

PERP Program

August 2000

Chem Systems' Process Evaluation/Research Planning program has published a new report, **LLDPE (99/00-1)**.

As the polyolefins industry enters the next millennium it continues to be a very dynamic business. Each decade has brought its own set of issues and challenges. The oil shocks of the 1970s defined the importance of feedstocks and set the stage for the emergence of the export oriented production centers in feedstock-rich countries of the 1980s. With the doubling of the number of polyolefin producers and the structural and economic changes in Asia and Latin America, the 1990s has resulted in redefining polyolefin industry standards and strategies: globalization, reengineering and downsizing, consolidation, backward integration and a re-emphasis on technology. These strategies will continue for the next decade being augmented with additional issues and managerial techniques.

Technology developments are now redefining state-of-the-art products and processes in the polyolefins industry. Another factor strengthening the importance of process and catalyst technology advancement is that technology continues to be a strategic differentiator as companies jockey for a leadership position.

These dynamics coupled with the industry downturn have heightened not only the competition among technology holders, but of producers as well. As a result, companies need to understand the global landscape as a prerequisite for understanding their own technical and commercial position.

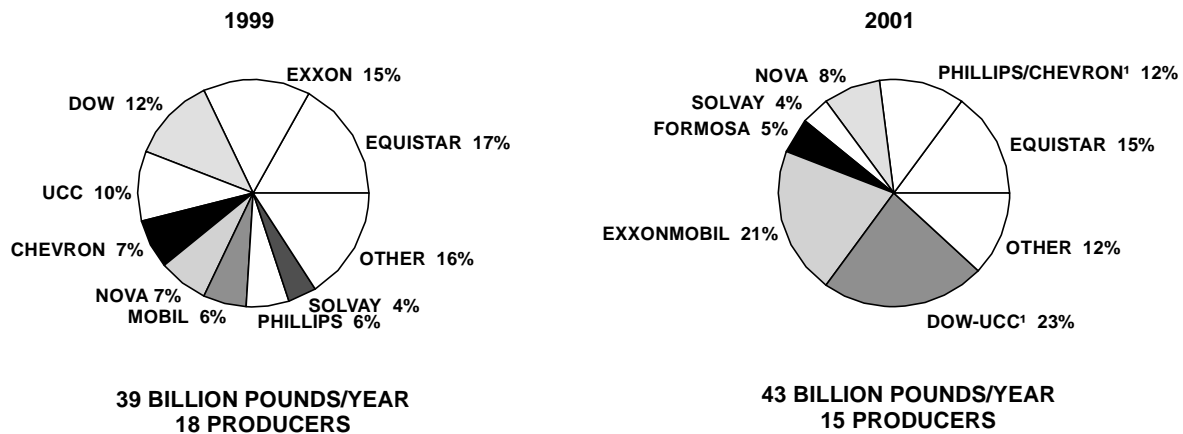
Competitive positioning is critical for a company's survival and sustainability into the next millennium. As such, technology is playing a major role in strategic planning by:

- Developing new technology for new products and enhanced revenue
- Licensing to enhance revenues
- Constructing larger capacity plants to give lower fixed costs, thus increasing margins or market share

- Forming technology joint ventures and alliances to more expediently bring new processes and products into commercialization, pooling resources, and maximizing intellectual property ownership.

1999 was marked by the announcement and launch of major mergers and acquisitions, the largest being ExxonMobil, BP Amoco Arco, Dow-Union Carbide, TotalFinaElf, Shell-BASF, and Chevron-Phillips. The long-term impact of these new alliances has yet to be felt. Mergers and acquisitions can enhance a company's competitive position by increasing scale, reducing costs, improving growth, and strengthening global capabilities. M&A's have become a means of rationalizing overcapacity, allowing the shut down of older, inefficient plants and the alignment of product lines to minimize grade transitions. The size of the mergers will transform the industry structure in North America (see figure below) as well as in Europe. Additional mergers are likely to occur.

NORTH AMERICAN POLYETHYLENE CAPACITY BY PRODUCER



¹ SUBJECT TO REGULATORY APPROVAL