243v Impulse - Integrated Multiscale Process Units with Locally Structured Elements *Marcel A. Liauw*

Created in the framework of the SUSTECH program of CEFIC, the European Chemical Industry Council, IMPULSE is a specifically targeted program aimed at creating a totally new strategy for the design and operation of production systems for the chemical (and related) process industries. In this connection, IMPULSE responds to the desire of CEFIC and the European chemical industry to contribute to a knowledge-based manufacturing industry, capable of maintaining substantial production capacity (and highly qualified employment) in Europe.

IMPULSE builds on existing European leadership in the areas of process intensification, process design, process miniaturization and microreaction technology to develop a new approach to competitive and eco-efficient chemicals production: structured multiscale design.

In this presentation, the first results of the project that has started on February 1, 2005 will be presented. Both the general concept and specific examples will be presented.