



**Keywords:**

#standardisation, #circulareconomy,  
#criticalrawmaterials, #ashes, #Industry,  
#urban, #symbiosis, #environment,  
#sequestration

# Influencing the Existing Standardisation Landscape through CEN Workshop Agreements.

## Background

Ashes from the incineration of municipal solid waste, biomass and sewage sludge are currently underutilised and a part of them ends up in landfills. With them, a significant number of metals, nutrients, rare earth elements and industrially valuable minerals contained in the ashes are lost as well. Moreover, landfilling of ash costs at least 100-500 euros per tonne, and the costs are only expected to increase in the future. In the transition to a climate-neutral economy, the social dimension of industrial transformation must not be forgotten, as energy industry and construction sector are an essential part of the EU's economic and industrial structure.

## The Challenges

The European Commission has recognised the necessity to recover Critical Raw Materials not only from virgin materials, but as much as possible also from secondary sources. Secondary Raw Materials can be sources used instead of primary raw materials. SRMs can also be a source for CRMs, which are of high economic importance due to the eventual scarcity on the EU market or supply disruption. The EU thus wishes to promote the recycling of these materials, especially the recovery of CRMs, as part of the move toward a circular economy.

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## The project

**AshCycle** is a Research and Innovation Action funded by the European Union's Horizon Europe under grant agreement N°101058162. The AshCycle project provides tools for reducing the waste generation from the incineration of municipal solid waste (MSW), biomass, sewage sludge, or combinations of them by developing new utilization possibilities. The project deploys exemplary pilot solutions of the Industrial-Urban Symbiosis (I-US) concept by demonstrating novel recovery methods for valuable elements from the ashes. Furthermore, the aluminosilicate-rich minerals recovered from the ashes are piloted as a feedstock for companies across value chains to obtain products for construction and wastewater treatment leading to increased resource efficiency and circularity.



ASHCYCLE REPRESENTATIVE

**Vilma  
Ducman**

Slovenian National Building and Civil Engineering Institute

*"After the HSbooster.eu service, we have decided to participate in the CWA "Guidelines on Action Research for Large Scale Piloting" as it aligned with AshCycle's objectives."*

## The Project Standardisation Needs

AshCycle applied to HSbooster.eu to effectively influence changes to existing standards. As the European Union is strongly committing to the strengthening of the circular economy principles and business models, standardisation efforts have to be supportive, promote and facilitate the market uptake of circular sustainable solutions. The project asked for additional information useful to extending the current standards and developing new ones, as well as insights on how to influence processes and outcomes of standardisation processes.

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## The HSbooster.eu Expert

**Dejana Milinkovic**, the expert assigned by HSbooster.eu, played a pivotal role in supporting AshCycle's standardisation endeavours. She has been Director of the Business Association of the Cement Industry of Serbia since 2010 and an active contributor in the national Technical Committees for the adoption of Serbian standards (as a Chairman of the TC for Cement and building lime - corresponding to CEN/TC 51) and a member of the TC for concrete - corresponding to CEN/TC 104). She has been involved in the work of CEN/TC 343, and since 2012, she has chaired the Assembly of the Institute for Standardisation of Serbia, until the end of 2021.

## The HSbooster.eu Consultancy service

The assigned HSbooster.eu expert recognised the value of AshCycle's methodology and exploitation objectives. She provided valuable insights and guidance to the project team, facilitating their engagement with relevant standardisation activities and committees. AshCycle focused on reducing waste from incineration and developing innovative uses for ashes, which required guidance on extending current standards and potentially creating new ones. The consultancy service aimed to provide additional information crucial for the evolution of existing standards and offer insights on influencing standardization processes and outcomes.

This aligns with the project's goal to develop a roadmap for testing and positioning innovative solutions in the market, emphasizing adherence to CEN standards.

The expert suggested relevant committees to propose and contact for the extension of existing European standards or the development of Technical Specifications, notably CEN/TC 104 - Concrete and related products, CEN/TC 51 - Cement and building limes, an CEN/TC 227 - Road materials. The expert also recommended to assess the development of CEN Workshop Agreements and to familiarise with the document: CEN-CENELEC Guide 29 "CEN/ CENELEC Workshop Agreements—A rapid way to standardization.

The expert has also encouraged the project partners to get familiar with the HSbooster.eu resources, including the training academy - advanced level modules.



THE HSBOOSTER.EU EXPERT

**Dejana  
Milinkovic**

Director at The Association of the Cement Industry of Serbia

"Quote."

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## Benefits & Impact

The support provided by Dejana and HSbooster.eu has brought benefits for AshCycle. The project gained a deeper understanding of standardisation practices and opportunities in the field of circularity in the construction industry. By engaging with the consultancy service, the project gained access to valuable information on influencing standardisation processes, ensuring that its innovative solutions align with existing standards and garner broader acceptance. This not only facilitates the market positioning of the developed products but also supports the goal of decreasing waste generation and CO2 emissions. The potential extension of existing European standards and participation in relevant Technical Committees has enhanced the sustainability performance of AshCycle's technologies. Through the HSbooster.eu service, AshCycle stands to make a significant impact on standardisation, contributing to the creation of new circular value chains in the EU.

## Useful material

- [Literature review of material recovery technologies](#)
- [AshCycle - Presentation](#)

## Future Plans

Based on the insights and recommendations provided by Dejana, AshCycle has a clear strategy for the future. The project is poised to contact relevant national mirror committees to propose and support the development of CEN/CENELEC Workshop Agreements (CWAs), following the rapid standardisation approach outlined in CEN-CENELEC Guide 29. Additionally, AshCycle plans to explore advanced-level training through HSbooster.eu Training Academy, particularly focusing on unlocking new value in urban waste.

The project is considering to assess and potentially support membership in CEN/TC 350/SC 1 - Circular Economy in the Construction Sector. This shows a commitment to aligning its innovations with circular economy principles.

The forthcoming actions, such as preparing CEN/CENELEC Workshop proposal forms and contacting relevant national mirror committees will be important milestones in the AshCycle's pathway towards standardisation, sustainability, and the circular economy.