# Screening template for Construction and Demolition Waste management in

## **SLOVENIA**

V2 – September 2015







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# Screening factsheet

#### 1. Summary

#### Construction and Demolition Waste (CDW) management national performance

Waste category	2. Quantity generated in 2012 (tonnes)
Soil	103,354
Other inert waste	36,304
Total inert waste	139,658
Non-inert non-hazardous waste	391,296
Hazardous waste	4,200
Total CDW	535,154

In 2012 535,154 tonnes of construction and demolition waste (CDW) (NACE Section F) were officially reported as generated in Slovenia. It represents a 30-percent decrease compared to 2011 (763,656 tonnes). These statistics correspond to the data reported to Eurostat (minor differences, probably due to rounding).

The reasons could be a decline in the construction works in Slovenia over the past years (the value of construction works in 2012 fell by 14.71 percent compared to 2011 and by further 3.97 percent in 2013 compared to 2012) as well as inconsistent statistical data reporting as described in details further in this report.

#### **CDW** management practices

The table below shows officially reported CDW quantities that were landfilled, backfilled and used as a landfill cover in Slovenia in the past three years by reference to waste quantities in the Construction activity (Section F Construction, NACE, Rev. 2).

Official CDW treatment data	2011	2012	2013
Amount of waste landfilled (tonnes)	99,567	40,335	21,075
Amount recovered (tonnes)	2,004,764	1,557,675	1,625,843
Backfilling (tonnes)	1,480,461	1,039,736	837,142
Covering (landfill sites) (tonnes)	18,098	14,711	26,258
Recovered amount of waste (tonnes)	493,487	418,900	433,721

When considering industrial waste, some production residues, such as steel slag, are sometimes reported as by-products instead of being classified as waste, which is one of the reasons of the decline in the quantities of some of the waste treatment groups in recent years (e.g. landfilled waste fell from 99,567 tonnes in 2011 to 21,075 tonnes in 2013).

As observed during the ReBirth project and the project stakeholder round tables reasons for poor statistics are:

- limitations to the statistics, especially considering waste from building demolition and renovation
  activities where the quantities are poorly reported, as well as regarding the reported quantities of
  waste disposed of on illegal dumps, or the use of recycled aggregates or products,
- mismatch between the different Decrees governing waste management.

For all these reasons, the statistics say that, in Slovenia, more CDW is recycled than actually generated.

#### Main obstacles to sustainable CDW management

- Status of EoW
  - According to the interviewed stakeholders, no clear distinction between waste and End-of-Waste has been set yet; the regulation should provide a more specific definition to facilitate the CDW management.
- Legislation and regulation
  - Several laws and decrees are governing waste segment in Slovenia, but the provisions are sometimes contradictory. According to the interviewed stakeholders, the Government should align the various applicable laws and prepare a consistent legislation that would govern waste segment.
- Statistics
  - The inconsistencies between the different decrees governing waste management give rise to mismatch in the statistical data (e.g. a greater quantity of recycled than actually generated CDW). The mismatch is also due to the fact that investors have no obligation to report on generated CDW if, pursuant to another legislation, they are obliged to prepare a Construction Waste Management Plan or obtain environmental permits.
- Green procurement
  - Provisions regarding the use of recycled CDW are not binding, but rather optional, with only
    provisions regarding the construction of buildings being defined (additional points for bidders
    claiming that recycled construction material will constitute more than 30% of all construction
    material used).
- Waste Management Strategy
  - The last Operational Programme for Waste Management was for the period 2004 2008. Slovenia would need a new strategy with clear targets and prompt monitoring of status to boost a more sustainable waste management.
- Interest in CDW regulations
  - According to the interviewed stakeholders, there is a lack of interest at the Government level in regulating CDW.

Provided some of the outlined obstacles are addressed, this should boost sustainable waste management.

#### Main drivers to sustainable CDW management

- Green procurement
  - A solid basis for the use of recycled CDW.
- EoW status
  - Chamber of Commerce and Industry of Slovenia is representing construction stakeholders and is actively participating in discussions for legislation and regulation changes, including the EoW status.
- Legislation and regulation
  - Chamber of Commerce and Industry of Slovenia is actively participating in discussions for legislation and regulation changes.
- Statistics
  - Cooperation between Slovenian Statistical Office and Slovenian Environment Agency at statistical research on waste generation, treatment and management. Also according to Annual Research Quality Report on Research for Waste Generation in 2013 Eurostat is committing for increasing the quality and comparability of data between member states and is therefore organizing various workshops.
- Interest for CDW regulations
  - Chamber of Commerce and Industry of Slovenia and some other private Organizations are actively promoting reuse of CDW and changes of regulation.

## 2. Definitions concerning construction and demolition waste (CDW) and management

In this section the definitions of waste used in Slovenia are detailed.

#### 2.1. Definition of waste

The definition of waste in the Slovenian regulation is following the definition of the Waste Framework Directive 2008/98/EC (WFD) and is provided in the **Environmental Protection Act**<sup>1</sup> of 7 May 2004. According to provisions of the Act: 'Waste is any substance or object which the holder discards or intends or is required to discard'.

#### 2.2. Definition of construction and demolition waste (CDW)

CDW is defined by the **Decree on the management of waste arising from construction work**<sup>2</sup> of 22 April 2008. According to the Decree: 'CDW is the waste arising from construction work in the construction, reconstruction, adaptation, renovation or removal of a building'. The Slovenian regulation does not provide a clear distinction between construction and demolition waste. Nevertheless, the Decree distinguishes several sources of CDW (demolition among others).

Types of waste included in the CDW definition comprise construction waste classified under number 17 of The Waste Classification List that is compliant with the European List of Waste (LoW) (2000/532/EC). Pursuant to Article 3 of the Decree on the management of waste arising from construction work, the following waste arising from construction operations is excluded from the CDW definition:

- Waste that does not arise directly from construction works such as packaging waste, which wraps
  the construction materials or products, or municipal waste produced by employees on the
  construction site.
- Excavation resulting from the construction work in the construction, reconstruction, adaptation, renovation or removal of a building if it is not contaminated with hazardous substances in a way to be classified as hazardous construction waste according to regulation governing management of waste and is treated in accordance to regulation that governs burdening of soil with waste spreading;
- Waste alluvia that is moving within the area of surface water due to water and waterways
  management or prevention or effect mitigation of floods and droughts, if this alluvia is not
  contaminated with hazardous substance in a way to be classified as hazardous construction waste;
- The construction waste, including excavation of ground and waste alluvia resulting from the implementation of protection and rescue in case of natural and other disasters.

#### 2.3. End of Waste (EoW) status<sup>3</sup>

The EoW status is defined in Article 8 of the **Decree on Waste** of 31 December 2011 as follows: 'Waste ceases to be waste after processing to products, materials or substances used for the original or other purpose or to generate energy'. Certain waste that was included in one of the recovery processes, including recycling, ceases to be waste if it fulfils end-of-waste criteria according to a special EU regulation. As of

<sup>&</sup>lt;sup>1</sup> http://www.pisrs.si/Pis.web/pregledPredpisa?id=ZAKO1545

<sup>&</sup>lt;sup>2</sup> http://www.pisrs.si/Pis.web/pregledPredpisa?id=URED4788

<sup>&</sup>lt;sup>3</sup> http://www.gzs.si/skupne\_naloge/varstvo\_okolja/vsebina/Odpadki-in-snovni-tokovi/Status-prenehanja-odpadka

today, the criteria have been provided for iron, steel, aluminium (pursuant to Council Regulation (EU) No 333/2011) and for glass cullet (pursuant to Commission Regulation (EU) No 1179/2012) in the process of transformation or at the time of their handover to another holder. According to one of the interviewees, the End-of-Waste criteria are being prepared for paper waste, copper and compost.

#### 2.4. Definitions of waste treatment operations

The Slovenian official definitions of re-use, recycling and recovery comply with the WFD definitions. Article 3 of the Decree on Waste defines these operations as follows:

- Re-use: 'A process in which or components that are not waste are reused for the same purpose for which they were produced'.
- Recycling: 'A process in which the waste materials are recovered into products, materials or substances for their original or other purpose. Recycling also includes recovery of organic substances. Energy recovery and reprocessing into materials that that are to be used as fuels or for backfilling operation is not considered as recycling'.
- Recovery: 'A process with principal result waste serving a useful purpose in the plant in which they have been recovered or in wider economy, replacing other materials which would otherwise been used to fulfil a particular function or waste being prepared to fulfil that function. List of recovery processes is determined in Annex II of Decree on waste, which does not exclude other possible recovery processes. Definitions in this Annex are following the categorisation in Annex II of the WFD'.
- Backfilling was defined by the European Commission Decision of 18 November 2011 as: 'a recovery operation where suitable waste is used for reclamation purposes in excavated areas or for engineering purposes in landscaping and where the waste is a substitute for non-waste materials'. This definition applies in Slovenia, but there has been no official translation into Slovenian law.

Official Slovenian CDW statistics include backfilling.

#### 3. Legal Framework - Waste Management Plans and Strategies

In this section the legal framework governing CDW management in Slovenia is explored.

#### 3.1. Legislation concerning CDW in Slovenia

#### **Environmental Protection Act**

The general legislative framework governing the environmental protection in Slovenia is the **Environmental Protection Act**<sup>4</sup> of 7 May 2004. This Act regulates the protection of environment from the impact of pollution as a prerequisite for sustainable development, and the framework provides the basic principles of environmental protection, environmental protection measures, environmental monitoring and information on the environment, economic and financial instruments for environmental protection, public utilities and environmental protection and other protection environment related issues. Several EU directives are transposed to this Act.

<sup>&</sup>lt;sup>4</sup> http://www.pisrs.si/Pis.web/pregledPredpisa?id=ZAKO1545

Waste management is governed by Article 20 of the Environmental Protection Act. The Article stipulates that the polluter must follow all the rules of waste management that are necessary to prevent waste and ensure waste disposal where waste recovery is not possible. Pursuant to the Act, any natural or legal person that processes or disposes of the waste of other producers according to specified procedures must have an environmental permit. Any natural or legal person collecting or transporting waste, trading in waste or shipping waste must be entered into the register of environmental protection.

#### The Decree on Waste

A framework decree governing waste management more specifically is the **Decree on Waste**<sup>5</sup> of 31 December 2011. In order to protect the environment and human health, the Decree lays down the rules of conduct and other requirements to prevent or minimize the adverse impacts of waste generation and waste management and reduce the overall impact of the use of natural resources as well as improve the efficiency of the use of natural resources in accordance with Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives. The Decree has implemented a classification list of waste in accordance with Commission Decision of 3 May 2000 replacing Decision 94/3/ES establishing a list of wastes pursuant to Article 1(a) of Council Directive 75/442/EEC on waste and Council Decision 94/904/EC establishing a list of hazardous waste pursuant to Article 1(4) of Council Directive 91/689/EEC on hazardous waste, as last amended by Council Decision of 23 July 2001 amending Decision 2000/532/EC as regards the list of wastes. The Decree is applicable to all waste unless a special regulation for each type or waste stream is determined.

