



Life Science is a constant race

... and every day our clients strive to win.

As many of our Swedish clients are traded on AktieTorget and Nasdaq First North & Premier, we decided to perform an analysis of the financing and IPO trends between 2015 and 2016:Q1. If the shown interest from investors is an indicator of prosperous times, Swedish Life Science can be concluded to be thriving. Biotech investors were rewarded handsomely throughout 2015 and the sector seemed to have reached a peak in Sweden in the first quarter of 2016 — almost 6 months after the Nasdaq Biotech Index peaked in the US. At the time of writing this introduction, the index of Swedish Life Science companies is again trending in a positive direction, after a period of some investor uncertainty during the second and third quarters of 2016.

Life Science companies are in a constant race to deliver results, which is reflected by the theme of this report. Competition is fierce in a dynamic landscape of new technologies, regulatory complexity and pressured healthcare budgets. To be considered a plausible winner, companies are expected to have go-to market strategies enabling long exclusivity periods, premium priced products and unique positioning in untapped niches. True value for patients can only be achieved if the medical product agency decides to give its final nod. Expectations from investors are high and success is often judged by the managerial ability to strike deals and secure return on investment for shareholders. The combined efforts and the sheer energy that is poured into this work is impressive. It is also the reason why we continue to be inspired by our clients.

We hope that this Life Science report will provide valuable insights for current investors and entice new investors to explore this exciting field.



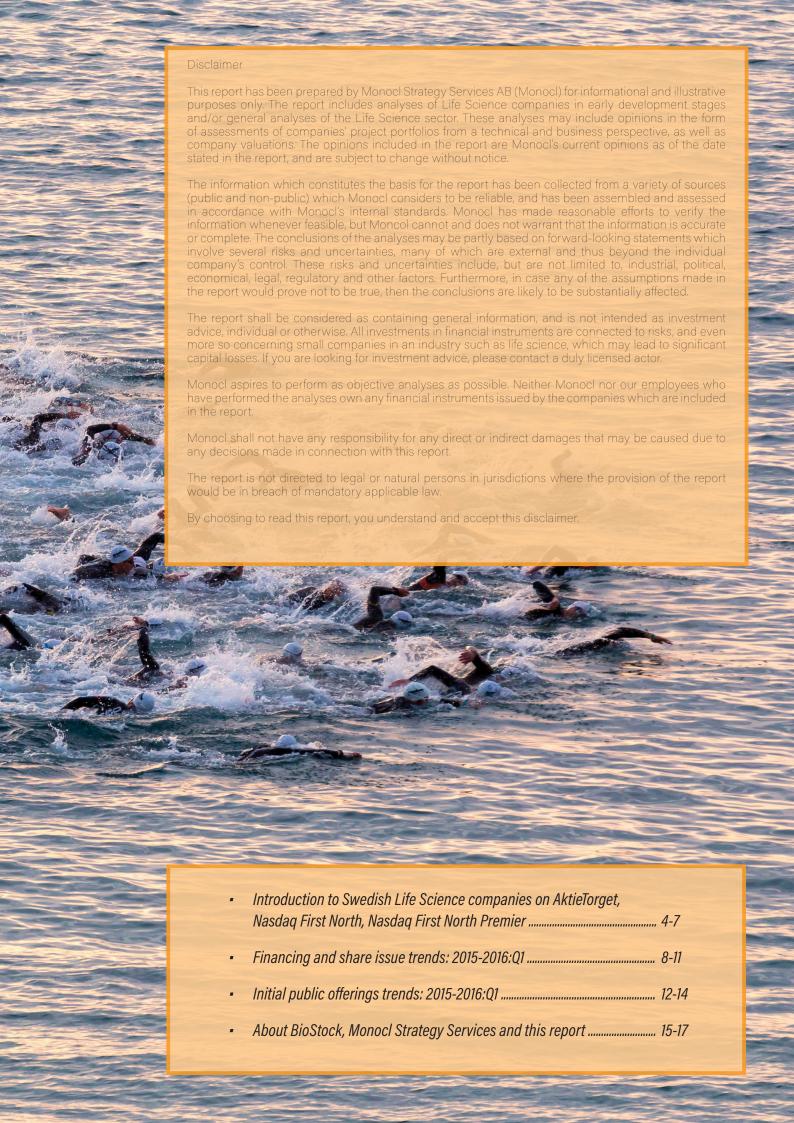
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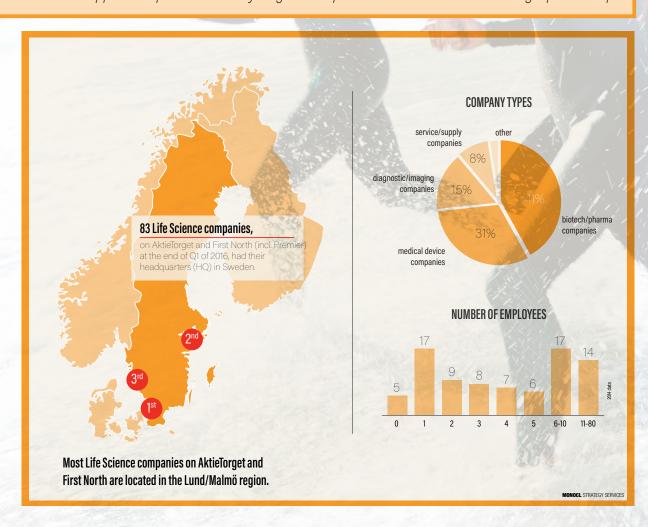
Monocl Strategy Services



