Sustainable Buildings and Construction Summit 2026:

Lausanne, Switzerland | 20-22 April 2026

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Chemicals and Construction through the lens of Circularity

Side event

20 April 2026 | 17:15-18:15 (CET)

Concept Note

Background

The global transition toward sustainable buildings and construction is increasingly anchored in circular economy principles, including material efficiency, reuse, recycling, and lifecycle approaches. However, the role of chemicals within construction materials remains insufficiently addressed within this transition.

The buildings and construction sector is one of the largest material consumers globally, processing significant volumes of materials and chemicals across its value chain. Chemicals are embedded in construction materials and products and play critical functional roles (e.g. durability, fire resistance, binding, insulation). At the same time, hazardous chemicals can present risks to human health and the environment and can limit the safe reuse, recycling, and recovery of materials.

In practice, chemicals sometime act as a hidden barrier to circularity, for example:

- unknown material composition limiting reuse,
- hazardous additives preventing recycling,
- adhesives and composites preventing disassembly,
- legacy substances contaminating secondary material streams.

At the same time, construction systems must meet strict performance and safety requirements, including fire safety, hygiene, and durability, which can create trade-offs between functional performance and chemical risk reduction.

In this context, the Global Environment Facility (GEF-8) Integrated Programme on *"Eliminating Hazardous Chemicals from Supply Chains"* is supporting countries, including Costa Rica, Ecuador and Cambodia, in addressing hazardous chemicals in construction supply chains and promoting safer, more circular approaches.

This session aims to bring together stakeholders from across the construction and circularity communities to explore how chemicals influence circularity outcomes and to identify pathways for safer and more circular construction systems.

Session Focus

This session will explore the intersection between chemicals management and circularity in construction, with a focus on:

- How chemicals affect reuse, recycling, and material recovery
- Where chemicals act as barriers to circular construction
- Trade-offs between performance requirements (e.g. fire safety, hygiene) and chemical risk reduction
- Opportunities to enable safe circularity through better material design, data, and standards
- Country experiences in eliminating hazardous chemicals from construction supply chains

Run of Show - 20 April 2026, 17:15-18:15 (CET)

Item	Time	Speaker / Organization	Description
Welcome and Framing	15 mins	UNEP	This segment will introduce the role of chemicals in shaping sustainable construction outcomes, highlighting their importance for circularity, climate performance, and material efficiency. It will situate the discussion within ongoing global efforts under the GEF-8 Supply Chains Integrated Programme and the Global Framework on Chemicals (GFC).
Country Perspectives	15 mins	Costa Rica; Cambodia; Morocco	Representatives from participating countries will share practical insights on efforts to address hazardous chemicals in construction supply chains. Contributions will highlight national priorities, implementation challenges, and opportunities to align chemicals management with circular economy and sustainable construction strategies.
Guided Discussion: Chemicals as a Circularity Enabler	25 mins	UNIDO (moderator) Contributors from the audience	This moderated exchange will explore how chemicals influence the ability to reuse, recycle, and recover construction materials. Contributions will examine where hazardous substances limit circularity, how stakeholders are addressing risks of regrettable substitution, and where improved chemical transparency and safer alternatives could unlock more circular and low-carbon construction pathways.
Closing and Link to Session 2	5 mins	All Participants	The session will conclude with a synthesis of key insights and a forward-looking reflection on the need for coordinated action. Participants will be invited to engage in the follow-up session focused on advancing a global Construction Sector Implementation Programme under the GFC.

Expected Outputs

The session aims to deliver:

- Increased awareness of the role of chemicals in enabling or constraining circular construction
- Identification of key barriers to safe circularity in construction materials and systems
- Initial inputs on priority issues and materials
- Strengthened linkages between circular economy and chemicals management communities