



WORLD COM
Public Relations Group

The 2018 Worldcom Digital Health Monitor – Pharmaceuticals

Drafted by Worldcom Healthcare
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Abbott

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Section One

Introduction

Pharmaceutical companies have been pushing back the boundaries of research, development and medical science for over a century. They are amongst the most innovative companies in the world. But, in this digital age, does their digital presence demonstrate the same innovative thinking?

Worldcom Healthcare decided to find out.

Section Two

Research methodology

We selected 25 pharmaceutical companies based on their global reputation, their size and geographic presence. We analysed their online presence globally and in 20 countries, across 12 digital channels.

Pharmaceutical companies

1. Abbott
2. Abbvie
3. Allergan
4. Amgen
5. Astellas Pharma
6. AstraZeneca
7. Baxter International
8. Bayer
9. Biogen Idec
10. Boehringer Ingelheim
11. Bristol-Myers Squibb
12. Eli Lilly
13. Gilead Sciences
14. GlaxoSmithKline
15. Johnson and Johnson
16. Merck
17. Mylan
18. Novartis
19. Novo Nordisk
20. Pfizer
21. Roche
22. Sanofi
23. Shire
24. Takeda
25. Teva Pharmaceutical

Countries

1. Argentina
2. Belgium
3. Brazil
4. Bulgaria
5. Canada
6. Colombia
7. Dominican Republic
8. Germany
9. Hungary
10. Ireland
11. Italy
12. The Netherlands
13. Peru
14. Poland
15. South Africa
16. Spain
17. Thailand
18. Turkey
19. United Kingdom
20. United States

Digital Channels

1. Website
2. Blog
3. Apps
4. Facebook
5. Twitter
6. LinkedIn
7. YouTube
8. Google+
9. Pinterest
10. Flickr
11. Instagram
12. Tumblr

Our analysis produced a Worldcom Healthcare monitor score for each company. This was based on each company's presence on, or use of, the 12 channels, both internationally and on a country-specific level. A total of 428 points was available to each company - split between three web and nine social channels. So, for example, if a pharmaceutical company has a global Facebook page and a page for each of the 20 countries in the study, it was given 21 points.


Digital Monitor scores available

| | Digital Channel | Max Score |
|--------------------|-----------------|--------------|
| Web | Website | 162.5 |
| | Blog | 21 |
| | Apps | 10 |
| Total | | 196 |
| Social Media | Facebook | 27 |
| | Twitter | 27 |
| | LinkedIn | 26 |
| | YouTube | 26 |
| | Google+ | 26 |
| | Pinterest | 26 |
| | Flickr | 25 |
| | Instagram | 25 |
| | Tumblr | 24 |
| Total | | 232 |
| Grand Total | | 425.5 |

We identified a range of criteria for each channel which can be seen in the charts below. The scores produced by these criteria created the rankings that are listed throughout this document.


Channel Criteria

Website




| | |
|----------------------------|-----|
| International page | 7,5 |
| Country specific page | 7,5 |
| Cross device compatibility | 5 |

Blog



| | |
|-----------------------|---|
| Presence | 1 |
| Country specific page | 1 |

Apps




| | |
|----------------------|---|
| Presence | 3 |
| Availability | 3 |
| HCP Utility | 1 |
| Patient Utility | 1 |
| Research/informative | 1 |
| If rated > 3 stars | 1 |

Facebook




| | |
|------------------------|---|
| Page present | 2 |
| Country specific page | 1 |
| Use of integrated apps | 1 |
| >10k likes | 1 |
| >50k likes | 1 |
| > 7 updates/week | 1 |
| Blog updates | 1 |

Google+




| | |
|-----------------------|---|
| Presence | 1 |
| Country specific page | 1 |
| >10k followers | 1 |
| >50k followers | 1 |
| >50k views | 1 |
| >3 updates/week | 1 |
| >7 updates/week | 1 |

Twitter



| | |
|-----------------------|---|
| Presence | 2 |
| Country specific page | 1 |
| >10k followers | 1 |
| >75k followers | 1 |
| >50% visual content | 1 |
| >3 tweets/day | 1 |
| >7 tweets/day | 1 |

Instagram




| | |
|-----------------------|---|
| Presence | 1 |
| Country specific page | 1 |
| >100 followers | 1 |
| >200 followers | 1 |
| ≥1 update/4 weeks | 1 |
| >1 update/4 weeks | 1 |

LinkedIn



| | |
|------------------------------|-----|
| Presence | 0,5 |
| Country specific page | 1 |
| Presence on SlideShare | 0,5 |
| >10k followers | 1 |
| >50k followers | 1 |
| ≥5 updates/week | 1 |
| > 50 followers on SlideShare | 1 |
| ≥5 slides shared | 1 |

YouTube




| | |
|-----------------------|---|
| Presence | 1 |
| Country specific page | 1 |
| Career channel | 1 |
| >2k subscribers | 1 |
| >10k subscribers | 1 |
| ≥1 update/2 weeks | 1 |

Flickr




| | |
|-----------------------|---|
| Presence | 1 |
| Country specific page | 1 |
| >50 followers | 1 |
| >100 followers | 1 |
| ≥1 update/4 weeks | 1 |
| >1 update/4 weeks | 1 |

Pinterest



| | |
|-----------------------|---|
| Presence | 1 |
| Country specific page | 1 |
| Verified | 1 |
| >3 boards | 1 |
| >10 boards | 1 |
| >200 followers | 1 |
| >500 followers | 1 |

Tumblr



| | |
|-----------------------|---|
| Presence | 1 |
| Country specific page | 1 |
| ≥1 update/4 weeks | 1 |
| >1 update/4 weeks | 1 |
| ≥30 notes/posts | 1 |

Section Three

Digital Health Monitor Results

Digital Health Monitor - Overall Ranking

As can be seen below, the top five digital performers are: Bayer, Pfizer, Boehringer Ingelheim, Novartis and Astra Zeneca.

The five lowest ranked are: Gilead Sciences, Shire, Teva Pharmaceutical, Mylan and Baxter International. Bayer scored 245.5 and Gilead scored 70.

| Company | Web | | Blog Max. score 21 | Apps Max. score 10 | Facebook | Twitter | LinkedIn | YouTube | Combined social (plus Google+ Pinterest Flickr Instagram Tumblr) | Total | Rank |
|-------------------------|--------------------------|---|--------------------------|--------------------------|----------|---------|----------|---------|--|-------|------|
| | Alexa Traffic Rank | No. of country specific websites | | | | | | | | | |
| Bayer | 61.671 | 18 | 11 | 7 | 20 | 20 | 8 | 6 | 77 | 245.5 | 1 |
| Pfizer | 42.996 | 19 | 2 | 9 | 16 | 14 | 8 | 14 | 67 | 228 | 2 |
| Boehringer Ingelheim | 152.943 | 18 | 3 | 8 | 11 | 14 | 9 | 12 | 64 | 222.5 | 3 |
| Novartis | 70.235 | 17 | 2 | 10 | 7 | 12 | 10.5 | 7 | 55.5 | 202.5 | 4 |
| Sanofi | 104.899 | 18 | 1 | 8 | 9 | 11 | 7 | 8 | 49 | 198 | 5 |
| AstraZeneca | 52.172 | 16 | 3 | 5 | 7 | 18 | 6.5 | 5 | 52.5 | 196 | 6 |
| GlaxoSmithKline | 35.154 | 16 | 3 | 9 | 9 | 9 | 5.5 | 8 | 43.5 | 190 | 7 |
| AbbVie | 77.464 | 17 | 1 | 6 | 8 | 8 | 4 | 7 | 36 | 186 | 8 |
| Johnson and Johnson | 18.020 | 17 | 2 | 10 | 10 | 7 | 3.5 | 8 | 30.5 | 182.5 | 9 |
| Roche | 29.469 | 15 | 2 | 8 | 10 | 10 | 5.5 | 8 | 44.5 | 179.5 | 10 |
| Eli Lilly | 63.200 | 14 | 10 | 10 | 7 | 8 | 5.5 | 4 | 32.5 | 177.5 | 11 |
| Novo Nordisk | 149.682 | 15 | 2 | 8 | 5 | 9 | 2 | 5 | 38 | 173 | 12 |
| Allergan | 157.013 | 17 | 2 | 6 | 3 | 5 | 3.5 | 2 | 20.5 | 171.5 | 13 |
| Takeda | 109.447 | 16 | 2 | 8 | 5 | 4 | 8.5 | 6 | 28.5 | 171 | 14 |
| Abbott | 36.681 | 14 | 2 | 7 | 6 | 5 | 5 | 6 | 35 | 164.5 | 15 |
| Biogen Idec | 209.565 | 16 | 2 | 9 | 4 | 6 | 3.5 | 2 | 18.5 | 162 | 16 |
| Merck | 57.654 | 14 | 2 | 0 | 9 | 8 | 8.5 | 5 | 39.5 | 159 | 17 |
| Bristol-Myers Squibb | 68.143 | 15 | 1 | 9 | 6 | 7 | 3.5 | 4 | 22.5 | 157.5 | 18 |
| Astellas Pharma | 142.295 | 15 | 2 | 5 | 4 | 6 | 4.5 | 2 | 20.5 | 155.5 | 19 |
| Amgen | 85.836 | 13 | 2 | 6 | 3 | 8 | 5 | 5 | 29 | 150 | 20 |
| Baxter International | 162.814 | 14 | 2 | 6 | 5 | 5 | 4.5 | 2 | 17.5 | 146 | 21 |
| Mylan | 199.626 | 15 | 2 | 0 | 1 | 6 | 6 | 3 | 18 | 145 | 22 |
| Teva Pharmaceutical | 283.296 | 13 | 0 | 8 | 5 | 6 | 3.5 | 3 | 23.5 | 141.5 | 23 |
| Shire | 201.518 | 8 | 0 | 8 | 1 | 4 | 4.5 | 3 | 16.5 | 97 | 24 |
| Gilead Sciences | 157.560 | 5 | 0 | 8 | 3 | 6 | 5 | 2 | 17 | 70 | 25 |

Results summary

Website

All the pharmaceuticals have a global website, as can be expected from a multinational company. However, although local content is generally considered of great importance, many pharmaceuticals do not feed all the researched countries with local content.

Blogs

Our analysis shows that the pharma companies make very little use of the power of blogs. Admittedly, almost all pharmacists report having a 'global blog', but local blogs are almost impossible to discover. Also, the number of blogs posted is quite moderate.

Apps

Most companies have efficient, target group-centred apps. Except for two companies, the pharmaceuticals score 50% or more in this category.

Social media

All pharmaceuticals but two have international Facebook accounts. Despite the fact that the number of Facebook users worldwide is much bigger, all pharmaceuticals on our list do have an international Twitter account.

LinkedIn accounts are present, but no pharmaceutical company achieves even 50% of the score. This is mainly due to the fact that country-specific pages on LinkedIn are apparently not common in the pharmaceutical sector.

Given the importance of YouTube, it is surprising that this platform does not seem to belong to the standard communications arsenal of pharmaceutical companies. Local YouTube accounts are available in only a handful of countries.

The use of the remaining channels, i.e. Google+, Pinterest, Flickr, Instagram, and Tumblr has proved to be so low among our pharmaceutical companies that it is of little use to discuss them separately.

Content – about the pharma sector

In 2018, around 38,000 messages have been put online 'About the pharma sector'. Not surprisingly, given the reputation of the average pharmaceutical company: what is said about the sector is not always positive.

In a nutshell, the pharmaceutical companies tweet and post about their company, their congresses and campaigns, the disorders they treat and general health issues. The people who do not officially communicate on behalf of the pharmaceutical companies also talk about conspiracies and other possible abuses in pharmacy. Nonetheless, the general sentiment is not clearly negative. Twitter is the number 1 channel to talk about the pharma sector.

Content – by the pharma sector

Our 25 pharmaceutical companies have put more than 25,000 messages online, mainly using Twitter and Facebook. A very striking fact is that YouTube and Instagram, respectively the second and sixth largest social channels globally, are heavily underrepresented.

Issues

Issues that generate a lot of attention or an increasing amount of posts and tweets are 'big pharma' and 'opioid abuse', respectively. In 2018 no less than 66,000 posts were distributed in which "big pharma" is mentioned. Most of the messages (77%) can be found on Twitter.

Section Four

Channel Specific Rankings Overall online presence

Global Website

As can be expected from multinationals in the pharmaceuticals industry, all companies have an international website. We assessed the impact of the websites using the [Alexa Traffic Rank](#).

Alexa calculates the worldwide ranking of sites by relating the average number of daily visitors to the number of page views over a period of three months. The site that scores highest on the combination of 'visitors' and 'page views' is number one on the list. As a result, the smaller the number, the higher the ranking. The current global top five websites on the Alexa ranking, are: Google, YouTube, Facebook, Baidu and Wikipedia. We do not expect pharmaceutical firms to attract high volumes of visits, but you will see from the ranking chart above that there is a very wide range to the Alexa ranking. Johnson & Johnson has the highest ranking of 18.020 and Teva Pharmaceuticals has the lowest ranking of 283.296.

Country-specific websites

The number of country-specific websites that the pharmaceuticals host does not vary a lot between the participants, except for Gilead Sciences and Shire.

The majority of pharmaceutical companies seem to recognize the importance of local content. Pfizer, for example, only lacks a country-specific site in the Dominican Republic. Gilead and Shire both underperform on this criterion, scoring only 25% and 40%, respectively.

Blog

Our analysis shows that very little use is being made of blogs on these websites. Almost all the companies have a 'global blog', but local blogs are very rare. Only Bayer and Eli Lilly, have local blogs - and scored 11 and 10 points out of 21, respectively.

Without exception, the other pharmaceuticals do not score more than three points.

Apps

The apps issued by the pharmaceutical companies have been scored on the basis of their Presence (three points), their Availability (three points), their Professional Utility (HCP Utility, one point), their Patient Utility, one point), their Information Value (Research/ informative, one point), and their Popularity (If rated > three stars, one point).

App-wise, our research population is generally well-established. All but two of the companies score 50% or more in this category.

Social media channels

We analysed the social media behaviour of the 25 pharmaceutical companies by using the monitoring tool OBI4Wan. We also used the 2018 reports and overviews from *We Are Social* and *Hootsuite* and referred to *statista.com*.