INTRODUCTION Life Science trends in Sweden

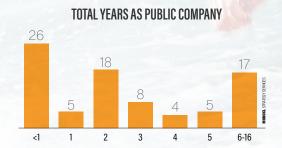
Swedish Life Science is booming,

at least from the standpoint of attracting investments. Never before has this industry been able to engage such an interest from investors for small companies in early development stages. To capture this, we decided to analyze the Life Science trends on the marketplaces AktieTorget and Nasdaq First North (including First North Premier) where many of the innovators within therapeutic and medical technology in Sweden start their journeys as publicly traded companies. Our data shows that this may have been a bumpy ride for some investors but has to be considered a success, as a whole, for many of the companies that have experienced over-subscribed share issues and initial public offerings (IPOs) in recent years. While there have been some indications on a declining investment pace in the US, none of those trends were seen in the beginning of 2016 when this report was written. Some market uncertainty then followed as a result of macro factors (e.g. Brexit, US election) but neither lead to any lasting decline. The question is how long the positive trend will continue and to what extent the current investors will be able to financially support companies with early stage development candidates towards strategic partnerships.



A third of all companies have been publicly traded less than one year

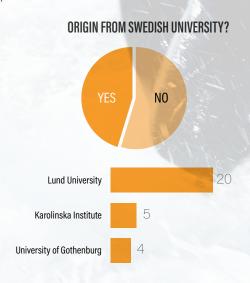
At the time of writing this report*, 83 Life Science companies with Swedish headquarters were publicly traded on AktieTorget (63%) and Nasdaq First North (37%). The majority of these were therapeutic biotech/ pharma companies (41%), followed by medical device companies (31%), diagnostic and imaging companies (15%), service & supply companies (8%) and other companies (e.g. animal health, supplements). Most of these (79.5%) had been publically traded five years or less and almost a third (31%) had been on the stock exchange for less than a year. Not surprisingly, the majority of these companies were located in Sweden's larger cities. What may come as a surprise for some is the fact that the Lund/Malmö region is the clear leader in the number of companies. In fact, 40% of these companies are located in these two cities, followed by the regions in Stockholm/Uppsala and Göteborg.



