

Managing Creativity in Science and Hi-Tech

by Ronald Kay

(Springer-Verlag, 1990, 221 pages).

ISBN: 3-540-51375-2 (Abroad)

ISBN: 0-387-51375-2 (U.S.)

This book's principal thesis is that some important aspects of the technical R&D enterprise are not well served by a generic management style which may work in less creative environments. In his 15 chapters, Kay treats general principle, but always in the context of personal experiences, anecdotal examples, and plain talk. Well organized, the book makes easy reading as it guides the reader through personal traits of the manager and managed to the business and organizational environment in which they work. There are many useful definitions, lists, and chapter-ending summaries, but thankfully no dogmatic pronouncements on the one right approach to any problem.

Kay's main industrial experience was at IBM and many of his specific examples use computer-related contexts, but all readers who have worked in science and engineering R&D will relate to the points he makes. This is not to say all readers will like these points. The central dilemma, and the *raison*

d'etre for a book like this, is that creative work and creative workers cannot be "managed" without damaging the very creative process itself. Of course such endeavors *are* managed, and Kay points out throughout the text where departures from more autocratic approaches are needed to accommodate the sensibilities of researchers.

Viewpoints of both the manager (seasoned or new and first-level or chief executive) and the researcher are considered in Kay's presentation and checklists for self-evaluation are offered. The central dichotomy treated in the early chapters centers on the proposition that the talents and experiences needed in a good manager are not those normally found in the best researchers. Traits which lean to teaming and working through others collide with independent pursuit of knowledge and publications. While not propounding a cure, this book does describe many behaviors and warning signs which will help a reader trace events in his or her own workplace back to the interaction of researcher and manager traits.

Opportunities for personal soul-searching are abundant. The reader can check his/her qualities against those of a

good (or bad) manager, leader, team member, mentor, etc. One can also compare one's own environment with those that either stifle or nurture creativity and initiative.

Later chapters cover a variety of topics, not all of which will interest every reader. The concise and clear style, however, helps one get through the less exciting ones. Some areas covered are intellectual property, technology transfer, new ventures, hiring and recruitment, organizational cultures and strategies, making presentations, performance appraisals, compensation, project tracking and evaluation, and report writing. By no means is this exhaustive, but each topic gets enough attention, most particularly with respect to its interrelationship with other topics, so that a clear overall picture emerges.

This book will not teach anyone how to manage, but it will give an excellent overview of, and raise sensitivity to, the myriad factors in high-tech enterprise which act under and react to the tensions inherent in attempts to manage creativity. Thus it is well worth reading.

Reviewer: E.N. Kaufmann is associate director of the Strategic Planning Group, Office of the Director, Argonne National Laboratory. □

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