

## Special project (publication and website)

## Construction and circular economy

## An overview from the DDR (demolition, decontamination and recycling) perspective

- 1. Institutional presentation
- 2. Introduction to circular economy
  - 2.1. What is the difference between linear and circular economy?
  - 2.2. A new concept or a new name?
  - 2.3. Recycling or circular economy?
- 3. The institutional framework for circular economy
  - 3.1. EU circular economy package 2015 and results
  - 3.2. The EU Green Deal and circular economy action plan 2020
  - 3.3. UN sustainable development goals 2030
  - 3.4. What is the connection between circular economy and the UN 2030 agenda for sustainable development?
- 4. EU regulatory framework for circular economy in construction activities
  - 4.1. Waste framework directive
  - 4.2. Landfill directive
  - 4.3. Waste management hierarchy
  - 4.4. Environmental footprint (water, CO2, transport, energy, ...) of the construction activities
  - 4.5. Lifetime of construction products
  - 4.6. The issue of hazardous substances in construction
- 5. Construction and circular economy
  - 5.1. Construction activities or sector?
  - 5.2. How important are the construction activities for circular economy?
  - 5.3. Why circular economy was almost stopped in the XX century for the construction activities?
  - 5.4. What are the challenges and opportunities for circular economy in the construction activities?
  - 5.5. Other aspects (economic, social and environmental) related with circular economy and construction



- 6. EU tools for circular economy in construction
  - 6.1. Construction and demolition waste management protocol
  - 6.2. Guidelines for the waste audits before demolition and renovation works of buildings
  - 6.3. Principles for building design
  - 6.4. Building sustainability performance, Level(s)
- 7. Demolition and circular economy: enabling change and development
  - 7.1. A transformation process: recovering space and materials
  - 7.2. Types of demolition: partial and complete
  - 7.3. Is demolition always selective?
  - 7.4. Why is so difficult to reuse construction products and when to stop the select process?
  - 7.5. The key elements of the demolition project: technical, environmental, health and safety
  - 7.6. Basic steps of the demolition project
  - 7.7. How to control the waste flows and prevent bad practices with demolition or waste management?
- 8. Decontamination and circular economy: the issue of hazardous substances in construction
  - 8.1. Asbestos, just the beginning
  - 8.2. Silica dust
  - 8.3. Other carcinogens in construction activities
  - 8.4. Heavy metals in construction
  - 8.5. Persistent organic pollutants (POPs) in construction: PCB, HBCD, ...
  - 8.6. Radioactive waste in construction and demolition
  - 8.7. Basic steps of the decontamination project
- 9. Recycling and circular economy: the opportunity for a new life
  - 9.1. How different is the waste produced in construction, renovation and demolition?
  - 9.2. Who should organize, and when, the recycling operations?
  - 9.3. Is the any problem with downcycling?
  - 9.4. What is the difference between a sorting and a recycling operation?
  - 9.5. Advantages and disadvantages of on-site and off-site recycling
  - 9.6. When does waste become again a material or product?
  - 9.7. What is needed to increase the recycling rates?
- 10. Projects related with circular economy and construction
  - 10.1. Research, demonstration, training, or dissemination
  - 10.2. List of projects: page with name, goals, timeline, deliverables and contact information.
- 11. Construction products
  - 11.1. Materials, products or systems?
  - 11.2. List of products: page with name, application of the circular economy, demonstration project or research initiative



- 12. The view of the construction stakeholders
  - 12.1. Construction 2050 Alliance
  - 12.2. One dedicated page for each European organization: FIEC, EBC, CPE, CECE,...
- 13. Working groups and networks
  - 13.1. European and international working groups
    - 13.1.1. One dedicated page for each working group: name, participants, scope of work, deliverables and contact information
  - 13.2. National working groups
    - 13.2.1. One dedicated page for each working group: name, participants, scope of work, deliverables and contact information
- 14. Platforms and special websites
  - 14.1. European Circular Economy Stakeholder Platform
  - 14.2. One dedicated page for each platform (DRIDS, iVestigo, ...): name, background, goals or services and contact information
- 15. Circular economy and construction in Europe
  - 15.1. Two dedicated pages for each country: government initiatives, industry groups, specific regulations, actions of the DDR association,...