



INSTITUTE OF
ENERGY PROCESS ENGINEERING AND
CHEMICAL ENGINEERING



TUBAF
The University of Resources.
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NK²
Netzwerk
Kohlenstoff
kreislaufwirtschaft

NETWORK FOR A CIRCULAR CARBON ECONOMY (NK2)

Carbon-containing raw materials are vital resources for the industry and underpin the wealth of numerous nations. A transition towards a circular carbon economy can enable carbon to be retained in the system rather than be emitted as climate polluting CO₂ upon combustion/incineration and/or landfilling. This however requires a change from business-as-usual and a coupling of the energy, chemical, engineering, waste management, recycling and other sectors (e.g. processing, lightweight construction and renewables).

To facilitate intersectoral dialogue and collaboration, the Network for a Circular Carbon Economy (in German: Netzwerk Kohlenstoffkreislaufwirtschaft i.e. NK2 Network) was initiated in 2019 by Fraunhofer IMWS and IEC, TU Bergakademie Freiberg. The NK2 Network provides a neutral platform for information exchange, knowledge sharing as well as intersectoral and international networking. Aim is to identify and address socio-technological-economical-ecological-political issues associated with the transition towards a circular carbon economy via workshops, experience exchanges, trainings and conferences, and to actively engage diverse stakeholders from industry, science, politics and civic society and contribute to socio-political dialogues about associated opportunities and challenges.

NK2 partners include:

- Air Liquide Forschung und Entwicklung GmbH
- BASF SE
- CAC Engineering GmbH
- Covestro Deutschland AG
- Chair of Decarbonization and Transformation of Industry, Brandenburg University of Technology Cottbus-Senftenberg (BTU Cottbus - Senftenberg)
- EDL Anlagenbau Gesellschaft mbH
- Eurofins Umwelt Ost GmbH
- Fraunhofer IKTS
- Hallesche Wasser und Stadtwirtschaft GmbH
- Hochschule Merseburg
- IBExU Institut für Sicherheitstechnik GmbH
- LyondellBasell Polyolefine GmbH
- ROMONTA GmbH
- RWE Power AG
- Subcoal International B.V.
- Synthos Schkopau GmbH
- TAF Thermische Apparate Freiberg GmbH
- ...

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Key topics and focuses for NK2:

- Materials, processes and technologies for the conversion of solid carbon resources
- Integration of "green" hydrogen and renewable power
- CO₂-neutral, gas-based processes and syntheses for chemical basis materials and synthetic fuels
- New materials, material utilization & process design
- Information technology
- Systems and sustainability for a circular economy
- Political framework and legislations



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