Internet and social media use - a lost opportunity for the pharma industry

The industry reports we used show that the pharma industry has not yet woken up to the opportunity provided by social channels to educate and inform its audiences and to build a brand following. While we recognize that the pharmaceutical sector is heavily regulated and therefore the way companies communicate with its various target audiences will be very different to consumer organizations, the Digital Monitor shows, that many companies may be squandering opportunities to get their messages across.

The number of worldwide Internet users now exceeds *four billion*. This means more than half of the world's population uses the Internet. These users spent more time online than ever before. The average user now spends about six hours a day searching, surfing, chatting, watching, listening and interacting on the Internet. This means that the world population spent one *billion* years online in 2018.

The growth of Internet users in recent years is largely due to more affordable smartphones and mobile data. Two-thirds of the 7.6 billion inhabitants of the planet now have a mobile phone. Moreover, more than half of those are smart devices. Accessing the Internet is becoming easier for everyone, regardless of time and location.

Social media worldwide

The use of social media also continues to grow. More than three billion people around the world now use social media every month. Almost all of them have access to these platforms through their mobile devices.

In October 2018, Facebook was the most popular channel worldwide with over two billion users - representing a big lead over YouTube. However, channel usage continues to evolve very fast, so we expect to see some big improvements in the next Worldcom Digital Health Monitor.

In October 2018, the figures were as follows:

Number of worldwide users of social channels

| Company | Number of users (in millions) |
|--------------------|-------------------------------|
| Facebook | 2.234 |
| YouTube | 1.900 |
| WhatsApp | 1.500 |
| Facebook Messenger | 1.300 |
| WeChat | 1.058 |
| Instagram | 1.000 |
| Qq | 803 |
| Tumblr | 794 |
| Qzone | 548 |
| Douyin/Tik Tok | 500 |
| Sina weibo | 431 |
| Google+ | 395 |
| Twitter | 335 |

| Company | Number of users (in millions) |
|-------------|-------------------------------|
| Reddit | 330 |
| LinkedIn | 303 |
| Baidu tieba | 300 |
| Skype | 300 |
| Snapchat | 291 |
| Viber* | 260 |
| Pinterest | 250 |
| Line | 203 |
| Telegram | 200 |
| Yy | 117 |
| Vkontakte | 97 |
| Bbm | 63 |
| Kakaotalk | 49 |

The channels marked blue are so-called 'social networks', the ones marked white are 'messenger apps', chat apps or VoIP-applications.

Use of social media channels

We have ranked the 25 companies for their use of each of the nine social channels.

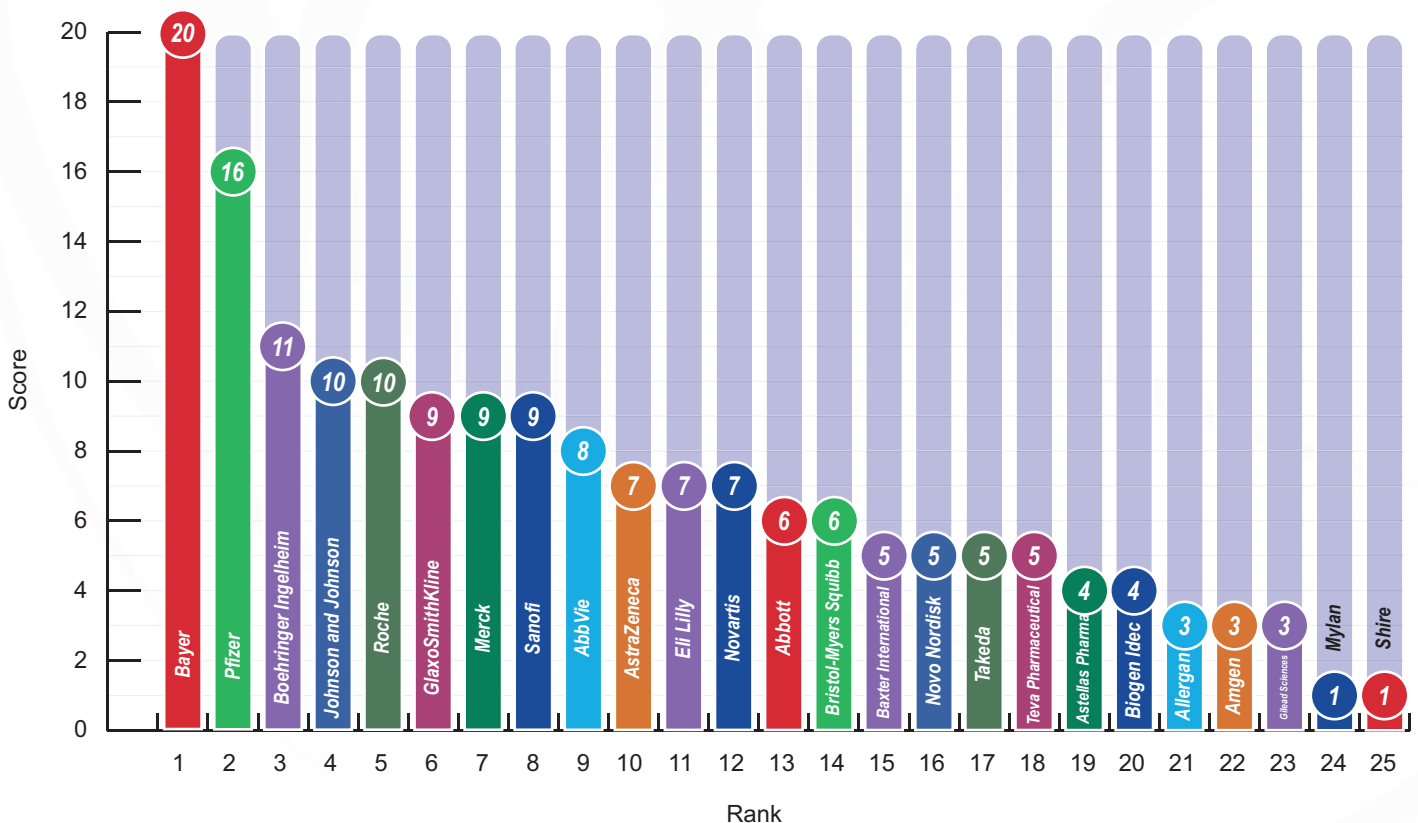
Use of Facebook

As can be seen from the chart below, the companies seem to have very different attitudes to Facebook. Bayer scores 20 points but Mylan and Shire did not have a 'global' Facebook page in 2018 and scored just one point each. Mylan did have a Hungarian Facebook page, which does raise questions about social media policies and procedures.

We have rated the companies in accordance with the following Facebook criteria: (see right)

| Facebook | |
|------------------------|---|
| Page present | 2 |
| Country specific page | 1 |
| Use of integrated apps | 1 |
| >10k likes | 1 |
| >50k likes | 1 |
| > 7 updates/week | 1 |
| Blog updates | 1 |

Digital Health Monitor Facebook Ranking



Use of Twitter

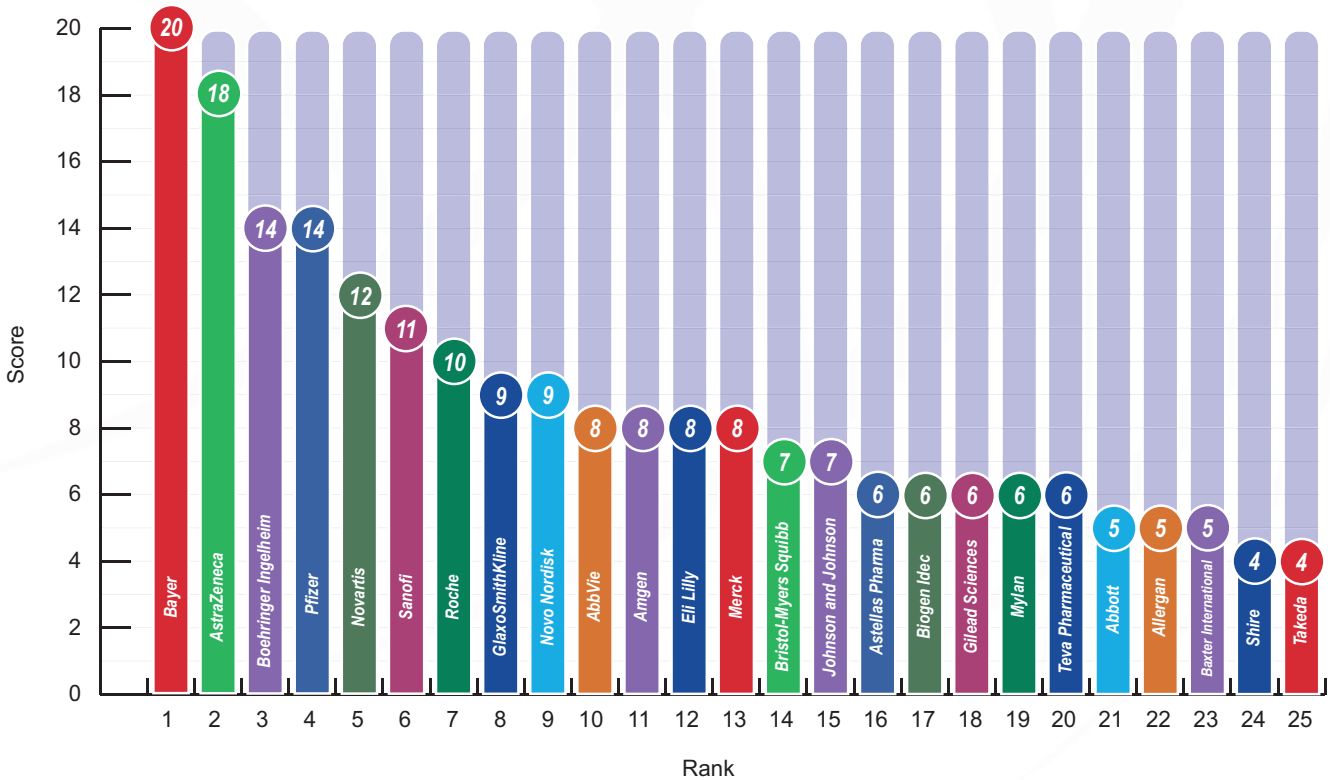
Twitter has 335 million users worldwide. Despite the fact that the number of Facebook users worldwide is much greater, all pharmaceuticals on our list do have an international Twitter account.

We have scored the Twitter activities as follows: (see right)

Here, too, Bayer is the leader of the pack and Shire the joint lowest scorer. Pfizer is in fourth place - demonstrating it prioritizes Facebook over Twitter. AstraZeneca, on the other hand, is in second for Twitter and only 10th for Facebook.

| Twitter | |
|-----------------------|---|
| Presence | 2 |
| Country specific page | 1 |
| >10k followers | 1 |
| >75k followers | 1 |
| >50% visual content | 1 |
| >3 tweets/day | 1 |
| >7 tweets/day | 1 |

Digital Health Monitor Twitter Ranking



Use of LinkedIn

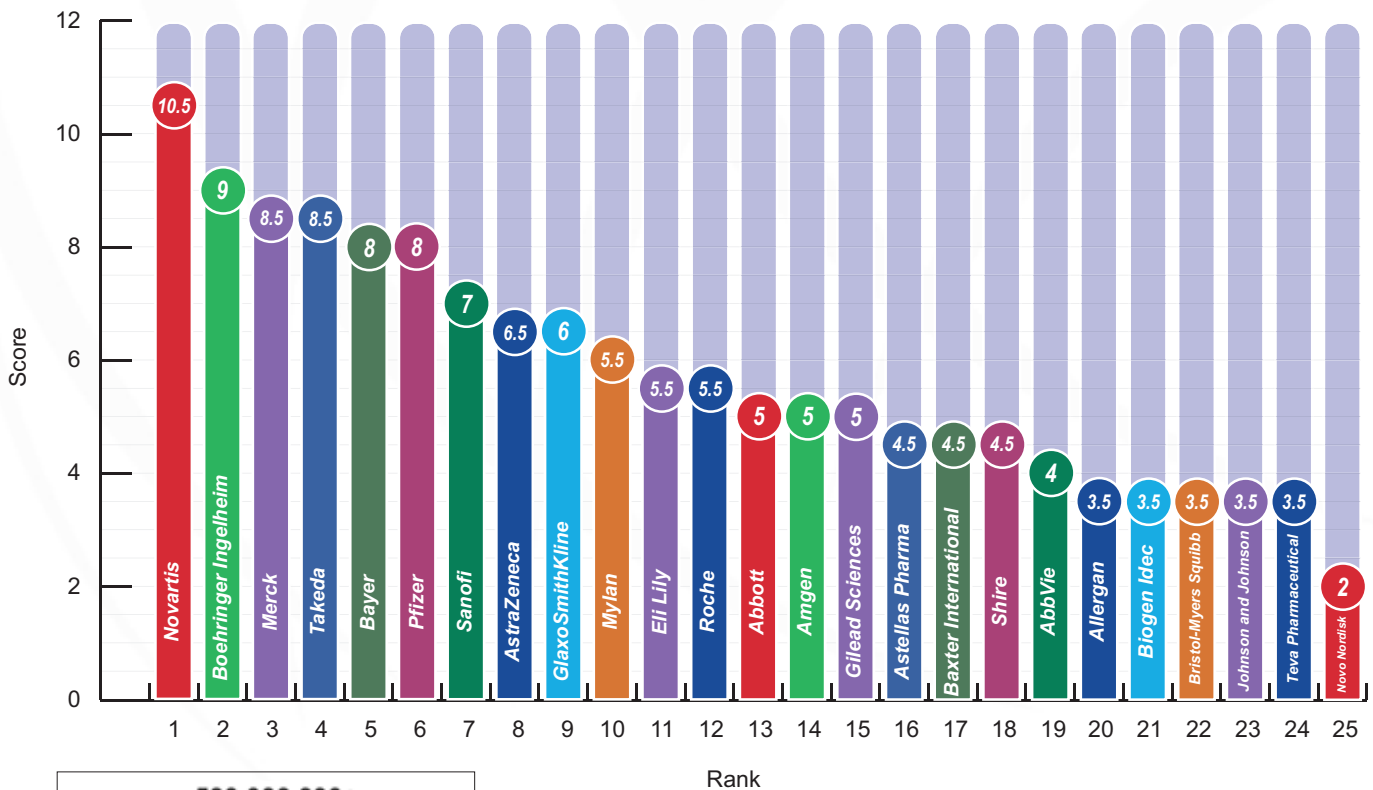
Although LinkedIn reports 590 million users worldwide, many of which may be professional targets, the use of LinkedIn is much less than some of the other channels. The number one ranked company only scores just over 10 points out of a possible 27. This is predominantly due to the limited use of country-specific LinkedIn pages. However, as over half of users - 154 million - come from the US, it may make sense to adopt a global approach. India, China, Brazil and the UK also have high membership levels. So it may make sense to have a more local focus in these countries. Europe has 102 million users, so a regional approach should be considered.

