ABSTRACT

Process Economics Report 239
THE GLOBAL CHEMICAL INDUSTRY IN THE 21st CENTURY

During the decade stretching from 1985 to 1995, the global chemical industry was growing at an annual average rate of nearly 8%. The growth slowed during the second half of the decade to 4.8%. By 1998, the global production of the industry reached $1.5 trillions; as a reference, the Gross Domestic Product of the United States was $8.5 trillions in current dollars.

Products of the chemical industry are finding applications in almost all segments of the global economy: pharmaceuticals, detergents, packaging, fertilizers, fibers to name but a few. This large and wide-spread industry is facing new challenges now, at the beginning of the third industrial revolution. This revolution is frequently described as the information age opens up global communication channels, promotes the development of companies with global reach, changes the way companies are doing business and is likely the motive force to industry restructuring.

The objective of this report is to review and analyze the likely ways the industry will meet the challenges of the information age. Towards this goal, we focus first on the business aspects of the industry and

- Review the industry’s past financial performance
- Analyze the structure of the industry; primarily that of the Ethylene and Propylene Chains.
- Discuss strategy options and
- Project trends in industry developments( geographic shifts, mergers etc.) In the second half of the report, we concentrate on analyzing the likely changes the information age will effect in the business processes of chemical companies. The issues addressed are
- Changes in R&D
- Enterprise Resource Planning(ERP) systems and how they have already changed
- and likely to change management processes
- e-commerce and its likely role in the chemical industry.
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