



An EU funded project

3rd Workshop

Waste Management Plan on hazardous Construction & Demolition Waste

**3rd of February 2017
(Belgrade)**

Specific Waste Management Plan (WMP) on Hazardous Construction and Demolition (C&D) waste

- ❖ The **need** for a WMP
- ❖ Process to **elaborate** the specific WMP
- ❖ **Content** of the specific WMP
- ❖ Main **challenges** on the management of the (hazardous) C&D waste in Serbia
- ❖ **Implementation** of the measures defined in the WMP
- ❖ **Next** steps

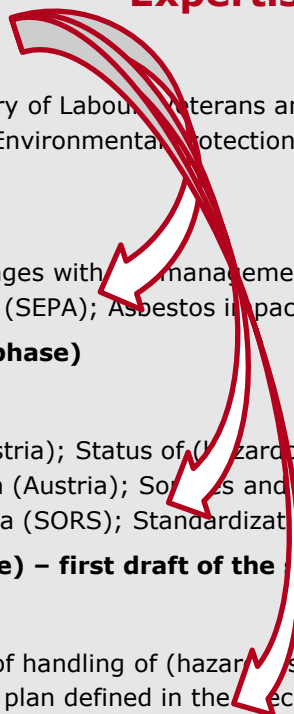
Do we need a Waste Management Plan?

- **Serbian Law on Waste Management (RS No 36/09, 88/10 and 14/16):**
 - Article 1: The Law shall regulate waste management planning
 - Article 10: The Serbian Waste Management Strategy shall contain a Waste Management Plan
 - Article 11: Specified content of the National Waste Management Plan
 - Article 12, 13 and 15: Framework for Regional and Local Waste Management Plans and Waste Management Plan in IPPC Establishments
- **European Waste Framework Directive (2008/98/EC):**
 - Article 28 (1): MS competent authorities shall establish a Waste Management Plan
 - Article 28 (2, 3): Specified content of the National Waste Management Plan
 - Article 30: Waste Management Plans need to be evaluated at least every sixth year
 - Article 31: Stakeholders, authorities & the general public must have an opportunity to participate
- **Preparing a Waste Management Plan – A methodological guidance note (EC 2012):**
 - *"This Guidance Note serves to assist waste management planning and promote the development of more coherent and appropriate planning practices across the EU Member States, in compliance with the requirements of the relevant EU legislation."*
- **Detailed assessment of EU Member States Waste Management Plans (EC 2014):**
 - http://ec.europa.eu/environment/waste/studies/pdf/Assessment_of_WMP_final_report.pdf

How did we manage to set up a specific WMP?

Expertise, feedback and comments

- **07/2015: Establishment of the Working Group**
 - Ministry of Agriculture and Environmental Protection; Ministry of Labour, Veterans and Social Issues; Ministry of Health; Ministry of Finance; Statistical Office of the RS; Agency for Environmental Protection of the RS; Labour Inspectorate; Chamber of Commerce of RS; Civil Engineering University
- **12/2015: Kick-off Workshop and start-up**
 - Hazardous substances in C&D waste (Austria); Main challenges with management of hazardous C&D waste in Serbia (MAEP); Available data on (hazardous) C&D waste in Serbia (SEPA); Asbestos impact on the human health (University)
 - **Drafting background and status part (data gathering phase)**
- **06/2016: Progress Workshop and drafting**
 - EU and Serbian regulations on (hazardous) C&D waste (Austria); Status of (hazardous) C&D waste management in Serbia (MAEP); Needs for proper C&D waste management in Serbia (Austria); Sources and levels of funding for the implementation (Austria); Available data on (hazardous) C&D waste in Serbia (SORS); Standardization in the field of C&D waste (ISS)
 - **Drafting planning part and action plan (planning phase) – first draft of the specific WMP (translated)**
- **02/2017: Final Workshop**
 - Sum up on progress and draft results (Austria); Examples of handling of (hazardous) C&D waste in other European Countries (Austria); Recommendations for future approach and action plan defined in the specific WMP (Austria); Administrative set up and context to the management of hazardous C&D waste in Serbia (Chamber of Commerce, City of Belgrade); Relevance of the SWMP C&D in the overall waste management planning in Serbia (MAEP)
 - **Finalisation – final draft of the specific WMP on hazardous C&D waste (translated)**



What is covered by the specific WMP on C&D waste?