LinkedIn scores are based on the following: (see right)

| LinkedIn | |
|---|-----|
|  | |
| Presence | 0,5 |
| Country specific page | 1 |
| Presence on SlideShare | 0,5 |
| >10k followers | 1 |
| >50k followers | 1 |
| ≥5 updates/week | 1 |
| > 50 followers on SlideShare | 1 |
| ≥5 slides shared | 1 |

Digital Health Monitor Twitter Ranking

Based on these criteria, the companies ranked as follows:



LinkedIn, number of users in millions

For once, Bayer does not take first place but appears in fifth. Novartis is the top-ranked firm followed by Boehringer Ingelheim. Novo Nordisk is the lowest-ranked with Shire moving into a mid-table position, albeit with just over four points.

Use of YouTube

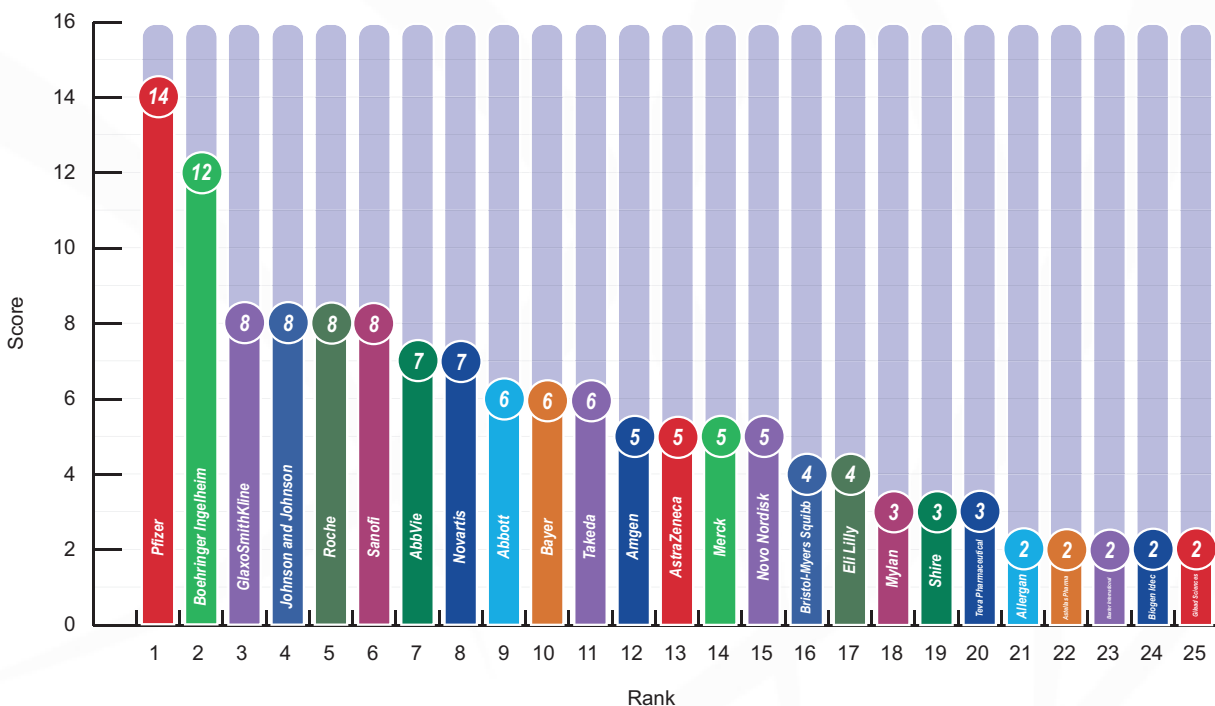
After Facebook, YouTube is the largest social platform worldwide and the world's second largest search engine. The importance of YouTube is expected to increase, as visual content, particularly video, is preferred to text - even by business users.

The pharmaceutical companies were ranked by using the following criteria:

| YouTube | |
|-----------------------|---|
| Presence | 1 |
| Country specific page | 1 |
| Career channel | 1 |
| >2k subscribers | 1 |
| >10k subscribers | 1 |
| ≥1 update/2 weeks | 1 |

Digital Health Monitor YouTube Ranking

Based on these criteria, the companies ranked as follows:



Pfizer tops the rankings with a score of 14. Boehringer Ingelheim is a close second but then the scores drop down significantly. Four of the sample scored just two points.

Most of the companies had little or no local YouTube presence. While the international language of pharma is English, it makes sense, for some audiences, to have local language content to encourage people to engage with the brand and to ensure there is no misunderstanding of what is being communicated.

YouTube statistics

- Total number of daily active YouTube users: 30+ million
- Number of videos shared to date: 5+ billion
- Number of users creating content shared to date: 50 million
- Average viewing session: 40 minutes, up 50% year-over-year
- Number of videos watched per day: 5 billion
- Number of mobile YouTube views per day: 500 million
- Number of videos uploaded per minute: 300 hours
- 80% of YouTube users come from outside the U.S
- 35+ and 55+ age groups are the fastest-growing YouTube demographics
- Millennials prefer YouTube two to one over traditional television
- YouTube services 88 countries in 76 languages

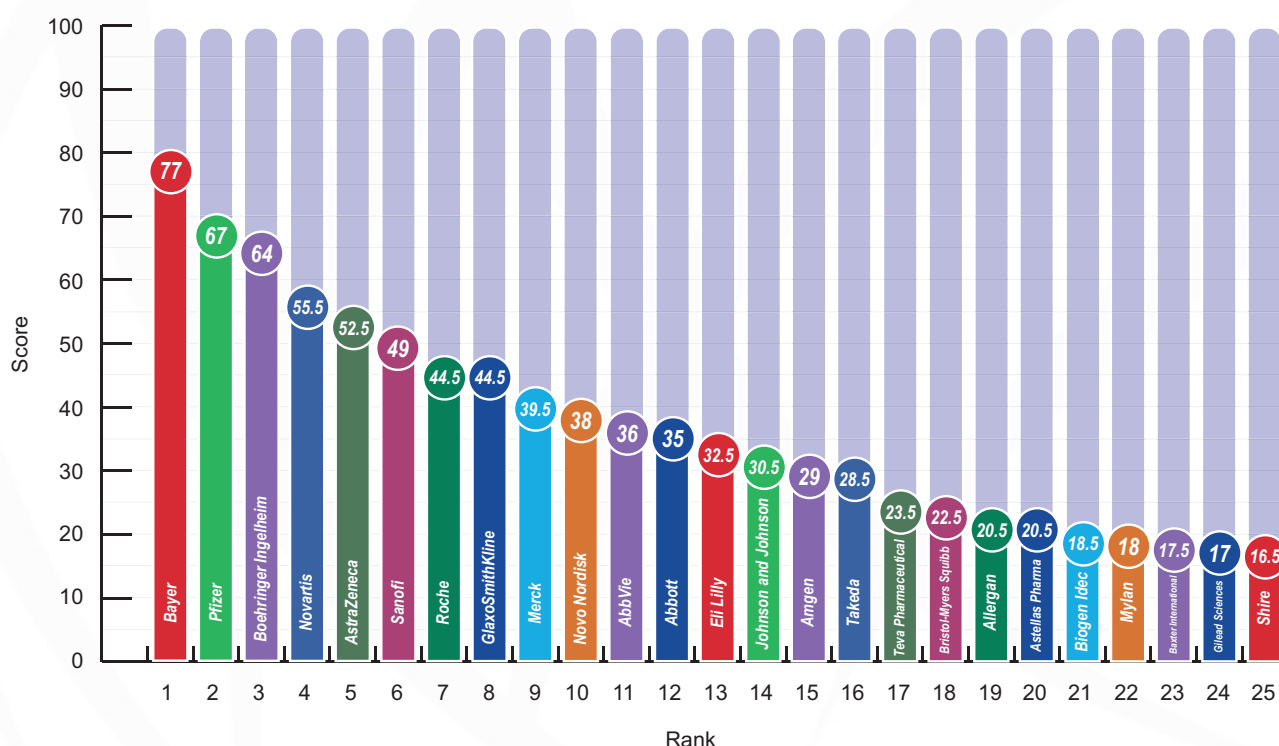
YouTube can be used to attract the best talent. So, not doing so represents a competitive disadvantage as YouTube is particularly influential with Millennials and increasingly with the 35+ and 55+ age groups.

Combined social channel ranking

The remaining channels are: Google+, Pinterest, Flickr, Instagram, and Tumblr. Our analysis showed that the use of these channels by pharmaceutical companies is so low that it does not make sense to provide separate analysis.

Instead, we have compiled an ‘overall social top 25’ based on the scores across all nine social channels.

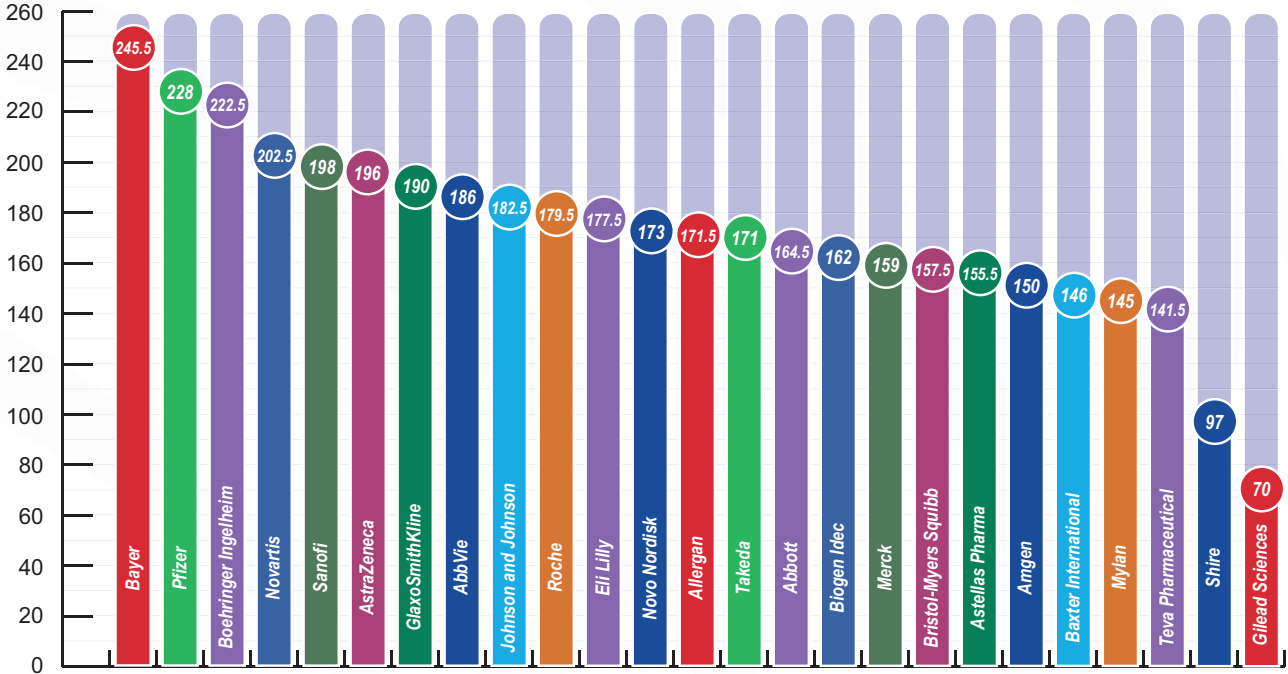
As can be seen in the chart below, Bayer tops the rankings with a score of 77 out of an available 232 points. Bayer is closely followed by Pfizer and Boehringer Ingelheim. Shire comes last in the ranking with a score that shows it is relatively inactive on social channels.



Although not all channels will be applicable to all pharma companies, it makes sense to create an integrated global social communications strategy to ensure that opportunities are not being missed. For example, [Worldcom's Confidence Index](#) demonstrated that attracting, retaining and energizing employees will be a key battleground for all organizations. Social channels will play a very important role in winning that battle for talent.

Combined online and social ranking

In Section Three above we identified the leaders and followers in the Worldcom Digital Health Monitor. The chart below summarizes the ranking positions with a total score for all 12 channels analysed.



Section Five

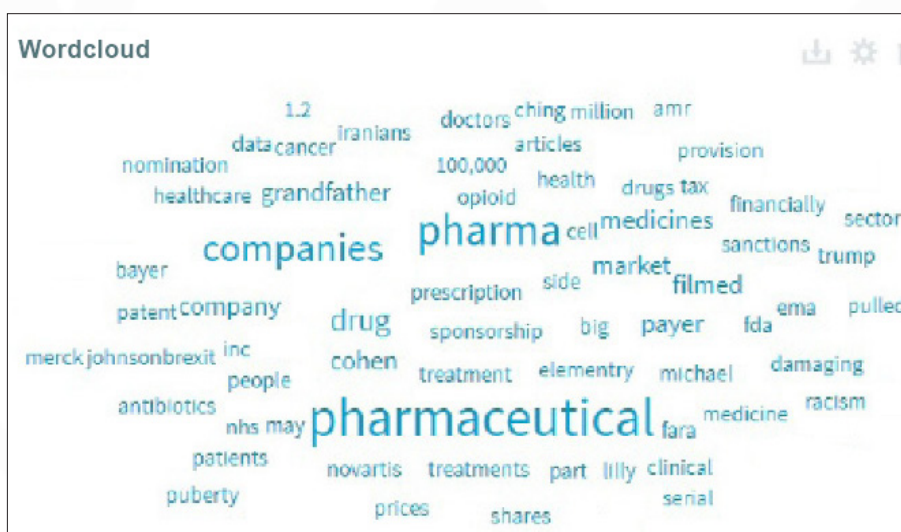
Analysis of content

In addition to identifying which channels are being used, we wanted to understand what kind of messages were being conveyed about pharma companies. To do this we used a tool called OB14Wan to carry out a Boolean search in English for occasions when “pharmaceutical company”, “pharmaceutical companies”, “pharma company”, “pharma companies”, “pharma sector “ or “pharmaceutical sector was mentioned. It was important to search on this basis so that only relevant posts were identified. We could have searched for terms like drugs, but that would have brought back thousands of irrelevant messages. 38,000 posts were identified with these core references. The content of these posts was then analysed further.

