

## SAICM/UCT Chemicals in Products (CiP) Community of Practice Discussion Forum

<b>Title</b>	<b>Chemicals of concern in building materials</b>
<b>Date</b>	<b>15<sup>th</sup> April 2021</b>
<b>Time</b>	<b>14:00 – 15:30 (GMT+2)</b>
<b>Facilitator</b>	<b>Andrea Rother, University of Cape Town</b>
<b>Presenter</b>	<b>Amélie Ritscher, UNEP consultant Oleg Ditkovskiy, ISC3 Stewart Muir, Bioregional</b>
<b>Chair</b>	<b>Maxine Brassell, MPH Student, Univ. of Cape Town</b>

### NOTE:

- ✓ Since this is a discussion, we encourage you to **prepare** or at least think about the questions prior to joining.
- ✓ **This guide** lays out the background to the questions, presents the questions and provides resources if you should wish to read further on the issue.



- **Details for joining this discussion are below.** To participate in this discussion you will need to have signed up in advance at: [www.saicmknowledge.org/community](http://www.saicmknowledge.org/community)
- For **technical assistance** on the day of the discussion go to the CiP CoP WhatsApp group: <https://chat.whatsapp.com/DVwGix7x04d1Q9b5usaJcr>
- **Connect** with laptops/PCs rather than phones since the discussion is about typing.
- Should you **NOT be able to join the discussion** but still wish to contribute please **click the link below** and fill out the Form with your **contributions**:  
<https://forms.office.com/Pages/ResponsePage.aspx?id=NUNFkk5Wz0ywsCREW4wD994BtnDKhuxCk5AYimAs5NhUOUhYRk8ySzAzUjA0MVRWsk1MR043UTBWOSQIQCNO PWcu>

### PRESENTER BIOSKETCH



#### **Amélie Ritscher**

An environmental chemist by training, Amélie is currently working as analyst on chemicals of concern in products for UNEP's Chemicals and Health Branch. She is supporting the work on a GEF funded project which aims at increasing the ambition of different stakeholders to track and control chemicals in the supply chains of the building, electronics, and toy sectors. Amélie has multiple years of experience in environmental policymaking and consulting.



**Oleg Ditkovskiy**

Oleg Ditkovskiy is a project manager at the International Sustainable Chemistry Collaborative Centre (ISC3). He has a background in political sciences with the focus on chemical policy. He has years of working experience on projects at BASF, ECCC and GIZ on chemicals management, building materials, pesticides, and international conventions. His ongoing project at ISC3 is devoted to sustainable chemistry and renewable energies and PtX-technologies.



**Stewart Muir**

Stewart is a Project Manager for Bioregional, leading work related to improving the sustainability of consumer products, appliances and building materials, Recent projects include work with UNEP on their Eco-innovation supplement for building materials, and the home improvement retail chain Kingfisher.

Prior to joining Bioregional, Stewart worked for 10 years at the Energy Saving Trust, including as part of the 'Efficiency for Access' Coalition, to support the market for super-efficient appliances to be used in off-grid settings in Africa and Asia, aiming to improve energy access under SDG7. Stewart holds a BSc in Combined Science and an MSc in Environmental Science from Lancaster University and is based in London.

## DISCUSSION INTRODUCTION – Amélie Ritscher, UNEP consultant

### Introducing the topic

- Building and construction is one of the largest end-markets for the chemical industry
- Building and construction products are a very diverse group that include building materials, such as concrete, plastic, or wood, but also many other products, such as paints, adhesives, sealants, or construction elements made of composite materials.
- Many of these products are very chemical-intensive and some of them can contain chemicals that can have a harmful impact on human health or the environment along the products life cycle. One example for this are polychlorinated biphenyls (PCBs), which have long been used in a variety of products, including sealants, paints, adhesives, plasters, or floor finishes. PCBs are now listed as persistent organic pollutants (POPs) under the Stockholm Convention and have been eliminated from production and use.
- In light of the importance of sound management of chemicals and wastes for the 2030 Agenda and the expected growth of the building and construction sector following the rapidly increasing urbanization, advancing on the issue of chemicals of concern in the building and construction sector provides significant opportunities to increase the sector's sustainability and circularity.

### Resources:

Please provide any useful resources for participants to use in this section.

- Global Chemicals Outlook Tool II  
<https://www.unep.org/resources/report/global-chemicals-outlook-ii-legacies-innovative-solutions>

### QUESTION 1 – Amélie Ritscher, UNEP consultant (14:05 GMT+2)

#### Background:

- Chemicals of concern can have harmful impacts on human health or the environment at different stages of a products and a building's life cycle and pose barriers to circularity of materials.
- In order to avoid chemical legacies in buildings and to increase potential for circularity in the building and construction sector, it is important to address chemicals of concern in building products already at the early stages of a product and a building's life cycle
- During project design and planning phases, decisions on material and product selection should include considerations of potential chemical impacts along a building's life cycle.
- In some countries, there are platforms and information sources where designers, architects or construction companies can find information on chemical contents, material safety and potential alternatives to support product and material choices.

#### Question 1:

- In your country or region, are aspects on chemicals of concern or material composition considered during the design phase of buildings, e.g. by architects during planning and/or the design phase of building products?
- In your country or region, how can actors from the building and construction sector (designers, architects, construction companies, construction & demolition waste handlers) find information on chemicals of concern in building products?
- If chemicals of concern are not considered in the planning phase, what is hindering this process?