Article 3 of the Decree on Waste provides definitions of the following terms: waste, hazardous waste, non-hazardous waste, biological waste, production residue, producer of waste, waste management, separate waste collection, prevention, re-use, recovery, recycling, waste collector, waste transporter, waste storage, waste device, shipment of waste.

Article 4 defines a waste classification list that is compliant with the European List of Waste (LoW) (2000/532/EC). According to Article 5, waste must be classified by the producer of waste in accordance with the waste classification list. Furthermore, Article 7 provides a more detailed specification of the by-product, and Article 8 provides the end-of-waste definition.

#### The Decree on the management of waste arising from construction work

CDW is more specifically governed by the sector-specific **Decree on the management of waste arising from construction work**<sup>6</sup> of 22 April 2008. The Decree determines the framework for mandatory management of waste arising from construction work in the construction, reconstruction, adaptation, renovation or removal of a building. The decree governing waste management applies to the management of construction waste not specifically regulated in the decree mentioned in the first sentence of this paragraph.

Article 2 of the Decree on the management of waste arising from construction work contains definitions of the following terms: producer of construction waste, collector of construction waste, emitting of construction waste, processing of construction waste, recovery of construction waste, disposal of construction waste, preparation of construction waste for re-use, recycling of construction waste, collection centre, shipment of construction waste.

The provisions of Article 3(1) of the Decree apply to the construction waste that is classified under the number 17 of the Waste Classification List (compliant with the European List of Waste).

Paragraph 3 of Article 3 also stipulates taking into account the provisions regulating the management of asbestos-containing waste as well as those governing the requirements applicable to the disposal of asbestos-containing materials in the reconstruction, removal and maintenance of buildings, installations or devices.

<sup>&</sup>lt;sup>5</sup> http://www.pisrs.si/Pis.web/pregledPredpisa?id=URED5368

<sup>&</sup>lt;sup>6</sup> http://www.pisrs.si/Pis.web/pregledPredpisa?id=URED4788

The Decree on the management of waste arising from construction work determines in detail the obligation of the investor as the fully responsible person for managing the waste on the construction site. It is also defines the obligations of entities engaged in collecting and processing construction waste.

The Decree also determines that the operational programme for construction waste management will underlie the national plan of construction waste management, including a plan and environmental objectives for environmentally most suitable construction waste processing. The Decree also provides details about the supervision of the implementation of the Decree and penalties for the breach of its provisions.

Pursuant to Article 5 of the Decree, the investor is obliged to attach a construction waste management plan to the project documentation submitted to obtain the construction permit if the construction of a new building, reconstruction of the building, the construction of a replacement or disposal facility requires obtaining a building permit in accordance with the regulations governing building construction. The preparation of the construction waste management plan is not required for investors who are natural persons or for constructions subject to the building permit requirement other than that specified by the regulations governing building construction. Nevertheless, the construction waste management plan must be prepared if:

- the volume of excavated natural material is 1,000 m<sup>3</sup> or more,
- the excavated natural material is contaminated with hazardous substances to the extent that it qualifies as hazardous construction waste in accordance with the regulations governing the handling of waste.

A construction waste management plan must include the information on the following (see **Annex 1**<sup>7</sup>):

- elimination of hazardous construction waste prior to disposal facility if it concerns obtaining a building permit the removal of the building,
- separate collection of construction waste on the site,
- processing of construction waste on the site,
- anticipated volume of excavated natural material on the site for the purpose of construction and the use thereof,
- anticipated volume of excavated natural material to be used on the site for purposes other than construction.
- quantities and types of construction waste to be delivered to construction waste collectors,
- quantities and types of construction waste to be delivered for treatment purposes,
- planned methods of processing construction waste and construction waste treatment operators.

Managing construction waste on the construction site is the sole responsibility of the investor (i.e. the person commissioning the construction work or carrying out the construction on its own) if the construction, reconstruction, adaptation, renovation or removal of the building generates construction waste. Here, the investor has several options for managing the waste:

- the construction waste can be delivered to a construction waste collector or construction waste processor,
- the investor can process construction waste itself if possessing an appropriate environmental permit,
- the investor can prepare certain construction waste to be re-used by it on the same construction site if the waste is not subject to the environmental permit requirement (e.g. excavated natural material not contaminated with hazardous substances and smaller quantities of construction waste according to the Annex of the Decree on the management of waste arising from construction work<sup>8</sup>,

<sup>&</sup>lt;sup>7</sup> http://www.arso.gov.si/varstvo%20okolja/odpadki/obrazci/

http://pisrs.si/Pis.web/pregledPredpisa?id=URED4788

- if the construction waste quantities generated during the entire construction period do not exceed the quantities referred to in the Annex of the Decree on the management of waste arising from construction work<sup>9</sup> and the investor has not ensured removal and acceptance by a collector or processor, the investor itself must arrange the transfer to a collection centre managed by a registered collector of construction waste,
- if the construction waste quantities generated during the entire period of construction exceed the quantities referred to in the Annex of Decree on the management of waste arising from construction work<sup>10</sup>, the investor can arrange the waste to be treated at the construction site using a mobile device in accordance with the rules applicable to the use of such mobile treatment devices.

#### Landfilling and shipment of waste

Landfilling is governed by the **Decree on waste landfill** of 22 February 2014. The Decree defines the requirements that must be fulfilled for the disposal of waste, codes of conduct, conditions and measures concerning the design, construction, disposal and closure of landfills and activities to be pursued after its closure, with the purpose to reduce adverse impacts on the environment during entire landfill life, in particular due to the effects of the pollution of surface water, groundwater, soil and air, to reduce GHG emissions and to prevent human health risks. Landfilling of CDW is possible only at the collection centres possessing environmental permits and listed in the relevant register of the Slovenian Environmental Agency.

Shipment of waste is governed by the **Decree on the implementation of the Regulation (EC) No. 1013/2006 on shipments of waste**<sup>12</sup> of 8 August 2007. The Decree determines the competent and supervisory authorities, offenses and conditions related to the shipment of waste intended to transport waste to, from or across the territory of Slovenia, between individual locations in Slovenia, if the shipment of waste involves transit of waste across other countries, and for shipping waste intended for recovery or disposal.

#### 3.2. Waste management plans (WMP) and Strategies

Slovenia prepared its National Environment Protection Action Programme in 1999, which among others, includes details on the overall waste management. The National Environment Protection Action Programme is a framework underlying the adoption of the Strategic Guidelines on Waste Management and the preparation of several Operational Programmes which are as follows:

- Operational Programme for reduction and prevention of pollution caused by waste from the titanium dioxide production for the period from 2004 – 2007,
- Operational Programme for management of batteries and accumulators for the period 2003 2006,
- Operational Programme management of waste oils for the period from 2003 2006,
- Operational Programme disposal of polychlorinated biphenyls and polychlorinated terphenyls for the period from 2003 – 2006,
- Operational Programme for the management of packaging and packaging waste for the period from 2003 – 2007,
- Operational Programme for the construction waste management for the period 2004 2008.

The targets set under the Operational Programme for the construction waste management for the period 2004 – 2008 were as follows:

<sup>&</sup>lt;sup>9</sup> http://pisrs.si/Pis.web/pregledPredpisa?id=URED4788

<sup>10</sup> http://pisrs.si/Pis.web/pregledPredpisa?id=URED4788

<sup>11</sup> http://www.pisrs.si/Pis.web/pregledPredpisa?id=URED6660

<sup>12</sup> http://www.pisrs.si/Pis.web/pregledPredpisa?id=URED4392

- separate collection at the source and reuse of at least 30 % of the construction waste,
- strict separation of waste arising from the construction work and asbestos-containing construction waste from the other waste arising from the performance of construction works,
- materials recovery (recycling) and use of building materials of at least about 40 % of construction waste,
- incineration or use as fuel wood in construction waste,
- reuse of around 40 % of construction waste from excavation,
- the use of residual waste from the processing of the construction waste (about 10 %) and of construction waste from excavation works (about 40 %) in terms of depositing it into or onto land as a waste recovery operation, namely as organic soil, i.e. to fill natural depressions or excavation spaces of surface installations within their rehabilitation,
- disposal of unusable waste residues from the processing of construction and demolition waste (20%) and construction waste from excavation works (20%) in landfills for non-hazardous waste and landfills for inert waste,
- disposal of construction waste containing asbestos waste firmly bound asbestos waste in landfills for non-hazardous waste.

At the time of the research undertaken for the purpose of this Study, there were still no published reports that would allow determining whether or not the above-defined targets were achieved.

There are currently no updated waste management plans and strategies. According to interviewed stakeholders Operational plan for waste management is being prepared and will probably be enforced by the end of 2015.

#### 3.3. Legal framework for sustainable management of CDW

This section aims at identifying specific legislation that would create sound prerequisites for a sustainable management of CDW, as a preliminary overview for task 3.

Description	Level of occurrence (Yes/No) Key Scope/Exemptions	Year established and policy reference	Further details, information source, related web-site
National/regional obligation for selective demolition?	NO	n/a	n/a
National/regional sorting obligation (onsite or in sorting facility)?	No.	n/a	n/a
Obligation for separate collection and management of hazardous waste from C&D operations? Please specify	Yes.  Asbestos is considered as hazardous waste. It needs special treatment and disposal.	<ul> <li>2008 – Decree on the management of waste containing asbestos</li> <li>2006 – Decree on the conditions for the disposal of materials containing asbestos in the demolition, reconstruction or maintenance of buildings and in the maintenance and decommissioning of</li> </ul>	<ul> <li>http://www.pisrs.si/Pis.web/pregledPredpisa?id=URED4787</li> <li>http://www.pisrs.si/Pis.web/pregledPredpisa?id=PRAV7057</li> </ul>

		plants	
Related Green public procurement requirements	Yes.	2012 - Decree on green public procurement	Green public procurement is enforced for the public sector in Slovenia. In the construction segment, only provisions related to the construction of buildings are determined (with Annex 7 Basic environmental requirements for buildings). There is one provision mentioning the use of recycled materials: 'Tender for construction which will use more than 30 % of recycled construction materials shall be scored with additional points'.  URL of Decree on green public procurement: <a href="http://www.pisrs.si/Pis.web/pregledPredpisa?id=URED5194">http://www.pisrs.si/Pis.web/pregledPredpisa?id=URED5194</a> URL of Annex 7 Basic environmental requirements for buildings: <a href="http://pisrs.si/Pis.web/npb/2014-01-3639-2011-01-4404-npb5-p7.pdf">http://pisrs.si/Pis.web/npb/2014-01-3639-2011-01-4404-npb5-p7.pdf</a>

#### 3.4. Targets

National targets concerning CDW are set by the Decree on waste as **the 70 % CDW recovery and recycling objective** ('by 2020 the preparing for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, of non-hazardous construction and demolition waste excluding naturally occurring material defined in category 17 05 04 in the list of waste shall be increased to a minimum of 70% by weight'). For purposes of calculating the achievement, reference is made to the Commission Decision of 18 November 2011 establishing rules and calculation methods for verifying the fulfilment of the objectives set out in Article 11(2) of Directive 2008/98/EC of the European Parliament and of the Council.

#### 4. Non-legislative instruments

In this section, other instruments that may specify how the country is addressing the issue of CDW management are highlighted, especially as a preliminary overview for task 3, as these instruments might be creating conditions for a sustainable management of CDW.

