

# SUSTAINABLE CHEMISTRY

## 2015: the way forward

24. + 25. September 2015 | Berlin



Bundesministerium  
für Umwelt, Naturschutz,  
Bau und Reaktorsicherheit

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## OUTLINE

This international conference aims to support Sustainable Chemistry and its role as a key element of the future development of societies.

Numerous applications of Sustainable Chemistry have already demonstrated that new approaches can be developed to protect human health and the environment while at the same time generating economic benefits.

However, in an increasingly globalised economy, it is insufficient to develop Sustainable Chemistry only on regional or national levels. Most of the impacts on human health and the environment occur at a global scale – and often require mitigation approaches on global level. Current use patterns of materials and energy are unsustainable and rapidly depleting our planet's available resources. The increasing consumption of goods is leading to more waste and pollution, overstraining the world's ecosystem.

- These issues will be discussed in a high-level panel in conjunction with the 2020 goals of the Strategic Approach to the International Chemicals Management.
- Also, a concept for Sustainable Chemistry will be presented and discussed with international experts and decision makers in order to exchange views on opportunities, barriers and needs.
- Discussions will be stirred by panel discussions and elaborated in break-out groups addressing emerging topics in sustainable chemicals management and production, illustrated by best-of examples.

The conference is jointly organised by the German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB) and the German Federal Environment Agency (UBA) in cooperation with the Green Chemistry Commerce Council (GC3) and the Deutsche Bundesstiftung Umwelt (DBU). Mediapartner is Chemical Watch.

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## PRESIDENCY

**Maria Krautzberger** President of the German Federal Environment Agency

## OPENING KEYNOTE

**Jochen Flasbarth** Secretary of State; German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety

## POLICY SESSION

**Barbara Cunningham** Deputy Office Director in EPA's Office of Pollution Prevention and Toxics (OPPT), US Environment Protection Agency (EPA)

**Kęstutis Sadauskas** Director of Green Economy Directorate in DG Environment; EU Commission

**Alexander Nies** Deputy Director-General, Chemical Safety, Environment and Health, German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB)

**Hubert Mandery** Director General of the European Chemical Industry Council (CEFIC)

**Kerstin Stendahl** United Nations Deputy Executive Secretary for the Basel, Rotterdam and Stockholm Conventions (UN BRS)

**Anne-Sofie Andersson** Director of the International Chemical Secretariat (ChemSec)

## CHIEF MODERATOR

**Paul Hohen** Sustainability Strategies

## SESSION MODERATORS

**Heinz Leuenberger** United Nations Industrial Development Organization (UNIDO)

**Joel Tickner** Green Chemistry Commerce Council (GC3) / UMass Lowell

**Jutta Emig** German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB)

**Klaus Kümmerer** Leuphana University

**Jutta Klasen** German Federal Environment Agency (UBA)

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## BREAK-OUT GROUP MODERATORS

<b>Avtar Matharu</b>	University of York
<b>Vassilios Karaveyris</b>	German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB)
<b>Reinhard Joas</b>	BiPRO GmbH
<b>Tess Fennelly</b>	T Fennelly & Associates
<b>Dirk Bunke</b>	Öko-Institut e.V. / Freiburg University of Education

## ORGANIZING COMMITTEE

<b>Joel Tickner (chair)</b>	Green Chemistry Commerce Council (GC3) / UMass Lowell
<b>Hans-Christian Stolzenberg</b>	German Federal Environment Agency
<b>Klaus Kümmerer</b>	Leuphana University
<b>Vassilios Karaveyris</b>	German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety
<b>Reinhard Joas</b>	BiPRO GmbH
<b>Paul Hohnen</b>	Sustainability Strategies
<b>Maximilian Hempel</b>	Deutsche Bundesstiftung Umwelt
<b>John Frazier</b>	Nike, Inc.
<b>Jutta Emig</b>	German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety
<b>Paul Ellis</b>	Kingfisher Group
<b>Dirk Bunke</b>	Öko-Institut e.V. / Freiburg University of Education
<b>Christopher Blum</b>	German Federal Environment Agency

