

# Trends in Deal Making

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## Introduction

To remain competitive, specialist technology providers need to offer leading-edge technologies. However, due to their narrow specialisation, these companies are at a constant risk of external supercession. M&A activity enables these companies to both maintain a technological advantage and to broaden their technology platforms within a single delivery area, and so offer more complete delivery solutions.

M&A is thus a well-trodden strategy among both specialist technology and cross platform providers in the drug delivery sector. Figure 1 illustrates the level of M&A transactions, for the years 1997-2004, among companies where at least one party had a focus on drug delivery.

## Drug Delivery Deal Activity

Figure 2 illustrates the number of drug delivery deals reported within the pharmaceutical sector for the years 1997 to 2004. The level of drug delivery deal making activity exhibits a somewhat different pattern from 1997 to 2004. Generally, there have been between 150 and 220 drug delivery deals reported each year with perhaps a gradual trend towards an increasing number of deals, but at a pace not mirroring the overall increase in all deal making activity. The year 2000, however, was exceptional in that over 260 drug delivery deals were reported. 2000 was a remarkably strong year for technology-related companies in terms of market performance, and many technology companies, including those within

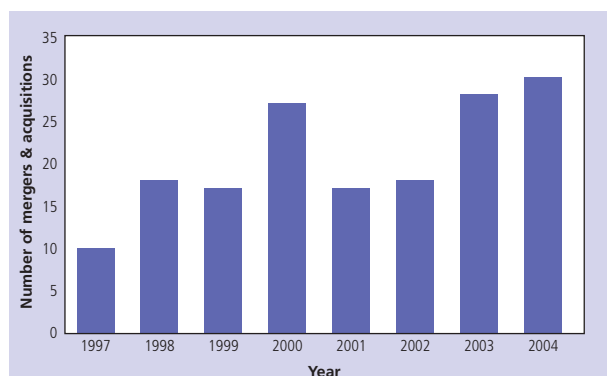


Figure 1 – Drug delivery mergers and acquisitions, 1997-2004 (Source: PharmaDeals Agreements).

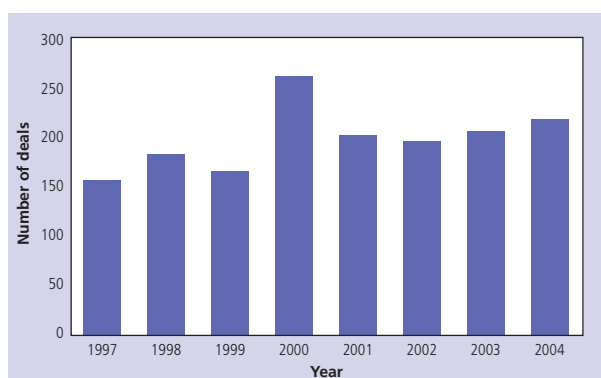


Figure 2 – Drug delivery deal activity, 1997-2004. (Source: PharmaDeals Agreements).

the pharmaceutical sector such as biotechnology and drug delivery companies, received considerable investor attention. It is possible that at least some of the increased drug delivery deal making activity during 2000 was buoyed by general investor and sector sentiment.

The deals represented in Figure 3 have also been analysed based on the predominant deal type classifications of: Collaborative deals (collaborative R&D and co-development deals); Licensing deals (licensing and technology access deals); Marketing deals (marketing, promotion and distribution deals); and M&A deals. The deal type classifications are not necessarily mutually exclusive as some deals may be included in one or more of the above categories (e.g. licensing and collaborative deals) as determined by the deal terms.