The analysis of the conversations about the pharma sector yields the following word cloud and hashtag cloud which show the most commonly occurring words and hashtags.

Top 25 words about pharma

The word cloud shows which words are most commonly used in the conversation about pharma. We have ignored words like ‘the’, ‘and’ and ‘that’ for the purposes of this research. as you can see from the list the most commonly occurring words are relatively generic. The words used tell a slightly different story.



| Rank | Word | Occurrences in 2018 |
|------|----------------|---------------------|
| 1 | pharmaceutical | 6.006 |
| 2 | pharma | 4.154 |
| 3 | companies | 3.815 |
| 4 | drug | 2.814 |
| 5 | market | 1.390 |
| 6 | payer | 898 |
| 7 | company | 867 |
| 8 | grandfather | 842 |
| 9 | filmed | 832 |
| 10 | cohen | 819 |
| 11 | medicines | 765 |
| 12 | health | 636 |
| 13 | fda | 568 |

| Rank | Word | Occurrences in 2018 |
|------|-------------|---------------------|
| 14 | michael | 552 |
| 15 | people | 543 |
| 16 | brexit | 541 |
| 17 | cell | 530 |
| 18 | 100,000 | 516 |
| 19 | treatments | 497 |
| 20 | medicine | 478 |
| 21 | novartis | 458 |
| 22 | antibiotics | 442 |
| 23 | may | 422 |
| 24 | damaging | 413 |
| 25 | fara | 411 |

Top 25 hashtags about pharma

The hashtag cloud shows which words the sender of the message wants to be associated with and therefore expects to be searched for by others. It also introduces a very different tone than the word cloud, with hashtags such as #corruption and #bribery featuring highly. This indicates the need for pharma companies to review the various channels for crisis and reputation management purposes



| Rank | Hashtag | Occurrences |
|------|-----------------------|-------------|
| 1 | #pharma | 1.491 |
| 2 | #corruption | 596 |
| 3 | #bribery | 559 |
| 4 | #pharmaceutical | 412 |
| 5 | #r4today | 320 |
| 6 | #banklobbyistact | 267 |
| 7 | #scotus | 201 |
| 8 | #corybooker | 201 |
| 9 | #butterfly | 183 |
| 10 | #bigpharma | 180 |
| 11 | #healthcare | 151 |
| 12 | #antibiotics | 145 |
| 13 | #amr | 141 |
| 14 | #goptaxscam | 138 |
| 15 | #merck | 127 |
| 16 | #cybersecurity | 123 |
| 17 | #antibioticresistance | 123 |
| 18 | #pfizer | 118 |
| 19 | #lifesciences | 115 |
| 20 | #glaadawards | 112 |

‘About pharma’ versus ‘by pharma’

We decided to delve a little deeper by separating what is said about the sector from what the pharmaceutical companies talk about. The differences can be seen in the chart below.

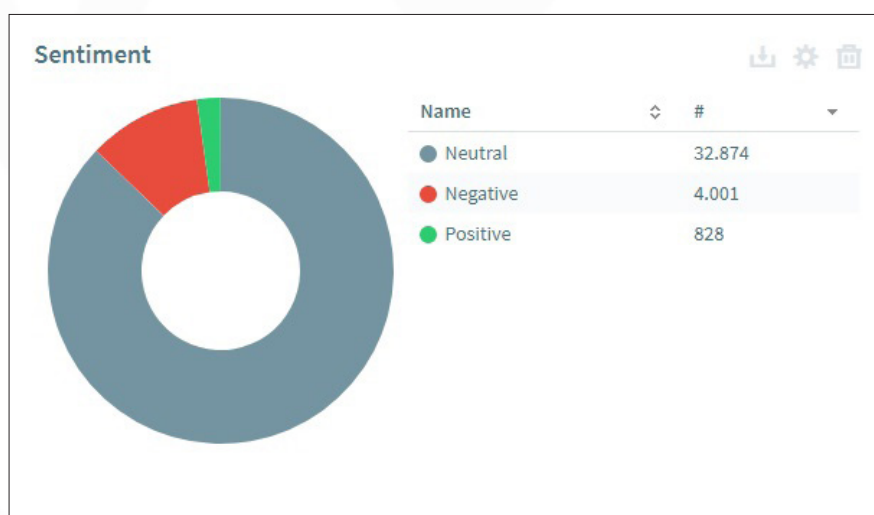
The pharmaceutical companies tweet and post about their company (#jnj), their conferences (#asco18) and campaigns (#inventingforlife), the disorders they treat (#breastcancer) and general health issues (#biosimilars, #digitalhealth).

People who do not communicate on behalf of the pharmaceutical companies also talk about more negative topics such as: conspiracies (#goptaxscam), and other possible abuses in pharma (#bigpharma, #corruption, #bribery). They also talk about big issues such as #stopsuperbugs.

Sentiment

We also looked at the sentiment of the 38,000 messages. While the sentiment assessment of a monitoring tool is still not comparable to those of a human being, it shows that the general tone of posts is neutral. In fact, 87% is marked as neutral by the tool, 11% as negative and 2% as positive.

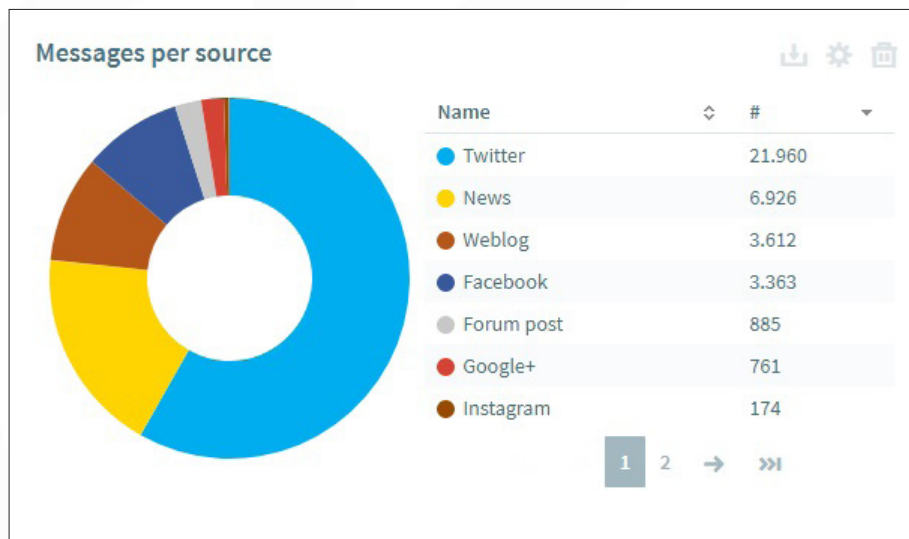
Earlier in the report, we mentioned the lack of career channels on YouTube. If for example, advocate employees were encouraged to share their positive experiences, the positive sentiment score could improve significantly.



| | About pharma # | Occurrences | | By pharma # | Occurrences |
|----|-----------------------|-------------|--|--------------------|-------------|
| 1 | #pharma | 1.491 | | #inj | 1.093 |
| 2 | #corruption | 596 | | #cancer | 520 |
| 3 | #bribery | 559 | | #landdergesundheit | 479 |
| 4 | #pharmaceutical | 412 | | #digitalisierung | 449 |
| 5 | #r4today | 320 | | #diabetes | 417 |
| 6 | #banklobbyistact | 267 | | #hiv | 394 |
| 7 | #scotus | 201 | | #dyk | 344 |
| 8 | #corybooker | 201 | | #lungcancer | 344 |
| 9 | #butterfly | 183 | | #stem | 304 |
| 10 | #bigpharma | 180 | | #asco18 | 297 |
| 11 | #healthcare | 151 | | #amgen | 273 |
| 12 | #antibiotics | 145 | | #digitalhealth | 269 |
| 13 | #amr | 141 | | #lifetotheullest | 250 |
| 14 | #goptaxscam | 138 | | #amgenonco | 203 |
| 15 | #merck | 127 | | #erscongress | 171 |
| 16 | #cybersecurity | 123 | | #csm | 171 |
| 17 | #antibioticresistance | 123 | | #ms | 169 |
| 18 | #pfizer | 118 | | #behindthescience | 155 |
| 19 | #lifesciences | 115 | | #alzheimers | 154 |
| 20 | #glaadawards | 112 | | #worldcancerday | 154 |
| 21 | #curatoken | 111 | | #oncology | 150 |
| 22 | #ico | 110 | | #italladdsup | 149 |
| 23 | #ethereum | 108 | | #bio2018 | 145 |
| 24 | #top50 | 107 | | #mmsm | 144 |
| 25 | #curaizon | 107 | | #migraine | 140 |
| 26 | #stopsuperbugs | 106 | | #gesundheit | 133 |
| 27 | #health | 106 | | #biosimilars | 126 |
| 28 | #novartis | 102 | | #obesity | 125 |
| 29 | #crypto | 101 | | #ash18 | 124 |
| 30 | #crowdfunding | 98 | | #beteiligung | 123 |
| 31 | #bitcoin | 96 | | #novartisnews | 122 |
| 32 | #shire | 95 | | #sanofi | 122 |
| 33 | #fmqs | 95 | | #innovation | 121 |
| 34 | #biotech | 92 | | #breastcancer | 119 |
| 35 | #scotlandisnow | 91 | | #multiplemyeloma | 119 |
| 36 | #brexit | 90 | | #abbottwmm | 118 |
| 37 | #medicareforall | 89 | | #afib | 115 |
| 38 | #resist | 81 | | #ehealth | 115 |
| 39 | #digital | 81 | | #healthcare | 115 |
| 40 | #genetic | 80 | | #ipf | 110 |
| 41 | #dataprivacy | 79 | | #press | 110 |
| 42 | #curaserve | 78 | | #biogen40 | 108 |
| 43 | #ranking | 75 | | #science | 106 |
| 44 | #companies | 75 | | #ki | 101 |
| 45 | #nomoretaxdodging | 74 | | #aacr18 | 100 |
| 46 | #repealhetrumptax | 73 | | #asthma | 100 |
| 47 | #roche | 72 | | #inventingforlife | 96 |
| 48 | #fairtrade | 71 | | #iwd2018 | 96 |
| 49 | #supplychain | 67 | | #myeloma | 96 |
| 50 | #ehealth | 65 | | #esmo18 | 93 |

Messages per source – about the pharma sector

Earlier in the report, we identified the different channels in use by pharma companies. We looked at the source of the 38,000 messages analysed and Twitter was the dominant channel.



In fact, Twitter was the No. 1 channel, with 58%. News channels came next with 18%, followed by blogs (10%) and then Facebook (9%). Building a more local presence for blogs and other channels could help to see an improved balance in positive messaging and education.

Messages per source – by the pharma sector

The 25 pharmaceutical companies have put more than 25,000 messages online, mainly using Twitter and Facebook. This highlights that YouTube - the world's second largest search engine - is not being used to advantage - if only for recruitment and employer brand purposes.

| Channel | # messages | % |
|-----------|------------|-------|
| Twitter | 23.325 | 90,4% |
| Facebook | 2.250 | 8,7% |
| Instagram | 168 | 0,7% |
| Pinterest | 36 | 0,2% |
| Total | 25.779 | |

The distribution of messages by the pharmaceutical companies differs somewhat from the expectations that were created in the first part of the report. See the results in the table to the left.

The very low number of Shire's English posts may have to do with the fact that in 2018 the company was in the midst of a takeover with Takeda, which officially acquired the American pharmaceutical company in December 2018.

| Company | # messages |
|----------------------|------------|
| Pfizer | 4.002 |
| Abbott | 2.045 |
| Sanofi | 1.693 |
| Roche | 1.439 |
| Amgen | 1.376 |
| Johnson & Johnson | 1.310 |
| AstraZeneca | 1.237 |
| Boehringer Ingelheim | 1.224 |
| GlaxoSmithKline | 1.219 |
| Novartis | 1.164 |
| Novo Nordisk | 1.162 |
| AbbVie | 1.042 |
| Merck | 1.013 |
| Bristol Myers Squibb | 990 |
| Takeda | 831 |
| Gilead Sciences | 796 |
| Biogen Idec | 765 |
| Mylan | 624 |
| Bayer | 573 |
| Astellas Pharma | 529 |
| Eli Lilly | 392 |
| Baxter International | 336 |
| Teva Pharmaceutical | 19 |
| Allergan | 9 |
| Shire | 5 |
| Total | 25.795 |

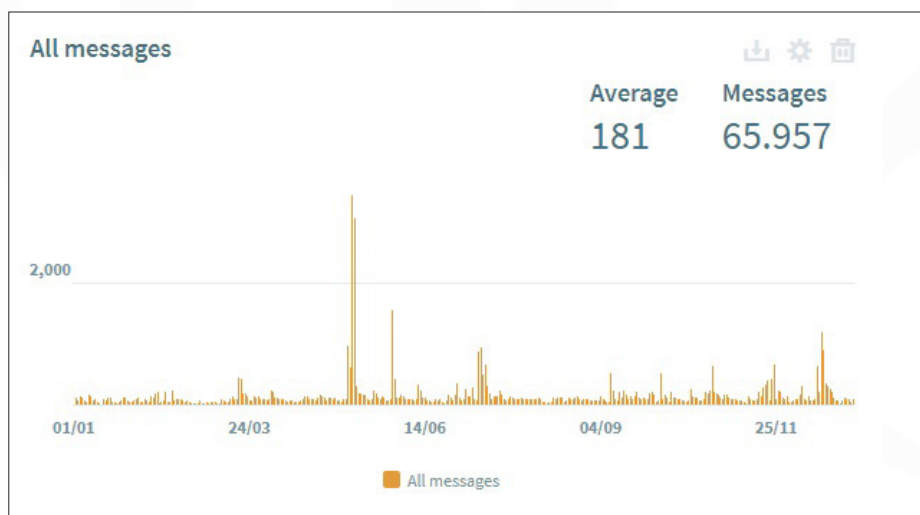
A closer look at issues discussed online

If we zoom in on the more negative side of the pharmaceutical sector, which is inevitably discussed on social media and in traditional media, we see terms such as ‘big pharma’ and ‘opioid abuse’ trend across the year. The first issue has been discussed worldwide for years, the second is a major problem in the US and is gradually becoming more and more widespread in other countries as well.