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## AGENDA

### Thursday, September 24<sup>th</sup>

9:00am - 9.30am	<b>REGISTRATION &amp; COFFEE</b>
9:30am – 10.00am	<b>Welcome and Setting the Scene</b> <b>Jochen Flasbarth</b> , Secretary of State, German Environment Ministry Moderator: <b>Paul Hohnen</b> , Sustainability Strategies
10:00am – 10:45am	<b>Session 1: The business and economic case for sustainable chemistry: global trends, drivers, and barriers</b> Moderator: <b>Paul Hohnen</b> , Sustainability Strategies Panelists: <b>Alexander Keller</b> , Roland Berger Strategy Consultants GmbH <b>Alastair MacGregor</b> , TruCost
10:45am – 12.30pm	<b>Session 2: High Level Panel:</b> <b>Sustainability and Chemicals - The Policy Context</b> Moderator: <b>Paul Hohnen</b> , Sustainability Strategies Panelists: <b>Barbara Cunningham</b> , US Environment Protection Agency <b>Kęstutis Sadauskas</b> , EU Commission <b>Alexander Nies</b> , German Environment Ministry <b>Hubert Mandery</b> , CEFIC <b>Kerstin Stendahl</b> , UNEP BRS <b>Anne-Sofie Andersson</b> , ChemSec
12:30pm – 1:30pm	<b>LUNCH</b>

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1:30pm – 2:45pm

## Session 3: Growing sustainable chemistry – needs and opportunities

Moderator: **Heinz Leuenberger**, UNIDO

Panelists:

**Müfit Bahadir**, University of Braunschweig

**Dirk Bunke**, Öko-Institut / University of Freiburg & **Anke Joas**, BiPRO

**Henning Friege**, N³ Nachhaltigkeitsberatung & **Alexis Bazzanella**, DECHEMA  
for the International Sustainable Chemistry Collaborative Centre (ISC<sub>3</sub>)

**Joel Tickner**, GC3 / UMass Lowell

2:45pm – 4:15pm

## Session 4: Growing sustainable chemistry through the supply chain (part 1): challenges and solutions

Moderator: **Heinz Leuenberger**, UNIDO

Panelists:

**Tess Fennelly**, T Fennelly & Associates: **Introduction**

**Malene Teller Blume**, COOP

**Thomas Michaelis**, COVESTRO AG

4:15pm – 4:45pm

## COFFEE BREAK

4:45pm – 6.00pm

## Session 4: Growing sustainable chemistry through the supply chain (part 2): sector-specific challenges - break-out groups:

A) Per- und polyfluorinated chemicals in the textile sector

- moderated by Reinhard Joas, BiPRO
- Impulse statement by Kirsten Brodde, Greenpeace

B) Chemicals in the building sector

- moderated by Tess Fennelly, T Fennelly & Associates
- Impulse statement by Lothar Lissner, Kooperationsstelle Hamburg

C) Challenges for the electro- and electronic industry

- moderated by Dirk Bunke, Öko-Institut / University of Freiburg
- Impulse statement by Wolfgang Wanzke, Clariant

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6:00pm – 6.15pm	Reporting back from the break-out groups and status quo of SWOT
6:15pm – 6.30pm	<b>Wrap-up of day 1</b> Jutta Emig, German Environment Ministry
7:00pm – 9.00pm	<b>RECEPTION: Boat trip on river Spree</b>

## Friday, September 25<sup>th</sup>

8:45am – 09:00am	<b>WELCOME</b>
09:00am – 10:30am	<b>Session 5: Sustainable chemistry – the business case (part 1): observations from supply chains of the textile sector</b> Moderator: <b>Joel Tickner</b> , GC3 / UMass Lowell Panelists: <b>Petra Schwager</b> , UNIDO: Introduction <b>Bettina Roth</b> , VauDe <b>Peter Waeber</b> , bluesign technologies ag <b>Nadeera Wijesinghe</b> , MAS Active
10:30am – 11:00am	<b>COFFEE BREAK</b>
11:00am – 12:30am	<b>Session 5: Sustainable chemistry – the business case (part 2): Successful business examples</b> Moderator: <b>Joel Tickner</b> , GC3 / UMass Lowell Panelists: <b>Sonja Jost</b> , DexLeChem <b>Babette Pettersen</b> , Bio-Amber <b>Steffen Säcker</b> , SAFECHEM & <b>Knut Johannsen</b> , German Asphalt Paving Association <b>Andy Shafer</b> , Elevance
12:30pm – 1:30pm	<b>LUNCH</b>

