

# 18<sup>th</sup> EUROPEAN WEEK of REGIONS and CITIES

05>09 OCTOBER 2020

12>16 OCTOBER 2020

19>22 OCTOBER 2020

RESTART  
EUROPE  
Together

#EURegionsWeek

# CINDERELA Project

- **CINDERELLA project aims** to develop a new Circular Economy Business Model (CEBM) for use of secondary raw materials (SRM) in urban areas, connecting different industries, the construction sector and municipal services, decision makers and the general public.
- **Activities:**
  - Assessing waste to resource opportunities,
  - Environmental, economic & social assessment,
  - Design, development and testing,
  - Building the circular business model,
  - Pilot demonstrations,
  - Sharing & exploring the findings.
- H2020 project with 13 partners – **Nigrad d.d. one of the project partners**

# NIGRAD and CINDERELA Project

**Different streams of waste will be exploited in the project:**

- construction and demolition waste,
- industrial wastes,
- heavy fraction from municipal solid waste.

Their suitability for use for building materials will be demonstrated through **large scale demonstration activities** in Slovenia, Spain, and North Macedonia.

# Demonstration Activities – I.

- **Production of SRM construction products for building and civil engineering applications**
  - The demo of the Nigrad model is piloted in a degraded area in the Municipality of Maribor (Dogoše).
  - Input materials: CDW (concrete, crushed asphalt, mixed construction material, excavated soil).
  - Some input materials are already in place at the demo site.



Source: Nigrad (2020).



Source: Fibo Intercon (2019).

# Demonstration Activities – II.

- **Geotechnical works with the use of SRM-based materials to revitalize a degraded area**
  - Revitalization of degraded area in Dogošë (Maribor, Slovenia).
  - Site surveying and sampling, analysis of existing materials (natural soils, anthropogenic soil, including dumped materials), excavation and separation of the waste materials, construction and revitalization of the site.



Source: Nigrad (2018).



Source: Nigrad (2020).

# Demonstration Activities – III.

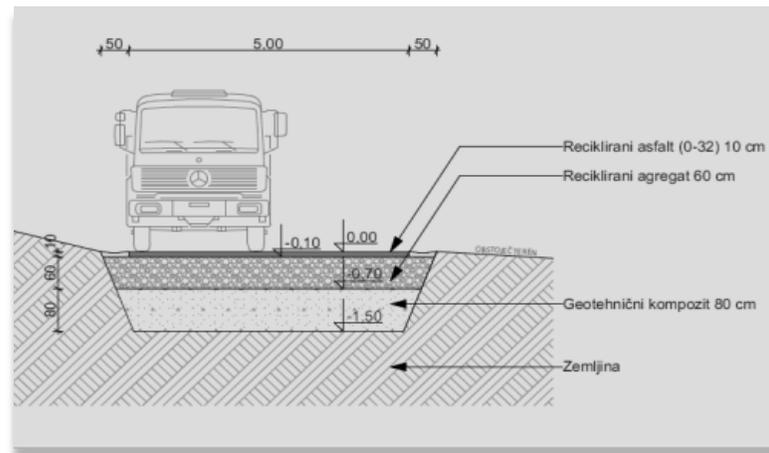
- **Construction of a building with SRM-based materials**
  - Construction of a small demonstration building in Dogošë (Maribor, Slovenia).
  - The floor and the walls will be made of green concrete with the use of recycled aggregates.
  - The foundation floor will be prepared and fortified with the use of recycled soil; thermal insulation under the foundation will be made out of recycled brick or glass.



Source: Bexel (2020).

# Demonstration Activities – IV.

- **Construction of a road with SRM-based materials**
  - Road construction will take place after completed phase of revitalization of degraded areas.
  - 400 m long road section in Dogošë (Maribor, Slovenia).
  - Access road made of crushed concrete aggregates, top layer of recycled asphalt.



Source: Nigrad (2019).

# Thank you.

*Nuša Lazar, M.Sc.*

*(Nigrad d.d. / Dekorina d.o.o.)*

[nusa.lazar@nigrad.si](mailto:nusa.lazar@nigrad.si)

<https://www.nigrad.si/o-nas/evropski-projekti>

<https://www.cinderela.eu/>