Key waste management and sustainable building non-legislative instruments

Description	Level of occurrence (Yes/No) Key Scope/Exemptions	Year established and policy reference	Further detail, information source, related web-site
Building certification standards that cover CDW (e.g. BREEAM)	YES.  2 buildings in Slovenia are BREEAM	1990	URL of BREEAM website with filtered Slovenia:

BREEAM	certified		http://www.breeam.org/projects/explore/map.jsp?sectionid=0&projectType=&rating=&certNo=&buildingName=&client=&developer=&certBody=&assessor=&addressPostcode=&countryId=705&partid=10023&Submit=Search
Environmental taxes related to waste management  Waste disposal tax	YES.  Waste disposal tax is paid for environmental pollution due to waste disposal at inert waste landfills, at non-hazardous waste landfills and at hazardous landfills.	2014	URL to list of environmental taxes:  http://www.fu.gov.si/en/taxes_and_oth er_duties/areas_of_work/environment al_taxes/  URL to details of tax for environmental pollution caused by waste disposal:  http://www.fu.gov.si/fileadmin/Internet/ Davki in druge dajatve/Podrocja/Ok oliske dajatve/Opis/Podrobni opis O koljska dajatev za onesnazevanje o kolja zaradi odlaganja odpadkov na odlagaliscih.pdf
Extended producer responsibility scheme in operation?	NO.	n/a	n/a

#### Key CDW management requirements and standards

Description	Occurrence (Yes/No) Mandatory (Yes/No) Scope & exemptions	Year establishe d	National or regional (specify if regional)	Details of Public sector and Industry enforcement/ involvement/ collaboration	Levels of performa nce e.g. tonnes recycled, % coverage	Further informa tion/ web-site
Requirement for pre-demolition audits	No.	n/a	n/a	n/a	n/a	n/a
Standards for recycled CDW	No.	n/a	n/a	n/a	n/a	n/a
Selective demolition/ plan for large demolition sites/demolition standard	No.	n/a	n/a	n/a	n/a	n/a
Waste management plan at each construction	Yes.  Construction Waste Management Plan must include information on elimination of hazardous construction waste, separate collection and processing of construction	2008	National .	Public and industry sector.	n/a	http://pisr s.si/Pis.w eb/preqle dPredpis a?id=UR ED4788

waste on the site, anticipated volume of excavated soil, quantities and types of construction waste,planned methods of processing construction waste.				
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#### Key CDW management other guidance and tools

Description of guidance/ tool	Scope	Year establish ed/ produced	National or regional (specify if regional)	Public sector and/or Industry lead organisation	Levels of use (high/ medium/lo w) or specify	Further informati on/ web- site
Guideline for sustainable demolition  A guideline prepared as part of the ReBirth project and intended for developers, designers, collectors and processors of construction waste with purpose of inform them on administrative, legislative and technical procedures that need to be performed in order for construction waste to lose its waste status and become raw material for use in construction, with the main purpose to increase the waste-recycling level.	Demolition	March 2014	National.	Both Public sector and industry lead organizations.	Unknown.	ReBirth project URL: http://en.re- birth.eu/proj ect-rebirth/
The sustainable management of construction minerals  A manual prepared as part of the SARMa project is intended for all those involved in legislation development and implementation, and those involved in managing the supply of aggregates. It contains a set of arguments, advice and recommendations based on the facts and figures from the SARMa project.	Construction materials.	2011	National.	Both Public sector and industry lead organizations.	Unknown.	SARMa project URL: http://www. sarmaproje ct.eu/  Manual URL: http://www. sarmaproje ct.eu/uploa ds/media/S ARMa_Man ual_SARM SSM.pdf
Manual  The production of recycled aggregates from inert waste  A manual prepared as part of the SARMa project outlines inert waste recycling, with an emphasis on waste	CDW	2011	National.	Both Public sector and industry lead organizations.	Unknown	SARMa project URL: http://www. sarmaproje ct.eu/

market, and, finally, a set of recommendations.							URL: http://www. sarmaproje ct.eu/uploa ds/media/S ARMA_Ma nual_CDW. pdf
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Key technical guidelines/standards/ Codes of Practice for use of CDW in construction application

Description of guidance/ tool	Scope	Year establish ed/ produced	National or regional (specify if regional)	Public sector and/or Industry lead organisation	Levels of use (high/ medium/low ) or specify	Further information/ web-site
Official guidelines	n/a	n/a	n/a	n/a	n/a	n/a

The above lists above may not include all CDW management initiatives.

#### 5. CDW management performance - CDW data

In this section the performance of CDW management in Slovenia is explored. This section particularly seeks to gather all available data and information about CDW generation and treatment, exports/imports, and the treatment facilities in Slovenia.

The methodology for CDW statistics is described in details in section 5.6 and is consistent for all the summarised data provided below (CDW generation data, CDW treatment data, CDW exports/imports data, CDW treatment facilities data).

Reporting on waste is governed by the previously elaborated Decree on waste. Pursuant to Article 29 of the Decree, the producer of waste, a legal entity or a sole trader, generating in each calendar year more than 10 tonnes, or more than 5 kg of hazardous waste, or employing in an observed year 10 or more persons, irrespective of the type employment, shall report to the Ministry on waste generation and waste management in the previous calendar year not later than by 31 March of the current year. The report must contain following information:

- basic information about the producer
- information about the site on which waste was generated
- amounts of waste according to the codes from List of Waste:
  - generated waste in the observed year,
  - temporary stored waste,
  - waste processed by the producer,
  - transferred waste,
  - waste sent for treatment in another EU member state or a third country.

In 2002 Statistical Office of Slovenia and Slovenian Environment Agency concluded an agreement for joint implementation of research. Research is called ODP and is conducted with form called ODP <sup>13</sup>. ODP form contains required information from above list.

After data is received and analysed, researchers prepare Annual Research Quality Report<sup>14</sup>. It presents quality indicators for annual statistical research. These indicators provide an overview of the various quality components as well as a comparison of these components between different statistical researches.

Since reporting is mandatory for all sectors in Slovenia and for all waste according to the codes from List of Waste the information on waste producers who participated in the research is aggregated and therefore we could not obtain information on how many CDW producers failed to report quantities produced.

#### 5.1. CDW generation data

Table below summarises the official CDW generation data gathered from the Statistical Office of the Republic of Slovenia<sup>15</sup>. Data represent the amount of waste generated in the Construction activity (Section F – Construction, NACE, Rev. 2). Amounts are slightly different as amounts available in Eurostat database, probably due to rounding.

Official CDW ge	eneration data	2008	2009	2010	2011	2012	2013
Waste generated in the observed	Non-hazardous	1,692,713	1,536,264	1,553,228	760,691	531,183	602,204
year (tonnes)	Hazardous	10,007	5,103	4,438	2,965	4,199	1,674
Tot	al	1,702,720	1,541,367	1,557,666	763,656	535,382	603,878

#### 5.2. CDW treatment data

Table below is the summary of official CDW treatment data gathered from the Statistical Office of the Republic of Slovenia<sup>16</sup>. The table summarises the data by reference to waste quantities in the Construction activity (Section F Construction, NACE, Rev. 2).

Official CDW treat	ment data	2008	2009	2010	2011	2012	2013
Yearly amount with	Non- hazardous	1,858,709	1,728,171	1,792,894	1,120,583	767,660	604,002
temporary storage (tonnes)	Hazardous	10,012	5,111	4,441	2,988	4,208	1,693
Waste from	Non- hazardous	165,995	191,906	239,665	359,892	236,477	1,797
temporary storage (tonnes)	Hazardous	5	9	3	23	9	18

<sup>13</sup> http://www.stat.si/StatWeb/Common/PrikaziDokument.ashx?IdDatoteke=949

http://www.stat.si/StatWeb/Common/PrikaziDokument.ashx?IdDatoteke=7689

<sup>15/</sup>http://pxweb.stat.si/pxweb/Dialog/varval.asp?ma=2706308E&ti=&path=../Database/Environment/27\_environment/02\_waste/02\_27063\_production\_waste/&lang=1

<sup>&</sup>lt;sup>16</sup>http://pxweb.stat.si/pxweb/Database/Environment/27 environment/02 waste/02 27063 production waste/02 27063 production

Temporarily stored	Non- hazardous	190,847	233,567	516,818	439,324	341,021	1,883
(tonnes)	Hazardous	49	14	14	13	19	18
Delivered to others in	Non- hazardous	1,181,006	874,411	922,913	206,943	351,863	345,833
Slovenia (tonnes)	Hazardous	9,796	4,884	4,427	2,975	4,189	1,675
Delivered abroad - to	Non- hazardous	n/a	n/a	0	n/a	12	22
the EU (tonnes)	Hazardous	n/a	3	n/a	n/a	n/a	n/a
Delivered abroad - outside the EU	Non- hazardous	n/a	n/a	n/a	n/a	n/a	n/a
(tonnes)	Hazardous	n/a	n/a	n/a	n/a	n/a	n/a
internal recovery,	Non- hazardous	486,855	620,193	353,163	474,317	74,764	256,263
disposal - (tonnes)	Hazardous	167	211	n/a	n/a	n/a	n/a
Total		3,903,441	3,658,480	3,834,338	2,607,058	1,780,222	1,213,204

The table below summarises the official CDW treatment data gathered from the Statistical Office of the Republic of Slovenia 17 by the quantities of waste according to Code 17 of the List of Waste.

Official CDW treatment data	2008	2009	2010	2011	2012	2013
Amount of waste composted (tonnes)	n/a	388	416	362	n/a	137
Amount of waste landfilled (tonnes)	506,513	314,644	200,121	99,567	40,335	21,075
Amount recovered (tonnes)	1,768,135	1,693,709	2,092,287	2,004,764	1,557,675	1,625,843
Backfilling (tonnes)	n/a	n/a	n/a	1,480,461	1,039,736	837,142
Covering (landfill sites) (tonnes)	87,887	32,463	36,493	18,098	14,711	26,258
Incineration of waste as fuel (tonnes)	1,528	2,911	1,683	664	1,336	1,014
Incineration of waste for disposal (tonnes)	4	2	1	20	23	107
Other ways of disposal (tonnes)	113	198	231	91	83	17
Other ways of recovery (tonnes)	6,033	11,966	30,663	11,693	82,992	327,571

 $<sup>^{17}\</sup>underline{\text{http://pxweb.stat.si/pxweb/Database/Environment/27}} \ \underline{\text{environment/02}} \ \underline{\text{waste/02}} \ \underline{\text{27063}} \ \underline{\text{production}} \ \underline{\text{27063}} \ \underline{\text{production}} \ \underline{\text{waste/02}} \ \underline{\text{27063}} \ \underline{\text{production}} \ \underline{\text{27063}} \ \underline{\text{production}} \ \underline{\text{27063}} \ \underline{\text{production}} \ \underline{\text{27063}} \ \underline{$ 

Permanent storage (tonnes)	n/a	n/a	13	n/a	n/a	n/a
Recycled amount of waste (tonnes)	1,672,686	1,645,982	2,023,032	493,487	418,900	433,721
Temporary storage (tonnes)	542,696	468,350	386,130	604,541	445,218	303,545
Total	4,585,595	4,170,613	4,771,070	4,713,748	3,601,009	3,576,430

When considering industrial waste, some production residues, such as steel slag, are sometimes reported as by-products instead of being classified as waste, which is one of the reasons of the decline in the quantities of some of the waste treatment groups in recent years (e.g. landfilled waste fell from 99,567 tonnes in 2011 to 21,075 tonnes in 2013). As observed during the ReBirth project and the project stakeholder round tables, reasons for poor statistics are:

- limitations to the statistics, especially considering waste from building demolition and renovation
  activities where the quantities are poorly reported, as well as regarding the reported quantities of
  waste disposed of on illegal dumps, or the use of recycled aggregates or products,
- mismatch between the different Decrees governing waste management.

