

How Ownership Influences Pharma Strategies



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The relative advantages of being a privately owned or publicly listed pharma company is an enduring debate across the industry. It polarises opinion. The central consideration is simple: how much influence does ownership structure have on the evolution and growth of a pharma business? With private pharmas typically smaller than their listed counterparts, it's often suggested that this fuels a nimbleness and agility that gives private an advantage over listed. Conversely, it's argued that listed companies' ability to access capital markets gives them opportunities to scale that are rarely possible in privately owned businesses. Our own analysis reveals a deeper complexity. Although there are distinct advantages to both ownership types, these seldom relate to size and scale. The comparative benefits of private and listed companies – and indeed the characteristics that can stifle their growth – are embedded in cultures and processes that are synonymous with ownership type. The clues for value creation are in the same place. To grow, pharmaceutical companies must craft R&D and commercial strategies that suit their ownership structure. A bespoke approach is best; one size does not fit all.

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Ownership matters: impact on growth

The ownership structure of a pharmaceutical company can have a significant influence on the nature of its evolution and growth. Yet in an industry where the majority of the biggest players are stock-market listed, a large proportion of highly successful mid-sized companies are privately funded. A good example is the European MidPharmas, defined by Novasecta as R&D-based integrated pharmaceutical companies with annual revenues of between €50m and €5bn. Over 70% of them are privately owned or controlled. The resilience and growth of the European MidPharmas has been an ongoing trend in the market for several years. Their growth has invariably been accompanied by an R&D intensity that illustrates a strong commitment to long-term innovation, with many consistently investing more than 15% of their revenues in R&D.

The MidPharma model, which typically relies on a long-term view and 'patient capital', contrasts sharply with the approaches of listed counterparts. However, the attractiveness of the mid-sized sector, as evidenced by J&J's \$30bn acquisition of Actelion in 2017, shows that carefully planned private ownership prior to listing can yield stunning results.

The relative benefits of listed and private ownership are difficult to isolate. However, through the analysis of trends, data and real-world experience, it is possible to evaluate the influence that ownership structure can have on a business, and to explore strategies – in keeping with that structure – that may help stimulate the growth required for sustainability.

The data: comparing private and listed performance

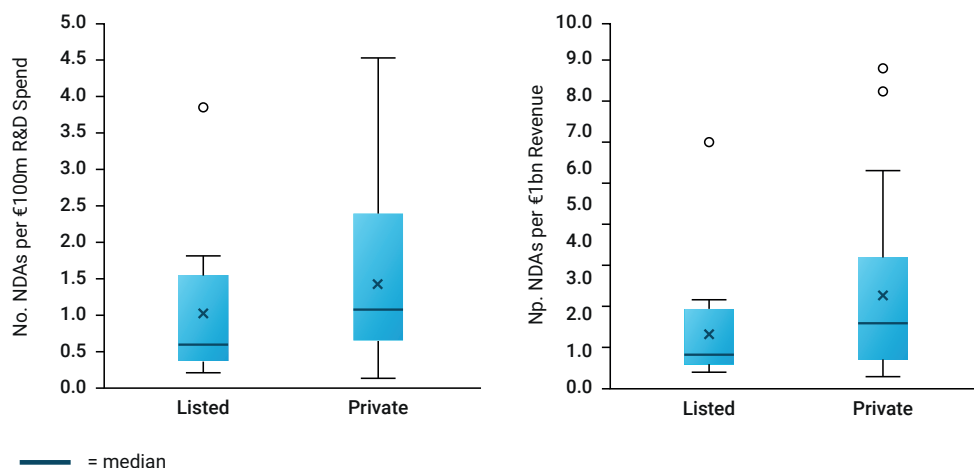
In late 2017, Novasecta reviewed the R&D and commercial performance of 84 large and mid-sized pharmas in Europe. Our evaluation focused on the volume and commercial success of New Drug Applications (NDAs) for every company within the sample, with both US and EU-approved drugs (Marketing Authorisation Applications) included in the calculation. We also looked at New Molecular Entities (NMEs) as a subset of NDAs to establish the volume of approvals in more innovative classifications. 70% of the sample were privately held or privately controlled companies (where >50% of shares are privately owned). The remaining 30% were listed. The private companies tended to be smaller than their listed counterparts, yielding a mean revenue of €2bn versus €7.5bn in listed companies.