Small experienced teams with origins from Big Pharma, Big Device firms and leading universities

Life Science is an industry characterized by small management teams and virtual organizations, an observation supported by the fact that 63% of these companies reported that they had 0-5 employees on their payrolls in 2014. Clearly, this number does not account for the numerous specialized consultants and university employed researchers who work for these companies. The complexity of the industry, and its technologies, demands experience and high competence from the people working in it. Few other industries has as many PhDs and former professors in leading positions as Life Science. Moreover, most small companies aim to outlicense or sell their products to large companies with established marketing and sales channels. This creates a need to understand a future partner. We therefore decided to analyze the personal descriptions

of management teams and Board of Directors, and the results were promising. More than half of all companies (56%) wrote on their websites that both the people in their managements and on their Boards had previously been working in international Big Pharma or Big Device companies. An additional 30% of the companies had directors on their Boards with the same experience. Another type of competence that is necessary for these companies relate to their technologies and the medical needs that they are addressing. One way to measure this is to analyze the origin of how the company was created. It turned out that roughly half of all companies (45%) stated in the company descriptions on their websites that they originated from Swedish universities. Lund University was the one origin most frequently mentioned (20 companies) followed by the Karolinska Institute (5) and University of Gothenburg (4). In the Uppsala/ Stockholm region the Karolinska Institute (5), the Royal Institute of Technology (1) and the Swedish University of Agricultural Science (1) were the leading institutions, while companies in the Göteborg region originated from University of Gothenburg (4), Chalmers University of Technology (2) and Sahlgrenska University Hospital (1). We did not study furter how many of these companies that were created by individual researchers (e.g. using the teacher's exemption) or spun-out through university holding companies and associated incubators, which may be an interesting follow-up analysis to do in a future report.



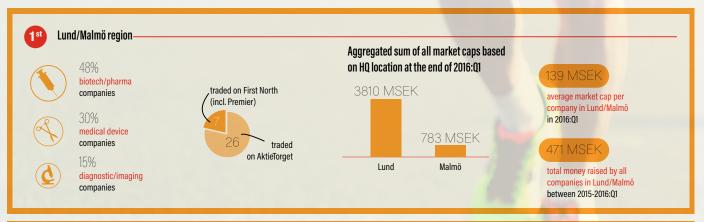
* It should be noted that describing an ongoing trend is comparable to capturing a moving target, readers should therefore be aware that this analysis is based on historic data with a cut-off end point on April 1, 2016, It should further be noted that the high number of companies that had announced IPO dates or closed financing rounds after April 1, 2016, were manually excluded from the analysis.

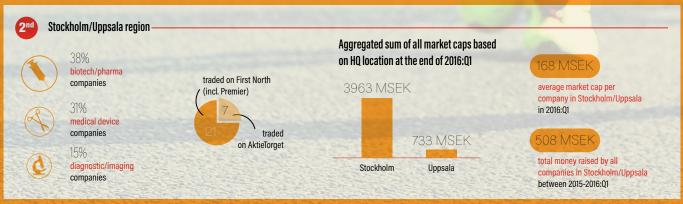


Lund/Malmö, Stockholm/Uppsala and Göteborg stand out as leading Life Science regions in Sweden

Lund/Malmö, Stockholm/Uppsala and Göteborg are the leading Life Science regions based on the number of companies, fundraising and IPOs. At the end of Q1 in 2016, the 33 companies located in Lund and Malmö had a collective market cap of 4.6 billion SEK. Strong contributors to this were the high valuations of Immunovia, WntResearch and Dignitana at the time of analysis. A subset analysis shows that 23 out of these 33 companies raised 0.471 billion SEK, in the period from 2015 to 2016:Q1. Most of these funds were raised, through 17 share issues and 7 IPOs, on AktieTorget where 26 of these companies were publicly traded at the time. In contrast to the Lund/Malmö region - where most of the companies were listed on AktieTorget - the majority of the companies in Stockholm and Uppsala were instead publicly traded on Nasdaq First North.