For all these reasons, the statistics say that, in Slovenia, more CDW is recycled than actually generated <sup>18</sup>.

#### 5.3. CDW exports/imports data

The table below summarises the official CDW export/import data gathered from the Statistical office of the Republic of Slovenia<sup>19</sup>. Data represent the summarized amount of waste under Code 17 of the List of Waste, as no data was available for the Construction activity (Section F – Construction, NACE, Rev. 2). CDW import and export data are not broken down into hazardous and non-hazardous waste.

Officia	al CDW generation data	2008	2009	2010	2011	2012	2013
- Cup aut	Waste delivered abroad - exports outside the EU (tonnes)	n/a	575	652	1,095	378	221
Export	Waste delivered abroad - exports to the EU (tonnes)	20,247	3,656	3,435	17,292	12,985	20,824
lmnort	Waste from abroad - import from EU (tonnes)	n/a	n/a	69,328	98,017	131,339	136,889
Import	Waste from abroad - import outside the EU (tonnes)	n/a	n/a	60,831	20,943	22,143	16,027
	Total	20,247	4,231	134,246	137,347	166,845	173,961

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<sup>&</sup>lt;sup>18</sup> http://www.zelenaslovenija.si/revija-eol-/aktualna-stevilka/okolje/3131-recikliramo-ve-kot-pa-nastane-odpadkov-eol-96

<sup>&</sup>lt;sup>19</sup>http://pxweb.stat.si/pxweb/Database/Environment/27 environment/02 waste/02 27063 production waste/02 27063 production was te.asp

#### 5.4. CDW treatment facilities data

Any natural or legal person collecting or transporting waste, trading in waste or shipping waste must be entered in the register of environmental protection, according to Article 20 of Environmental Protection Act. Registers of collectors, processors, transporters, together with the specified waste codes they are allowed to collect, process and transport, are available at the Slovenian Environmental Agency's website: <a href="http://www.arso.gov.si/varstvo%20okolja/odpadki/podatki">http://www.arso.gov.si/varstvo%20okolja/odpadki/podatki</a>.

According to the register of waste collectors, there are 71 legal entities in Slovenia that collect at least one type of waste classified under Code 17 of the List of Waste<sup>20</sup>, 256 legal entities that process at least one type of waste classified under Code 17 of the List of Waste<sup>21</sup> and 13 legal entities having landfill permits for at least one type of waste classified under Code 17 of the List of Waste<sup>22</sup>.

The table below summarises the CDW quantities landfilled by type of landfill site data gathered from the Statistical Office of the Republic of Slovenia<sup>23</sup>. Data is summarized based on the quantities of waste under Code 17 of the List of Waste.

Official CDW treatment data	2008	2009	2010	2011	2012	2013
Landfilling - hazardous landfill sites	n/a	n/a	n/a	n/a	n/a	n/a
Landfilling - industrial landfill sites	9,283	24	17,082	3,304	306	n/a
Landfilling - municipal landfill sites	77,554	56,607	28,820	42,758	31,853	21,353
Total	86,837	56,631	45,902	46,062	32,159	21,353

When considering industrial waste, some production residues, such as steel slag, are sometimes reported as by-products instead of being classified as waste, which is one of the reasons of the decline in the quantities of some of the waste treatment groups in recent years (e.g. landfilled waste fell from 99,567 tonnes in 2011 to 21,075 tonnes in 2013). As observed during the ReBirth project and the project stakeholder round tables, there are limitations to the statistics, especially considering waste from building demolition and renovation activities where the quantities are poorly reported, as well as regarding the reported quantities of waste disposed of on illegal dumps, or the use of recycled aggregates or products. Another reason for the poor statistics is also the mismatch between the different Decrees governing waste management. For all these reasons, the statistics say that, in Slovenia, more CDW is recycled than actually generated <sup>24</sup>.

#### 5.5. Future projections of CDW generation and treatment

No satisfactory information could be retrieved on the future CDW generation and treatment projections. This is mainly due to the fact that it is difficult to match CDW generation data with the precise construction sector characteristics.

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<sup>&</sup>lt;sup>20</sup> http://www.arso.gov.si/varstvo%20okolja/odpadki/podatki/Zbiralci%2007042015.pdf

http://www.arso.gov.si/varstvo%20okolja/odpadki/podatki/predelovalci%2009042015.pdf

<sup>22</sup> http://www.arso.gov.si/varstvo%20okolja/odpadki/podatki/Seznam\_odlagali%c5%a1%c4%8da\_10032015.pdf

<sup>23</sup> http://pxweb.stat.si/pxweb/Database/Environment/27 environment/02 waste/01 27061 waste removal/01 27061 waste removal.as

p http://www.zelenaslovenija.si/revija-eol-/aktualna-stevilka/okolje/3131-recikliramo-ve-kot-pa-nastane-odpadkov-eol-96

#### 5.6. Methodology for CDW statistics

Statistical data on CDW is collected and analysed by the Statistical Office of Republic of Slovenia<sup>25</sup>. Statistical data concerning waste is gathered based on:

- The National Statistics Act,
- The Annual Programme of Statistical Surveys,
- The Decree on waste.

Selected legal entities that are waste generators or, in accordance with their respective competences, holders of certain activities in the waste management segment (mandatory municipal public service for the collection and management of municipal waste, collectors, processors or disposal operators) are included in the regular waste surveys.

Statistical surveys concerning waste are performed on a yearly basis and comprise the following: Annual survey on the quantities of landfilled waste

• includes all legal entities that are waste treatment operators, including operators of waste disposal sites (landfills for non-hazardous waste, landfills for inert waste and landfills for hazardous waste).

Annual survey on waste generation in the production and service sectors

 all active legal entities that, in the previous calendar year, generated more than 10 tonnes of waste or more than 5 kg of hazardous waste from their activities and or had 10 or more.

Annual survey on collection of waste from the production and service sectors

includes all legal entities from the register of waste collectors<sup>26</sup>.

Annual survey on recovery/disposal of waste

• includes all legal entities from the register of waste disposal operators and processors of waste<sup>27</sup>. From 2011 onwards, the survey includes legal entities that process their own waste, while internal recycling, which can be carried out without an environmental permit, is exempted from reporting.

Data on municipal waste and landfilled waste quantities is collected through a web application IJSVO<sup>28</sup> owned by the Ministry of the Environment and Spatial Planning. Data on waste from the production and service sectors is collected by means of joint questionnaires<sup>29</sup> sent annually by the Slovenian Environment Agency<sup>30</sup> to reporting units by mail. From 2014 onwards the reporting units have been reporting information using an electronic filing system established by the Slovenian Environment Agency. The research on waste generated in the production and service sectors includes all legal entities from Sections A to U according to NACE, 2008<sup>31</sup>.

The statistical data are publicly available on the website<sup>32</sup> of the Statistical Office of the Republic of Slovenia and comprise the following tables:

 Waste generation from production and service activities the European Waste Catalogue for Statistics (EWC – Stat) and by activity, Slovenia, annually

<sup>25</sup> http://www.stat.si/StatWeb/en/home

http://www.arso.gov.si/varstvo%20okolja/odpadki/podatki/

http://www.arso.gov.si/varstvo%20okolja/odpadki/podatki/

<sup>28</sup> http://www.ijsvo.si/

<sup>29</sup> http://www.stat.si/StatWeb/glavnanavigacija/metode-in-klasifikacije/vprasalniki

http://www.arso.gov.si/en/

http://www.stat.si/doc/metod\_pojasnila/27-063-MP.pdf

<sup>32</sup> http://pxweb.stat.si/pxweb/Database/Okolje/27\_okolje/02\_Odpadki/02\_27063\_odpadki\_iz\_dej/02\_27063\_odpadki\_iz\_dej.asp

- Waste generation and treatment from production and service activities by cohesion and by statistical region, Slovenia, annually
- Waste generation and treatment from production and service activities by activity, Slovenia, annually
- Waste generation and treatment from production and service activities by the List of Waste (LoW),
   Slovenia, annually
- Waste recovery, disposal by the European Waste Catalogue for Statistics (EWC Stat), Slovenia, annually
- Waste recovery, disposal by the List of Waste (LoW), Slovenia, annually
- Import, export of waste by the List of Waste (LoW), Slovenia, annually
- Amount of landfilled waste by type of waste and by type of landfill sites, Slovenia, annually.

Data collected for the purpose of the European Waste Catalogue for Statistics<sup>33</sup> (EWC – Stat) does not include all CDW codes from the Catalogue, but only the following:

- 06 Metallic wastes, ferrous
- 06 Metallic wastes, non-ferrous
- 07.1 Glass wastes
- 07.4 Plastic wastes
- 07.5 Wood wastes
- 07.7 Waste containing PCB
- 10 Household and similar wastes
- 12 Mineral wastes.

Data collected by reference to the List of Waste<sup>34</sup> (LoW) do not cover all CDW codes and sub-codes, but only the main code, Code 17– Construction and demolition waste.

#### 6. C&D waste management in practice

In this section CDW management 'on ground in Slovenia is explored. Specific CDW obligations, initiatives, voluntary agreements and any other management practices are mentioned if currently available in Slovenia.

#### 6.1. CDW management initiatives

The initiatives listed below were identified based on a review of the relevant literature and stakeholder interviews.

Description of initiative	Scope	Year establi shed	National, regional, local (specify which local area/region)	Public sector and/or Industry lead organisation	Levels of performan ce e.g. tonnes recycled	Further informatio n/ web- site
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<sup>33</sup> http://ec.europa.eu/eurostat/documents/342366/351806/Guidance-on-EWCStat-categories-2010.pdf/0e7cd3fc-c05c-47a7-818f-1c2421e55604

<sup>34</sup> http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:2000D0532:20020101:EN:PDF

ReBirth project  Slogan: Waste is the beginning of something new. The overall objective of the project was to contribute to an increased and improved recycling of industrial waste and construction/demolition waste in the construction sector. This was promoted through open, thoughtful, rational, timely and fact-based communication and open dialogue planned to raise awareness of recycling possibilities for industrial waste and building rubble in the construction industry at the national, regional and local levels.	C&D waste	2011	National, regional and local (in Slovenia).	Public sector and industry lead organisations were partners (Environment - LIFE Programme).	Unknown.	URL of the project: http://en.re _birth.eu/
The main objective of the project was to develop a common approach to (a) sustainable aggregate resource management (SARM); and (b) sustainable supply mix (SSM) planning, at three levels: regional, national and transnational.  The project objective was also to build the foundation for a Regional Centre on sustainable aggregates management and supply.	Aggregate s (crushed stone, sand and gravel).	2011	Local, regional, transnational.	Several ministries, institutes and universities were partners (South East Europe Programme).	Unknown.	URL of the project: http://www.sarmaproject.eu/

#### 6.2. Stakeholders' engagement

This subsection was presented to all contacted parties during the stakeholder consultation of the screening phase in order to incorporate their views, insights and hands-on experience on CDW management initiatives already in place in Slovenia. The table below aims to gather information on the existing initiatives identified above or those identified by the stakeholders themselves, together with a preliminary assessment of the enabling factors/obstacles, advantages/drawbacks, and other relevant comments.