As expected, the pattern of reported drug delivery deal types mirrors the overall level of drug delivery deals

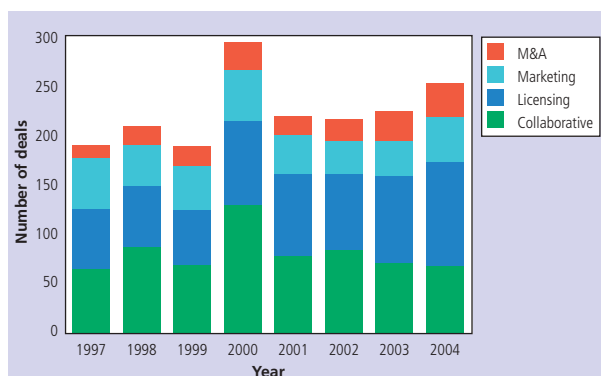


Figure 3 – Drug delivery deals – deal type, 1997-2004. (Source: PharmaDeals Agreements).

described previously. Interestingly, for 2000 where there was a surge in the total number of reported drug delivery deals, there appears to be a significant increase in the number of deals incorporating elements of collaborative development and licensing.

Figure 4 illustrates the type of companies that have been involved in drug delivery deals from 1997 to 2004. Here, company types are defined as:

- **Start-up/emerging** – new and emerging companies, including biotechnology, drug delivery and enabling technology companies. These are companies that have no record of sustained profitability.
- **Established** – companies with a history of profitability and that generally operate on a limited territorial basis. Includes companies that have a global presence through distribution and marketing affiliates and partners.
- **Global** – multinational companies with a true global presence, and includes the top 30 healthcare companies.
- **Academic/Institute** – includes universities, hospitals, research institutes, any non-profit organisations, and international or regional bodies (e.g. World Health Organisation).
- **Government** – includes any government body or affiliate.
- **Financial** – includes banks, investment houses and venture capital companies.

Not surprisingly, start-up/emerging companies are involved in a plurality of deal making activities as such alliances are normally vital to the survival of young companies. Established companies comprise a further popular type of company involved in deal making followed by academic institutions, global pharmaceutical companies, governments and financial institutions. The surge in drug delivery deal making during 2000 appears to have comprised mainly start-up/emerging companies, established companies and some academic institutions.

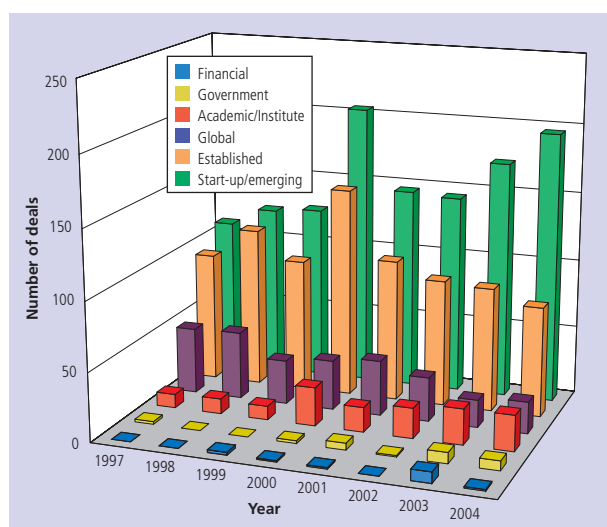


Figure 4 – Drug delivery deals – types of company involved, 1997-2004 (Source: PharmaDeals Agreements).

## Financial Analysis of Drug Delivery Deals

The financial analysis of pharmaceutical deals is dependent upon the release of detailed information into the public domain. In order to more fully appreciate the capabilities and limitations of the financial analysis of deals generally, Figure 5 illustrates the percentage of drug delivery deals where at least some financial figures have been disclosed.

The frequency with which at least some financial information is disclosed in drug delivery deals is fairly stable at 40-55% of deals, with the highest number of deals in 1998 and the lowest in 2004.

The subsequent financial analyses are thus drawing upon information from at best only half of the total number of drug delivery deals and this represents a potential limitation of the current assessments. Also, there is an inherent bias in these data as companies only tend to publicise high value deals. The monetary values arrived at in this report are therefore probably elevated compared with standard market rates. Despite these limitations, some qualitative statements on deal values can be made.

Tables 1-4 summarise the financial terms that are available for drug delivery deals since the inception of PharmaDeals® Agreements in May 1996, to the end of December 2004. The main dataset consists of 790 deals announced during this period. Both the mean<sup>1</sup> and median<sup>2</sup> values are reported to provide more complete information about typical financial values.

