

### **Netherlands Knowledge Network on Computer-Aided Process Engineering (CAPE)**

The utilisation of energy and materials in the process industry can be enhanced by improved process engineering and efficient process control. This may involve designing completely new process routes or new separation techniques and improving process control and monitoring. This is increasingly being achieved with the help of a systems approach and its software implementations. This discipline, often referred to as 'computer-aided process engineering' (CAPE), is of great importance in all stages of a process, from the design concept through to the optimisation of existing processes. It is being applied throughout the process industry, including the chemical, polymers, oil, dairy, foodstuffs, metals and paper industries. It ties in with a range of policy initiatives in this area, such as the LTA 2 programme and the benchmark scheme currently being developed in the Netherlands.

Much of the CAPE software and methodology can be widely applied in the process industry, allowing users of different processes and working in different branches of the industry to learn from one another. It is therefore important that the knowledge, expertise and best practices being generated in company research departments and centres of expertise, but also within operational departments is exchanged and is disseminated among small and medium-sized businesses. Another focal point is to promote the application of new knowledge and software in industry. This exchange and dissemination process can be achieved through formal talks, projects, or more informal channels like a chat over lunch or coffee. It is precisely this formal and informal exchange and transfer of knowledge that the platform stimulates.

#### **Objective**

The CAPE-NL knowledge network aims to further disseminate computer-aided process engineering skills among Dutch process technologists and engineers in related disciplines and to promote industrial applications of recent innovations in this area. The network tries to achieve this by informing process engineers who use CAPE techniques and tools about new developments in this discipline.

#### **Members**

Founded in 1994, the CAPE-NL platform has about 90 members, whose jobs involve the use of CAPE technologies. Many of the network's activities and talks are organised and presented by the members themselves. The network's Secretary is Mr Folmer de Haan (see details below).

#### **CAPE-NL activities**

- Three times a year, CAPE-NL organises evening sessions, which feature presentations by representatives of the industry and centres of expertise. The evenings not only offer participants an occasion to discuss the topics of the presentations, but also provide ample opportunities to network and chat with colleagues.
- CAPE-NL sets up and maintains a CAPE information file on the internet, which includes information on subjects like knowledge networks, key organisations, ICT tools, technology, upcoming events and subsidy schemes; there is also a members-only section.
  - Various CAPE-NL members are participating in international study groups and committees, from which they provide feedback to other members. Organisations that CAPE-NL is represented in include:
    - CAPE.NET, a European CAPE network;
    - CEFIC/SUSTECH PMSC. CEFIC is the European Chemical Industry Council, whose SUSTECH programme aims to stimulate the development and application of sustainable technologies, including 'process modelling, simulation and control' (PMSC);
    - EFCE-WP Environmental Protection, a study group of the European Federation of Chemical Engineering.
- CAPE-NL organises ad hoc activities such as a series of hands-on software workshops, known as the SimuCape series, and has actively contributed to the international ESCAPE-12 conference.

### Support by SenterNovem

SenterNovem supports several knowledge networks within the framework of its environment and technology programme (Programma Milieu & Technology, ProMT) and the second Long-Term Agreements (LTA) programme. These knowledge networks are bio based business (BBB), process engineering (CAPE), sustainable product chains (DPK), heat exchangers (NLAHX), separation technology (NL-GUTS), drying processes (NWGD), process intensification (PIN-NL), and water technology (SKIW).

Further information on these networks is available at [www.senternovem.nl/knowledge\\_networks](http://www.senternovem.nl/knowledge_networks).

Various Dutch ministries are involved in the LTA and ProMT programmes.

### Further information

For further information on the CAPE-NL knowledge network, please consult the information file at [www.senternovem.nl/knowledge\\_networks/cape](http://www.senternovem.nl/knowledge_networks/cape), or contact the network Secretary or SenterNovem (for details see below).

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*SenterNovem ondersteunt vanuit de Meerjarenafspraken energie-efficiency (MIA2) en het programma Milieu & Technologie (ProMT) de kennisnetwerken.*

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