‘Big Pharma’ is a term that refers to a conspiracy theory that relates to the pharmaceutical industry. Supporters of the conspiracy theory believe, amongst other things, that the pharmaceutical sector is responsible for the suppression of, in particular, natural medicines for cancer. The conspiracy theory goes beyond the sector to include hospitals, doctors, politicians, and the media, which are said to work together to make the population ill through vaccinations so that they can increase their wealth. More extreme views include the view that vaccinations would also be part of a depopulation program aimed at reducing the world population.

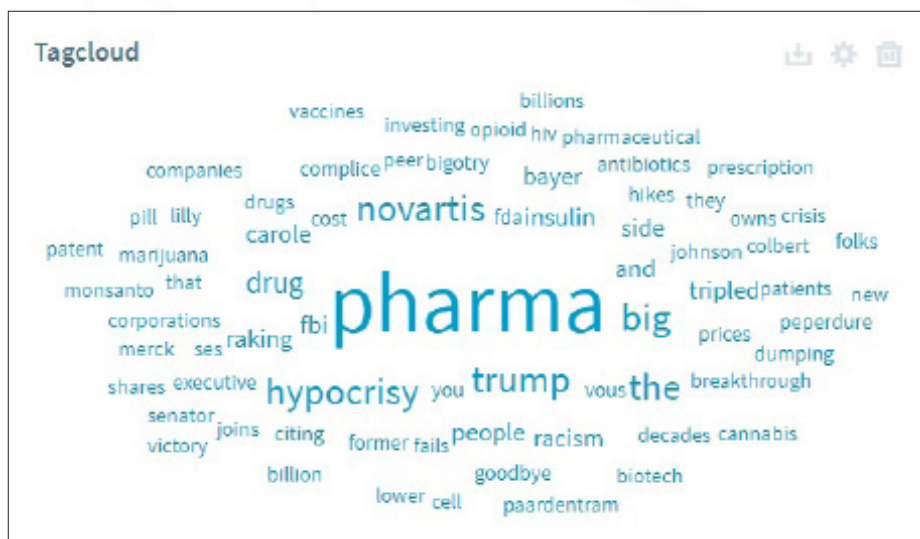
In 2018, 66,000 posts were distributed in which “big pharma” is mentioned. As you can see from the message chart there were significant spikes in message volumes across the year.

Message frequency about ‘big pharma’



From these messages, the following word clouds and hashtag clouds can be produced.

Most occurring words about ‘big pharma’

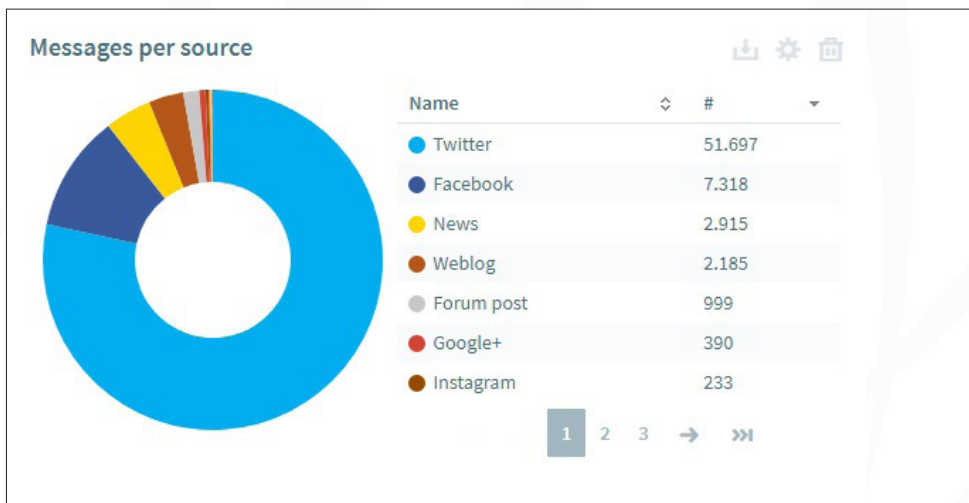


Top 25 hashtags about 'big pharma'



We identified the channels used to share these messages and Twitter has over three-quarters of the messages identified. However, there are also significant volumes of messages on Facebook and other channels, which demonstrates the need to continuously review the range of channels that need to be monitored.

Messages per source – about 'big pharma'



Twitter influencers 'big pharma'

| Influencer | Followers | Following | Messages |
|-----------------|-----------|-----------|----------|
| Business | 2.539.538 | 668 | 5 |
| Wikileaks | 2.535.903 | 5.686 | 2 |
| FortuneMagazine | 1.876.039 | 541 | 6 |
| BW | 774.396 | 408 | 11 |
| thinkprogress | 325.154 | 949 | 10 |
| Qz | 163.010 | 126 | 12 |
| jojokejohn | 123.565 | 127.910 | 16 |
| prweekuknews | 58.745 | 646 | 4 |
| matthewherper | 47.216 | 1.563 | 3 |
| rtv6 | 44.808 | 1.223 | 2 |
| Lawfirm_MA | 16.553 | 16.788 | 10 |
| cafepharma | 14.314 | 138 | 4 |
| HansLak | 13.678 | 13.910 | 4 |
| MedicalQuack | 8.360 | 1.558 | 7 |
| Sspencer | 7.831 | 294 | 2 |
| Truthglow | 6.777 | 6.827 | 3 |
| jobsinsciences | 6.607 | 2.085 | 7 |
| SIRELifeScience | 4.542 | 1.551 | 4 |
| takepartsocius | 4.375 | 4.196 | 2 |
| wolfiemouse | 4.171 | 4.214 | 2 |
| OccuWorld | 4.048 | 660 | 10 |
| vocnederland | 3.841 | 2.001 | 2 |
| Ppolitics | 3.729 | 4.057 | 4 |
| scopedbylarry | 3.354 | 3.339 | 4 |
| pinksy4U | 2.678 | 2.888 | 6 |

We also looked at the levels of influence that the sources of some of the messages had. The table to the left shows the number of followers for a range of Twitter influencers and the volume of 'big pharma' messages they issued.

It makes sense to identify the sources of messages and rank them in terms of the impact they will have on brand reputation. While some can be ignored others may need a different approach to ensure that unhelpful messaging is not allowed to gain impetus.

Appendix One

Country-specific results

In order to calculate the country-specific results, we have added the local results to the points obtained in the 'international categories'. This was decided because English is the primary language for the pharma and science sectors. Many pharmaceutical companies seem to communicate to a large extent (or exclusively) in English. Therefore, without the results of the global channels, we would give a distorted picture.

The total number of points that can be obtained per country per pharmaceutical company, including the 'international scores', is 93.

The separate results for each of the 20 countries in the Monitor are shown below.

Bayer ranks highest in 18 out of 20 countries - excluding Peru and Canada. Bayer's highest score of 75 was in Brazil.

Novartis topped the rankings in Canada with a score of 60 and Pfizer ranked the highest in Peru with a score of 63. Overall, Novartis ranked third and Pfizer was ranked sixth.

Gilead Sciences ranks the lowest overall and was ranked lowest in 10 out of 20 countries. Mylan is the next lowest overall and had the lowest ranking in six out of 20 countries.

The United States had the most companies with scores of 60 or over. It also had the highest score for the lowest ranking company.

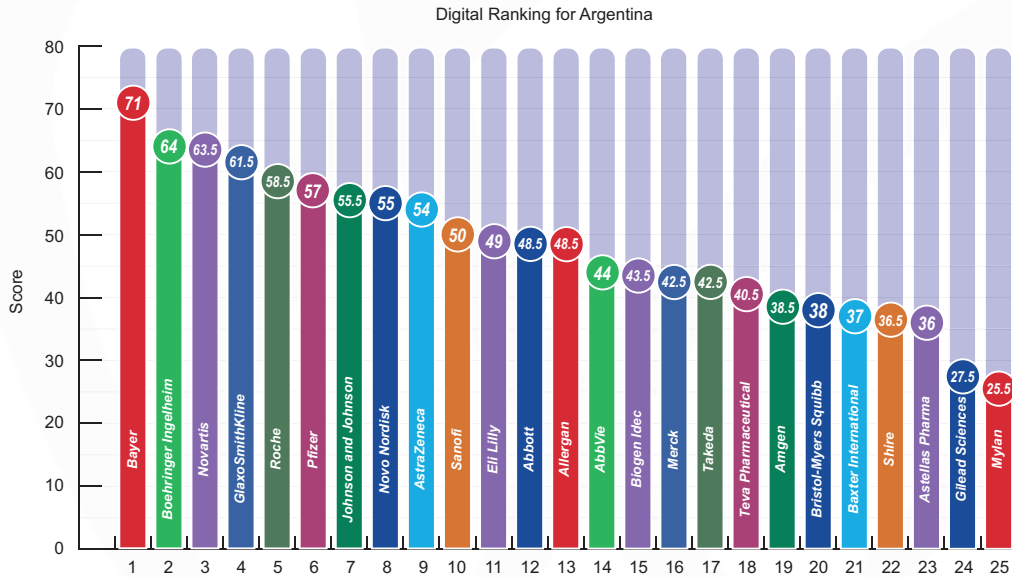




Digital ranking for Argentina

Bayer tops the rankings with 71 points out of an available 93. Boehringer, Novartis and GSK are the only other companies to score over 60 points.

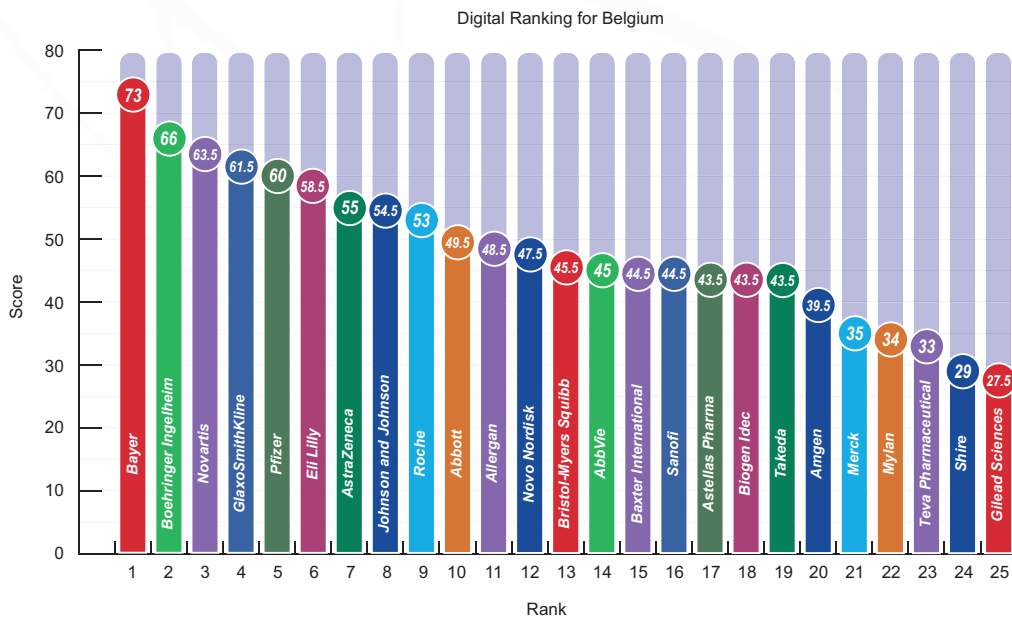
Mylan is in last place with 25.5 points and Gilead is the only other company to score less than 30 points.



Digital ranking for Belgium

Bayer tops the rankings with 73 points out of an available 93. Boehringer, Novartis, GSK and Pfizer are the only other companies to score 60 points or more.

Gilead is in last place with 27.5 points and Shire is the only other company to score less than 30 points.

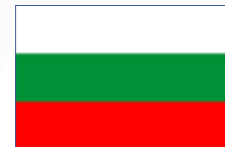
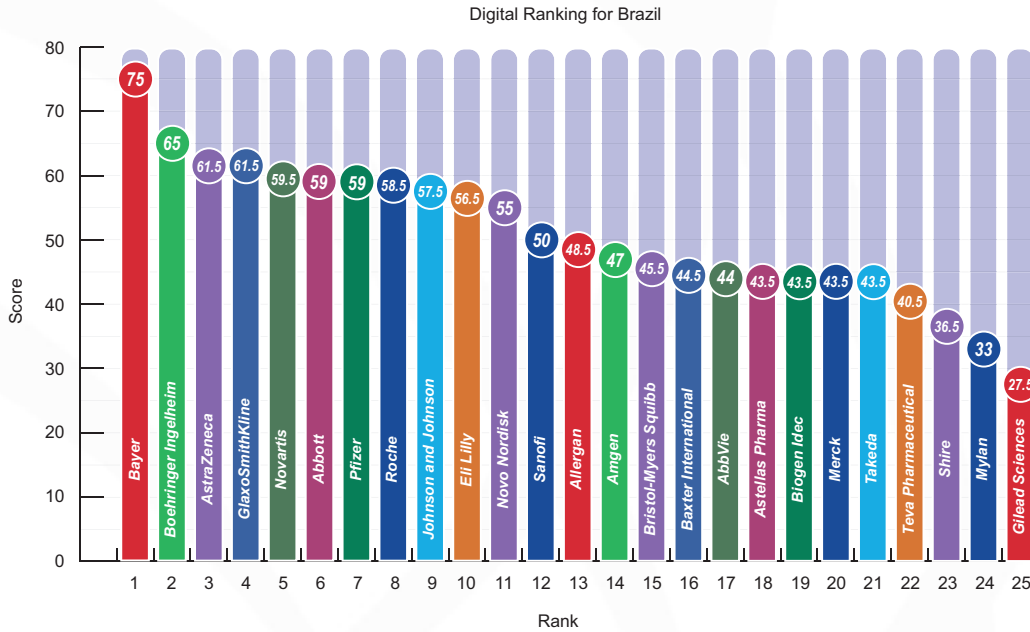




Digital ranking for Brazil

Bayer tops the rankings with 75 points out of an available 93. Boehringer, AstraZeneca and GSK are the only other companies to score over 60 points.