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1:30pm – 3:00pm

## Session 6: Sustainability from the beginning – the pharmaceutical example

Moderator **Klaus Kümmerer**, Leuphana University

Panelists:

**Klaus Kümmerer**, Leuphana University: **Introduction**

**Wailing Chang**, Lisando

**Adolf Eisenträger**, German Environment Agency

1:30am – 3:00pm

## Side-event: Sustainable chemistry start-ups pitching session (Room Friedrichshain, 4th floor)

Network of German green chemistry scientific start-ups

3:00pm – 4:00pm

## Session 7: Linking sustainable chemistry to the 2020-goal: How to get there?

Potential contents of a roadmap towards more sustainability in chemistry will be discussed in 3 break-out groups focusing on:

- **investment** – moderated by Sebastian Lange, Ernst & Young Advisory Berlin
- **education** – moderated by Avtar Matharu, University of York / G2C2 Green Chemistry Network
- **policy** – moderated by Vassilios Karaveyris, German Environment Ministry

4:00pm – 4:15pm

## Reporting back from the break-out groups

4.15pm – 4:30pm

## Wrap- up of the conference: Messages to the international community

**Jutta Klasen**, German Environment Agency

**Achim Halpaap**, United Nations Environmental Program

4.30pm

## END OF CONFERENCE

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## Sustainable Chemistry Conference Start-ups Pitching Session

Meet "Chemiewende" Start-ups in Berlin

09/25/2015, 1:30 pm

dbb forum berlin GmbH

Friedrichstraße 169/170  
10117 Berlin, Germany

"GERMANY IS ONE OF THE FOUR BIGGEST CHEMISTRY NATIONS IN THE WORLD".

The "Chemiewende" (German for Chemistry Transition) describes the shift of the chemical industry based on finite fossil fuels to renewable feedstocks. The transition is underway. In 2011, 14 percent of all resources for chemical production were already bio-based.

But this is just one example. Groundbreaking scientific research in combination with technological progress discloses new dimensions of knowledge. Disruptive innovations can be created by applying these new findings on areas neglected in the past.

New kinds of computational chemistry e.g. broaden the applicability of water as solvent significantly and enhance the efficiency of reactions just as they improve product separations

extensively. More and more high-tech applications are developed in which expensive and harmful chemicals are reduced, re-used, and recycled leading to lower manufacturing costs.

With growing recognition of this huge innovation potential for industry, Germany has begun to create an enabling environment for spin-offs from research institutes. These start-ups offer models of change demonstrating untapped green business opportunities to sectors still based on fossil fuels and other older technologies.

At this unique side-event of the "Sustainable Chemistry Conference: the way forward" 10 selected "Chemiewende" start-ups will pitch their business models. The session will explore opportunities to be derived from this historic chemistry transition as an unprecedented driver for enhanced innovation, entrepreneurship, and competitiveness.

DON'T MISS YOUR CHANCE!



### WHO SHOULD ATTEND?

- Decision makers from chemical and pharmaceutical industry
- Tech-scouts
- High-tech investors
- Policy makers
- Entrepreneurs
- All who want to get inspired



### WHY SHOULD YOU ATTEND?

- Find green business opportunities
- Discover innovation potential
- See best practices from one of the most important chemical markets in the world
- Find solutions to your problems
- Meet innovators



### ABOUT THE START-UPS

- All are high-tech spin-offs from German research institutes
- They unite more than 40 years in research
- Together they received more than 30 awards
- And they have just started...

In order to receive information on future events write an email to: [chemiewende@germanstartups.org](mailto:chemiewende@germanstartups.org)



The pitching session is a side event of the international conference "Sustainable Chemistry 2015: the way forward" in Berlin jointly organized by BMUB and UBA with the support of GC3 and DBU.

