Growing Sustainable Chemistry – Needs and Opportunities

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SUSTAINABLE CHEMISTRY 2015: the way forward

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N³ Nachhaltigkeitsberatung
Dr. Friege & Partner

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Outline

- Gaps and shortcomings
- Turning needs into opportunities?
- Scope of the ISC_3 project
- Structure and organisation of the project
- How to become a part of ISC_3 ?

Gaps and shortcomings

- Lack of common definition of Sustainable Chemistry
- Broad gap between production standards in industrialized and developing countries
- Unsafe products widely used especially in Non OECD countries
- Role of chemistry and chemical industry for keeping inside the „planetary boundaries“ not defined
- Unclear opportunities for followers of Sustainable Chemistry concepts
- Sustainable Development Goals 2020 hardly to achieve – how will the SDGs influence further work?

We can turn needs into opportunities (if we are wise)

Global risks ← Global trade → Global earnings

↕ ↕ ↕

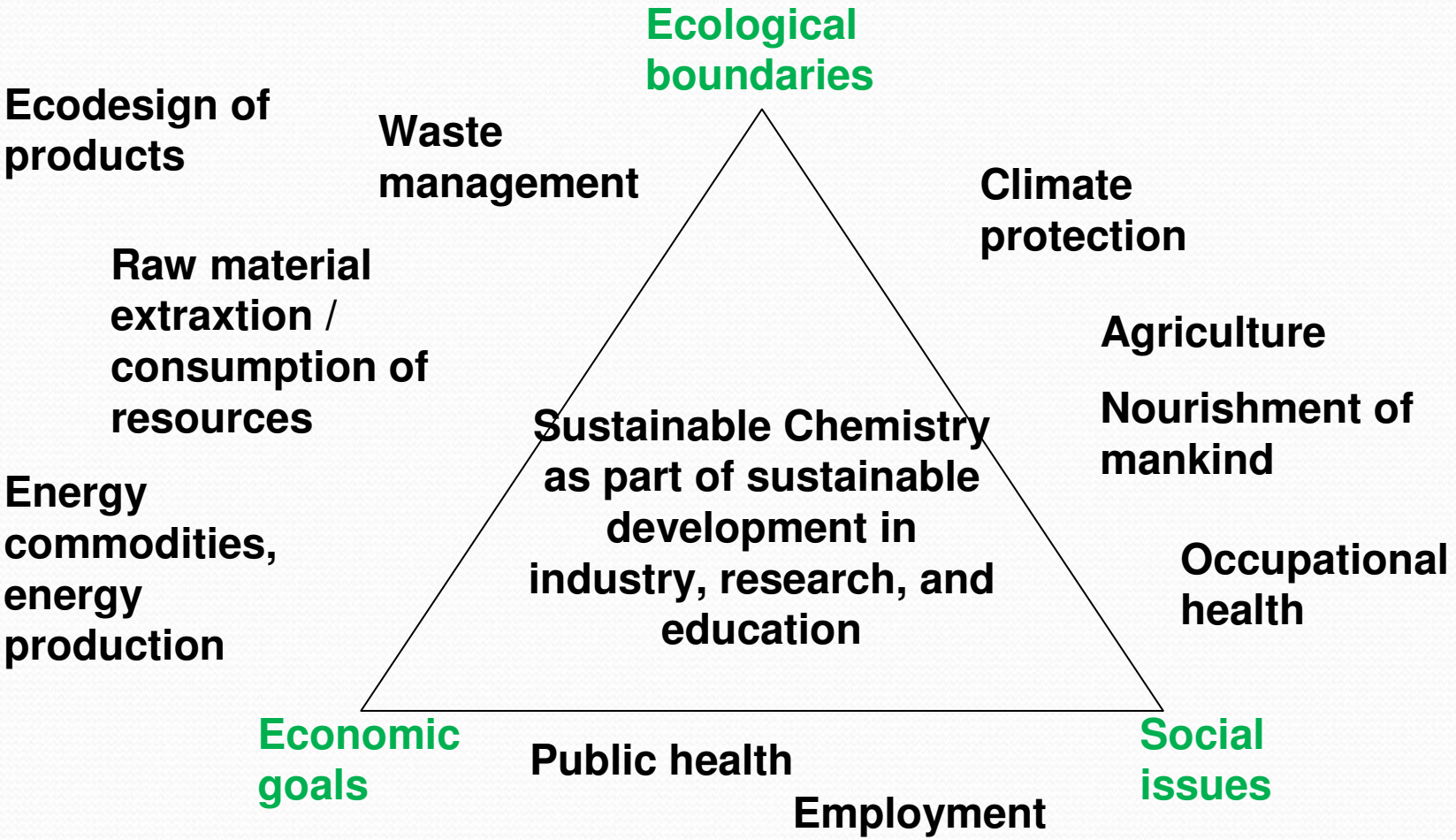
Global solutions and conventions

We can turn needs into opportunities (if we are wise)

Increasing prices of (scarce) raw materials in the long term

↕		↕
Research for renewables	↕	**Material efficiency**
	Recycling efforts	

Sustainable Chemistry is an opportunity interfacing other global issues



Scope of the ISC_3 project

- Concept of Sustainable Chemistry to be established
  - Development in science and industry
  - Consolidation of basic ideas, especially interfaces…
  - Sustainable product design
  - Sustainable material flow management
  - Teaching Sustainable Chemistry
- How to proceed international Sustainable Chemistry?
  - SAICM post 2020
- Collection, promotion, and dissemination of succesful business models – return on investment!
- Positioning Sustainable Chemistry as a tool to keep within the „planetary boundaries“

Scope of the ISC_3 project

- ISC_3 = International Sustainable Chemistry Collaborative Centre
  - Independent organisation working on a scientific basis
  - Based in Germany, open for companies, scientists, international organisations, governments, NGO‘s
  - Structure and organisational framework to be defined
  - Goal: Financed from research subsidies and project funding