In terms of NDA generation, the proportion of non-producing companies in the two ownership categories was broadly similar, with a slightly higher percentage for private companies (64%) than listed (54%). At the other end of the scale, in terms of the more innovative NME generation, the share was even closer, with 22% of private companies and 23% of listed generating NMEs.

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However, of the producing companies, private companies appear to be more productive than listed. Our analysis shows that private companies generate more NDAs per €100m R&D spend (1.48 versus 1.03) and more NDAs per €1bn revenue (2.64 versus 1.64).

Private companies generate more NDAs per R&D spend and per revenue

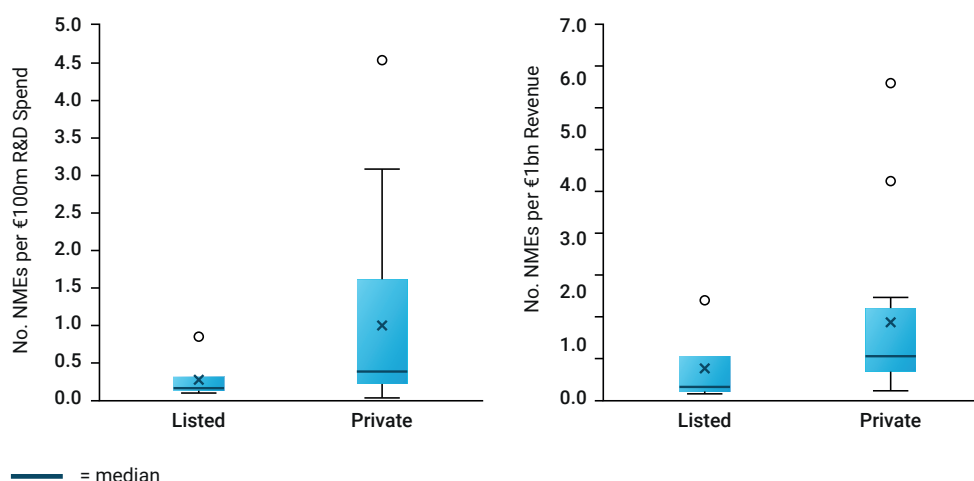


Notes

- 26 companies generated NDAs in the past 5 years AND had available R&D spend data (12 listed and 14 private)
- 32 companies generated NDAs in the past 5 years AND had available revenue data (12 listed and 20 private)
- Revenue and R&D figures are 5-year averages across 2012-2016
- Privately controlled companies (>50% shares privately owned) are included in the category 'Private'

When comparing NME-producing companies, the difference is even more pronounced. Private pharmas generate 0.98 NMEs per €100m R&D spend versus 0.24 in listed organisations – almost 4 times the amount. Similarly, private firms generate 1.46 NMEs per €1bn revenue, nearly 3 times as many as listed companies (0.54).

Private companies generate more NMEs per R&D spend and per revenue



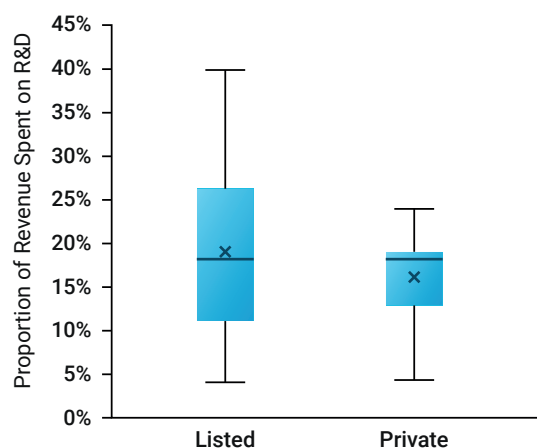
Notes

- 19 companies generated NMEs in the past five years and comprise the analysis above (6 listed and 13 private)
- Revenue and R&D figures are 5-year averages across 2012-2016
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Private companies also appear to be more efficient with their R&D spend, investing a slightly smaller proportion (16%) of their revenues on R&D than listed (19%), yet generating more NDAs and NMEs as a result.