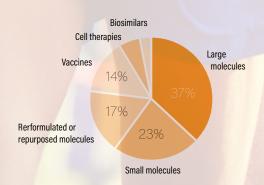
While the aggregated market cap was at a similar level for the 28 companies in the capital region, these companies raised more capital (0.508 billion SEK) in the same analytical period. While PledPharma, DexTech Medical and Bringwell drove a significant amount of the total market cap in the Stockholm/Uppsala region, the two companies Scibase and Xbrane accounted for more than half of the raised capital. At the time of analysis, Göteborg was home to only 12 of the companies in the analyzed set — almost a third compared with the leading Lund/Malmö region. Considerably less funds had been raised by companies in this region (0.167 billion SEK), compared with the other two regions, but a very similar total market cap valuation was observed (3.6 billion SEK). Largely responsible for driving up the average market cap of companies in the Göteborg region were the four companies Xvivo Perfusion, RLS Global, Immunicum and Ortoma.



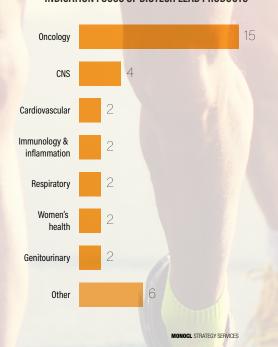




BIOTECH LEAD PRODUCT TYPES



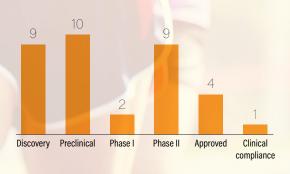
INDICATION FOCUS OF BIOTECH LEAD PRODUCTS



The Swedish biotech landscape is characterized by early assets, large molecules and orphan drugs

To understand the biotech landscape, we analyzed the lead candidates in the pipelines of each of the identified companies. About two-thirds (60%) of all of these drug candidates were in clinical phase I or earlier. Only four companies had products on the market, one (biosimilar) was in late clinical compliance phase and no company had products in a clinical phase III trial. Approved products were marketed within indications such as caries & periodontitis, common cold, intermittent claudication and malignant brain cancer. Most of the therapeutic companies are developing large molecules (37%) followed by those developing small molecules (23%) and companies reformulation/repurposing already known molecules (17%). The global industry trend to target rare diseases to enjoy government incentives (including market exclusivity) is also evident among Swedish companies. In fact, 40% of all these biotech companies have communicated the potential of its drug to achieve orphan protection. The majority, however, are far away from orphan protection and a market approval as 9 out of these 14 companies still are in early discovery or preclinical phase.

HIGHEST DEVELOPMENT PHASE OF BIOTECH LEAD PRODUCTS



ORPHAN POTENTIAL OF BIOTECH LEAD PRODUCT?



LEAD MEDICAL DEVICES AND DIAGNOSTIC TOOLS



A dominating Biotech focus on oncology, followed by CNS

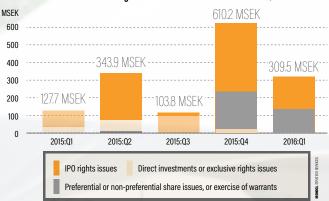
Oncology is a leading indication across the industry, which is also clear among these companies. These oncology products are indicated for a large variety of tumours including those affecting the brain, prostate, breast, kidney and the gastrointestinal tract. Central nervous system (CNS) diseases is the second biggest indication, following cancer. Key indications for this category include Alzheimer's, epilepsy, migraine and anti psychotic syndromes.

A heterogenous medical device industry

In similarity with the biotech companies, the majority of the 39 medical device and diagnostic/imaging companies are focused on oncology. In contrast, the intended use of products is much broader (prevention of hair loss, radiation treatment, detecting skin cancer, etc.). Oncology is followed by cardiovascular applications (e.g. organ transplantation, ex vivo lung perfusion, heart pump). Based on the leading device types, surgical and monitoring equipment are the most common. Among these we find a wealth of different products to achieve medical cooling, local tumor destruction with laser, stroke status detection & monitoring and much more.



