

Michael Dröscher, Gunter Festel,
Martin Jager (Eds.)

The Power of Innovation

How Innovation can Energize the Chemical Industry



Preface

The reduced growth of the customer industries, a price/cost disparity and the higher rate of specialty products turning into “commodities” result in substantial pressure on the chemical industry. Therefore, it is obviously more and more important for chemical companies to secure long-term competitive positions with new products (“product/business model innovation”) and cost-efficient production and supply processes (“process innovation”). Sustainable profitable growth as the major driver for a positive share price development in the chemical industry is dependent on the introduction of as many innovative products as possible into the market. There, the products have to meet the needs of the customer – and should be developed using a minimum of resources. The continuous improvement of production and supply processes is a “must” to keep the cost position competitive but normally doesn’t result in significant growth.

It is typical for an innovation-oriented chemical company to develop, manufacture and market its products or processes with a high level of expertise using state-of-the-art technologies. Therefore, significant but focussed and efficiently managed investments in R&D are a prerequisite to achieve technological innovations. But there is a long way to go from an idea for a product or process (“invention”) to a real success in the market (“innovation”). To secure economic success, it is thus vital for a company to build a risk-reward-wise balanced pipeline of new products or processes and to continually bring new innovations into the market place.

Technology driven companies often seek new markets through innovation but go no further than developing and marketing new products. Although they devote a great deal of attention to the precise identification and utilisation of sources for growth, they tend to neglect the demand side. Consequently, the response of the market is often hesitant or unfavourable, as the company has failed to early identify the real demands of potential customers and to explain after the launch to them the benefits of the new products. The market is often not clearly enough defined for innovative products and needs a better explanation of the technological innovation from a marketing point of view rather than from the technological side.

Therefore, R&D and marketing need to work more closely together than it is often the case. Integrating R&D, IP and business strategy is vitally important to the success of research-intensive companies. The corporate concept needs to deal with aspects of technology and the market on the same strategic level. All units of the organization must be properly aligned to common and clearly defined goals and strategies. And a mental transformation “from scientist to business builders” is often required.

With this booklet we intend to present some insight and experience for innovation processes in the chemical industry. It may also give guidelines for a better understanding of the processes and success factors. To achieve these goals we invited competent experts to contribute from varying, partly non-chemicals backgrounds depicting a wide overview on the subject of innovation in the chemical industry, detailed and supported by numerous examples from the industry.

We want to thank all authors and in particular Jürgen Knöll for their support. Without their help, this book would not have been possible. We are of course also thankful for the financial support of the sponsors, which was essential in realising the book.

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