Private companies are more efficient with their R&D spend



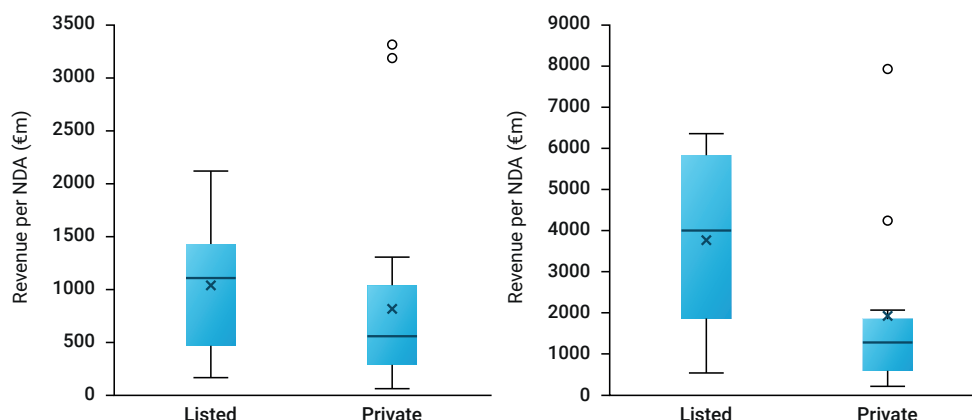
— = median

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However, significantly, listed companies appear to be more successful in commercialising their NDAs and NMEs. Listed firms generate more revenue per NDA than private pharmas (€1,023m per NDA in listed versus €848m in private). Moreover, they generate more than twice as much revenue per NME (€3,792m) than their private counterparts (€1,825m).

Listed companies generate more revenue per NDA and per NME



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Creating R&D value

Our analysis reveals three hypotheses that could relate to the common characteristics of each ownership type. The first hypothesis is simple: private companies are better at generating NDAs than listed companies. The data shows that private companies are generating more NDAs on a bang-for-buck basis, yielding a greater number of new drugs despite investing less revenue in R&D.

However, further interrogation of the data brings private pharma's productivity into sharper focus. Private companies' NDAs appear less valuable than those produced by listed companies; they generate lower revenues and rarely reach the same levels of peak sales. This fuels two related hypotheses: either listed companies are better at commercialising new drugs, or they produce more commercially-viable NDAs and NMEs than private firms. In some cases, both may actually be true.

Let's examine the first hypothesis. Our experiences of working closely with leadership teams at European MidPharmas tell us that it's no surprise that R&D is more productive and efficient in private companies. It's their lifeblood. Private companies depend heavily upon having innovation within their pipelines – without it, they could quickly disappear. Moreover, since they don't have access to the capital markets to buy their way out of trouble, private firms need to be totally focused on innovation to ensure they remain sustainable. As a result, they tend to take a longer-term perspective, leaving them free to focus on delivering better R&D.

Whereas listed companies are likely to be more focused on quarterly earnings, commercial growth and shareholder value, family companies are typically thinking about sustainability and the next generation.

Taking the long view is a key characteristic of private ownership. Whereas listed companies are likely to be more focused on quarterly earnings, commercial growth and shareholder value, family companies are typically thinking about sustainability and the next generation. For example, Roche CEO Severin Schwan says being family owned gives his company an important edge and allows it to think about the long term. Roche, he says, thinks in '30-year cycles' that afford it the luxury of making decisions that may not produce tangible benefits for 10-15 years. This philosophy is unlikely to fly in most listed companies.

A natural consequence of the long-term focus is that private organisations tend to take fewer risks. If your key goal is sustainability, rather than shareholder price, you're likely to refrain from pursuing 'super drugs' or making big bets with innovation. Private companies avoid the volatility and

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vulnerability of market fluctuation but miss out on the high risk, high reward of ground-breaking innovation.