Description of initiative	Scope, year established, actors involved	Advantages/ Enabling factors	Disadvantages/ Obstacles	Further information/ web-site
See initiatives above – no additional initiatives have been identified	n/a	n/a	n/a	n/a

#### 6.3. Waste legislation enforcement

The **Ministry for Environment and Spatial Planning** is the ministry competent for environmental protection in Slovenia.

A body called the **Slovenian Environment Agency** has been established within the Ministry which is charged with expert, analytical, regulatory and administrative tasks related to environment at the national level. The Agency's mission is also to monitor environmental contamination and to provide reliable public

environmental data. The Agency contributes most to solving environmental problems by implementing environmental legislation.

In the field of waste management, the Agency has the following responsibilities:

- Issues administrative acts (permits, certificates, authorisations) on the basis of waste-management regulations.
- Prepares forms available on the website in order to help applicants to apply for different permits, certificates and authorisations. The Agency prepares explanatory notes on certain chapters of the legislation regulating waste management, which are also available on the website.
- Issues decisions on the assessment of tax and exemption from taxes in the field of waste disposal.
- Manages the registers established on the basis of issued administrative acts and provisions in the legislation regulating waste management (e.g. registers of persons providing recovery, disposal operators, collectors, transport operators, dealers and brokers in waste management, and of suppliers of batteries and accumulators). The established registers are updated monthly on the website and are published annually in the Official Journal of the Republic of Slovenia.
- Collects and manages data on waste management. The waste-management legislation requires from the relevant operators to provide annual waste management reports (by 31 March) for the previous calendar year. The reporting forms are available on the Agency's website. In addition, the Agency publishes on its website also data on waste management from received reports on waste management.

The Inspectorate of the Republic of Slovenia for the Environment and Spatial Planning (IRSOP) is a body affiliated to the Ministry of the Environment and Spatial Planning. The Inspectorate carries out inspections of the implementation of and/or adherence to the regulations from within its area of responsibilities. Inspections are performed by inspectors as officials holding special powers and responsibilities. In carrying out inspections and conducting administrative procedures, inspectors act independently within the scope of powers. The waste activities are the responsibility of the internal organisational unit **The Environment and Nature Inspection Service.** 

Article 16 of the Decree on waste arising from construction specifies the following fines for persons violating the provisions of the decree:

- 1. A fine of EUR 10,000 to EUR 40,000 shall be imposed on the investor, a legal entity or a sole trader, that:
  - does not ensure on-site management of excavated natural materials in accordance with this Decree,
  - does not ensure on-site management of construction waste in accordance with this Decree,
  - does not present the construction waste management plan or send a copy thereof to the competent inspector on request in accordance with this Decree,
  - does not ensure the delivery of construction waste to a construction waste collector or a waste treatment operator in accordance with this Decree,
  - upon transferring of each shipment of construction waste, does not obtain from the shipment operator a complete waste specification sheet in accordance with this Decree,
  - does not ensure the record-keeping requirements by types and quantities of construction waste in accordance with this Decree,
  - prepares construction waste for re-use and or surrenders waste to be used in a way contrary to this
     Decree.
  - processes construction waste in the mobile device for processing construction waste in contrary to this Decree.
- 2. A fine of EUR 3,000 to EUR 10,000 shall be imposed on the investor, a legal entity or a sole trader, that:
  - does not provide documentation with data on volume of excavated natural material, including information on its composition, or the analysed data of excavated natural material, in accordance with this Decree.
  - temporary stores construction waste contrary to this Decree,

- does not provide the contract on the disposal of construction waste before the start of the construction works in accordance with this Decree,
- does not ensure removal and delivery of construction waste to a collection centre in accordance with this Decree.
- does not send reports on construction waste and handling, together with a copy of the construction waste management plan, to the competent inspector in accordance with this Decree,
- does not send reports on construction waste and handling within the deadlines specified in this Decree.
- 3. A fine of EUR 10,000 to EUR 40,000 shall be imposed on the collector of construction waste, a legal entity or a sole trader, that:
  - starts collecting and handling construction waste without a prior decision of the Ministry on its registration in the register of waste collectors,
  - collects construction waste without a collection centre in accordance with this Decree,
  - pre-stores construction waste contrary to this Decree,
  - does not provide public disclosures in accordance with this Decree.
- 4. A fine of EUR 10,000 to EUR 40,000 shall be imposed on the processor of construction waste, a legal entity or sole trader, for not handling the waste in accordance with the waste management plan on the basis of which it received an environmental permit from the Ministry.
- 5. A fine of EUR 300 to EUR 1,200 shall be imposed on the natural person as the investor for the breach of the first and second paragraphs of this article.
- 6. A fine of EUR 1,200 to EUR 4,100 shall be imposed on the responsible person of a building contractor, investor, collector of construction waste and construction waste processing contractor for the breach of paragraphs 1 to 4 of this article.
- 7. According to publicly available information on legislation infringement there was one infringement where the Inspection Authority ordered an investor of a construction site to ensure the removal and submission to a collection centre of CDW that arose at demolition. The investor objected that the quantity that arose at demolition was lower (25-30 m3) than the limit determined in the relevant legislation (50 m3), claiming that, therefore, he was not obliged to ensure the removal and submission to a collection centre of CDW that arose at demolition. His objection was denied on 22 May 2014.

#### 6.4. Drivers / barriers to increase CDW recycling

Factor / characteristic / element in CDW recycling chain	Drivers	Barriers
EoW status	<ul> <li>Chamber of Commerce and Industry of Slovenia is representing construction stakeholders and is actively participating in discussions for legislation and regulation changes, including the EoW status.</li> </ul>	<ul> <li>According to interviewed stakeholders, there is no clear line between waste and End of Waste; the regulation should provide more specific definitions.</li> </ul>
Legislation and regulation	Chamber of Commerce and Industry of Slovenia is actively participating in discussions for legislation and regulation changes.	<ul> <li>Several laws and decrees are governing waste segment in Slovenia, but the provisions are sometimes contradictory. According to interviewed stakeholders the Government should align the various laws and prepare a standard document that would govern waste.</li> </ul>
Statistics	<ul> <li>Cooperation between Slovenian Statistical Office and Slovenian Environment Agency at statistical research on waste generation, treatment and management. Also according to Annual Research Quality</li> </ul>	<ul> <li>Because of the unreconciled different decrees that govern waste management, the waste statistics is inconsistent (e.g. greater quantity of recycled CDW than actually generated). One of the underlying</li> </ul>

	Report on Research for Waste Generation in 2013 <sup>35</sup> Eurostat is committing for increasing the quality and comparability of data between member states and is therefore organizing various workshops.	reasons is also that investors have no obligation to report on generated CDW if, pursuant to another legislation, they are obliged to prepare a Construction Waste Management Plan or obtain environmental permits.
Green procurement	A sound basis for the use of recycled CDW.	<ul> <li>Provisions regarding the use of recycled CDW are not binding, but rather optional, with only provisions regarding the construction of buildings being defined (additional points for bidders claiming that recycled construction material will constitute more than 30% of all construction material used).</li> </ul>
Waste Management Strategy		<ul> <li>The last Operational Programme for Waste Management was for the period 2004 – 2008. According to the interviewed stakeholders Slovenia would need a new strategy with clear targets and prompt monitoring of status to boost a more sustainable waste management.</li> </ul>
Interest for CDW regulations	Chamber of Commerce and Industry of Slovenia and some other private Organizations are actively promoting reuse of CDW and changes of regulation.	According to the interviewed stakeholders, there is a lack of interest at the Government level in regulating CDW.

 $\color{red}^{35} \underline{\text{http://www.stat.si/StatWeb/Common/PrikaziDokument.ashx?IdDatoteke=7689}}$ 

#### 7. CDW sector characterisation

In this section some specific characteristics of the CDW management sector in Slovenia are explored. Issues covered in this section concern the CDW sector characteristics including market conditions, enabling factors, import and exports of CDW and the characteristics of recycled CDW products.

#### 7.1. Sector characteristics

According to the Register of waste collectors, there are 71 legal entities in Slovenia<sup>36</sup> that collect at least one type of waste classified under Code 17 of the List of Waste, 256 legal entities<sup>37</sup> that process at least one type of waste classified under Code 17 of the List of Waste and 13<sup>38</sup> legal entities having landfill permits for at least one type of waste classified under Code 17 of the List of Waste.

#### 7.2. Exports / imports of CDW

No further information could be retrieved on exports/imports of CDW to supplement the information provided in section 5.3.

#### 7.3. CDW as landfill cover

CDW in Slovenia is used to cover landfills and for backfilling. The table below shows officially reported CDW quantities that were landfilled, backfilled and used as a landfill cover in Slovenia in the past several years.

Official CDW treatment data	2008	2009	2010	2011	2012	2013
Amount of waste landfilled (tonnes)	506,513	314,644	200,121	99,567	40,335	21,075
Backfilling (tonnes)	n/a	n/a	n/a	1,480,461	1,039,736	837,142
Covering (landfill sites) (tonnes)	87,887	32,463	36,493	18,098	14,711	26,258
Total	594,400	347,107	236,614	1,598,126	1,094,782	884,475

When considering industrial waste, some production residues, such as steel slag, are sometimes reported as by-products instead of being classified as waste, which is one of the reasons of the decline in the quantities of some of the waste treatment groups in recent years (e.g. landfilled waste fell from 99,567 tonnes in 2011 to 21,075 tonnes in 2013).

#### 7.4. Market conditions / costs and benefits

Slovenia provides a financial incentive for CDW recycling through waste disposal taxation. The tax is payable for waste put on industrial (state revenue) and public dumping grounds (revenue of local

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<sup>36</sup> http://www.arso.gov.si/varstvo%20okolja/odpadki/podatki/

http://www.arso.gov.si/varstvo%20okolja/odpadki/podatki/

<sup>38</sup> http://www.arso.gov.si/varstvo%20okolja/odpadki/podatki/Seznam\_odlagali%c5%a1%c4%8da\_10032015.pdf

communities). The tax base is EUR 0.0022 per kg of inert waste, EUR 0.011 per kg of non-hazardous waste, and EUR 0.022 per kg of hazardous waste. Tax payers are landfill operators.

The initiatives for using CDW as secondary material are those mentioned in Section 6.1. CDW management initiatives.

Prices of recycled aggregates in Slovenia are lower than the prices of natural aggregates. When collecting construction waste from which recycled aggregates are produced, collectors charge more for mixed construction waste than for separated construction waste. The transportation of CDW to the processor and of recycled aggregate from the processor to the place of use has a large impact on the price. This is why, in practice, the recycling and use often take place on the site itself<sup>39</sup>.

