



## The Outsourcing R&D Toolkit

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Outsourcing in the pharmaceutical industry currently accounts for ~30% of overall R&D spending and is increasing<sup>1</sup>. Given that total pharmaceutical R&D is estimated to run at >US\$50 billion for the year 2000–2001, outsourcing thus amounts to an annual expenditure of some US\$15 billion. In some areas, such as outsourcing of chemistry-related functions, the figure has recently been rising at a compound annual rate of 40–50%. The overall outsourcing market is expected to grow significantly over time to perhaps 50% of pharmaceutical R&D<sup>1</sup>. This book aims to capture the trends behind the increasing emphasis on this strategy as an element of new product introductions and to inform its readers how it can be done.

Outsourcing can take many guises: indeed this book deals with outsourcing in seven major industrial sectors where R&D is prevalent, including aerospace, electronics, automobiles, mechanical and optical engineering and energy. There is an emphasis on pharmaceuticals, with case examples pulled from this area; however, the generic context would have benefited from more focus.

In addition to contractual R&D, this book also deals with university and industrial collaborations. The strategy chapter makes it clear that outsourcing in the widest sense can range from contract R&D to acquisition, with joint ventures and research collaborations in between. Arrangements between parties can stretch from preferred-provider contractual relationships, through to equity investments alongside research

collaborations. Far from being solely a province of large-company strategy, outsourcing is intensively used by small companies aiming to adopt modern techniques in a flexible and competitive environment.

The book makes it clear that management of outsourcing is a much more complex process than internal R&D. Although the selling of R&D is a well-advanced process, the buying is not. Many companies incorrectly regard this as a normal extension of their in-house efforts, with little training being given to the R&D people who manage it, or alternatively, companies will place outsourcing as part of their purchasing function. The process of 'buying' R&D starts with the identification of potential partners and continues with selection therefrom, negotiation of a contract, management of the work and reporting of results. Identification of potential partners is itself a complex process, with over 1000 companies in the business of offering contract pharmaceutical services.

One of the strong features of the publication is the inclusion (as appendices) of various templates for the development of a contract, from the initial approach, through to negotiation of the agreement. The section on the thorny issues of intellectual property rights is dealt with extremely well. This is a complex area that is often a particular problem in academic–industrial partnerships.

There are a couple of slightly strange inclusions in the book. One is the chapter on industrial espionage, which is a tactic many readers will not have included (nor wish to include) in their armoury for outsourcing. Another is the reference to Articles 81 and 82 of the European Union treaty on competition law, which has potential implications for inter-company collaborations; however, there is an exemption in the treaty for R&D collaborations, which makes the reference somewhat moot.

Overall, this book has some useful elements that are not found elsewhere, such as the contract templates. The subject matter is too wide, and should in my view have focused on R&D for one rather than seven industrial sectors. Separate sections detailing the clear differences between the methods of outsourcing in R&D would also have been beneficial. The book is written in an easy style, with bulleted emphasis and report-style points for special reader attention. There is a detailed contents section but, unfortunately, no index. Despite the price of outsourcing, the costs of errors incurred are huge, and the contract templates alone should save the purchase price of the book many times over in legal fees.

## Reference

- 1 Deutsche Banc Alex. Brown (1999) *Equity Research*, Pharmaceutical Outsourcing

**David Cavalla**

*Arachnova*

*St John's Innovation Centre*

*Cambridge, UK CB4 0WS*

*tel: +44 1223 722793*

*fax: +44 1223 722577*

*e-mail: david.cavalla@arachnova.com*

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