

PART 1

INNOVATION IN THE PROCESS INDUSTRIES

One way to improve industrial innovation is by better management. This book is thus about management of process innovation and technology, and not about technology as such. We must never forget that knowledge of innovation management can be acquired as “learning by doing” in the industrial environment, and that books or other scientific publications must be regarded as supplementary, albeit important, sources of learning. The more theoretical and scientific publications can thus serve as a framework for industry professionals and also provide structure for their own practical experience. The discipline of innovation management is however not an old one, and there are still areas that are not yet widely explored and where good theories are still lacking. Management of process innovation can be included in this group.

The first part of the book presents the process industries as a group of several industry sectors — a family of industries often sharing common attributes, particularly in the production process. Recent evidence from the 2000 most innovation-intensive and largest companies worldwide and in Europe, representing about 80 percent of

worldwide innovation, shows that about 30 percent of them can be included in the process industries cluster. Innovation in this large area of total manufacturing industry is of great concern, not only to industry professionals and academics, but to society at large. However, research on innovation management and operation management in this cluster of industries at the company level is still in its embryonic stage compared to such research at the industry or society level.

Innovation at the process industries level has not received its fair share of research in the area of management of innovation and technology, either. Although one can estimate from previous research that innovation in many sectors of the process industries claims only a surprisingly small share of all a company's resources, good management of innovation in this area is however very important in terms of securing an efficient production process and competitive products for the future on the world market.