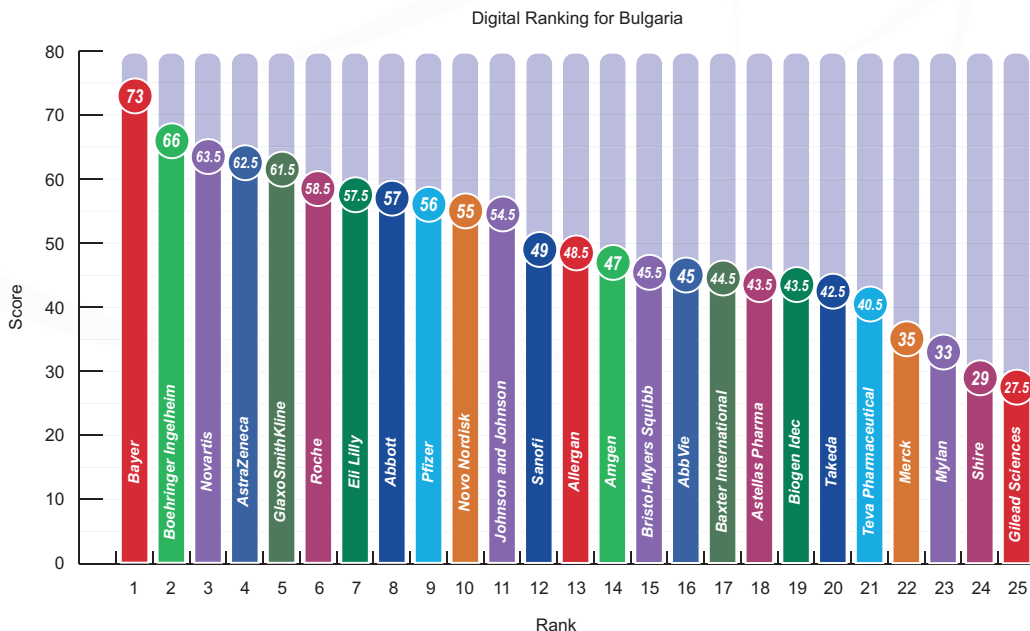
Gilead is in last place with 27.5 points and is the only company to score less than 30 points.



Digital ranking for Bulgaria

Bayer tops the rankings with 73 points out of an available 93. Boehringer, Novartis, AstraZeneca and GSK are the only other companies to score over 60 points.

Gilead is in last place with 27.5 points and Shire is the only other company to score less than 30 points.

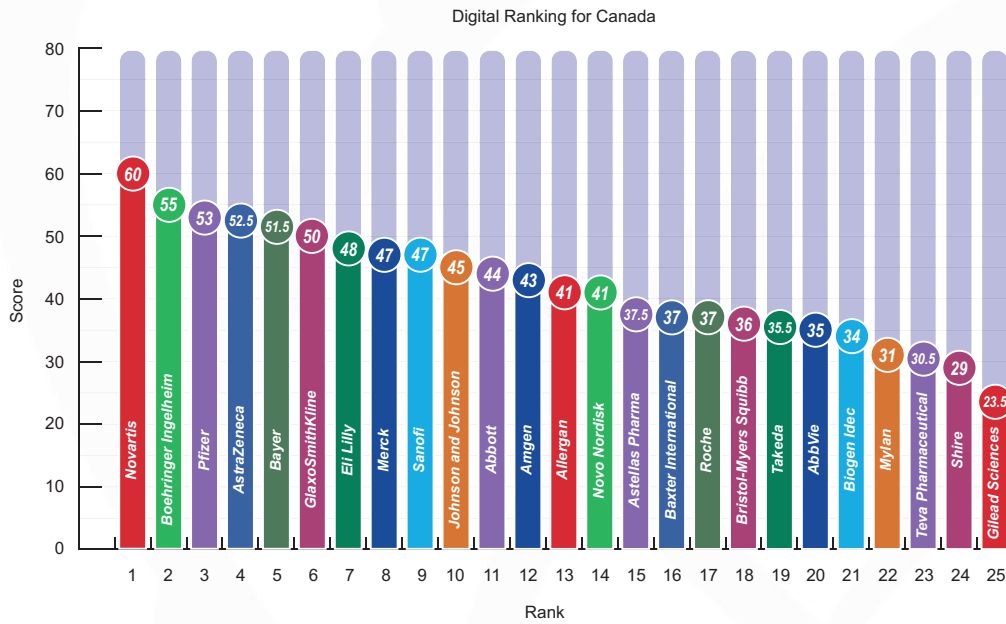




Digital ranking for Canada

Novartis tops the rankings with 60 points out of an available 93. No other company reaches 60 points. Bayer, the company that tops 18 out of 20 rankings, only scores 51.5 points in Canada.

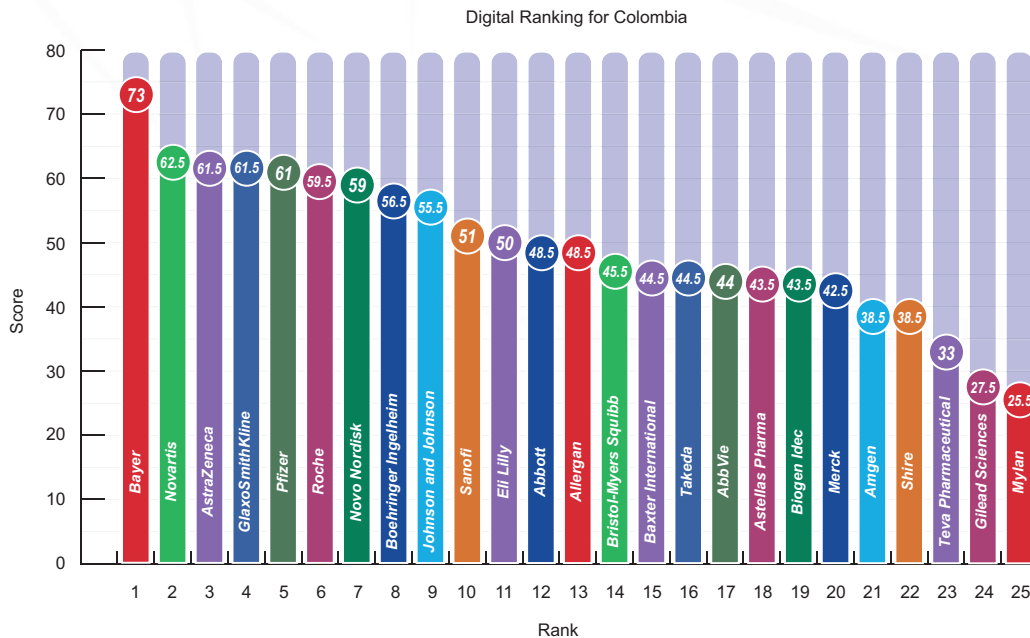
Gilead is in last place with 23.5 points and Shire is the only other company to score less than 30 points.



Digital ranking for Colombia

Bayer tops the rankings with 73 points out of an available 93. Novartis, AstraZeneca, GSK and Pfizer are the only other companies to score over 60 points.

Mylan is in last place with 25.5 points and Gilead is the only other company to score less than 30 points.

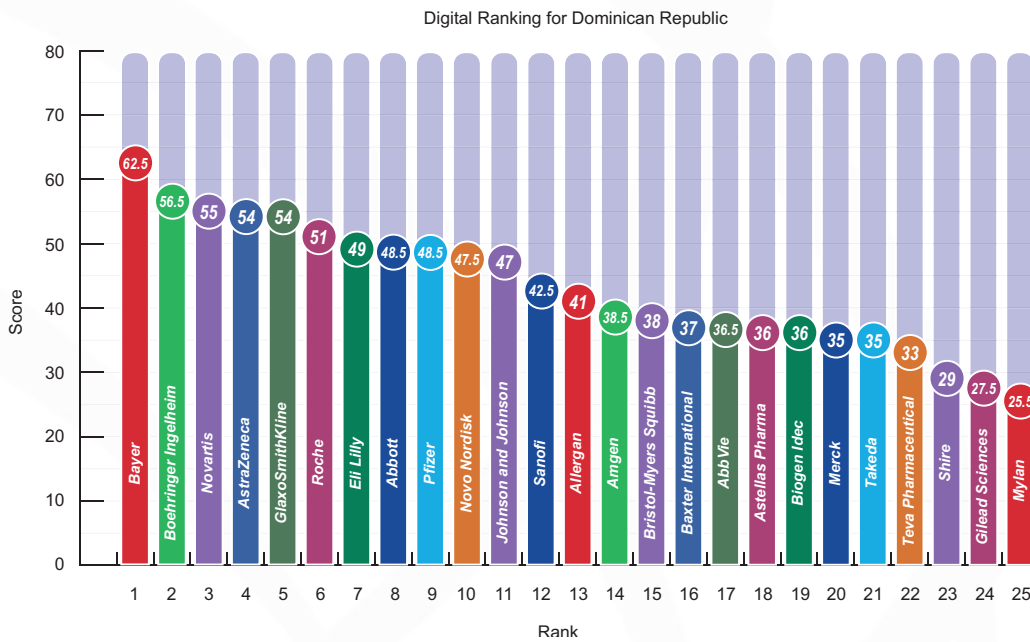




Digital ranking for Dominican Republic

Bayer tops the rankings with 62.5 points out of an available 93. It is the only company to score over 60 points.

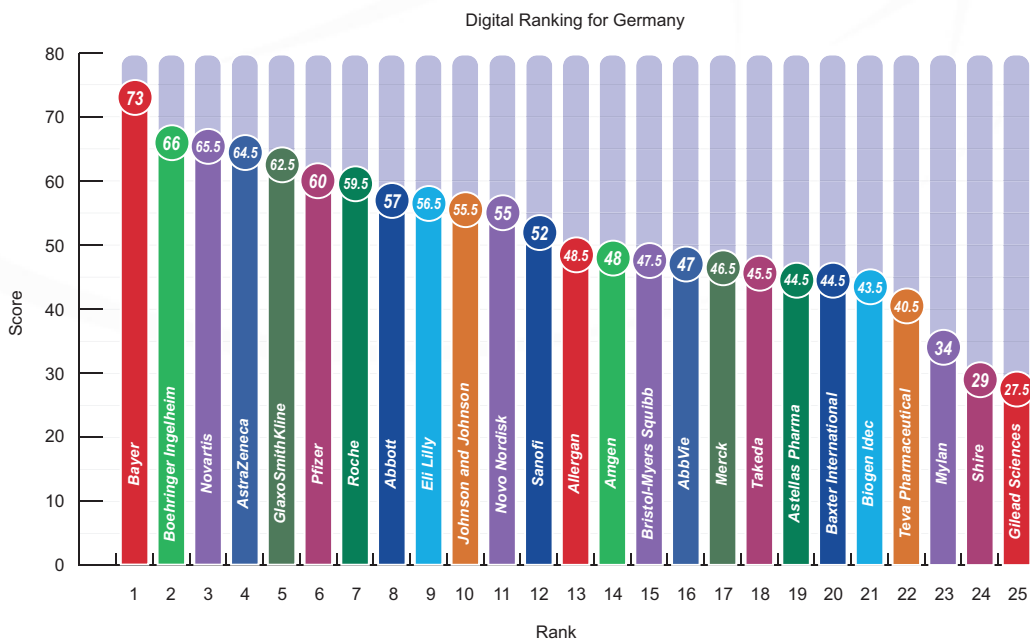
Mylan is in last place with 25.5 points. Gilead and Shire are the only other companies to score less than 30 points.



Digital ranking for Germany

Bayer tops the rankings with 73 points out of an available 93. Boehringer, Novartis, AstraZeneca and GSK are the only other companies to score over 60 points.

Gilead is in last place with 27.5 points and Shire is the only other company to score less than 30 points.

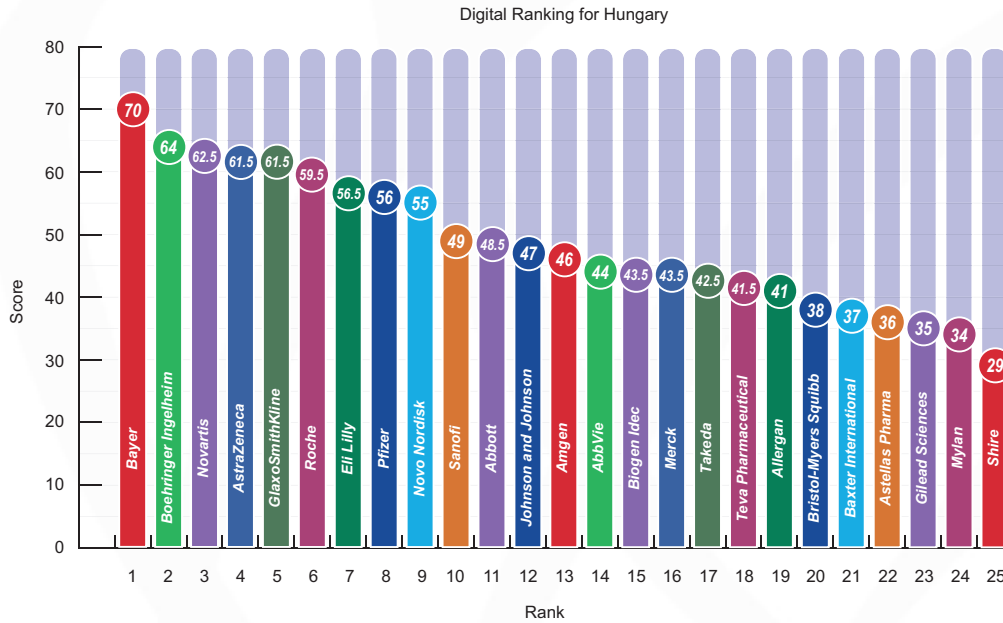




Digital ranking for Hungary

Bayer tops the rankings with 70 points out of an available 93. Boehringer, Novartis, AstraZeneca and GSK are the only other companies to score over 60 points.

