DEAR PARTICIPANTS!

On behalf of the Volkswagen Foundation, we are pleased to welcome you to the workshop ‘Towards Circularity: Sustainable Materials and Resource-based Processes’. The purpose of the meeting is to discuss research gaps and practice transfer for a sustainable resource transformation. To this end, the round table brings together engineering and natural sciences.

The workshop is exploring ways how to close the loop for a more resource efficient and green production. The focus is on pinning down unsolved scientific problems and future research lines on materials or substances, product design, and processes. Given the high resource consumption, in particular in (post-)industrialized societies, achieving a transformation to sustainable production and material use is an utmost societal goal (SDG 12). With climate change, a shift to non-fossil based resources and energy-efficient processes are key. Further, recent crisis such as the Covid-19 pandemic and the Ukraine war have resulted in interrupted supply chains making resource efficiency, substitution, pre-, re- and up-cycling ever more important. Rather than merely recycling waste streams, a thinking from a product and lifecycle perspective and designed recyclability of goods is needed.

It is a pleasure to meet you in Hanover and to welcome you at this workshop. We like to wish you two stimulating days with exciting discussions!

Yours sincerely,

ULRIKE BISCHLER, Program Director &
ADELHEID WESSLER, Head of Team Societal Challenges

MARJANA PLAZANIC & MAREIKE RÜßMANN, Organization
PROGRAM
MONDAY, SEPT 12, 2022

5:00 P.M.  REGISTRATION
SOCIAL MIXER & COFFEE/TEA

6:00 P.M.  Welcome and Introduction
ADELHEID WESSLER, ULRIKE BISCHLER,
Volkswagen Foundation, Hanover, Germany

6:15 P.M.  LIGHTNING TALKS I (10 min. each)
Chair: Ulrike Bischler, Volkswagen Foundation

De-Manufacturing 4.0
Wim Dewulf, KU Leuven, Belgium

Global E-waste Quantification
Cornelis Peter (Kees) Baldé, UNITAR Bonn, Germany &
Board of Dutch National (W)EEE Register, Netherlands

Sustainable E-waste Recycling
Gesa Beck, SRH Berlin University of Applied Sciences,
Germany

Sustainable Chemistry und Material Resources
Klaus Kümmerer, Leuphana University Lüneburg, Germany

Chemical and Biological Plastics Upcycling
Nick Wierckx, Forschungszentrum Jülich, Germany

7:30 P.M.  DINNER
Tuesday, Sept 13, 2022

9:00 A.M. LIGHTNING TALKS II (10 min. each)
Chair: Franz Dettenwanger, Volkswagen Foundation

Natural Rubber in the Light of the Circular Bioeconomy
Christian Schulze Gronover, Fraunhofer IME, Münster, Germany

Circular Economy of Bioplastics
Sonja Herres-Pawlis, RWTH Aachen, Germany

Prospects and Bottlenecks of Plastics Recycling
Hans-Josef Endres, University of Hanover, Germany

Digital and AI enabled Circular Economy
Alexandra Pehlken, OFFIS Oldenburg, Germany

10:00 A.M. DISCUSSION/CONCLUSION OF THE INPUTS
- Where do we stand?
- Where do we want to go?

11:00 A.M. COFFEE BREAK

11:30 A.M. WORLD CAFE / GROUP WORK
- What should be the guiding objective(s) of funding?
- Please design an application template (= key questions to be answered in a proposal), also from a reviewer’s perspective.
- What would be ideal project constellations to advance the field and to achieve impact, including transfer into practice?

THREE GROUPS, TABLE HOSTS
Markus Antonietti, Max Planck Institute of Colloids and Interfaces, Postdam-Golm—Future materials base
Manuel Bickel, Wuppertal Institut für Klima, Umwelt, Energie – System perspective

Kai Sundmacher, Max Planck Institute for Dynamics of Complex Technical Systems, Magdeburg – Engineering challenges

1:00 P.M. LUNCH

2:00 P.M. Presentations
Result of the world café / group work

2:30 P.M. Structured Discussion
Chair: Adelheid Wessler, Volkswagen Foundation

- What could be a common focus and a realistic aim for funding?
- To what extent is interdisciplinarity purposeful?
- What are good measures to stimulate practice transfer?
- How to measure success of funding?
- What else should the Foundation consider when designing a framework?

4:00 P.M. FAREWELL COFFEE/TEA

DEPARTURE
OPTIONAL WALK IN THE GARDEN
### List of Participants

<table>
<thead>
<tr>
<th>Name</th>
<th>First Name</th>
<th>Institution</th>
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<tbody>
<tr>
<td>Antonietti</td>
<td>Markus</td>
<td>Max-Planck-Institut für Kolloid- und Grenzflächenforschung, Potsdam-Golm</td>
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<td>Baldé</td>
<td>Cornelis Peter</td>
<td>United Nations Institute for Training and Research (UNITAR), Bonn</td>
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<td>Beck</td>
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<td>SRH Berlin University of Applied Science</td>
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<td>Bischler</td>
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<td>Endres</td>
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<td>Helbig</td>
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<td>Kümmerer</td>
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<td>Leuphana Universität Lüneburg, Institut für Nachhaltige Chemie (INSC)</td>
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<td>Pehlken</td>
<td>Alexandra</td>
<td>OFFIS e.V. - Institut für Informatik, Bereich Produktion, Oldenburg</td>
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<td>Wessler</td>
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<td>Wierckx</td>
<td>Nick</td>
<td>Forschungszentrum Jülich</td>
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CONFERENCE VENUE

Xplanatorium
HERRENHAUSEN

Herrenhausen Palace
Herrenhäuser Straße 5
30419 Hannover

Tram lines 4 (Garbsen) and 5 (Stöcken),
Stop: ‘Herrenhäuser Garten’

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