- Roles of ISC_3:
  - Platform for the Sustainable Chemistry community
  - Incubator, multiplier of ideas and innovations
  - Think tank and source of inspiration
  - Knowledge base for Sustainable Chemistry

Potential units of ISC_3

1. Communication branch; dissemination of good practice examples from all fields of Sustainable Chemistry
2. Network organisation
3. Observation of the development of Sustainable Chemistry in industry, academia, and international policy
4. Research and development branch

ISC3
International Sustainable Chemistry Collaborative Centre

… under discussion!

Structure and organisation of the project

Bundesministerium
für Umwelt, Naturschutz,
Bau und Reaktorsicherheit

Dr. Jutta Emig
Dr. Vassilios Karavezyris

→

Umwelt Bundesamt

Dr. Hans-Christian Stolzenberg

Dr. Christopher Blum

(acting as ordering party)

N³ Nachhaltigkeitsberatung
Dr. Friege & Partner

Prof. Dr. Henning Friege

Peter Wolfmeyer

(acting as contractor)

DECHEMA

Dr. Andreas Förster
Dr. Alexis Bazzanella

BZL

Dr. Barbara Zeschmar-Lahl

How to become a part of ISC_3 ?

- **Drop you business card at the counter!**
- **We will send you a link when the Homepage is on line.**

English | German

ISC3
International Sustainable Chemistry Collaborative Centre

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Thank you for listening!

ISC3 – International Sustainable Chemistry Collaborative Centre

Willkommen! ISC3 sieht nach Chemie aus: Richtig! Aber ISC3 ist noch mehr. **ISC3** steht für **I**nternational **S**ustainable **C**hemistry **C**ollaborative **C**entre. Das ISC3 ist eine im Aufbau befindliche Institution – Sie können sie mit gestalten!

Die Welt steht global vor großen Herausforderungen wie Wachstum der Weltbevölkerung, Armut, Hunger und sich verschlechternde Umweltbedingungen, wachsende Migrationsströme, Klimawandel, Verknappung verfügbarer Ressourcen oder weltweite Erosion stabiler Ökosysteme. Die chemische Industrie spielt hier eine wichtige Rolle. Einerseits ist sie als Rohstoff- und Energieverbraucher ein wesentlicher Emittent und damit Problemverursacher. Andererseits ist sie mit einer Vielzahl ihrer Produkte schon heute ein wichtiger Teil der Problemlösung und kann einen wesentlichen Beitrag zum Erreichen der globalen Nachhaltigkeitsziele (Sustainable