



MINEA WG 1: Resource potential of construction & demolition waste

**Workshop: Towards a knowledge base for material reserves and resources in buildings & infrastructures**

Session III: Circular economy in the construction industry

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**(NO)CIRCULAR ECONOMY  
IN THE CONSTRUCTION INDUSTRY IN SERBIA**

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# **(NO)CIRCULAR ECONOMY IN THE CONSTRUCTION INDUSTRY IN SERBIA**

Construction and demolition waste in the Republic of Serbia is recognized in the relevant legislation in the area of environmental protection, which is in good part aligned with the EU acquis.

However, although based on the existing Serbian legislation it can be concluded that this aspect is fairly regulated and that the concept of circular economy is applied in practice, the reality is different.

The idea of the presentation is to address the current state of affairs and key problems that exist in this area in the Republic of Serbia:

- Legislative framework
- Projects, cooperation, knowledge base
- Real life

# LEGISLATIVE FRAMEWORK 1/3

Laws, bylaws (~30), strategic documents (national level):

- Law on waste management (2009, ammended 2010 & 2016)
- National Waste Management Strategy for the Period 2010-2019 (2010)
- National Waste Management Strategy (2003)
- (Report on) Waste Management in the Republic of Serbia 2011-2016 (2017)
- National Asbestos Waste Management Plan (prepared, not adopted)
- National Hazardous CDW Management Plan (prepared, not adopted)
- Government Act on the Disposal of Waste to Landfills (2010)
- Regulation on Treatment of Asbestos Waste (2010)

Good level of legislative alignment was recognized at the beginning of the Accession negotiations between Serbia and EU, in the 'Screening report Serbia: Chapter 27 – Environment' (2014), and in the later annual reports. So-called post-screaning document 'Transposition and Implementation of Environmental and Climate Change Aquis – Chapter 27: status and plans' (2015), asks for the adoption of the National Hazardous CDW Management Plan and National Asbestos Waste Management Plan.

## LEGISLATIVE FRAMEWORK 2/3

- **Law on waste management (2009, ammended 2010 & 2016)**
  - Recognises and defines CDW (both hazardous and nonhazardous)
  - Recognises and allows recycling and re-use of CDW
  - Establishes the waste management planning system:
    - Waste management strategy (national level)
    - Waste prevention (source reduction) programmes (national level)
    - Regional waste management plan ( $\geq 2$  local communities, >250.000 inhabitants)
    - Local waste management plan (municipal level)
    - Waste management plan in IPPC establishment
    - Operational plan for waste management facility
  - Requires annual reports on waste management (national level)
- **(Report on) Waste Management in the Republic of Serbia 2011-2016 (2017)**

# LEGISLATIVE FRAMEWORK 3/3

- **National Waste Management Strategy (NWMS) 2010-2019 (2010)**
  - ~1 million tons annually. Deposited in municipal waste landfills, or used as inert material to cover waste. ~1,7 million expected in 2019. Only asphalt is recycled
  - Separate landfills for CDW to be developed
  - Municipalities to determine locations for disposal of construction waste
  - Funding and maintenance of municipal disposal locations to be provided from fees for transportation and disposal
  - Mandatory recycling to be introduced
  - Priority should be given to the development of CDW recycling and re-use
  - Asbestos containing waste treated (addressed) separately
  - Total investment costs for CDW: 60 millions EUR (7,5%)
  - Funding: private sector, national fund, development fund, international funds
  - Should contain National Waste Management Plan
  - Action Plan 2010-2014; doesn't address CDW
  - Analysis of the Implementation of Measures & Activities Defined in the NWMS 2003-2008
- **National Waste Management Strategy (NWMS) 2003-2008 (2003)**
  - Open garbage dumps should be closed and 29 regional sanitary landfills built by 2010

