



NL Agency
Ministry of Economic Affairs

Autumn Session PINNL 2013

Funded by NL Agency; hosted by ISPT; April 10th 2013

Welcome at the 3rd Lustrum!





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2. Objective PINNL

Disseminate knowledge about Intensified Process Technologies to companies with the final aim of:

- Economical upgrading of process performance
- Reducing (revamp / grassroots) investment cost
- Reducing plant / CO₂ footprint
- Improving Energy Efficiency
- Improving feedstock to product yield
- Stimulating economically sound PI implementation



3. Presenting your PINNL Committee



Henk Akse



Melle Nieuwhof



Marten Japenga



Henk van den Berg



Jeffrey Felix



4. Value proposition for members

Process intensification is one of the most important innovation areas in the chemical process industry. Its benefits comprise improved process and chain efficiency, reduced capital and operating expenses, higher quality products, reduced waste production, improved process safety and more.

An important innovation area addressing key industry needs

PIN-NL disseminates and exchanges knowledge and fosters collaborative projects in the field of process intensification. We offer a range of services including networking events and the opportunity to run collaborative projects.

Check out your benefits and join PIN-NL. It is easy to become a member and it will pay off.

Keep Pace with Process Intensification Join PIN-NL

Our proposition

- ✓ Bi-annual networking events
- ✓ Information on recent developments and applications
- ✓ Quarterly newsletter
- ✓ Execution of collaborative projects
- ✓ Connection to institute for sustainable process technology (ISPT)
- ✓ Support of educational institutes
- ✓ Support set up and execution of business cases



4. Value proposition for members

We offer:

- ❖ **Researchers** the opportunity to meet the industry and to align their research programs with market requirements
- ❖ **Developers** a platform to meet other parties facilitating the definition of collaborative application projects
- ❖ **Technology providers** the opportunity to showcase their latest developments for an audience of potential end users
- ❖ **Equipment suppliers** the possibility to show their state of the art of process intensified equipment
- ❖ **Consultants** a broad and international scope with respect to technological opportunities on one side and business requirements on the other side
- ❖ **End users** a broad scope with respect to developments in the field of process intensification and financial and/or practical support to accelerate the implementation of PI



4. Value proposition for members

- ❖ As a PIN-NL member you are connected to a unique group comprising industry, technology providers, knowledge institutes and academia. Networking events will be organized twice a year.
- ❖ We will inform you on new technology developments via the quarterly newsletter and via presentations by experts during the Spring and Autumn Sessions.
- ❖ You will have the opportunity to join consortia aiming at the development and implementation of PI technologies via PIN-NL's connection with the Institute for Sustainable Process Technology (ISPT).
- ❖ We will provide support with respect to the definition of business cases. A confidentiality agreement will be put in place when required.



5. Program

Timing	Presentation	Speaker	Company / Institute
13.00 - 13.15	Opening; Welcome, Developments in the PINNL network	Ir. H.N. Akse	Chairman PINNL on behalf of AGNL
13.15 - 13.45	Process Intensification of Hydrogen Plants and Naphtha Crackers	Ir. K. Overwater	Vice President; Technip France
13.45 - 14.15	Intensifying CO ₂ binding	Ir. P. Knops	Innovation Concepts B.V.; The Netherlands
14.15 - 14.45	Advanced Flow Reactors for Intensifying Two-Phase Processes	Dr. E.D. Lavric	Corning S.A.S.; France
14.45 - 16.00	<i>PINNL Member Meeting</i> Charter / Value Proposition / Contribution Model including coffee, tea and refreshments		Members of PINNL
14.45 - 16.00	Parallel Program for non Members including coffee, tea and refreshments		non Members
16.00 - 16.30	Ultrasonic Intensification of Chemical processes	Dr. T. van Gerven	University of Leuven; Belgium
16.30 - 17.00	Inclined Rotating Packed Bed Reactors	Dipl.ing. H. Härting	Helmholz Zentrum Dresden; Germany
17.00	Wrap up; drinks; snacks	Ir. H.N. Akse	Chairman PINNL on behalf of AGNL