Upfront and milestone payments are common components of licensing, collaborative alliances and marketing deals. The mean upfront payment for licensing deals of US\$8.8 M is similar to the mean value of US\$8.3 M for collaborative deals, which is to be expected as there is some overlap between the dataset for these two types of deals (i.e. many collaborative deals have an element of licensing and vice versa). Marketing deals have a higher mean upfront value of US\$12.7 M reflecting the

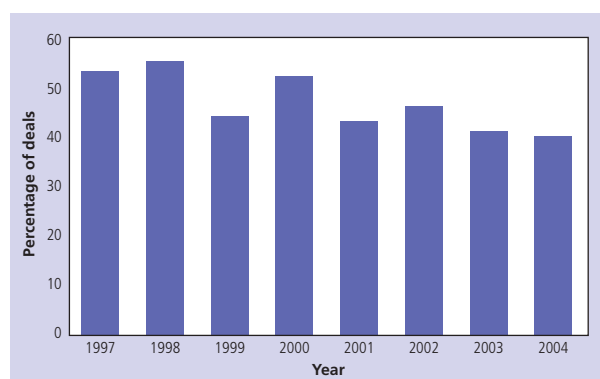


Figure 5 – % of drug delivery deals with some financial information, 1997-2004 (Source: PharmaDeals Agreements).

<sup>1</sup> The sum of a set of numbers, divided by the total number of numbers in the set.

<sup>2</sup> The number in the middle of a set of numbers; that is, half the numbers have values that are greater than the median, and half have values that are less.

Deal type	Number of deals	Mean value US\$ M	Median value US\$ M
Mergers & acquisitions	85	497	45
Licensing	82	46	25
Collaborative R&D and co-development	92	49	27
Marketing, promotion and distribution	58	62	34

Table 1 – Average total deal values for drug delivery deals, 1996–2004.

Deal type	Number of deals	Mean value US\$ M	Median value US\$ M
Licensing	63	8.8	3
Collaborative R&D and co-development	45	8.3	5
Marketing, promotion and distribution	43	12.7	5

Table 2 – Average upfront payments for drug delivery deals, 1996–2004.

Deal type	Number of deals	Mean value US\$ M	Median value US\$ M
Mergers & acquisitions	19	658	40
Licensing	27	14.1	10
Collaborative R&D and co-development	46	15.5	7.5
Marketing, promotion and distribution	16	14.9	5

Table 3 – Average equity investment payments for drug delivery deals, 1996–2004.

Deal type	Number of deals	Mean value US\$ M	Median value US\$ M
Licensing	55	24.3	10
Collaborative R&D and co-development	51	33.1	14.5
Marketing, promotion and distribution	37	32.5	17.5

Table 4 – Average milestone payments for drug delivery deals, 1996–2004.

inherent added value of products and/or technologies that have reached, or are closer to, the market. As expected, the mean milestone payments for licensing (US\$24.3 M), collaborative (US\$33.1 M) and marketing (US\$32.5 M) deals were considerably greater than those observed for upfront payments and is reflective of the strong link between successful product development and financial reward that is present in all deals.

Equity investments are a frequent component of each of the deal type categories. Not surprisingly, M&A deals had the highest mean equity value (US\$658 M) as the purchase or transference of equity between companies is a commonly applied financial mechanism when companies merge or are acquired. The average equity investments for licensing, collaborative and marketing deals were somewhat similar at US\$14.1 M, US\$15.5 M and US\$14.9 M, respectively.

With regard to royalty rates, drug delivery deals can attract rates ranging from 2% to above double digit percentages. The actual royalty rate agreed depends largely on whether the underlying technology is enabling versus enhancing, unique versus common, clinically proven versus untested and covered by strong IPR versus weak. Most recent drug delivery royalty rates tend to be in the range of 4–8% while historically they were lower. The risk-reward sharing relationship sought by the licensor and licensee also has a heavy impact on what can be regarded as a suitable range for royalty rates.

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