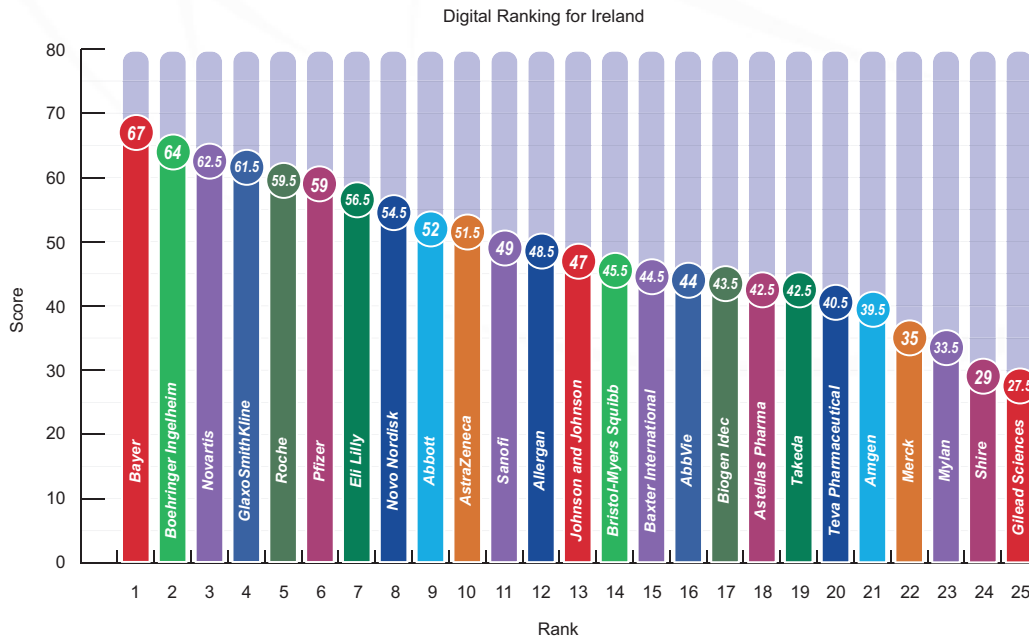
Shire is in last place with 29 points and is the only company to score less than 30 points.



Digital ranking for Ireland

Bayer tops the rankings with 67 points out of an available 93. Boehringer, Novartis and GSK are the only other companies to score over 60 points.

Gilead is in last place with 27.5 points and Shire is the only other company to score less than 30 points.

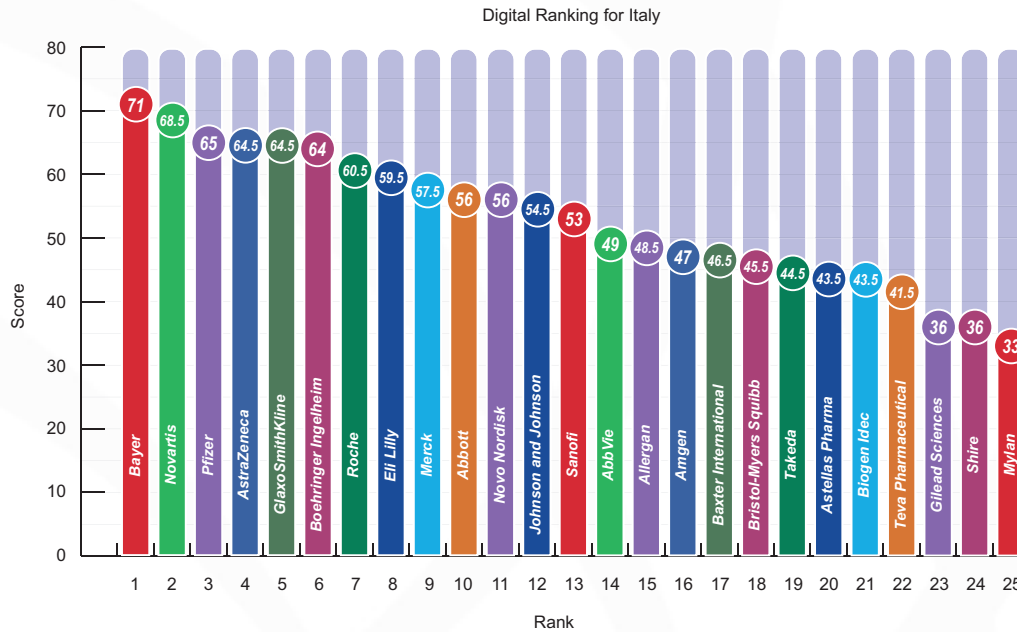




Digital ranking for Italy

Bayer tops the rankings with 71 points out of an available 93. Novartis, Pfizer, AstraZeneca, GSK, Boehringer and Roche all score over 60 points.

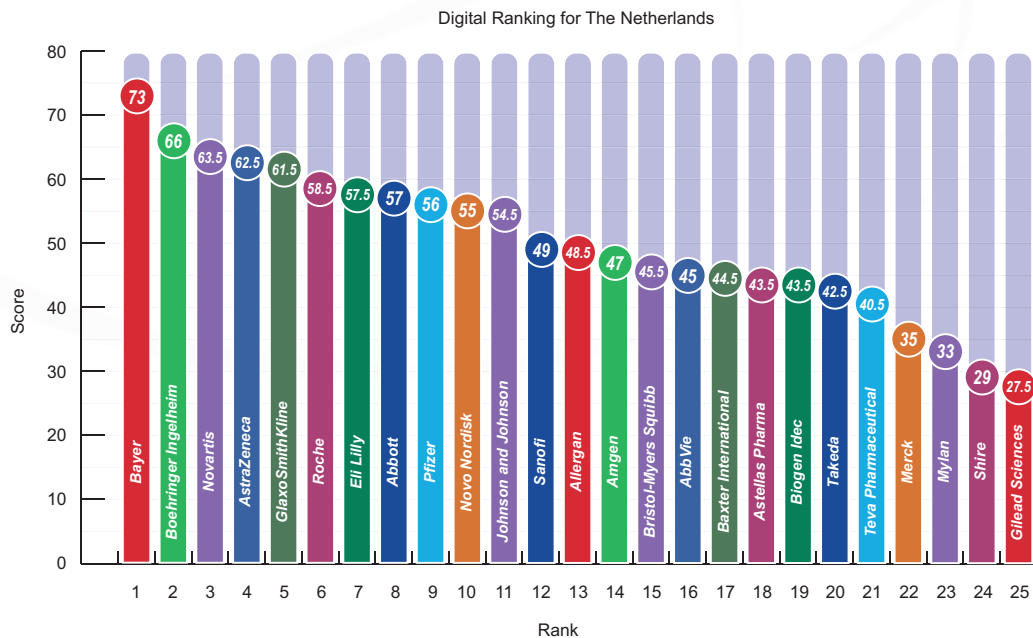
Mylan is in last place with 33 points.



Digital ranking for The Netherlands

Bayer tops the rankings with 73 points out of an available 93. Boehringer, Novartis, AstraZeneca and GSK are the only other companies to score over 60 points.

Gilead is in last place with 27.5 points and Shire is the only other company to score less than 30 points.

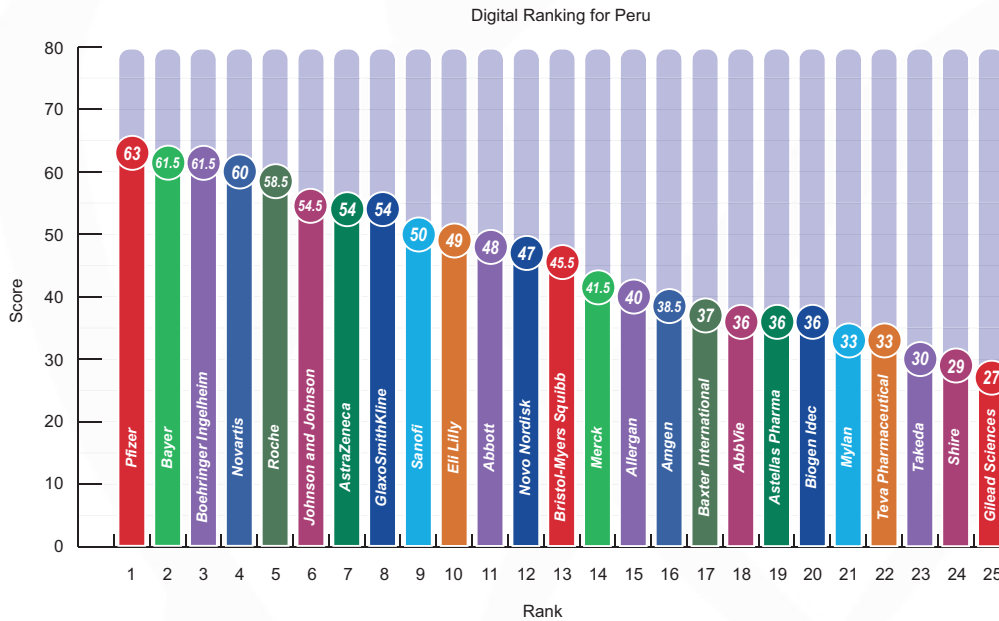




Digital ranking for Peru

Pfizer tops the rankings with 63 points out of an available 93. Bayer, Boehringer and Novartis are the only other companies to score 60 points or over.

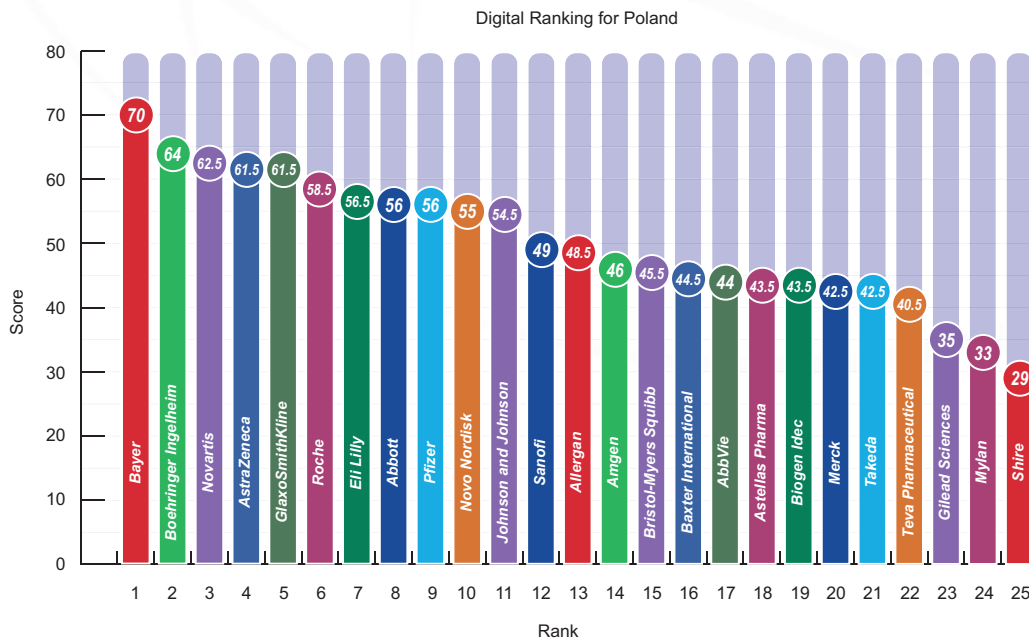
Gilead is in last place with 27 points and Shire is the only other company to score less than 30 points.



Digital ranking for Poland

Bayer tops the rankings with 70 points out of an available 93. Boehringer, Novartis, AstraZeneca and GSK are the only other companies to score over 60 points.

Shire is in last place with 29 points and is the only company to score less than 30 points.

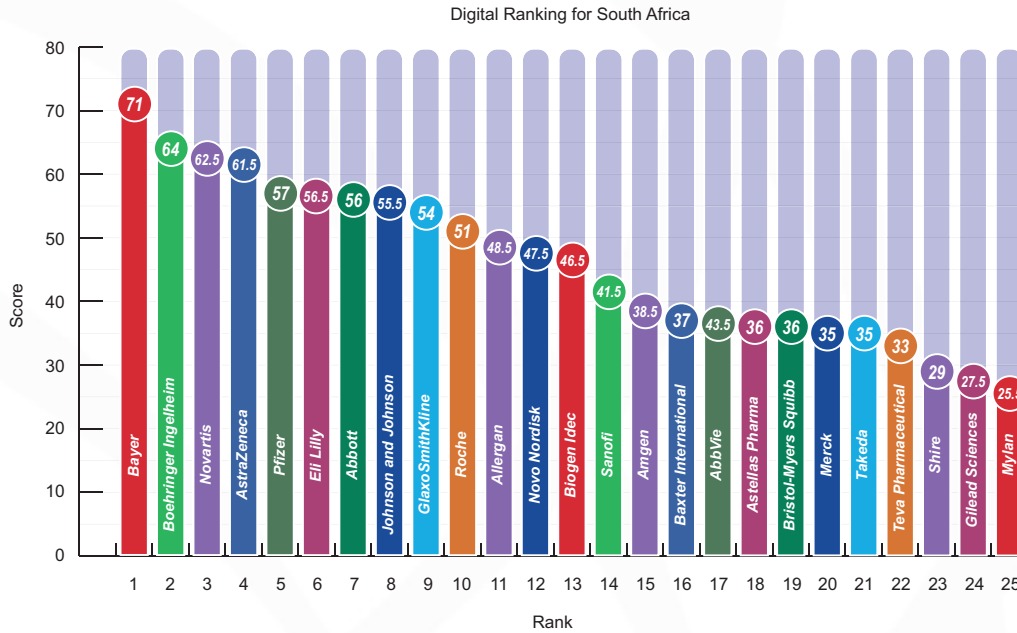




Digital ranking for South Africa

Bayer tops the rankings with 71 points out of an available 93. Boehringer, Novartis and AstraZeneca are the only other companies to score over 60 points.