Nevertheless, there are some great R&D success stories among the European MidPharmas. In terms of the number of NMEs per €1bn revenue, two of the top-performing companies are privately-held MidPharmas; Helsinn Therapeutics (6 NMEs per €1bn revenue) and Chiesi (1.5 NMEs per €1bn revenue). Another high performer – Ipsen (0.9 NMEs per €1bn revenue) – is privately controlled and part-listed.

By comparison, some of the industry's biggest companies yield far fewer NMEs. For example, AstraZeneca and Novartis both generated 0.25 NMEs per €1bn revenue.

Lugano-based Helsinn is the most prolific producer of NMEs per €1bn revenue in our sample, with an enviable record of FDA approvals for a privately-held company. The business has grown significantly off the back of its cancer portfolio. Its approach has been to focus on innovation, securing approval for drugs that it can subsequently distribute through commercial partners. Without the inherent pressure of a commercial organisation, Helsinn has proven extraordinarily strong at securing NMEs. It's a great example of how releasing yourself from the commercial discipline can help a business focus on R&D value. Such has been Helsinn's success that it is currently introducing its own commercial salesforce in the US. That's a powerful evolution fuelled by innovation.

Chiesi has been able to innovate in the respiratory therapy area and become an important player in a competitive category dominated by big pharmas.

Chiesi is family-held and has grown impressively in the past decade under the ownership, direction and active management of the Chiesi brothers Alberto (President) and Paolo (Head of R&D). Chiesi is unusual in that, unlike many other private companies, the family remains heavily involved in the running of the business. This has helped it maintain a focus on sustainability to prepare for the next generation. Consequently, Chiesi has been able to innovate in the respiratory therapy area and become an important player in a competitive category dominated by big pharmas. It has been very successful in securing approvals, not least in the triple combination therapy for COPD, where it was the first company to receive EU approval. Chiesi is a great example of how family management and control can help an organisation succeed at R&D and compete with its bigger competitors.

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Actelion is historically one of the jewels in the crown of the MidPharma sector. Prior to its acquisition by J&J, it portrayed all the characteristics of a privately-held company under the leadership of Jean-Paul Clozel. This led to some very long-term decision-making and a strong focus on R&D. Actelion's track record in innovating is impressive; not only did it secure approval for its first major product, Tracleer, in September 2017 but it quickly followed it up with approval for a second, for Opsumit, just two months later. This is highly unusual. Although Actelion was subsequently listed prior to its acquisition by J&J, the company has reaped the benefits of the long-term R&D focus it established as a privately owned organisation.

Ipsen, another high producer of NMEs per €1bn revenue, is one of the most interesting companies in our sample. The business is privately controlled by the Beaufour family but also has a listing. Ipsen's approach has been to secure approvals for some clever innovations on the backbone of some relatively old specialist products. It's proved very successful. The company's commitment to the long-term and its focus on R&D has seen its share price rocket. However, the evolution comes with a twist: Ipsen has begun to commercialise itself in the US. The strategy was originally unappealing to the analyst community who weren't keen on the idea of investing in commercial. Yet the move has proved enormously successful. Ipsen's story provides a good counterpoint to the argument that private companies should leave commercialisation to the bigger players. They've bucked the trend – and it's worked.

These examples demonstrate that a long-term model of R&D can yield great results. Ultimately, however, the job of managing R&D to create value hinges on three key steps. Primarily, create a reality-based strategy that aligns with your ownership structure and accounts for the strengths and weaknesses within your organisation. Secondly, ensure this strategy is made real through meaningful action plans for your portfolio and sources of innovation. Finally, create a management system with strong project leadership and fit-for-purpose governance. Taking these steps – irrespective of ownership structure – can help create a platform for long-term sustainability and commercial growth.

