

projects undertaken by the research agencies for industry including not only the industry contribution but the full economic contribution of the agencies, including their transaction costs in securing such arrangements. Ideally the returns should be estimated net of taxation concessions and on a private and social basis.

Of course, the name 'external earnings targets' is a misnomer. Rather they should be called external funding targets. They do not relate to earnings on the funds employed.

ASTEC considers that external earnings targets for government research agencies have been to the relative detriment of SMEs. Research agencies have concentrated on interactions with larger firms. Such a tendency could have an economic basis and a political one. ASTEC also recognises that external earnings targets could inappropriately change the balance between public good and commercial research in a government research agency. For this reason ASTEC does not consider it desirable to increase these targets at this time. ASTEC says that higher targets "would place at risk intellectual capital and longer term research" and research for the public good (main report, p xv) but then goes on to say "that as the benefits to externally funded research become clearer, and management more adept, the trend to higher levels will continue".

An examination of the list of submissions to ASTEC in connection with the enquiry indicate that very few were received from private industrial firms and the majority appear to be from larger firms.

The report and its summary are presented on high quality glossy paper in black and blue print with various tonings, boxes and illustrations so as to make the report and summary presumably more user-friendly. However, it seems to me that it might have been more useful if cost was reduced in this respect and appendices had been added containing the detailed statistical tables corresponding to the illustrative figures. One has to read the text to find details about the figures. This is unsatisfactory for reference purposes.

This report would be of interest to all who are concerned about the management of Australian R&D, particularly by government research agencies. However, the reader who is looking for in-depth analysis particularly, an in-depth economic analysis, will be disappointed. The omission in the latter respect is not surprising seeing that there seems to be no economists on ASTEC or on the Working Party for the preparation of this report. After reading the report, I was left with the impression that Australian government policy in relation to its research agencies and their interaction with industry and other users is essentially of an *ad hoc* nature and considerably influenced by political expediency.

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Silicon Samurai — How Japan Conquered the World's IT Industry by Tom Forester (Blackwell Business, Cambridge, MA and Oxford, 1993) pp viii + 224, \$39.95 (hardback) ISBN 1-557-86292 3.

Tom Forester's work has often had a mixed reception. Some academics have viewed his writings as both atheoretical and journalistic whilst others have praised him for his clarity of expression and applauded the skill he has exercised when integrating extremely diverse material on information technology. *Silicon Samurai* is likely to produce similar polarised responses; it can be viewed simultaneously as a solid contribution to the debate about the

success of the Japanese with information technology or as a controversial compendium of business information largely culled from two principal US sources, *Fortune* and *Business Week*.

The book is divided into eight chapters. The reader familiar with Forester's work will recognise that chapters three, four, five, six, and seven are re-worked and up-dated versions of previously published work. Nevertheless, chapters one to seven provide a useful overview of the history of the myopia and mistakes of US electronics industry, the Japanese appropriation of US microelectronics "know-how", the myth of Japanese weakness in the development of software, the factory and office of the future and the battle for telecommunications supremacy. In all chapters, but particularly in chapter eight, there is an attempt to explain the success of Japan and the failure of both the US and Europe in the competitive struggle. In general, the Japanese success is said to be mainly attributable to a high level of cooperation between the government and the large Japanese companies, the subsidisation of Japanese companies, the very strict control of imports into Japan and the particular cultural characteristics of Japan. In the case of the latter, two aspects are seen as important, first a hardworking labour force and second, a system of business ethics where industrial espionage and the theft of intellectual property from companies in other countries are of little concern. Conversely, the US failure is attributable to the lack of a US Government industrial policy, the complacency of top management in US business and the common ideological belief in US business that there is a level playing field in a free market economy. The reasons offered for the European failure are somewhat different. The Common Market aside, European failure arises out of national rivalries, highly bureaucratic management, social barriers which divide the workforce and a firm belief that big is beautiful.

Forester's comments on Europe are quite brief, the book is obviously aimed at a US audience. The book will certainly appeal to the general "Nipponophobic" reader in the US and given the criticisms in the text of US business complacency, together with the remarks about questionable Japanese business ethics, it will also become required reading on MBA courses not only in the US but elsewhere.

However, for the general reader there may be a problem. How can the despondent story in the book about the US failure to exploit information and communication technologies be reconciled with stories from other sources which document the vast wealth of Bill Gates of Microsoft or the wealth and global influence of Rupert Murdoch?

Silicon Samurai became Tom Forester's epitaph. He died on 28 January 1994, aged 45.

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Communication Technology Update: 1993-1994 edited by August E. Grant and Kenton T. Wilkinson (Technology Futures, Inc., Austin, Texas, 1993) pp. vi + 352, US\$25.00, ISBN 1-884154-02-8.

In recent years, there is little doubt that our work, our lives and societal structures are being rapidly transformed by new communication technologies; in fact, the pace and range of developments is now so massive that for students, educators and professionals working in the area, the challenge to maintain an up-to-date understanding of these developments is becoming more difficult to meet. The reason that *Communication Technology Update: 1993-*