

377b Big Company + Small Company Are Good Company: Examples from the U.S. Department of Energy's Industrial Technologies Program

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The Dow Chemical Company has been party to several successful collaborations focused on engineering science and co-funded by the Industrial Technologies Program of the DOE Office of Energy Efficiency and Renewable Energy. These have benefitted greatly from the participation and leadership of small and medium-size vendor companies. Most of these have been hybrid consortia, involving both competitors (horizontal consortium) and suppliers (vertical consortium), and all have involved universities or national laboratories. The examples include: (a) the Multiphase Fluid Dynamics Research Consortium; (b) Development of Novel Crystallizer Design and Process Optimization Tools for Solution Crystallization; (c) Olefins by High-Intensity Oxidation in microchannel reactors; and (d) Advanced Hydraulic & Mass Transfer Models for Design & Optimization of Distillation Column Internals.