1. **Introduction**
2. **Legal framework for the management of hazardous C&D waste**
3. **Institutional set-up**

STATUS PART

4. **Current status of the C&D waste management (qualitative and quantitative characterization)**
5. **Present collection system and existing treatment capacities**

PLANNING PART

6. **Expected types, quantities, and origin of hazardous C&D waste (forecast)**
7. **Assessment for needs of new collections systems and plants (strategy)**
8. **Sources and levels of funding for the implementation of measures**
9. **Determination of objectives**
10. **Action plan for achieving the objectives**
11. **References**
12. **Index of tables, figures and pictures**
13. **Annex**

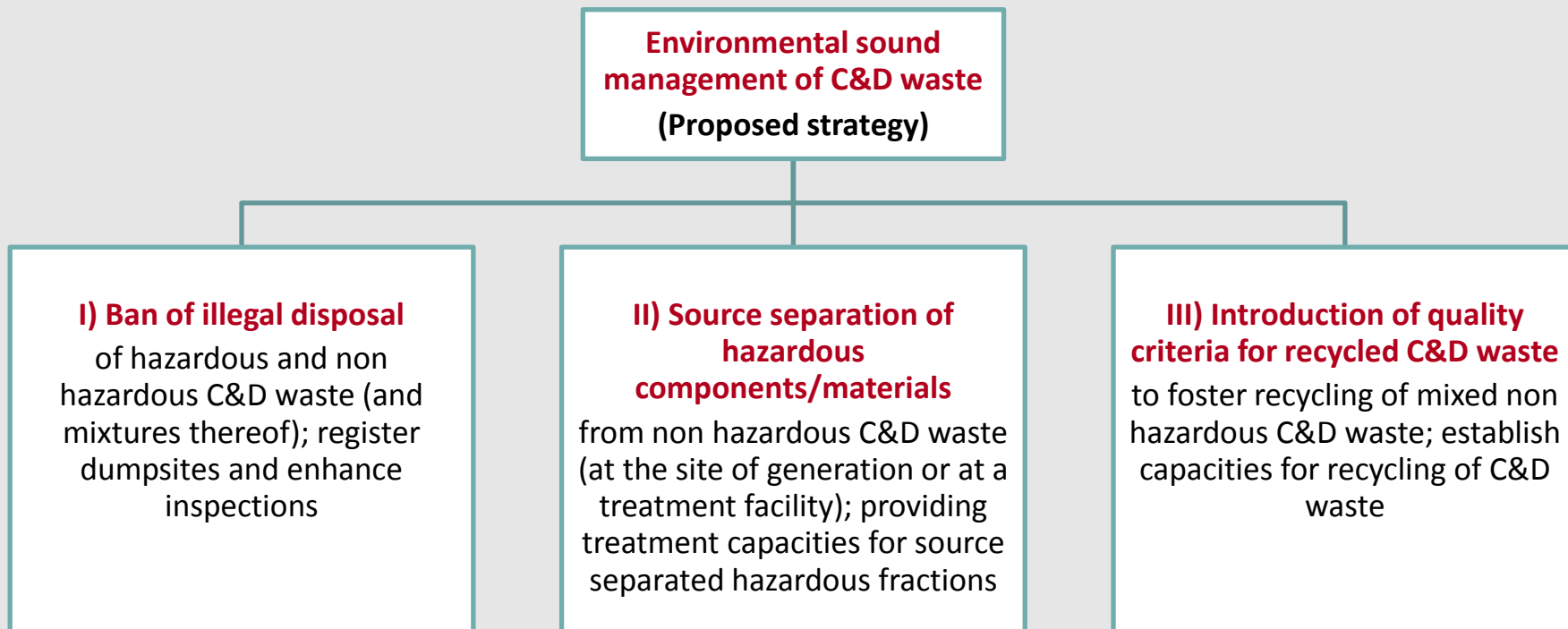
Who is interested in and may play a major role?

- **Republic of Serbia / Ministry of Agriculture and Environmental Protection (MAEP)**
- **Autonomous Province**
- **Environment Protection Agency – SEPA**
- **Local Self Governmental (LSG) Unit**
- **Environmental Inspection**
- **Experts waste testing organizations**
- **Institute for Standardization of Serbia (ISS)**
- **Private sector / Chamber of Commerce**

Which waste is covered? ...generated throughout (de-)construction activities!!!