The table below indicates prices quoted by several collection centres for CDW collection sites. There is no regulation on the national level specifying standard prices, hence the varying prices.

Classification according to LoW	Tlakovci Podlesnik d.o.o. <sup>40</sup> [€/tonne – incl. VAT]	Salonit Anhovo, Kamnolomi, d.o.o. <sup>41</sup> [€/tonne – incl. VAT]	Komunala Slovenska Bistrica d.o.o. <sup>42</sup> [€/tonne – incl. VAT]
17 01 01	12.20	7.81	10.46
17 01 02	3.66	6.59	10.46
17 01 03	4.88	6.59	10.46
17 01 07	/	6.59	10.46
17 05 06	4.88	5.49	/
17 09 04	/	11.59	10.46

Type of CDW	Javno podjetje Komunala d.o.o., Sevnica <sup>43</sup> [€/tonne – incl. VAT]	Javno podjetje za komunalne storitve Rogaška Slatina d.o.o. <sup>44</sup> [€/tonne – incl. VAT]
Concrete, bricks, tiles, ceramics, dredging, recycled CDW	4.38	14.8971
Reinforced concrete, gypsum material, mixed CDW	7.67	35.7291 <sup>45</sup>
Mixed CDW with 25-50 % admixture	27.38	/

<sup>&</sup>lt;sup>39</sup> http://www.zelenaslovenija.si/revija-eol-/aktualna-stevilka/okolje/3131-recikliramo-ve-kot-pa-nastane-odpadkov-eol-96

<sup>40</sup> http://www.tlakovec.si/files/85 CENIK AGREGATOV%202014.pdf

http://www.salonit.si/proizvodi\_in\_storitve/gradbeni\_odpadki/

http://www.komunala-slb.si/uploads/1/3/5/4/13544879/03. cenik ravnanje z odpadki - odlaganje - 2013 07 01.pdf

<sup>43</sup> http://www.komunala-sevnica.si/ceniki.htm

<sup>44</sup> http://www.okp.si/pdf/CENIK 1 %206 2010 2.pdf

<sup>&</sup>lt;sup>45</sup> 13,73€ is price by the company, with added 19,2€ for landfill tax and added 8.5% of VAT

#### 7.5. Recycled materials from CDW

The main CDW products are recycled aggregates. Slovenia has recycling plants that treat mostly R1 waste (recycling of by-products, waste and residues from extractive activities), R2 waste (recycling of CDW) and R4 waste (recycling of industrial waste)<sup>46</sup>. Aggregates produced from these plants are used for backfilling purposes, concrete production and other construction purposes.

End-of-Waste criteria for aggregates have not been established. So far, the criteria have been adopted for iron, aluminium, copper and glass, but, according to the provided information, the amounts of waste that comply with the EoW status are still not included in CDW generation reporting (statistics).

According to the desktop-research results and the interviews, no information is available on the subject of requirements and standards used for recycled aggregates. CDW processors are required to possess environmental permits, but no control has been established for CDW treatment and aggregate recycling otherwise required for recycled construction material to be legally sold on the market<sup>47</sup>. No other satisfactory information could be retrieved regarding materials recycled from CDW.

Provisions on the use of CDW-recycled materials from the Green Public Procurement regulation are optional (additional points are awarded to bidders that include in their tender more than 30 % recycled construction material of all material used).

#### 7.6. Construction sector make-up

The construction activity in Slovenia (Section F – Construction) according to standard classification of activities (NACE Rev. 2) provided by the Statistical Office of Slovenia<sup>48</sup> includes the following:

- F41 Construction of buildings (construction of residential and non-residential buildings)
- F42 Civil engineering (construction of roads, railways, infrastructure, other civil engineering works)
- F43 Specialized construction (construction, finishing and installation specialized works)

The table below summarizes the number of enterprises engaged in construction in the last three years for which data are available (Number of enterprises by activities (NACE, Rev. 2) by activity and year<sup>49</sup>).

Official data on enterprises in construction activity	2011	2012	2013
F41 Construction of buildings	4,033	3,719	3,461
F42 Civil engineering	610	596	625
F43 Specialized construction activities	16,975	16,556	16,205
Total enterprises in construction activity	21,618	20,871	20,291
Total enterprises in Slovenia	169,360	173,305	182,089
% of enterprises in construction activity	12.76 %	12.04 %	11.14 %

The table below summarizes the staff employed in construction in the last quarter of the years specified below, based on the available data (Persons employed by activities (NACE, Rev. 2), Slovenia, monthly<sup>50</sup>).

27

<sup>46</sup> http://www.sarmaproject.eu/uploads/media/SARMa\_Manual\_Resource\_Efficiency.pdf

http://www.zelenaslovenija.si/revija-eol-/aktualna-stevilka/okolje/3131-recikliramo-ve-kot-pa-nastane-odpadkov-eol-96

http://www.stat.si/StatWeb/pregled-podrocja?id=6&headerbar=5

<sup>&</sup>lt;sup>49</sup> http://pxweb.stat.si/pxweb/Database/Economy/14\_business\_subjects/01\_14188\_Enterprises/01\_14188\_Enterprises.asp

Official data on en	nployment in construction	January 2013	January 2014	January 2015
F41 Construction of	Persons in paid employment	11,662	10,729	9,955
buildings	Self-employed persons	955	925	893
E42 Civil ongingoring	Persons in paid employment	7,111	7,163	7,460
F42 Civil engineering	Self-employed persons	100	102	106
F43 Specialized	Persons in paid employment	23,539	23,601	23,976
construction activities	Self-employed persons	8,634	8,536	8,494
Total pe	ersons employed in construction	52,001	51,056	50,884
Total persons em	ployed (all activities) in Slovenia	788,711	781,561	794,254
	ersons employed in construction I in construction /Total employed in Slovenia)	6.59 %	6.53 %	6.41 %

The table below summarizes the values of construction put in place by type of activity for the last three years of available data (Value of construction put in place by type of activity and by type of construction, Slovenia, annually<sup>51</sup>).

Official data on value of construction	2011	2012	2013
Reconstruction and conversion-improvement	1,135,796,109	948,162,144	796,302,754
Investment maintenance	24,643,479	15,392,825	17,873,485
Regular maintenance	283,848,557	341,769,724	361,050,134
New construction	376,081,099	13,920,159	16,935,997
Extension	232,155,743	431,292,992	488,808,886
Total	2,052,524,987	1,750,537,844	1,680,971,256

The table below summarizes the values of construction put in place by type of construction for the last three years of available data (Value of construction put in place by type of activity and by type of construction, Slovenia, annually<sup>52</sup>).

Official data on value of construction [EUR]	2011	2012	2013
1 Buildings	967,660,837	837,371,991	723,654,573
11 Residential buildings	271,156,317	239,933,646	216,293,744

<sup>&</sup>lt;sup>50</sup>http://pxweb.stat.si/pxweb/Database/Demographics/07\_labour\_force/05\_labour\_force\_register/01\_07009\_aktivno\_preb\_mesecno/01\_ 07009 aktivno preb mesecno.asp

http://pxweb.stat.si/pxweb/Database/Economy/19 construction/07 19198 value constr/07 19198 value constr.asp

http://pxweb.stat.si/pxweb/Database/Economy/19 construction/07 19198 value constr/07 19198 value constr.asp

12 Non-residential buildings	696,504,520	597,438,345	507,360,829
2 Civil engineering works	1,084,864,150	913,165,854	957,316,683
21 Transport infrastructures	628,017,284	473,419,599	506,987,507
22 Pipelines, communication and electricity lines	298,921,776	n/a	316,270,449
23 Complex constructions on industrial sites	107,152,953	83,188,043	59,782,758
24 Other civil engineering works	50,772,137	n/a	74,275,969
Total	2,052,524,987	1,750,537,845	1,680,971,256

The construction sector in Slovenia follows the general economic trends and is currently in recession. All main sectorial indicators point to this, as well as the decrease in the volume of construction projects and a drop in employment, along with the decrease in the value of construction. The entire period observed was characterized by a declining real estate demand, a significant slowdown in the investment activity and the absence of large state infrastructure projects.

The value of construction works in 2012 fell by 14.71 percent from 2011 and by further 3.97 percent in 2013 compared to 2012. The total number of employees in this sector in January 2014 was 1.82 percent lower year-on-year. In January 2015 the total number of employees decreased by 0.34 percent year-on-year.

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- Interview with Janja Leban, Director of the Environmental Protection Department, Slovenian Chamber of Commerce, 28/4/2015
- Interview with Petra Ulmec, Director of the Department for Waste Management of the Slovenian Environment Agency within the Ministry of the Environment and Spatial Planning, 28/4/2015

#### Other consulted stakeholders

The following stakeholders have been contacted but didn't participate:

- Mr. Jože Renar. Director. Chamber of Construction and Building Materials Industry of Slovenia
- Mrs. Dragica Hršica, Head inspector, Inspectorate of RS for Agriculture and the Environment, within Ministry of Agriculture and the Environment
- Mr. Emil Nanut, Director of KEMIS d.o.o. (company authorized to collect the CDW)
- Mr. Jure Leban, Project coordinator, Slovenian National Building and Civil Engineering Institute (leading research institute for recycling construction and demolition waste)
- Mrs.Nataša Jazbinšek Seršen, Head of Department for Environmental Protection, Municipality Ljubljana
- Mojca Žitnik, Statistical Office of RS

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## **Annexe**

#### Annexe 1 : Slovenian Construction and Demolition Waste management plan



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## NAČRT GOSPODARJENJA Z GRADBENIMI ODPADKI (NGGO)

3. odstavek 5. člena Uredbe o ravnanju z odpadki, ki nastanejo pri gradbenih delih (Uradni list RS, št. 34/2008)

- I. NGGO **mora izdelati investitor.** Načrt gospodarjenja z gradbenimi odpadki mora glede na vrsto in količino gradbenih odpadkov vsebovati podatke o:
  - izločitvi nevarnih gradbenih odpadkov pred odstranitvijo objekta, če zadeva pridobitev gradbenega dovoljenja tudi odstranitev objekta,
  - ločenem zbiranju gradbenih odpadkov na gradbišču,
  - obdelavi gradbenih odpadkov na gradbišču,
  - predvideni prostornini zemeljskega izkopa, nastalega zaradi izvajanja gradbenih del na gradbišču, in ravnanju z njim,
  - predvideni prostornini uporabe zemeljskega izkopa na gradbišču, ki ni nastal zaradi izvajanja gradbenih del na gradbišču,
  - količinah in vrstah gradbenih odpadkov, predvidenih za oddajo zbiralcu gradbenih odpadkov,
  - količinah in vrstah gradbenih odpadkov, predvidenih za oddajo v obdelavo,
  - predvidenih načinih obdelave gradbenih odpadkov in izvajalcih obdelave gradbenih odpadkov.