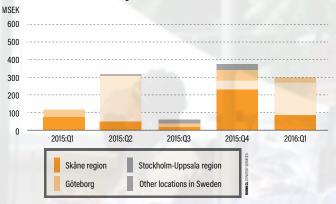
1495 MSEK raised by all Life Science companies, on AktieTorget and First North between 2015-2016:Q1



Great interest from investors as the Nordic Life Science industry raised 1.5 BSEK on AktieTorget and First North between 2015 and 2016:Q1

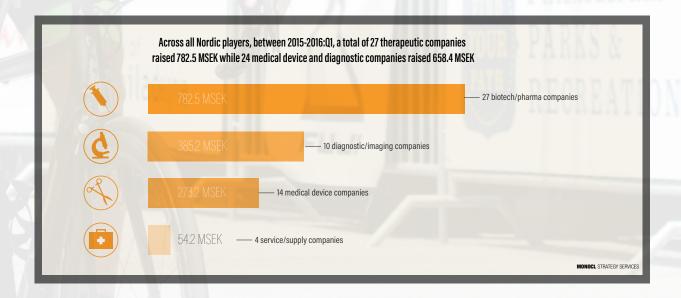
An impressive one and a half billion SEK was raised between 2015 and the end of the first guarter in 2016 on AktieTorget and Nasdaq First North and First North Premier. The corresponding number for the companies with Swedish headquarters was 1.175 BSEK with the three cities Lund (0.345 BSEK), Stockholm (0.383 BSEK) and Göteborg (0.167 BSEK) in the lead. About half of this capital was raised in initial public offerings (53%) while the rest was divided between share issues (preferential & non-preferential) (44%) and direct investments (3%). The last quarter of 2015 was by far the most investment intensive as more than a third of all money was raised in this period (0.610 BSEK). Most of the companies in the Life Science category on these stock exchanges are in growth mode and research & development are costintensive activities. This can be confirmed by the fact that a total of 60% of all these companies raised money in the observed period, with a slightly higher percentage on AktieTorget.

1175 MSEK raised by Swedish Life Science companies, on AktieTorget and First North between 2015-2016:Q1



Close to 0.8 BSEK raised by therapeutic companies and 0.7 BSEK by device & diagnostic companies

An analysis of the raised funds based on different company types across the Nordics, between 2015-2016:Q1, revealed that the lion's share (0.783 BSEK) was invested in biotech/pharma followed by diagnostics/ imaging (0.385 BSEK), medical devices (0.273 BSEK) and service/supply companies (0.054 BSEK). The largest fundraising was done by the Scandinavian oncology and chronic inflammatory disease company, Nuevolution. With the help of its financial advisor, Västra Hamnen Corporate Finance, the company managed to raise 250 MSEK in its IPO. Among the companies with Swedish headquarters, the malignant melanoma focused medical technology company Scibase was the clear leader with 190 MSEK that was raised in its IPO with the support from Pareto Securities, followed by the 100 MSEK that was raised in Xbrane Biopharma's IPO through Vator Securities. Collectively, these three companies thus raised 540 MSEK.



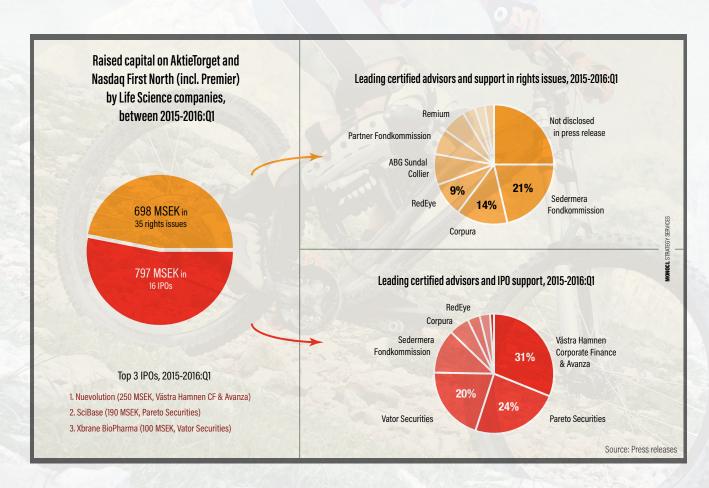


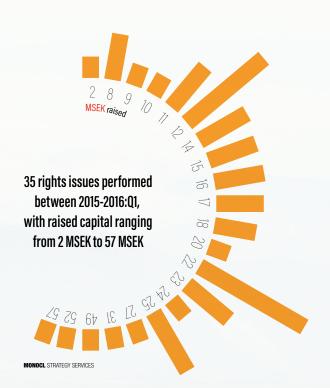
High amount of over-subscribed share issues