## PROJECTS, COOPERATION, KNOWLEDGE BASE

- **Improvement of hazardous waste management in the Republic of Serbia – Twinning Project IPA 2013 Programme for Serbia (2015-2017)**
  - Contribution to the development and improvement of the hazardous waste management system in the Republic of Serbia.
  - Implemented by the Ministry of Agriculture and Environmental Protection of the Republic of Serbia, Environment Agency Austria and the Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB) of Germany. Funded by the EU
  - Several proposals of plans and bylaws have been developed, e.g. Specific Waste Stream Plan on (Hazardous) Construction and Demolition Waste
    - Goal: Enlarge the mechanical treatment capacities for nonhazardous mixed C&D waste for recycling (4-5 facilities by the end of 2018)
- **CSOnnect Programme for Support to the Civil Society in the Area of Environmental Protection (2015-2019)**
  - Program of support to civil society in Serbia in the field of environmental protection
  - Implemented by the Regional Environmental Centre (REC); Financed by the Swedish International Development Cooperation Agency (SIDA)
- **CEDEF – Central European Development Forum**
  - CEDEF Guide – Recommendations for the management of communal and industrial waste in Belgrade and Republic of Serbia (2014)
    - Suggests the construction of the CDW recycling facility in Belgrade

## REAL LIFE 1/2

- Data on CDW quantities and waste quantities in general in Serbia varies depending on the source and methodology. In last couple of years it is around 250,000-300,000 t/year, with 1-3% share in total waste quantities
- In 2009 waste was disposed of in 164 officially registered and authorised landfills (open dumps; only 4 sanitary landfills) and are 4,481 unauthorised „wild“ garbage dumps
- Up to 40% of the waste ended up on unauthorised dumps
- Last data show 123 officially registered and authorised landfills , 10 sanitary landfills +3 in construction, and 2,170 large unauthorised „wild“ garbage dump sites
- There may be over 30,000 small „wild“ dumps
- Screening report Serbia: Chapter 27 – Environment (2014) acknowledged good level of legislative alignment, but:
  - implementation of the directives and regulations remains at an early stage
  - major efforts and large scale investments are needed
  - remediation and closure of non-acquis compliant landfills remain a high priority

## REAL LIFE 2/2

- Inadequate and incomplete waste management system in Serbia, insufficient number of sanitary landfills, low recycling and re-usage rates, irregular waste disposal, low awareness
- Small fines – 5.000-50.000 RSD (40-400 EUR)
- Fines and penalties for those who clean the „wild“ dumps on their own's initiative
- Insufficient resources of environmental, sanitary, communal inspections
- Insufficient and inadequate data
- European Commission annual reports on Serbia (chapter 27):
  - 2014 totally incompatible with acquis
  - 2018 some level of preparation
- Belgrade Solid Waste PPP (signed 2017; 2019 start of works) 326.500.000 EUR; Energy-from-Waste Facility (EfW), CDW Facility (~ 200.000 t/year)
- Increase in the share of legally collected and deposited waste (from 60% to 80%)



# SOURCES

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- <http://www.stat.gov.rs> Statistical Office of the Republic of Serbia
- <http://www.mei.gov.rs/srl/dokumenta/nacionalna-dokumenta/npaa> National programme for adoption of the acquis (NPAA)
- <http://www.hazardouswaste-serbia.info/> Improvement of hazardous waste management in the Republic of Serbia – Twinning Project IPA 2013 Programme for Serbia
- <http://csonnect.rec.org> CSOnnect Programme for Support to the Civil Society in the Area of Environmental Protection; Implemented by the Regional Environmental Centre (REC); Financed by the Swedish International Development Cooperation Agency (SIDA)
- <http://www.cedeforum.org/> Central European Development Forum
- <https://www.bcenergy.rs/index.html> Beo Čista Energija
- <https://www.ebrd.com/work-with-us/projects/psd/belgrade-solid-waste-ppp.html> European Bank for Reconstruction and Development
- <https://www.serbiandemolition.org/sr/home-sr/> Serbian Demolition Association
- <https://hrabricistac.rs/> Association of Waste Industries of Serbia “Hrabri čistač”

# Thank you!

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