<http://www.umweltbundesamt.de/en/topics/chemicals/chemicals-management/sustainable-chemistry/sustainable-chemistry-conference-2015-start>

Supported by:



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**Umwelt  
Bundesamt**

**GCB** GREEN CHEMISTRY &  
COMMERCE COUNCIL

**ChemicalWatch**  
GLOBAL RISK & REGULATION NEWS

**DBU** Q  
Deutsche  
Bundesstiftung Umwelt

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## LOCATION AND REGISTRATION

**Date:** 24/25 September 2015

**Venue:** dbb forum berlin  
Friedrichstraße 169/170  
10117 Berlin

**Registration:** please register [here](#) till 15 August 2015

Registration is free of charge

**Conference language:** English

**WLAN:** **Netzwerkadresse SSID:** dbb\_forum\_gast

**Benutzername:** chemistry

**Passwort:** a4e3e

## HOW TO FIND



Bundesministerium  
für Umwelt, Naturschutz,  
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**Umwelt**   
**Bundesamt**

**GCC** GREEN CHEMISTRY &  
COMMERCE COUNCIL

**ChemicalWatch**  
GLOBAL RISK & REGULATION NEWS

**DBU**   
Deutsche  
Bundesstiftung Umwelt

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## EVENING EVENT: BOAT TOUR

**Location:** Reederei Riedel GmbH, Berlin

**Date:** 24 September 2015

**Start:** 19:00pm Weidendammer Brücke

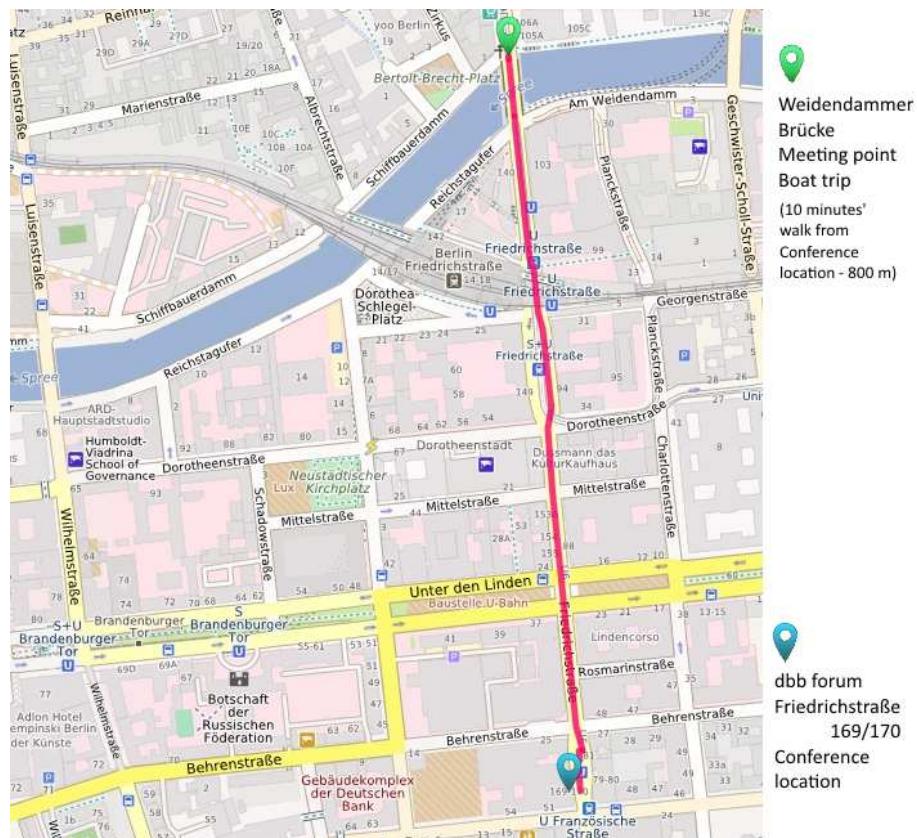
**End:** 21:00pm Weidendammer Brücke

**Registration:** please register [here](#)

Registration for this event is only possible, if you are registered for the conference.

Registration is limited to 100 persons.

## HOW TO FIND



Source: <http://www.openrouteservice.org>



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