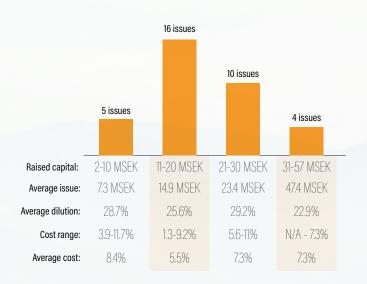
Many of the public companies raised money in the evaluated period and a high investor interest was observed in the majority of these. On AktieTorget, 65% of the Life Science companies raised money, whereas the same statistics for First North (incl. Premier) was 54%. This high interest resulted in more subscriptions than there were shares available in the most popular financing rounds. Among those 35 companies that performed rights issues between 2015-2016:Q1, a total of 20 companies (57%) reported that their rounds were over-subscribed. Almost double the amount of shares, as compared to what was offered, were subscribed on average (196% subscription) for those that reported over-subscription. The highest average subscription rates were seen in the biotech/pharma (223%) and medical device (196%) categories, where oncology company Kancera (526%) and transplantation company Vivoline Medical (285%), respectively, had the highest subscription rates in each category.

Clear dominance by a few financial advisors

To understand which financial advisors were the most active in this space, we analyzed press releases following the completion of all mapped financing rounds. Across the 35 different rights issues in this period - collectively representing 698 MSEK of raised capital - Sedermera Fondkommission (149 MSEK), Corpura (96 MSEK) and RedEye (65 MSEK) helped raise the most capital in 15 share issues. On average, each issue brought in roughly 20 MSEK with Vigmed (raising 57 MSEK with the help of ABG Sundal Collier), AroCell (52 MSEK, RedEye and Corpura) and Saniona (49 MSEK, advisor was not disclosed) in the lead. See the diagram below for more information.



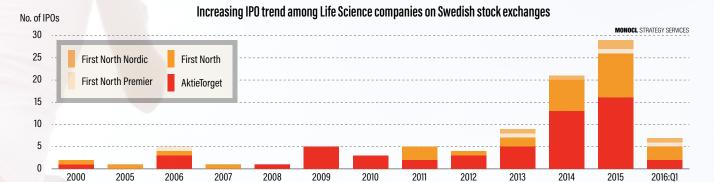




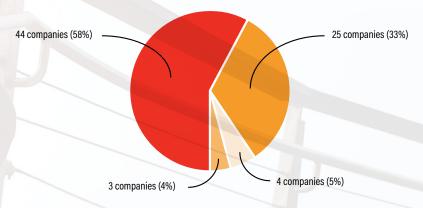
Most rights issues were performed in the 11-20 MSEK range with an average dilution of 25.6%

The clear majority of the analyzed share issues were in either the 11-20 MSEK (16 total issues) or the 21-30 MSEK (10 total issues) range. Based on a calculation of the amount of registered new shares divided by the total amount of shares (before each share issue) an average dilution rate was calculated. The highest average dilution was observed in the 21-30 MSEK range, followed by the 5 share issues that were done in the 2-10 MSEK range. By analyzing the costs associated with the share issues — when these were reported in press releases - the cost of raising capital could be determined as a percentage of the amount of raised capital. These costs varied greatly with the lowest rate reported as low as 1.3% (by Ortoma) and the highest rate at 11.7% (reported by Biotech IgG). The average cost of raising capital was determined to be 8.4% in the 2-10 MSEK range, 5.5% in the 11-20 MSEK and 7.3% in both of the two higher ranges.