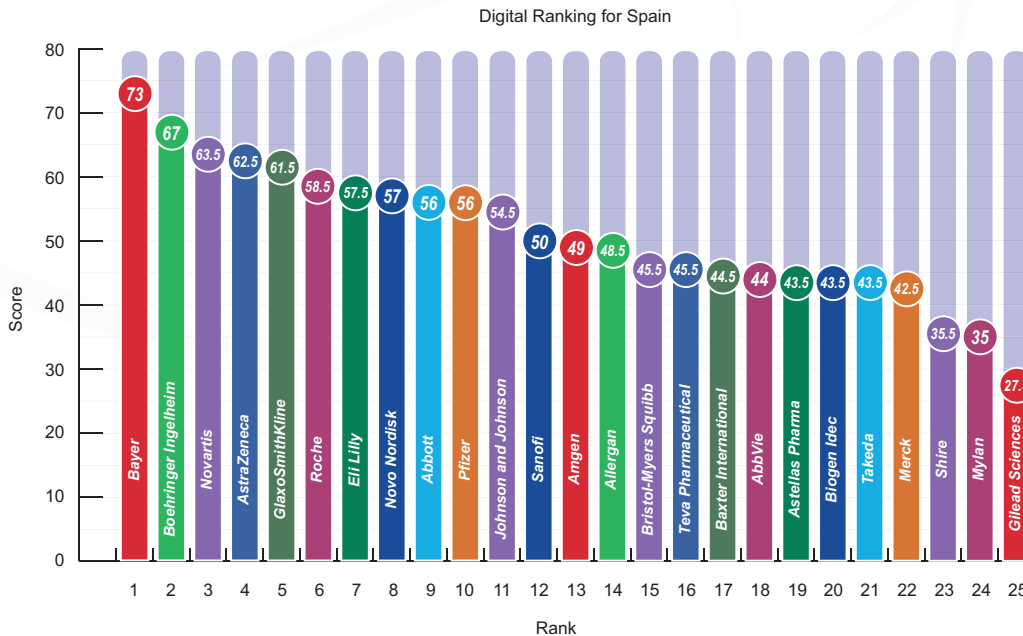
Mylan is in last place with 25.5 points. Gilead and Shire are the only other companies to score less than 30 points.



Digital ranking for Spain

Bayer tops the rankings with 73 points out of an available 93. Boehringer, Novartis, AstraZeneca and GSK are the only other companies to score over 60 points.

Gilead is in last place with 27.5 points and is the only company to score less than 30 points.

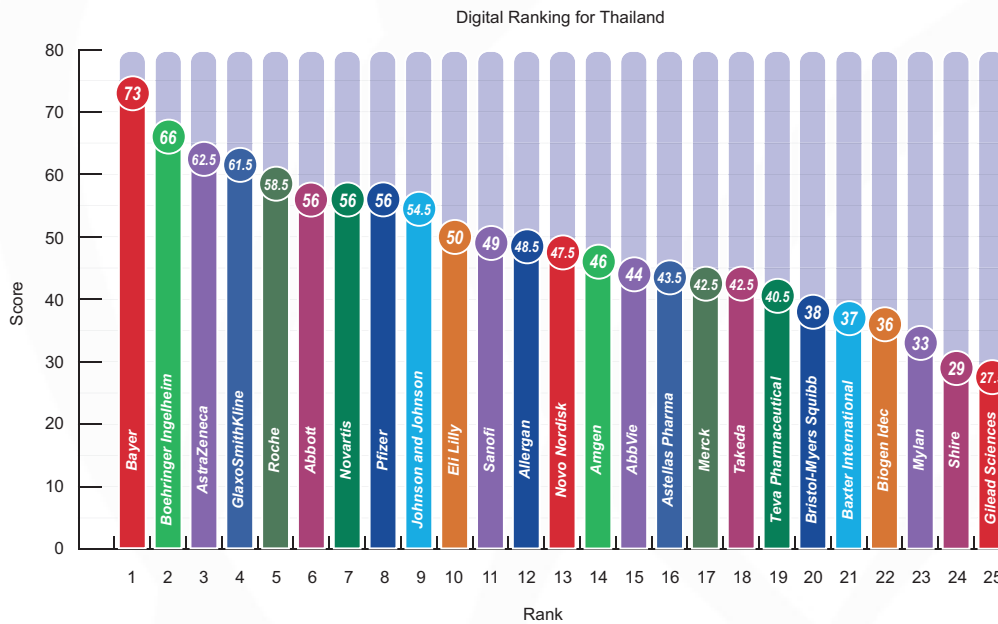




Digital ranking for Thailand

Bayer tops the rankings with 73 points out of an available 93. Boehringer, AstraZeneca and GSK are the only other companies to score over 60 points.

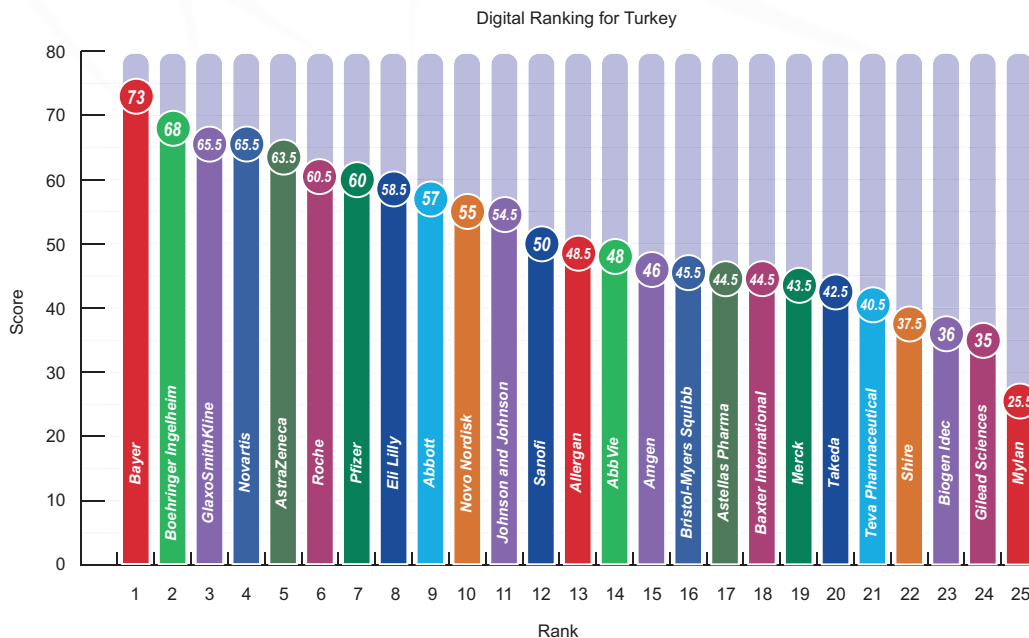
Gilead is in last place with 27.5 points and Shire is the only other company to score less than 30 points.



Digital ranking for Turkey

Bayer tops the rankings with 73 points out of an available 93. Boehringer, GSK, Novartis, AstraZeneca and Roche are the only other companies to score over 60 points.

Mylan is in last place with 25.5 points and is the only company to score less than 30 points.

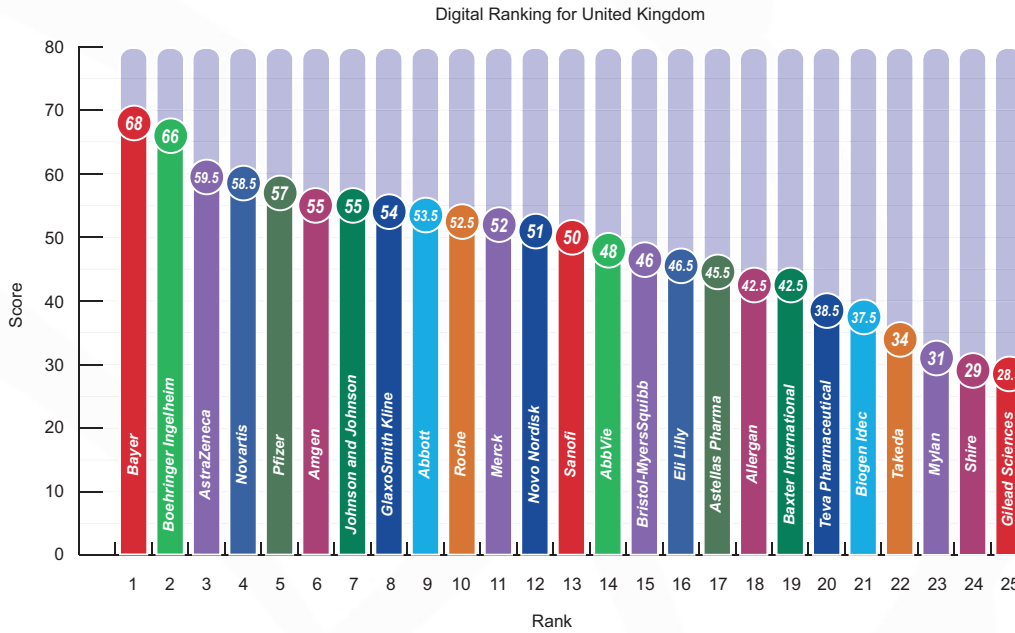




Digital ranking for United Kingdom

Bayer tops the rankings with 68 points out of an available 93. Boehringer is the only other company to score over 60 points.

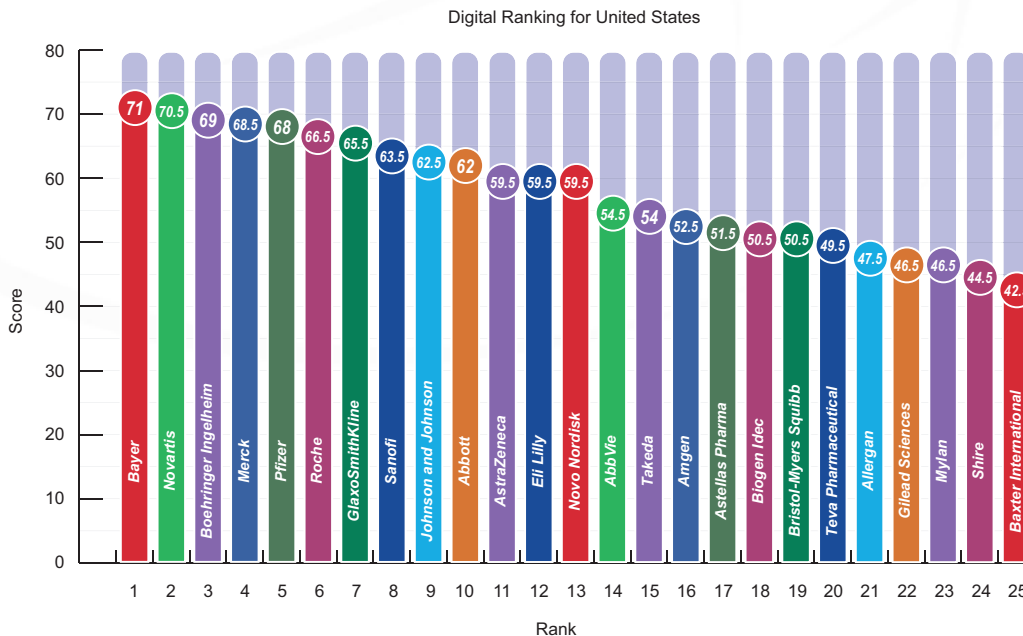
Mylan is in last place with 25.5 points and Gilead is the only other company to score less than 30 points.



Digital ranking for United States

Bayer tops the rankings with 71 points out of an available 93. More companies than in any other country score over 60 points. These are: Novartis, Boehringer, Merck, Pfizer, Roche, GSK, Sanofi, Johnson & Johnson and Abbott.

Baxter is in last place with 42.5 points, which is significantly higher than the lowest scores for other countries.



Section Six

Recommendations

As healthcare communications professionals we appreciate that in such a highly regulated sector, the communications options open to pharmaceutical companies are severely limited compared to their peers in other markets. However, based on the analysis we have carried out, we offer the following recommendations for your consideration.

#1 Ensure that you have a careers channel on YouTube and that advocate employees post reviews of their experience

#2 Review your use of the digital channels most used by your target audiences and ensure that your brand is present at both a global and local level

#3 Compare your digital 'footprint' to that of your peers and competitors and ensure that you don't lose ground by missing opportunities to share permitted information across all available channels. Remember, Bayer's Digital Monitor Score was over three times as high as Gilead Sciences in last place.

#4 Demonstrate that you care about each local market by investing in local digital channels. The adage, actions speak louder than words, definitely applies when local audiences are assessing your commitment to their country and to their health.

#5 We are sure you will already be actively monitoring online conversations. Use this analysis to identify topics where it's essential you have an opinion, and that you share that opinion on a proactive basis.

Access to free real-time data

We hope you have found this report helpful. We would love to provide you with real-time data on a number of the subjects we discussed above. Our friends at OBI4Wan have enabled us to provide free and unlimited access to four narrow-casts. Just click on the links below.

NARROW CASTS:

Real-time conversations about [big pharma](#)

Real-time conversations about [pharma pricing](#) issues

Real-time conversations about [opioid and pharma](#)

Real-time conversations about the [global pharma](#) sector

I hope you find this information useful.

If you would like to be included in our next Digital Monitor or would like to discuss any of our findings, please contact Serge Beckers at serge.beckers@wisse-worldcom.nl

Serge Beckers
Managing Partner, Wisse Kommunikatie
Worldcom Healthcare Group Chair

For a local discussion about your communications needs please contact the appropriate partner in the list below:

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[Off Madison Ave](#)
[Padilla](#)
[Public Communications Inc.](#)
[RLF Communications](#)
[Sachs Media Group](#)
[Sandy Hillman Communications](#)
Schneider Associates

CANADA

[Casacom Montreal](#)
[Enterprise Canada Inc.](#)

UNITED KINGDOM

[JBP Associates](#)
Kaizo PR

GERMANY

[HBI PR & Marcom](#)
[komm.passion GmbH](#)

AUSTRALIA

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BELGIUM

[InstiCOM](#)

BRAZIL

[PLANIN](#)

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[TQPR Thailand](#)

TURKEY

[OptimumBrand](#)

VIETNAM

[TQPR Vietnam](#)

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