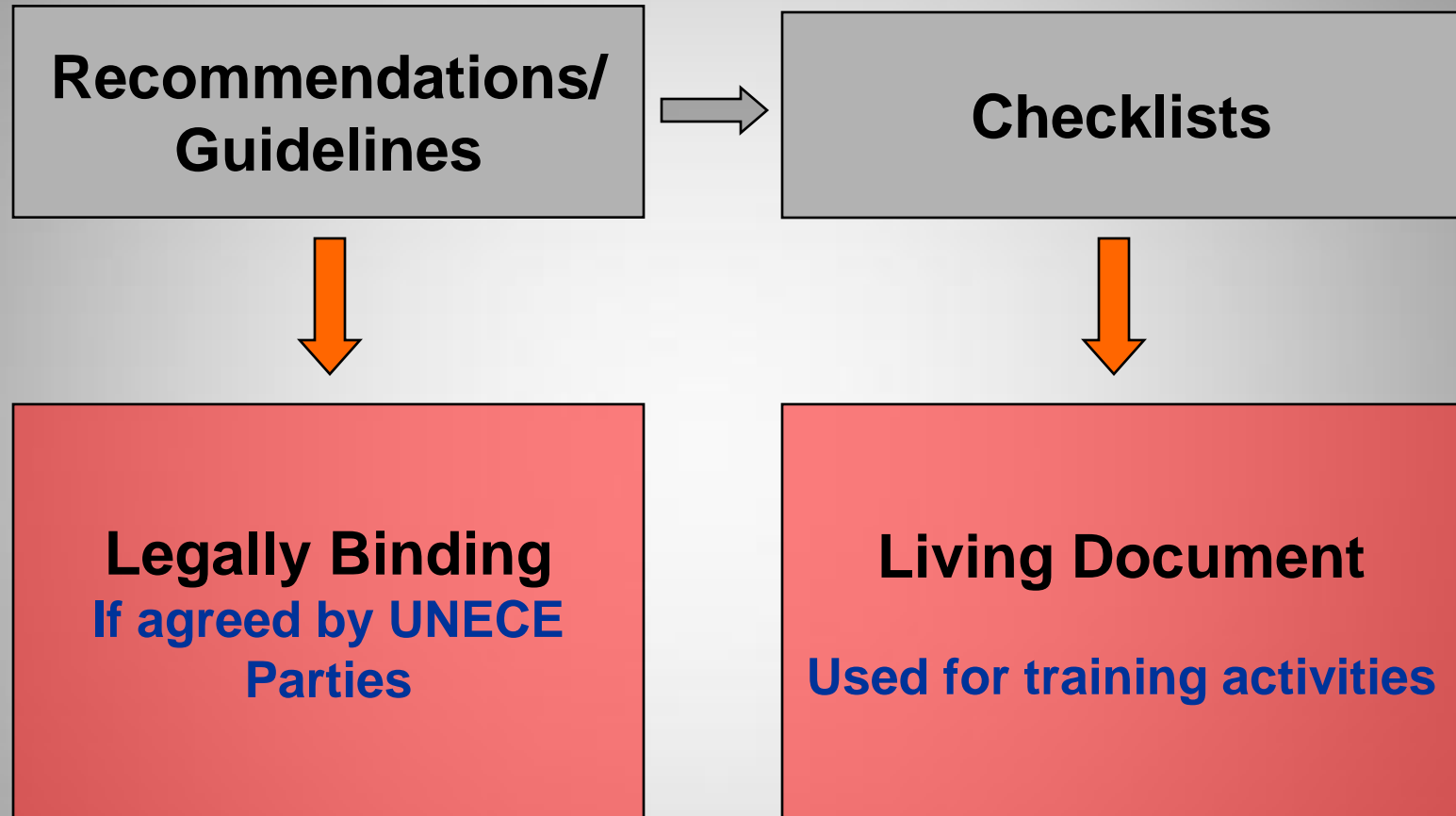
## Safety Guidelines and Checklists

### Safety Guidelines/Recommendations

- Only general recommendations
- What was needed were specific exemplary **Measures and Standards** to fulfill the provisions of the Guideline
- **Checklists (incl. measure catalog)**







# UNECE - Sources of risk

## 7th UNECE CoP-Recommendation:

A checklist for Tailing Management Facilities should be elaborated supporting the implementation of the UNECE Guidelines for Tailing Management Facilities



Talvivaara, 2012

# **Project**

## **Improving the Safety of Tailings Management Facilities (TMF)**

**(07/2013 – 06/2015)**

- 1. Analysis of the legal and administrative situation in Ukraine**
- 2. Elaboration of a checklist to the safety of TMF, based on the UNECE Guidelines**
- 3. Development of a Training Modul for international exercises**

# Checklist for Inspections to Seveso Installations

Based on the EU Seveso-Directive a checklist was elaborated, tested and modified during on-site inspections at hazardous facilities in Croatia and Serbia.

As a result, the **“Triple-C checklist”** was developed, which combines in a simple manner the evaluation of safety reports with the conduct of inspections through providing inspectors with a comparable and user-friendly score system.

**“Triple-C”** means thereby **Completeness, Correctness and Credibility**.



**Workshop on Safety Guidelines and Good Industry Practices for Oil Terminals**  
within the project on hazard and crisis management in the Danube Delta  
**23-25 September 2013, Odessa**

# UNECE - Sources of risk

## Pipeline-Accidents

### 1. Poland

→ Leakage of Oil-Pipeline under  
Vistula (10.12.2007)



### 2. China

→ Pipeline-Explosion  
at Dalian (16.07.2010)



## Safety Guidelines/Best Practises for Pipelines

### Principles & Recommendations

- → UNECE-Parties
- → Authorities
- → Operators
- → Technical Annex





# Safety Guidelines for Pipelines

ECE/CP.TEIA/2006/11 – ECE/MP.WAT/2006/8

## ANNEX

- **Design and Construction**
- **Pipeline Management System**
- **Hazard/Risk Assessment and  
Land Use Planning**
- **Inspection**
- **Emergency Planning**

# ***UNECE - Sources of risk***



## **Buncefield, UK**

# Riskmanagement for the Danube Delta



**Deep Water Horizon**

**Danube Delta**



# Safety Guidelines for Oil Terminals

## International Expert Group 2012 – 2013

### Members:

- UNECE-Secretariat
- DNV, Belgium
- EPSC, UK
- Ecoaudit, Ukraine
- GCE, Russia
- BAM, Germany
- PMI, Belgium
- UBA, Germany



**Fire on Tanker – Germany  
2011**

# Safety Guidelines and Good Industry Practices for Oil Terminals

## Part 1: Principles & Recommendations

- UNECE-Parties
- Authorities
- Operators
- Key Topics for Life Cycle



# Safety Guidelines and Good Industry Practices for Oil Terminals

## Part 2: Technical and organizational aspects of safety

- 1. Design and Construction**
- 2. Operations and Management**
- 3. Asset Integrity & Reliability**
- 4. Emergency Planning and Response**
- 5. Managing Lifetime & Decommissioning**

## Part 3: Sources and further Reading



# Safety Guidelines for Oil Terminals

## The way forward:

### **Int. Steering Group:**

→ Drafting the Guidelines

### **Odessa-Workshop**

→ Discussion and On Site Visit

→ Amending the draft Guidelines

### **UNECE-countries**

→ Commenting the draft Guidelines

### **8th UNECE CoP, Nov. 2014**

→ **Safety Guidelines for Oil Terminals**

# Thank You for your Attention