Creating commercial value

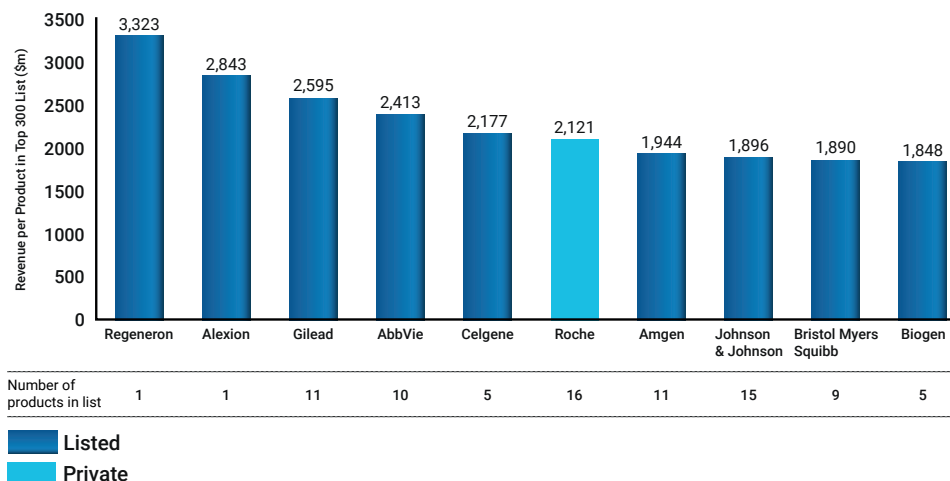
The second hypothesis – that listed companies are better at commercialising new drugs – is arguably more straightforward to quantify. At the headline level, the data shows that listed companies generate more revenue per NDA than private companies – and they generate more than twice as much revenue per NME. At a more granular level, the numbers are even more revealing.

We analysed the top 300 drugs (by sales, 2016) and ranked pharma companies according to the number of products they had in the listing. The top performers are unsurprising. Merck & Co has the most (27), followed

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by Pfizer (25), Novartis (23), GSK (19), and Sanofi (17). However, when we interrogated the data further to establish companies' revenue per product in the top 300, the ranking takes on a completely different look. The top companies are: Regeneron (\$3,323m revenue, per product in top 300), Alexion (\$2,843m), Gilead (\$2,595m), Abbvie (\$2,413m), and Celgene (\$2,177m).

Top performers (by revenue per product in the top 300 drugs) are largely listed US companies



Notes

- Source: PharmaCompass – top 300 drugs by global sales in 2016

The rankings are both intriguing and instructive. The top 5 companies are all American listed companies with the top three each being classic, high-risk biotechs. Furthermore, four of the remaining five businesses in the top 10 are also listed and American; Amgen, J&J, BMS and Biogen. The only exception, in 6th position, is the family-controlled Roche, which with 16 products in the top 300, yields revenue of \$2,121m revenue per product. However, Roche's strong performance is inexorably linked to its mega acquisition of the American biotech, Genentech. That shrewd 2009 purchase, de-risked by the time it was completed, epitomises Roche's long-term view and its willingness to look beyond a 3-5 year horizon.

Using revenue per product in the top 300 as a proxy measure, it appears that the most commercially successful companies have followed a typical route; US listing and big, high-risk bets on innovation. The two most prominent examples are Amgen and Gilead.

Amgen, perhaps the original risky biotech, kick-started the biotech revolution by investing venture funding in biologics. When the gamble started to pay off, it began the process of commercialising itself and has been growing ever since.

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The Gilead story involves similar risk. Its \$11bn purchase of Pharmasset in 2011 was the catalyst for groundbreaking successes in hepatitis C. But when it ran out of patients to treat, Gilead rolled the dice again with an \$11.9 billion acquisition of Kite Pharma to access its CAR-T treatment for advanced lymphoma. Its share price immediately rocketed.

The nature of Amgen and Gilead's successes should provide an important learning for listed companies: always be conscious of what your shareholders want. In the US, shareholders are looking for huge returns. They're happy to put up with the inherent volatility of high innovation if the potential upsides appear worth it.

