

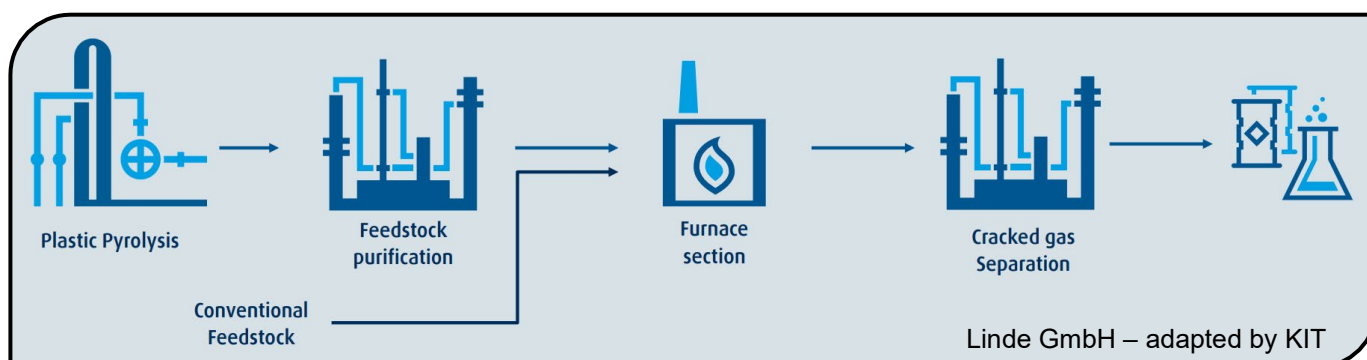
SUSCI - SUStainable feedstocks for Chemical Industry

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Partners:

- Linde GmbH (Project coordinator)
- Karlsruhe Institute of Technology (KIT) – Institute for Technical Chemistry (ITC)
- KIT – Institute of Catalysis Research and Technology (IKFT)
- KIT – Institute of Industrial Management and Industrial Production (IIP)
- Interzero Europe GmbH (Associated Partner)

In view of the necessary defossilisation of the chemical industry and the simultaneous increase in demand for feedstocks for basic processes such as steam cracking, sustainable process chains are becoming increasingly important. By investigating and optimising such process chains, the partners in the SUSCI project are taking an important step towards a circular chemical industry. A central component of this is the pyrolysis of plastic-containing waste and biogenic materials to produce sustainable pyrolysis oils. These often differ significantly from conventional, petroleum-based feedstocks in terms of chemical composition and purity. In order to continue using existing infrastructure and avoid disruptions to ongoing processes, targeted processing of these pyrolysis oils is therefore necessary.



At ITC, many years of experience in pyrolysis are being used to develop optimised feedstocks from waste fractions. The composition and purity of the pyrolysis products have a significant influence on the subsequent process steps. The aim of the work is to gain a comprehensive understanding of these influences and to adapt the pyrolysis products specifically to the requirements of the downstream processes. Through close cooperation between the project partners, the optimisation process, which has previously focused on individual steps, is to be expanded to include a holistic view of the process chain. In this way, the mutual influences of the individual processes are made transparent, scalability and technical feasibility are evaluated, and a sound basis for future investment decisions is created.

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