

Waste Management and Waste Analysis

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other

Project Details

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Project Proposal Status	Official
Project Page	Waste Management and Waste Analysis
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HoD Support	AT / IN / NL
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Project Purpose

This project purpose is the definition of UN/CEFACT standardized electronic data formats (CCL, XSD) for waste management related data such as waste analysis results.

Project Scope

Waste management is essential to protecting human health and the environment. It is also a field of economic competitiveness and innovation, especially with regard to the use of 'secondary raw materials', such as metals, wood, glass, paper and plastics present in waste.

Waste management policies cover prevention, reuse, recycling, recovery and disposal, often in this order of priority.

For waste that has already been generated, the choice of appropriate pre-treatment and treatment operations is crucial to the environmental and economic goals. An informed choice requires detailed knowledge about the waste in question. Such knowledge is acquired through **waste analysis**: Samples are taken, laboratory analysis is conducted and statements about waste properties, such as **physical and chemical properties**, are provided, and classifications, such as of **hazardousness**, are derived.

Based on waste analysis results, decisions regarding further pre-treatment and treatment operations are taken, and installations meeting the requirements for treating that specific waste are named. More specifically, each waste treatment installation can only treat specific types of waste. The criteria to be met by waste in order to be treatable at a specific installation are well-defined, such as via limit values set by law or by the installation permit.

Structured electronic representations of waste analysis results on the one hand, and conditions to be met by waste at specific installations on the other hand, provide the opportunity of **automation support** in the matching of wastes and appropriate treatment operations and installations, providing both **more effective environmental control and more efficient processes**.

In many cases waste is treated in a different country than its origin country. For example, 74 million tonnes of hazardous waste are estimated to have been produced in total within the EU in 2009. 7.4 million tonnes of hazardous waste have been exported by EU member states in that year, mostly (97%) to other EU members (Source: EEA Report No 7/2012 on Movements of waste across the EU's internal and external borders, <https://www.eea.europa.eu/publications/movements-of-waste-EU-2012>).

This shows the need for **cross-border interoperability**. Waste analysis results generated in one country have to be usable in other countries. There is a need for standardized electronic formats for waste analysis results.

In a previous UN/CEFACT project, “*Transboundary Movements of Waste*”, standardised data formats have been defined for the information exchanges laid down by the **Basel Convention on the Control of Transboundary Movements of Hazardous Waste and their Disposal**. These information exchanges include the so-called notification submission, information by the exporter or country of export about the intended transboundary movement of waste, upon which competent authorities decide over consent, consent with conditions or approval (Basel Convention Annex V A). UN/CEFACT standardised data formats are available for the basic contents of notification submissions, such as exporter, importer, type of waste, period of waste movements, etc. They are not yet available for waste analysis results, which are so far exchanged in unstructured formats, such as PDF attachments. Therefore the project on waste analysis results can be seen as an extension to the previous *Transboundary Movements of Waste* project.

Structured data is also required for additional descriptions of the waste management process, in particular descriptions of waste generation, waste treatment, the installations at which waste is generated and treated, permits regarding the treatment of waste and the operation of treatment installations, guarantees and contracts between waste producers and waste treatment parties.

The following is within the scope of this project:

- Waste analysis results as used for classifying waste and determining appropriate treatment installations. Among the processes in which such results are used are the Basel Convention processes for transboundary movements of waste
- Representation of analysis results and methods defined in International Standards such as ISO and CEN
- Compliance with analysis results in other fields, including closely related ones such as hazardous materials, and more loosely related ones such as agricultural analysis results. This requires the UN/CEFACT Material Safety Data Sheet (MSDS) and eLABS projects to be taken into account
- Additional data required in waste management processes, such as on treatment of waste
- Extension of Basel transboundary movements of waste notification and transport documents with analysis results, permits, guarantees, contracts, waste generation descriptions, waste treatment descriptions, and installation data

Project Deliverables

- Business Requirements Specification (BRS)
- Requirements Specification Mapping (RSM)
- XML Schema Definitions (XSD)

Project Team Membership and Required Functional Expertise

The membership is open to experts with broad knowledge in the area of waste management, environmental management, laboratory analysis and regulatory procedures, as well as experts with knowledge in EDI, XML, XML Schema and UML modelling.

In addition, Heads of Delegations may invite technical experts from their constituency to participate in the work. Experts are expected to contribute to the work based solely on their expertise, and to comply with the UN/CEFACT Code of Ethics.

Geographical Focus

The focus is global.

Initial Contributions

Initial contributions include:

- International Standards on (waste) analysis methods and results, such as ISO and CEN standards
- Deliverables of UN/CEFACT projects Transboundary Movements of Waste (TMW), Material Safety Data Sheets (MSDS) and eLABS; and other UN/CEFACT Core Component Library (CCL) contents

Project Proposal Files

File	Modified
PDF File 171106 3c ENV_WasteMgmt_Analysis proposal.pdf	Nov 08, 2017 by Malik
PDF File 171023 3x ENV Wast Mgmt NL HoD Support.pdf	Mar 28, 2018 by Malik
PDF File 180219 3x ENV Waste Mgmt - IN HoD Support.pdf	Mar 28, 2018 by Malik
PDF File 180305 3x ENV Waste Mgmt - AT HoD Support.pdf	Mar 28, 2018 by Malik
PDF File 190701-3e ENV WasteMgmt - change Milestones v2.pdf	Jul 09, 2019 by Malik
PDF File 200309-3e ENV Wast Mgmt Mileston update.pdf	Mar 09, 2020 by Malik

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