In Europe, shareholders are perhaps more conservative – and it's led to alternative types of approaches. GSK, for instance, has convinced its shareholders to value sustainability. The company is taking the long-term view more commonly associated with private organisations. It has eschewed high risk innovation in favour of volume, focusing on getting greater quantities of its medicines around the world. The approach has seen GSK expand into emerging markets, securing high volume rather than high value. From an R&D perspective, its output of NMEs per €1bn revenue has been just 0.16. Yet its commercial model is thriving, yielding strong and sustainable dividends for shareholders.

GSK's approach of favouring volume over radical innovation is in sharp contrast to the growth strategies of most listed companies. As our ranking of companies by revenue per top 300 products shows, many of the top performing companies are pursuing high innovation. The top 10 certainly suggests that our third hypothesis may be true: listed companies generate more commercially-viable NDAs and NMEs than private organisations. It also underlines the potential rewards of investing in high-risk innovation. However, it's a strategy made for companies that have access to the capital markets. As we've already seen, it doesn't sit comfortably with the long-term ethos of private companies.

So what of our second hypothesis? Are listed companies better at commercialising new drugs? The data backs up the claim. The reason for this once again relates to the vagaries of ownership and the divergent demands of shareholders. Whereas private companies focus heavily on innovation, listed companies typically place a greater focus on commercial performance. This is entirely driven by the discipline of the market.

Shareholders' demands for quarterly earnings and commercial growth force listed companies to impose a capital discipline that focuses sharply on the numbers.

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Shareholders' demands for quarterly earnings and commercial growth force listed companies to impose a capital discipline that focuses sharply on the numbers. The share price matters. This means establishing robust processes, bringing in great people and focusing them firmly on delivering commercial success. Aligned to this, the ability to recognise opportunities that can deliver shareholder value, along with a preparedness to invest, are equally important attributes. Collectively, these are the hallmarks of commercial effectiveness.

Private organisations can learn much from the commercial approaches of listed companies. Fundamentally, commercial success is not about size or scale, it's about discipline, rigour and process. Private companies don't need to play the high innovation game to be commercially successful. With better structure, discipline and methodology, it's possible to squeeze more from your assets without betting the farm. A good start point is to use external benchmarking to gain an objective view of your marketing strengths and weaknesses. This can help you establish where you need to invest to achieve the greatest commercial returns.

Objective measurement and external assessment of commercial plans is standard practice in most competitive industries. As the value of external marketing audit is increasingly recognised, pharma companies are beginning to benchmark key elements of marketing against comparable companies and are using objective insight to inform commercial strategy. It's an approach that we endorse. Companies chasing superior commercial performance must ensure that they have strong marketing excellence structure and processes.

One size doesn't fit all

The ownership structure of a pharmaceutical company can certainly influence the nature of its evolution and growth. But that doesn't mean that the different ownership types cannot learn from each other. They must. With R&D still essential to the future of the industry, listed pharmas can learn from private companies in taking the long view on innovation. However, since commercial success is vitally important for short-to-medium term survival, private can learn much from their listed counterparts in this crucial area.

In the final analysis the message is simple: one size doesn't fit all. Companies should craft their R&D and commercial strategies to suit their ownership structure. The bespoke approach, based on reality-based evaluation, is always best.

For privately owned/controlled companies – in particular the European MidPharmas – our analysis can act as a satnav to guide the next part of their journey. R&D is more productive and efficient in private companies, but with listed companies proving more successful at commercialising NDAs,

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there's a critical need to think carefully about your R&D and commercial strategies. European MidPharmas should certainly continue to develop their own molecules. With in-licensing too expensive, it's important to maintain focus on your own products. But with better commercial discipline and process, it should be possible to sweat your assets and deliver more value.

One final thought for private companies is the opportunity to part-list. A number of family companies are contemplating part-listing to access the capital markets. Others – like Ipsen, Recordati and Almirall – have already taken the plunge. It's an option worth considering; it can give you the capital discipline and edge of the market and put you on a more ambitious, if volatile, path for growth. Part-listing won't work for everyone. However, if it's done with care – as is the case with Roche – it may be possible get the best of both worlds. After all, as the data shows us, ownership matters.