Pri rekonstrukciji ali odstranitvi stavbe, ki je bila zgrajena v obdobju 1950–1980 ali je bila v tem obdobju rekonstruirana, mora biti k NGGO priložen še popis v stavbo vgrajenih gradbenih materialov, ki vsebujejo PCB. To določa Uredba o spremembah in dopolnitvah Uredbe o odstranjevanju polikloriranih bifenilov in polikloriranih tertafenilov (Uradni list RS 9/09). Popis mora vsebovati:

- oceno količine vsakega gradbenega materiala, ki vsebuje ali bi lahko vseboval PCB, izražene v kg.

Če je iz popisa vgrajenih gradbenih materialov, ki vsebujejo PCB, razvidno, da je v stavbi pred njeno rekonstrukcijo ali odstranitvijo več kot 50 kg gradbenih materialov, ki vsebujejo PCB, mora biti k načrtu gospodarjenja z gradbenimi odpadki priložen še opis postopkov:

- izločitve teh gradbenih materialov od drugih odpadkov,
- ločenega zbiranja teh gradbenih materialov na gradbišču,
- oddaje teh gradbenih materialov zbiralcu gradbenih odpadkov in
- predvidenih načinih obdelave teh gradbenih materialov in izvajalcih njihove obdelave.

Če je iz popisa vgrajenih gradbenih materialov, ki vsebujejo PCB, razvidno, da je v stavbi pred njeno rekonstrukcijo ali odstranitvijo več kot 1.000 kg gradbenih materialov, ki vsebujejo PCB, mora k projektu za pridobitev gradbenega dovoljenja priložen tudi **elaborat dekontaminacije stavbe**, ki mora biti izdelan na podlagi usmeritev za izdelavo elaborata dekontaminacije stavbe iz operativnega programa ravnanja s PCB in odpadnimi PCB iz 18. člena Uredbe o odstranjevanju polikloriranih bifenilov in polikloriranih tertafenilov (Uradni list RS št. 34/08 in 9/09). V elaborat dekontaminacije stavbe morajo biti vključeni podatki o:

- ukrepih varstva delavcev pred PCB, ki izvajajo dekontaminacijo stavbe,
- ukrepih varstva ljudi pred PCB, ki med dekontaminacijo stavbe uporabljajo prostore stavbe,
- ukrepih za preprečevanje emisije prahu v okolje,
- postopkih odstranjevanja gradbenih materialov, ki vsebujejo PCB, in
- izvajalcih dekontaminacije stavbe, ki so lahko samo osebe iz 15. člena te uredbe.

#### II. Vsebina NGGO mora biti sledeča:

1. Vrsta in količina gradbenih odpadkov, ki bodo nastali zaradi gradnje novega objekta, rekonstrukcije objekta, nadomestne gradnje ali odstranitve objekta:

Klasifikacijska številka odpadka	Naziv odpadka	Predvidena količina (t)
17 01 01	Beton	
17 01 02	Opeke	
17 01 03	Ploščice in keramika	
17 01 06*	Mešanice ali ločene frakcije betona, opek, ploščic in keramike, ki vsebujejo nevarne snovi	
17 01 07	Mešanice betona, opek, ploščic in keramike, ki niso navedene pod 17 01 06	
17 02 01	Les	
17 02 02	Steklo	
17 02 03	Plastika	
17 02 04*	Steklo, plastika in les, ki vsebujejo nevarne snovi ali so z njimi onesnaženi	
17 03 01*	Bitumenske mešanice, ki vsebujejo premogov katran	
17 03 02	Bitumenske mešanice, ki niso navedene pod 17 03 01	
17 03 03*	Premogov katran in katranski izdelki	
17 04 01	Baker, bron in medenina	
17 04 02	Aluminij	
17 04 03	Svinec	
17 04 04	Cink	
17 04 05	Železo in jeklo	
17 04 06	Kositer	
17 04 07	Mešanice kovin	
17 04 09*	Kovinski odpadki, ki so onesnaženi z nevarnimi snovmi	
17 04 10*	Kabli, ki vsebujejo mineralna olja, premogov katran in druge nevarne snovi	
17 04 11	Kabli, ki niso navedeni pod 17 04 10	

17 05 03*	Zemljina in kamenje, ki vsebujeta nevarne snovi	
17 05 04	Zemljina in kamenje, ki nista navedena pod 17 05 03	
17 05 05*	Izkopani material, ki vsebuje nevarne snovi	
17 05 06	Izkopani material, ki ni naveden pod 17 05 05	
17 05 07*	Tolčenec izpod železniških tirov in pragov, ki vsebuje nevarne snovi	
17 05 08	Tolčenec izpod železniških tirov in pragov, ki ni naveden pod 17 05 07	
17 06 01*	Izolirni materiali, ki vsebujejo azbest	
17 06 03*	Drugi izolirni materiali, ki so sestavljeni iz nevarnih snovi ali jih vsebujejo	
17 06 04	Izolirni materiali, ki niso navedeni pod 17 06 01 in 17 06 03	
17 06 05*	Gradbeni materiali, ki vsebujejo azbest	
17 08 01*	Gradbeni materiali na osnovi sadre, onesnaženi z nevarnimi snovmi	
17 08 02	Gradbeni materiali na osnovi sadre, ki niso navedeni pod 17 08 01	
17 09 01*	Gradbeni odpadki in odpadki iz rušenja objektov, ki vsebujejo živo srebro	
17 09 02*	Gradbeni materiali in odpadki iz rušenja objektov, ki vsebujejo PCB (npr. tesnila, ki vsebujejo PCB, tlaki na osnovi smol, ki vsebujejo PCB, zatesnjene enote za zastekljevanje, ki vsebujejo PCB, kondenzatorji, ki vsebujejo PCB)	
17 09 03*	Drugi gradbeni odpadki in odpadki iz rušenja objektov (tudi mešani odpadki), ki vsebujejo nevarne snovi	
17 09 04	Mešani gradbeni odpadki in odpadki iz rušenja objektov, ki niso navedeni pod 17 09 01, 17 09 02 in 17 09 03	
	SKUPAJ:	

2. Vrste nevarnih gradbenih odpadkov, ki se bodo odstranili iz objekta pred odstranitvijo objekta, če gre za odstranitev objekta:

Klasifikacijska številka	Naziv odpadka	Predvidena količina
odpadka		

33

		(t)
17 01 06*	Mešanice ali ločene frakcije betona, opek, ploščic in keramike, ki vsebujejo nevarne snovi	
17 02 04*	Steklo, plastika in les, ki vsebujejo nevarne snovi ali so z njimi onesnaženi	
17 03 01*	Bitumenske mešanice, ki vsebujejo premogov katran	
17 03 03*	Premogov katran in katranski izdelki	
17 04 09*	Kovinski odpadki, ki so onesnaženi z nevarnimi snovmi	
17 04 10*	Kabli, ki vsebujejo mineralna olja, premogov katran in druge nevarne snovi	
17 05 03*	Zemljina in kamenje, ki vsebujeta nevarne snovi	
17 05 05*	Izkopani material, ki vsebuje nevarne snovi	
17 05 07*	Tolčenec izpod železniških tirov in pragov, ki vsebuje nevarne snovi	
17 06 01*	Izolirni materiali, ki vsebujejo azbest	
17 06 03*	Drugi izolirni materiali, ki so sestavljeni iz nevarnih snovi ali jih vsebujejo	
17 06 05*	Gradbeni materiali, ki vsebujejo azbest	
17 08 01*	Gradbeni materiali na osnovi sadre, onesnaženi z nevarnimi snovmi	
17 09 01*	Gradbeni odpadki in odpadki iz rušenja objektov, ki vsebujejo živo srebro	
17 09 02*	Gradbeni materiali in odpadki iz rušenja objektov, ki vsebujejo PCB (npr. tesnila, ki vsebujejo PCB, tlaki na osnovi smol, ki vsebujejo PCB, zatesnjene enote za zastekljevanje, ki vsebujejo PCB, kondenzatorji, ki vsebujejo PCB)	
17 09 03*	Drugi gradbeni odpadki in odpadki iz rušenja objektov (tudi mešani odpadki), ki vsebujejo nevarne snovi	
17 09 04	Mešani gradbeni odpadki in odpadki iz rušenja objektov, ki niso navedeni pod 17 09 01, 17 09 02 in 17 09 03	
	SKUPAJ:	

3. Podatki o ločenem zbiranju gradbenih odpadkov na gradbišču. Vrste gradbenih odpadkov, ki se bodo ločeno zbirali na gradbišču:

Klasifikacijska številka	Naziv odpadka	Odpadki, ki se bodo zbirali ločeno na
odpadka		gradbišču

		DA/NE
17 01 01	Beton	
17 01 02	Opeke	
17 01 03	Ploščice in keramika	
17 01 06*	Mešanice ali ločene frakcije betona, opek, ploščic in keramike, ki vsebujejo nevarne snovi	
17 01 07	Mešanice betona, opek, ploščic in keramike, ki niso navedene pod 17 01 06	
17 02 01	Les	
17 02 02	Steklo	
17 02 03	Plastika	
17 02 04*	Steklo, plastika in les, ki vsebujejo nevarne snovi ali so z njimi onesnaženi	
17 03 01*	Bitumenske mešanice, ki vsebujejo premogov katran	
17 03 02	Bitumenske mešanice, ki niso navedene pod 17 03 01	
17 03 03*	Premogov katran in katranski izdelki	
17 04 01	Baker, bron in medenina	
17 04 02	Aluminij	
17 04 03	Svinec	
17 04 04	Cink	
17 04 05	Železo in jeklo	
17 04 06	Kositer	
17 04 07	Mešanice kovin	
17 04 09*	Kovinski odpadki, ki so onesnaženi z nevarnimi snovmi	
17 04 10*	Kabli, ki vsebujejo mineralna olja, premogov katran in druge nevarne snovi	
17 04 11	Kabli, ki niso navedeni pod 17 04 10	
17 05 03*	Zemljina in kamenje, ki vsebujeta nevarne snovi	
17 05 04	Zemljina in kamenje, ki nista navedena pod 17 05 03	
17 05 05*	Izkopani material, ki vsebuje nevarne snovi	
17 05 06	Izkopani material, ki ni naveden pod 17 05 05	
17 05 07*	Tolčenec izpod železniških tirov in pragov, ki vsebuje nevarne snovi	
17 05 08	Tolčenec izpod železniških tirov in pragov, ki ni naveden pod 17 05 07	

17 06 01*	Izolirni materiali, ki vsebujejo azbest	
17 06 03*	Drugi izolirni materiali, ki so sestavljeni iz nevarnih snovi ali jih vsebujejo	
17 06 04	Izolirni materiali, ki niso navedeni pod 17 06 01 in 17 06 03	
17 06 05*	Gradbeni materiali, ki vsebujejo azbest	
17 08 01*	Gradbeni materiali na osnovi sadre, onesnaženi z nevarnimi snovmi	
17 08 02	Gradbeni materiali na osnovi sadre, ki niso navedeni pod 17 08 01	
17 09 01*	Gradbeni odpadki in odpadki iz rušenja objektov, ki vsebujejo živo srebro	
17 09 02*	Gradbeni materiali in odpadki iz rušenja objektov, ki vsebujejo PCB (npr. tesnila, ki vsebujejo PCB, tlaki na osnovi smol, ki vsebujejo PCB, zatesnjene enote za zastekljevanje, ki vsebujejo PCB, kondenzatorji, ki vsebujejo PCB)	
17 09 03*	Drugi gradbeni odpadki in odpadki iz rušenja objektov (tudi mešani odpadki), ki vsebujejo nevarne snovi	
17 09 04	Mešani gradbeni odpadki in odpadki iz rušenja objektov, ki niso navedeni pod 17 09 01, 17 09 02 in 17 09 03	
	SKUPAJ:	

