

MISSION STATEMENT



Process Intensification presents one of the most significant developments in chemical and process engineering of the past decennia. It attracts more and more attention of the chemical engineering community. Several international conferences, smaller symposia/workshops every year, books and a number of dedicated issues of professional journals are a clear proof of it. Process Intensification with its ambition and ability to make chemical processing plants substantially smaller, simpler, more controllable, more selective and more energy-efficient, addresses the fundamental sustainability issues in process industry and presents the core element of Green Chemical Engineering. In many research centers throughout Europe and the world numerous PI-oriented research programs are carried out. Process Intensification is taught at various courses and gradually enters the regular university curricula. In the UK and in the Netherlands national PI-networks have been operated for a number of years. Similar network is being formed in Germany (DECHEMA). Process Intensification plays an important role in the CEFIC's Technology Platform on Sustainable Chemistry. Process Intensification has now established its organizational position within the European Federation of Chemical Engineering.

Aims of the WP PI

The Working Party on Process Intensification aims at:

- Anchoring of PI-technologies in the European industry;
- Inclusion of Process Intensification in regular Chemical Engineering Curricula in universities (EFCE Recommendations);
- Education, dissemination and exchange of knowledge on Process Intensification, particularly in those countries where no or little activities in this field take place so far;
- Stimulating collaborative R&D projects, especially between those less-advanced countries and the countries leading in the field of PI;
- Supporting the production of textbooks and other publications in the field of PI;
- Collaboration with other European organizations, such as CEFIC's Technology Platform on Sustainable Chemistry (e.g. in preparation of the EU Framework Programs), IPTS (e.g. in identification of Best Available Techniques);
- Collaboration with similar initiatives in non-European organizations (e.g. AIChE, SCE Japan, CIES China, etc.).

Collaboration with other WP's of the EFCE

The Working Party on Process Intensification will closely cooperate with other Working Parties of the EFCE. Of particular importance will be the cooperation with

- WP on Chemical Reaction Engineering and WP on Multiphase Fluid Dynamics (to have research and educational co-operation in the field of intensified technologies in multiphase processes);
- Section on Environmental Protection and Sustainability and Section on Membrane Engineering (PI as a part of Green Chemical Engineering);
- WP on Loss Prevention and Safety Promotion (PI as a part of Inherently Safer Process & Plant Design);
- WP CAPE (e.g. to incorporate PI-equipment and operations into the process modeling and integration methodologies);
- WP on Education (to perform educational activities in Process Intensification).

Program activities of the WP PI

Next to its statutory meetings and according to the "Guidelines for the Working Parties" of the EFCE, the program activities of the Working Party on Process Intensification in the coming 3 years will include:

- Organizing the International Conferences on Process Intensification, every second year;
- Awarding the biennial EFCE Excellence Award for an outstanding PhD thesis in the field of Process Intensification;
- Arranging poster competition for young researchers during the ECCE conferences together with WP on Chemical Reaction Engineering and WP on Multiphase Fluid Dynamics;
- Developing an international M.Sc.-level university course and postgraduate training in the field of Process Intensification;
- Conducting a critical assessment and preparation of the report on current status of Process Intensification in industry and in academia across Europe, in order to identify the possibilities and the needs in individual countries;
- Developing and organizing an industry-oriented short introductory course in PI, including a hands-on, practical workshop. The course/workshop will be held 2 times a year in various European countries. Locations of the course will be determined on basis of the needs identified in the status report (previous bullet);
- Developing and organizing interactive workshops on PI between academia and industry in countries that have a less-developed PI community, e.g. in Nordic countries;
- Disseminating actively new technologies that are emerging in industry.