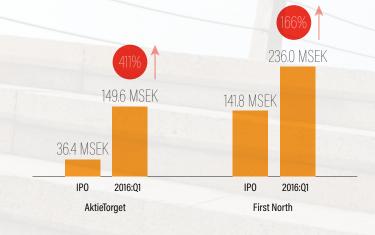




More than half of the 2010-2016 IPOs were on AktieTorget



Average market caps increased substantially, between 2010-2016



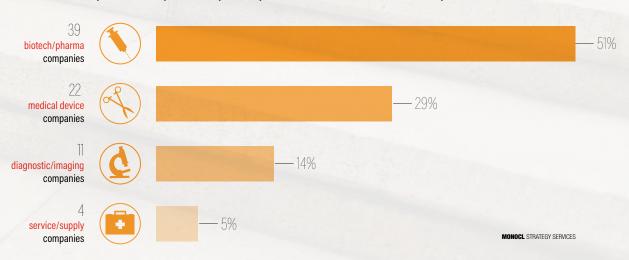
76 life science companies went public on AktieTorget and First North, 2010-2016:Q1

The number of companies within Life Science which became publicly traded between 2005 and 2010 was rather low and constant. A substantially increasing trend in the number of IPOs can then be observed. Our research shows that out of 89 Life Science companies, 76 performed IPOs in the period between 2010 and the first quarter of 2016 — 69 of these headquartered in Sweden. More than half (58%) of these 76 IPOs were made on AktieTorget. The number of IPOs in the first quarter of 2016 alone, outnumbers the amount of IPOs between 2000-2005.

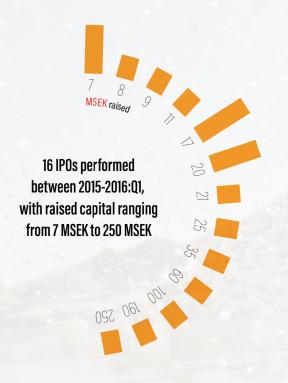
Dramatic increase in market cap valuations

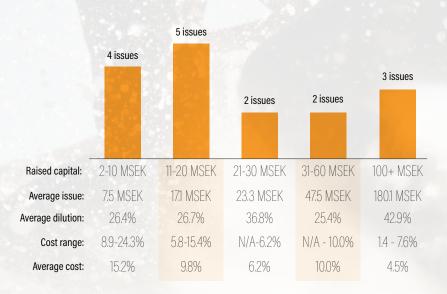
When comparing the average market cap valuation at the IPO stage with the average market cap of all companies in 2016, a dramatic increase is observed. The average market cap at the IPO stage of all 76 companies in the 2010-2016 period was 88.6 MSEK and the corresponding average market cap of the same companies at the end of the first quarter this year was 192.3 MSEK, resulting in a total increase of 217%. When the same calculation is done for the companies listed on AktieTorget and First North (excluding Premier), we see market cap increases of 411%, and 166%, respectively. Although the market caps of some of these companies may have increased through issuing new shares without an increased share price, the data indicates that the past five years have been favorable years for Life Science companies on these marketplaces.

Therapeutic biotech/pharma companies represented 51% of all IPOs in the 2010-2016 period









High amount of over-subscribed IPOs

In similarity to the share issues, in the analyzed period, a high level of investor interest was also seen in IPOs. Over- subscription rates were reported in 11 out of the 16 IPOs in the period. The average subscription rate among these 11 was an impressive 348%. Subscription rates in the pharma/biotech category averaged 351% with RhoVac (565%), Toleranzia (520%) and CombiGene (493%) in the lead. In the medical device and diagnostic/imaging categories the three leaders - Immunovia, Invent Medic Sweden and Redsense Medical - reported subscription rates of 500%, 308% and 210%, respectively.