- **Hazardous waste**
 - Asbestos containing waste and asbestos cement
 - Phenols (BPA)
 - Polychlorinated Biphenyls (PCB)
 - Polycyclic Aromatic Hydrocarbons (PAH)
 - Lead based paints (LBP)
 - Waste oils
 - WEEE and lamps
 - POPs containing isolation material
 - Contaminated soil and hazardous packaging waste
- **Excavated materials (e.g. top soil, sand, gravel, clay, tone, stones and rocks)**
- **Mineral waste (demolition waste, road construction waste, concrete, railroad ballast, bitumen and asphalt)**
- **Non-mineral waste from (organic waste, metals, cardboard, plastics, demolition wood, packaging and mixed construction waste)**
- **Note 1:** According to Article 4 of the Law on Waste Management uncontaminated soil and other naturally occurring material excavated in the course of construction activities are excluded to be waste if it is certain that the material will be used for the purposes of construction in its natural state on the site from which it was excavated.
- **Note 2:** Blending of hazardous waste with non hazardous C&D waste is prohibited by Article 35 and Article 44 of the Law on Waste Management as hazardous waste has to be collected and transported separately. 7

What are the main issues and how to tackle them?



Selective de-construction (II) and quality standards for recycling (III):

- Introduce the regulatory framework
- Share information and educate workers
- Involve stakeholders

Main issue: Selective de-construction / removal of hazardous substances



Waste code	Estimated Amount (t) 2020
17 01 06* Mixed C&D	4
17 02 04* Wood	365
17 04 09* Metals	14
17 04 10* Cables	67
17 05 03* Soil	3,278
17 06 01* Asbestos	11
17 06 03* Tar	161
17 06 05* Asbestos cement	186
Total hazardous	4,087
Total non-hazardous	376,286

Requested treatment capacities for management of hazardous C&D waste

Waste type	Treatment option	Status	Expectations
Asbestos-containing waste	Can be deposited at regularly landfills on a visibly marked area	Three sanitary landfills are in operation	Increasing amounts; More landfill capacities for hazardous waste are proposed
PCB containing waste	Incineration , possibly export	No thermal treatment option in Serbia up to now	Amount may vary yearly; no specific additional capacities are proposed
Contaminated waste wood	Co-Incineration	Co-incineration in the industry sector might be an option	Amount may vary yearly; no specific additional capacities are proposed
Tar-containing bituminous waste	Can be co-deposited at regularly landfills	Four sanitary landfills are in operation, with the option of receiving hazardous waste	Amount may vary yearly; More landfill capacities for hazardous waste are proposed
HC- and PAH-contaminated soils	Biological treatment, Physico-chemical treatment, thermal treatment, possibly export	No treatment capacities other than disposal available	Increasing amounts; Additional Capacities for biological / physico-chemical treatments are proposed
WEEE and lamps	Recycling	Treatment / Recycling of WEEE is established to a small scale	Amount may vary and is included in the WEEE data ; no specific additional capacities are proposed, integrate the WEEE treatment into potentially schemes for household appliances

Main issue: Define quality standards and establish treatment capacities



Introduce framework

- drafted Serbian WMP for asbestos containing waste
- drafted by-law covering mineral C&D wastes
- drafted by-law on end-of-waste

Capacity building for mixed mineral C&D waste

- Additional capacities for recycling and disposal are proposed (stationary and mobile facilities)

Who will pay for all those measures?

- **Option on taxation on the disposal of recyclable mixed C&D waste**
 - Introduce fees depending on the technical standards of the landfill, collecting the highest fee from mere dump sites and the lowest one from landfills in full compliance with the regulation on disposal of wastes on landfills (Official Gazette of the RoS, No 92/2010)
 - Introduce taxation of primary aggregates placed on the market
 - If political decision is taken to introduce taxes/fees, the available budget should be earmarked and be used for financing/funding of activities in the field of (hazardous) C&D management (e.g. improve inspection activities, improve standardization, educate workers involved parties, etc.)
- **Drivers for further enhancement of implementation**
 - Introduce Green Public Procurement via obligate public procurers to use recycled C&D waste to a specific amount in their construction activities or to green their demolition activities by contracting companies who recycle the generated waste
 - Funding by public budget of specific projects with high potential to harm environment/workers/public especially concerning removal of asbestos containing waste

What has still to be done?

- **Formulating the Action Plan for implementation of measures and objectives**
 - Proposal drafted in the specific WMP on C&D waste
 - Clarifying responsibilities and the Timeplan
- **Finalisation of the Waste Management Plan on (hazardous) C&D waste**
 - Last review and one possibility to provide feedback until end of March 2017
 - Finalisation and deliver final Specific Waste Management Plan on (hazardous) C&D waste until project end (proposed end of May 2017)

Thank you!

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