

Innovative Synthesis in Continuous-Flow Processes for Sustainable Chemical Production (SYNFLOW)

 consortiapedia.fastercures.org/consortia/synflow/

Research Areas



Basic Research

At a Glance

- Status: **Completed Consortium**
- Year Launched: **2013**
- Initiating Organization: **European Commission Seventh Framework Programme (FP7)**
- Initiator Type: **Government**
- Location: **Europe**

Abstract

The vision of the Innovative Synthesis in Continuous-Flow Processes for Sustainable Chemical Production (SYNFLOW) project is to shift the paradigm from batch-wise, large-volume processes comprising many separate unit operations to highly integrated and yet flexible catalytic continuous-flow processing. This will be achieved by a unique integrative approach combining molecular understanding of synthesis and catalysis with engineering science in process design and plant concepts.

Mission

The SYNFLOW approach integrates SYNthetic methodologies for catalytic molecular transformations with FLOW chemistry in continuously operated reactor systems. In order to overcome the limitations of the traditional linear work flow for the development of medium- to small-scale processes, SYNFLOW will take a conceptually new approach based on an integrative design of molecular catalysts, their synthetic application, and the reaction engineering concepts. This new paradigm will be developed and demonstrated on the basis of selected industrial case studies to provide a well-defined basis for its

generic application.

Consortium History

Sept. 1, 2010: Project started

Structure & Governance

The SYNFLOW project is organized into eight Work Packages. Chemists and engineers work together to develop continuous catalytic processes in an integrated, more efficient process design approach.

Financing

The research leading to these results has received funding from the European Commission's Seventh Framework Programme (FP7/2007-2013) under grant agreement no. 246461.

Links/Social Media Feed

Homepage

<http://www.synflow.eu/>

Twitter

[@synflow_project](https://twitter.com/synflow_project)

Points of Contact

RWTH Aachen University

Sponsors & Partners

AstraZeneca, UK

Bayer Technology Services GmbH, Germany



Britest Ltd., UK
Cambridge University, UK
CNRS, France
DECHEMA - Society for Chem. Engineering
and Biotechnology e.V., Germany
Evonik Industries, Germany
Gothenburg University, Sweden
Invite GmbH, Germany
Johnson Matthey, UK
RWTH Aachen University , Germany
Stockholm University, Sweden
Technical University of Denmark, Denmark
Università degli Studi di Napoli Federico II, Italy
Universitat Rovira i Virgili Tarragona, Spain
University of Bucharest, Romania
University of Erlangen-Nuremberg, Germany
University of Nottingham, UK
University of Rennes, France
University of St. Andrews, UK

Updated: **04/15/2016**