

Lecture at ESCAPE 18, Lyon, June 2008

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Dr. Stefan Brüggemann, BASF SE, will present the joined paper "Support Of Strategic Business Decisions At BASF's Largest Integrated Production Site Based On Site-Wide Verbund Simulation" at the "18th European Symposium on Computer Aided Process Engineering", Lyon, June 1-4, 2008 (www.escape18.org). Co-Authors: BAUER N., BRÜGGEMANN S.*, FUCHS E., POLT A., WAGNER B. (all BASF SE), WULKOW M. (CiT GmbH) CiT is very glad that for the first time details of its specially developed Verbund simulator can be presented to public by this. Abstract:

The paper presents a novel large-scale sequential-modular simulation tool for expansion and refinement of Verbund sites with highly-interconnected networks of chemical production and infrastructure plants. The simulation uses a hierarchical model based on the site's cost centres, plants and unit operation modes which hold the stoichiometry and utility demand of each production step. A semi-automatical interface to the electronic procurement database of the site is used for routinely updating the model with respect to the latest changes regarding structure and recipe parameters. Based on this model the impact of modifications in a single plant, for example a capacity increase, can be analyzed by giving a quantitative prediction of all relevant consequences across the linked value chains of the site. The new simulation tool is used to support strategic business decision making with respect to new investments, capacity adjustments and production planning. In addition, the gathered and consolidated data of the Verbund models are a valuable resource for strategic and operative business units.