#### Resources/Information for the Discussion:

- Global Chemicals Outlook Tool II (link to full report and policy makers brief)  
<https://www.unep.org/resources/report/global-chemicals-outlook-ii-legacies-innovative-solutions>
- Basta Online  
<https://www.bastaonline.se/?lang=en>
- ChemSec SIN List  
<https://sinlist.chemsec.org/what-is-the-sin-list/>

### QUESTION 2 – Oleg Ditkovskiy, ISC3 (14:30 GMT+2)

#### Background:

- Focus on plastics as building materials and sustainability of materials
- Plastics play an enormous role in the yearly growing building sector worldwide. Polymers are used as insulation materials, in piping, windows frames, walls, flooring, and sewage, as parts of adhesives and sealants, in dyes, cement etc. Besides their

useful properties there are harmful or still unknown side effects like microplastic in the food chain, toxic emissions from additives, cocktail-effects etc.

- Plastic materials are ambiguous – as insulation materials they can help save amounts of energy on the one side but they need also amounts of energy to be produced, transported and disposed or recycled.
- Waste is one of the biggest problems with plastic materials in the construction sector. Materials are mostly not designed to be separated. If a material consists of different plastics or of plastic and mineral parts it is mostly very difficult or not possible to recycle. The quality of recycled polymers is not on a very high level (mostly downcycling).
- Plastics often contain specific additives like flame retardants that are toxic during the use-phase and hinder the recycling after the end-of-use. Plastic waste is often used as substitution or addition to minerals and local natural materials. The use of waste without well-planned design brings a lot of health and environmental problems (additives, separation, recycling).

#### **Question 2:**

- What are effective ways to ensure there are no CoC in building plastics material?
- What kind of building materials are commonly used in your country and how are they controlled?
- Does plastic waste play any role in your country or region?
  - What happens to waste materials after the building life-cycle?
  - Are there practices for separation of plastic waste?
  - Is it used as building materials?
  - Can it be recycled?
  - Is there a market for plastic waste?
  - Can it be used in other areas?

#### **Resources/Information for the Discussion:**

- Report on Sustainable Building and Living, Focus on Plastics – ISC3 report  
<https://www.isc3.org/en/activities/collaboration/foresight-workstreams.html>
- Draft updated technical guidelines on the identification and environmentally sound management of plastic wastes and for their disposal  
[http://www.basel.int/TheConvention/OpenendedWorkingGroup\(OEWG\)/Meetings/OEWG12/Overview/tabid/8264/ctl/Download/mid/23551/Default.aspx?id=20&ObjID=23541](http://www.basel.int/TheConvention/OpenendedWorkingGroup(OEWG)/Meetings/OEWG12/Overview/tabid/8264/ctl/Download/mid/23551/Default.aspx?id=20&ObjID=23541)

### **QUESTION 3 – Stewart Muir, Bioregional (15:00 GMT+2)**

#### **Background:**

- Short overview of what eco-innovation is and how it is now applied in buildings sector
- Importance of looking at the entire life cycle and value chain of building products to identify the most effective entry points to address CoC

- A few examples of different business models that companies can apply to address CoC
- Link to circularity, especially upstream thinking (ensuring CoC are 'designed out' when conceptualizing building products ensuring they won't cause problems later on)
- How can smaller companies, who may lack resources and financial resources innovate to improve sustainability? What advantages do they have from being a smaller company?

**Question 3:**

- Please share innovations in buildings material or in business models in the buildings sector, that is helping phasing out CoC (and supports circularity), from your countries and institutions.
- Have there been any related challenge in their implementation?

**Resources/Information for the Discussion:**

- Bioregional Eco-Innovation manual  
<http://unep.ecoinnovation.org/>
- Bioregional Eco-Innovation manual: Supplement on building materials draft
  - This is the current draft of the manual. If you would like to provide comments on this draft, please send an email to the following address:  
[stewart.muir@bioregional.com](mailto:stewart.muir@bioregional.com)

**Instructions for joining this discussion on the set date:**

This discussion will be held in **Cisco WebEx**.

- Please register for this discussion by clicking on the following link:  
<https://unep.webex.com/unep/j.php%3FRGID=rc7d51c18cde66afc4718891c2baccda1>
  - Once you have clicked on the link, you will be asked to provide some details for registration purposes.
  - Fill out your details and click "Register".
- You will receive an email in the inbox of the email address you provided during registration with a calendar invite and a link to this discussion with the meeting ID and passcode.
- On the day of the discussion, click on the link in this email or on the button that says "Join now".
- You will be redirected to the discussion.

If you have not received any communications for this discussion, make sure you are signed up for the Chemicals in Products Community of Practice or send an email to: [uctcops@outlook.com](mailto:uctcops@outlook.com)

**Format of how the discussion will operate:**

- To participate in this discussion, sign up at: [www.saicmknowledge.org/community](http://www.saicmknowledge.org/community)
- Should you require assistance or have questions, contact: [uctcops@outlook.com](mailto:uctcops@outlook.com)
- ✓ This live discussion will be run in Cisco WebEx in the chat section on the set day. Members will introduce themselves upon arrival into the chat room.
- ✓ The discussion presenter will briefly present a verbal introduction.
- ✓ Three questions will be posted during the 1 ½ hour discussion for 25 minutes discussion each. The presenter/s will address comments in the chat section of WebEx and all are encouraged to engage.
- ✓ All are welcome to join the discussion which will be held in English. Feel free to write in another language if you are struggling with English and members will assist in translating where possible.

This activity is supported by the Global Environment Facility (GEF) project ID: 9771 on *Global Best Practices on Emerging Chemical Policy Issues of Concern under the Strategic Approach to International Chemicals Management (SAICM)*.