#### 4. Vrste in količina gradbenih odpadkov, ki se bodo obdelavi na gradbišču in postopek obdelave:

Klasifikacijska številka odpadka	Naziv odpadka	Količina (t)	Postopek obdelave
17 01 01	Beton		
17 01 02	Opeke		
17 01 03	Ploščice in keramika		
17 01 07	Mešanice betona, opek, ploščic in keramike, ki niso navedene pod 17 01 06		
17 02 01	Les		
17 02 02	Steklo		
17 02 03	Plastika		
17 03 02	Bitumenske mešanice, ki niso navedene pod 17 03 01		
17 04 01	Baker, bron in medenina		

17 04 02	Aluminij	
17 04 03	Svinec	
17 04 04	Cink	
17 04 05	Železo in jeklo	
17 04 06	Kositer	
17 04 07	Mešanice kovin	
17 04 11	Kabli, ki niso navedeni pod 17 04 10	
17 05 04	Zemljina in kamenje, ki nista navedena pod 17 05 03	
17 05 06	Izkopani material, ki ni naveden pod 17 05 05	
17 05 08	Tolčenec izpod železniških tirov in pragov, ki ni naveden pod 17 05 07	
17 06 04	Izolirni materiali, ki niso navedeni pod 17 06 01 in 17 06 03	
17 08 02	Gradbeni materiali na osnovi sadre, ki niso navedeni pod 17 08 01	
17 09 04	Mešani gradbeni odpadki in odpadki iz rušenja objektov, ki niso navedeni pod 17 09 01, 17 09 02 in 17 09 03	
	SKUPAJ:	

5. Podatek o prostornini zemeljskega izkopa, nastalega zaradi izvajanja gradbenih del na gradbišču, in podatek o predvidenem načinu ravnanju z njim:

Klasifikacijska številka odpadka	Naziv odpadka	Prostornina (m³)	Predviden način ravnanja z njimi
17 05 03*	Zemljina in kamenje, ki vsebujeta nevarne snovi		
17 05 04	Zemljina in kamenje, ki nista navedena pod 17 05 03		
17 05 05*	Izkopani material, ki vsebuje nevarne snovi		
17 05 06	Izkopani material, ki ni naveden pod 17 05 05		
17 05 07*	Tolčenec izpod železniških tirov in pragov, ki vsebuje nevarne snovi		
17 05 08	Tolčenec izpod železniških tirov in pragov, ki ni naveden pod 17 05 07		

# 6. Predvidena prostornina uporabe zemeljskega izkopa na gradbišču, ki ni nastal zaradi izvajanja gradbenih del na gradbišču:

Klasifikacijska številka odpadka	Naziv odpadka	Prostornina (m³)	Predviden izvor
17 05 03*	Zemljina in kamenje, ki vsebujeta nevarne snovi		
17 05 04	Zemljina in kamenje, ki nista navedena pod 17 05 03		
17 05 05*	Izkopani material, ki vsebuje nevarne snovi		
17 05 06	Izkopani material, ki ni naveden pod 17 05 05		
17 05 07*	Tolčenec izpod železniških tirov in pragov, ki vsebuje nevarne snovi		
17 05 08	Tolčenec izpod železniških tirov in pragov, ki ni naveden pod 17 05 07		

#### 7. Količina in vrsta gradbenih odpadkov, predvidenih za oddajo zbiralcu gradbenih odpadkov.

Klasifikacijska številka odpadka	Naziv odpadka	Predvidena količina, ki jo bo oddali zbiralcu	Komu
17 01 01	Beton		
17 01 02	Opeke		
17 01 03	Ploščice in keramika		
17 01 06*	Mešanice ali ločene frakcije betona, opek, ploščic in keramike, ki vsebujejo nevarne snovi		
17 01 07	Mešanice betona, opek, ploščic in keramike, ki niso navedene pod 17 01 06		
17 02 01	Les		
17 02 02	Steklo		
17 02 03	Plastika		
17 02 04*	Steklo, plastika in les, ki vsebujejo nevarne snovi ali so z njimi onesnaženi		
17 03 01*	Bitumenske mešanice, ki vsebujejo premogov katran		
17 03 02	Bitumenske mešanice, ki niso navedene pod 17 03 01		
17 03 03*	Premogov katran in katranski izdelki		

17 04 01	Baker, bron in medenina	
17 04 02	Aluminij	
17 04 03	Svinec	
17 04 04	Cink	
17 04 05	Železo in jeklo	
17 04 06	Kositer	
17 04 07	Mešanice kovin	
17 04 09*	Kovinski odpadki, ki so onesnaženi z nevarnimi snovmi	
17 04 10*	Kabli, ki vsebujejo mineralna olja, premogov katran in druge nevarne snovi	
17 04 11	Kabli, ki niso navedeni pod 17 04 10	
17 05 03*	Zemljina in kamenje, ki vsebujeta nevarne snovi	
17 05 04	Zemljina in kamenje, ki nista navedena pod 17 05 03	
17 05 05*	Izkopani material, ki vsebuje nevarne snovi	
17 05 06	Izkopani material, ki ni naveden pod 17 05 05	
17 05 07*	Tolčenec izpod železniških tirov in pragov, ki vsebuje nevarne snovi	
17 05 08	Tolčenec izpod železniških tirov in pragov, ki ni naveden pod 17 05 07	
17 06 01*	Izolirni materiali, ki vsebujejo azbest	
17 06 03*	Drugi izolirni materiali, ki so sestavljeni iz nevarnih snovi ali jih vsebujejo	
17 06 04	Izolirni materiali, ki niso navedeni pod 17 06 01 in 17 06 03	
17 06 05*	Gradbeni materiali, ki vsebujejo azbest	
17 08 01*	Gradbeni materiali na osnovi sadre, onesnaženi z nevarnimi snovmi	
17 08 02	Gradbeni materiali na osnovi sadre, ki niso navedeni pod 17 08 01	
17 09 01*	Gradbeni odpadki in odpadki iz rušenja objektov, ki vsebujejo živo srebro	
17 09 02*	Gradbeni materiali in odpadki iz rušenja objektov, ki vsebujejo PCB (npr. tesnila, ki vsebujejo PCB, tlaki na	

	osnovi smol, ki vsebujejo PCB, zatesnjene enote za zastekljevanje, ki vsebujejo PCB, kondenzatorji, ki vsebujejo PCB)	
17 09 03*	Drugi gradbeni odpadki in odpadki iz rušenja objektov (tudi mešani odpadki), ki vsebujejo nevarne snovi	
17 09 04	Mešani gradbeni odpadki in odpadki iz rušenja objektov, ki niso navedeni pod 17 09 01, 17 09 02 in 17 09 03	
	SKUPAJ:	

8. Količina in vrsta gradbenih odpadkov, predvidenih za oddajo v obdelavo, skupaj s podatkom o predvidenih načinih obdelave gradbenih odpadkov in izvajalcih obdelave gradbenih odpadkov.

Klasifikacijska številka odpadka	Naziv odpadka	Predvidena količina, ki bo oddana obdelovalcu (t)	Izvajalec obdelave
17 01 01	Beton		
17 01 02	Opeke		
17 01 03	Ploščice in keramika		
17 01 06*	Mešanice ali ločene frakcije betona, opek, ploščic in keramike, ki vsebujejo nevarne snovi		
17 01 07	Mešanice betona, opek, ploščic in keramike, ki niso navedene pod 17 01 06		
17 02 01	Les		
17 02 02	Steklo		
17 02 03	Plastika		
17 02 04*	Steklo, plastika in les, ki vsebujejo nevarne snovi ali so z njimi onesnaženi		
17 03 01*	Bitumenske mešanice, ki vsebujejo premogov katran		
17 03 02	Bitumenske mešanice, ki niso navedene pod 17 03 01		
17 03 03*	Premogov katran in katranski izdelki		
17 04 01	Baker, bron in medenina		
17 04 02	Aluminij		
17 04 03	Svinec		
17 04 04	Cink		

17 04 05	Železo in jeklo	
17 04 06	Kositer	
17 04 07	Mešanice kovin	
17 04 09*	Kovinski odpadki, ki so onesnaženi z nevarnimi snovmi	
17 04 10*	Kabli, ki vsebujejo mineralna olja, premogov katran in druge nevarne snovi	
17 04 11	Kabli, ki niso navedeni pod 17 04 10	
17 05 03*	Zemljina in kamenje, ki vsebujeta nevarne snovi	
17 05 04	Zemljina in kamenje, ki nista navedena pod 17 05 03	
17 05 05*	Izkopani material, ki vsebuje nevarne snovi	
17 05 06	Izkopani material, ki ni naveden pod 17 05 05	
17 05 07*	Tolčenec izpod železniških tirov in pragov, ki vsebuje nevarne snovi	
17 05 08	Tolčenec izpod železniških tirov in pragov, ki ni naveden pod 17 05 07	
17 06 01*	Izolirni materiali, ki vsebujejo azbest	
17 06 03*	Drugi izolirni materiali, ki so sestavljeni iz nevarnih snovi ali jih vsebujejo	
17 06 04	Izolirni materiali, ki niso navedeni pod 17 06 01 in 17 06 03	
17 06 05*	Gradbeni materiali, ki vsebujejo azbest	
17 08 01*	Gradbeni materiali na osnovi sadre, onesnaženi z nevarnimi snovmi	
17 08 02	Gradbeni materiali na osnovi sadre, ki niso navedeni pod 17 08 01	
17 09 01*	Gradbeni odpadki in odpadki iz rušenja objektov, ki vsebujejo živo srebro	
17 09 02*	Gradbeni materiali in odpadki iz rušenja objektov, ki vsebujejo PCB (npr. tesnila, ki vsebujejo PCB, tlaki na osnovi smol, ki vsebujejo PCB, zatesnjene enote za zastekljevanje, ki vsebujejo PCB, kondenzatorji, ki vsebujejo PCB)	
17 09 03*	Drugi gradbeni odpadki in odpadki iz rušenja objektov (tudi mešani odpadki),	

	ki vsebujejo nevarne snovi	
17 09 04	Mešani gradbeni odpadki in odpadki iz rušenja objektov, ki niso navedeni pod 17 09 01, 17 09 02 in 17 09 03	
SKUPAJ:		

#### **OPOZORILO:**

Gradbeni materiali, ki vsebujejo PCB, so gradbeni materiali, ki so vgrajeni v stavbo, in sicer so to lahko:

- dilatacijske tesnilne mase med betonskimi elementi, tesnilne mase pri oknih, okenskih in drugih steklih in podbojih ter tesnilne mase v fugah v sanitarnih prostorih,
- stenski in stropni opleski,
- lepila,
- stropne plošče, v katerih so PCB mehčala ali protipožarna sredstva,
- gradbeni elementi iz plastične mase in
- izolacija ter ovoji električne napeljave.

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