

2003 Outstanding Corporate Innovator (OCI) Winner
PDMA *Visions*, January 2004, Vol. XXVIII, No.



Kurt Swogger
The Dow Chemical Company

"Speed" philosophy helps Dow win OCI Award

by [Kurt Swogger](#), *Vice President of Research and Development Polyolefin's and Elastomers Business Group, The Dow Chemical Company*

The Dow PO&E Business Group (Dow PO&E) was selected as one of the 2003 Outstanding Corporate Innovator (OCI) award winners primarily on its ability to quickly launch a series of commercially successful products using Dow's proprietary INSITE* Technology. This article will explain the process and the philosophy that got us there. For further information on our division, see the July 2003 issue of *Visions* magazine, which looks at our NPD process from a slightly different vantage point.

Culture change

Dow selected INSITE* technology for development in 1991 because it represented an opportunity to dramatically impact the PO&E business through expanded new product development. To achieve this impact in a timely manner, however, the launch of new products had to be completed three to five times faster than the more typical seven to 15 years. In order to meet this timeline, Dow PO&E essentially developed a new culture—a culture based on the business group's unique Speed Based Development Philosophy (a.k.a. Speed).

The successful implementation of Speed, in combination with the manufacturing advantages of INSITE technology, has been credited throughout the organization for enabling the business group to launch a series of commercially successful products and to be recognized today as a growth business at Dow. These successes have also helped Dow PO&E deliver on its promise to apply its material science expertise to continually innovate a broad range of plastics for an increasingly diverse set of markets. Specific products launched by Dow over the last five years and reviewed by the PDMA during the OCI selection process include: AFFINITY* Polyolefin Plastomers (POPs) that exhibit high flow (or low viscosity) characteristics (1998); AFFINITY POPs for hot melt adhesives (1999); INSPIRE* Performance Polymers that deliver high melt strength

(2000); and DOW XLA* elastic fiber (2002), used in the apparel industry for soft stretch, comfort fit garments. In 2004 Dow expects to exceed 1 billion dollars in revenue from higher value products with growth rates greater than 20 percent based on INSITE technology and Speed.

Philosophy of Speed

Speed was created not as a work process but as a philosophy involving people doing research and development, marketing and manufacturing for new and next generation products on both new and established lines of business. Dow's emphasis on people makes its process somewhat different from others, but has proven quite successful. The philosophy has been used very successfully across the entire PO&E product portfolio and was recently adapted to support the businesses added as a result of Dow's merger transaction with the Union Carbide Corporation.

Simply put, Speed requires the *right leadership to choose the right people* who use the *right skills* to do the to do the *right execution*. To ensure proper implementation of Speed, a monitoring system must be focused on delivery of results rather than process steps. The real premise is that *people do projects*. Because of its flexibility, this philosophy is generally more widely accepted by team members over standard work processes. Dow continues to learn and incorporate elements from other sources to improve Speed, given Dow's existing culture, needs and requirements.

After several years of practice within the Dow PO&E Business Group, the success of Speed was described using key principles to illustrate its tenets. The 20 key principles can be grouped into five sections: Leadership, People, Projects, Information, and Execution. The principles are not new: the secret lies in their integration and execution.

The right leadership

Having the *right leadership* requires executives to make timely and proper decisions about people and project direction. These leaders must spend considerable time on the front end of projects and select the correct people and high value projects. Dow's organization has many times proven its ability to execute a project when the project has been properly selected.

Choosing the *right people* is essential to success. In order for new products to succeed, people must be able to adapt to circumstances in order to redirect components of technical and market hypothesis. Many people do not possess this ability, but do have the capability to grow and improve existing products and businesses much better than people who are "too creative." Matching people's talents to the project has proven to be very successful.

[See Related Articles, Listed at End]

Internal information and intellectual property are all sources of information which if accessible, searchable, and used correctly, can dramatically speed up projects. These sources of information must be developed, maintained, and continually upgraded. People

must be encouraged to use and add to the knowledge pool on an ongoing basis. Learning is the best way to maintain knowledge, efficiency, and effectiveness.

Project *execution* is the subject of many books and the focus of many organizations.

While proper execution is a component of Speed, it is only after the right projects and right people are selected that it can be used for maximum benefit. About four years ago, Dow adopted Six Sigma methodology. As this tool was not adopted for R&D, PO&E modify- fixed the program and today it is the preferred approach to execution. Blended with quick decision-making in the PO&E culture, the Six Sigma methodology and Speed mind set merged very successfully. To ensure execution of Speed, monitoring systems and databases for research, technical service, intellectual capital, application development, planning, results, personal results, and environmental health and safety are used to achieve successful compliance.

Speed is the way Dow PO&E develops products for one main reason-because it works. It is flexible, adaptable, motivational, and proven. This philosophy allows for the ongoing development of new products, improvement of established businesses, and creation of technical and market competitive advantages-all necessary for a successful business.

Related Articles:

- *Visions* Article: “Dow Chemical Achieves Major Transformation of PO&E R&D Group – Personality Approach Improves NPD Results,” Greg Stevens, James Burley and Kurt Swogger, July, 2003, Vol XXVII, No. 3. <http://www.winovations.com/Articles/Visions.pdf>
- *Research Technology Management*: “Piloting the Rocket of Radical Innovation. Selecting the Right People for the Right Roles Dramatically Improves the Effectiveness of New Business Development.” Greg Stevens and James Burley, March-April, 2003, 16-25. <http://www.winovations.com/Articles/RTMArticle.pdf>

Footnote:

* Trademark of The Dow Chemical Company

See www.pdma.org/2003/dow_pdma.ppt for Kurt Swogger’s full OCI slide presentation from 10/03 PDMA Meeting in Boston, Mass.