Several large IPOs were completed in the analyzed period

To understand which financial advisors that supported most of these IPOs, an analysis of press releases was performed. Across the 797 MSEK that was raised in these 16 IPOs, the largest amounts were raised by the help of Västra Hamnen Corporate Finance (250 MSEK), Pareto Securities (190 MSEK) and Vator Securities (160 MSEK) across 4 IPOs. While the calculated average IPO raised roughly 50 MSEK, the three largest IPOs clearly stood out. Most cash was raised in Nuevolution's record amount (250 MSEK, Västra Hamnen Corporate Finance and Avanza), followed by SciBase (190 MSEK, Pareto Securities) and Xbrane Biopharma (100 MSEK, Vator Securities).

AktieTorget - IPOs

Financial advisor	No. of IPOs	Raised capital
Sedermera Fondkommission	6	95.2 MSEK
Corpura	1	11.0 MSEK
Vellenova	1	7.0 MSEK
Not disclosed	1	6.5 MSEK
	9	119.7 MSEK

Nasdaq First North, Premier & Nordic - IPOs

Financial advisor	No. of IPOs	Raised capital
Västra Hamnen Corp Finance	1	250.0 MSEK
Pareto Securities	1	190.0 MSEK
Vator Securities	2	160.3 MSEK
Corpura	1	35.0 MSEK
RedEye	1	25.5 MSEK
Not disclosed	1	16.7 MSEK
	7	677.5 MSEK

ABOUT THIS REPORT

This report was launched in 2016 to highlight recent financing and IPO trends among small public Life Science companies in Sweden. A large study was thus performed by Monocl Strategy Services AB comprising all Life Science companies in the Nordics that were publically traded on AktieTorget or Nasdaq First North and Nasdaq First North Premier between: Jan 1, 2015 to Apr 1, 2016. Extensive analysis was done based on press releases, prospectus documents, share price trends, corporate websites, proprietary databases, client records and much more.

BioStock AB acted responsible editor and publishing entity of this report, while Monocl Strategy Services was responsible for the analysis, presented content and design of this report.

KEY REFERENCES

- AktieTorget website.
- Nasdaq website.
- News and press release archives.
- Corporate websites of described companies, products and development candidates.
- Monocl Strategy Services' internal database over public Life Science companies.



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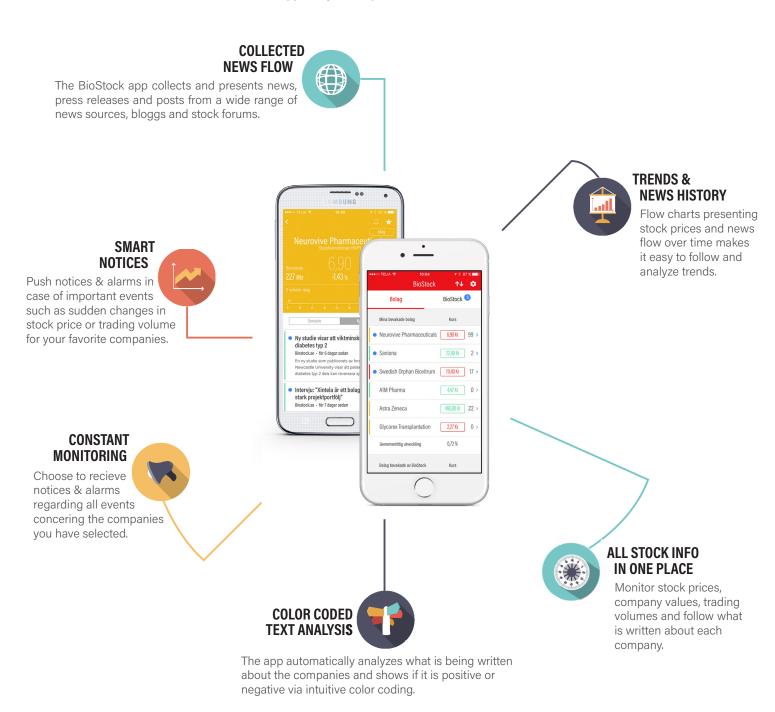


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