Life Sciences

Incumbents Strike Back

The IBM Institute for Business Value, in cooperation with Oxford Economics, interviewed 491 CxOs from the Life Sciences industry. These conversations included both quantitative and qualitative responses. The analytical basis for this Life Sciences industry report uses 461 valid responses from the total data sample collected.

More than 12,800 CxOs, representing six C-suite roles, 20 industries and 122 countries, contributed to our latest research. We used the IBM Watson Natural Language Classifier to analyze their contextual responses and ascertain overarching themes. We also used various statistical methods, including cluster analysis and discriminant analysis, to scrutinize the millions of data points we collected.

Which way to the future?

The signals are utterly bewildering. As digital technologies transform the world, monopolies are winning big-time. Yet collaborative systems are also flourishing, and even in industries where the competition is shrinking there's still plenty of creativity. Little wonder top executives are puzzled.

Life Sciences CxOs are no exception. In 2015, they were largely convinced that new markets held more potential than established markets. Today, they're divided. And where, formerly, most assumed that open innovation would predominate, opinion has swung the other way: 52 percent predict that proprietary research will prevail. There are two points on which Life Sciences CxOs broadly agree, though: 60 percent expect more emphasis on customer experiences than standalone products in the future, and 63 percent envisage that most organizations will partner more widely.

Life Sciences CxOs also report that there's been a massive shift in the external factors most likely to affect their organizations over the next few years. Market forces have bumped regulatory issues and technological advances into second and third place, respectively. People skills have, likewise, become a bigger concern: 60 percent of respondents fret about finding the right talent. However, it's environmental considerations that have really soared in importance. Life Sciences CxOs rank the eco-friendly agenda fifth on the list of outside influences they have to cope with – up from bottom spot in our last Global C-suite Study.

Reinventors race ahead

In the course of our research, we identified three distinct organizational "archetypes," each at a different stage on the road to Digital Reinvention™ (see Figure 1).

Reinventors focus on developing breakthrough products, services and business models; excel at extracting value from their ecosystems; and actively experiment. Their IT strategies are aligned with their commercial goals, and they're superb at managing change – all of which helps them stand out both financially and as innovators.

Practitioners are ambitious but haven't yet acquired the capabilities required to realize their ambitions. They're neither as focused nor as agile as Reinventors.

Aspirationals have even further to travel. They still need to devise a clear strategy, put the right processes and resources in place, and develop the agility to seize new opportunities.

Reading the road signs

So what's actually going on? Four topics stand out from our conversations with CxOs and our work with academics:

Dancing with disruption

The path to personalization

The pull of platforms

Innovation in motion.

"It takes a deep understanding of key industry trends and persistence to transform an organization. You also have to accept and overcome the difficulties and pitfalls during the process."

Zhang Kun, Chief Executive Officer, Genetimes ExCell

Figure 1

Life Sciences split

Industry archetypes have distinct characteristics that lead to differing vantage points

33% Reinventors

30% Practitioners

37% Aspirationals
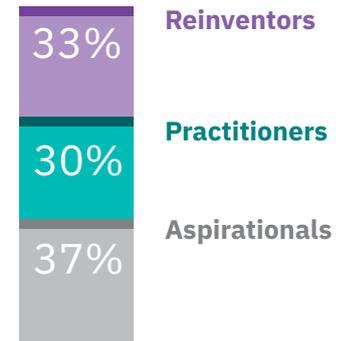
Dancing with disruption

Two years ago, CxOs told us they were deeply worried about digital giants and ankle-biters from other industries invading their territory. Now, they're much more relaxed. Only 23 percent of Life Sciences CxOs claim their sector is experiencing huge upheavals, and only 20 percent say they urgently need to transform their enterprises in response. Moreover, it's not outsiders they're most concerned about: 71 percent report that the *real* disruption is coming from innovative industry incumbents – once unwieldy enterprises that have reinvented themselves to thrive in the digital era.

Life Sciences CxOs are responding to this reinvigorated competition in several ways. Their top priority is, of course, product safety. However, a significant number also plan to expand beyond the industry's traditional boundaries and adopt a more patient-centric approach. The Reinventors in our sample lead the way: 59 percent of them are switching their focus from blockbusters to personalized medicines (versus just 42 percent of Practitioners and 41 percent of Aspirationals). Similarly, 60 percent are developing wraparound services to complement the drugs and devices they provide (versus 38 percent of Practitioners and 36 percent of Aspirationals).

But Life Sciences Reinventors are not only more ambitious than their industry counterparts; they're also better placed to realize their goals. They have a far stronger track record of managing change, and most have already established clearly defined formal strategies for dealing with turbulence.

The path to personalization

Connecting with the customer on a personal level is vital these days, but designing compelling personalized experiences is very difficult. And the task is even harder when a company is one step removed from the end user of its products, as is normally the case with pharmaceutical and biomedical enterprises. Again, Life Sciences Reinventors are ahead of the curve. They're particularly skilled at using data to identify unmet customer needs (see Figure 2).

However, Life Sciences Reinventors don't just trawl through yottabytes of data. They approach problems like design thinkers, by engaging directly with customers at every stage from planning and design to post-sales support. The result? A full 62 percent of Life Sciences Reinventors say they're very effective at creating personalized customer experiences, compared with 51 percent of Practitioners and only 42 percent of Aspirationals.

"We want to provide a data-driven, personalized experience that focuses on outcomes or episodes of care and delivers value to every participant in the healthcare system."

Chief Executive Officer, Life Sciences, United States

The pull of platforms

One of the most exciting recent trends is the emergence of the platform business model, which links producers directly with consumers, enabling organizations to grow faster and generate higher profits. Whereas pipe businesses make and sell goods, platform businesses provide a forum for interaction. Life sciences companies are essentially pipe businesses, since their primary activities are research and manufacturing. Moreover, the selling of prescription medicines is heavily regulated. Nevertheless, 24 percent of Life Sciences CxOs are exploring the platform concept, while 17 percent plan to reallocate capital for this purpose.

So what makes a platform work? We identified three "rules" for success: creating value from reciprocity, capitalizing on data and committing to innovation. Life Sciences Reinventors perform some of these activities especially well. They're more willing to partner with other enterprises than their industry counterparts: 66 percent collaborate selectively with competitors (versus just 37 percent of Practitioners and 28 percent of Aspirationals). They're also investing more heavily in cloud computing, which helps users cooperate and innovate in smarter ways. And they're more adept at encouraging experimentation: 71 percent reward fast failure, as well as successful innovation (versus 44 percent of Practitioners and 41 percent of Aspirationals).

Figure 2

Know now

Life Sciences Reinventors excel at using data to understand their customers' unmet needs

Reinventors
Practitioners
Aspirationals

Effective   Highly effective

	Effective	Highly effective
Reinventors	37%	42%
Practitioners	45%	11%
Aspirationals	31%	13%
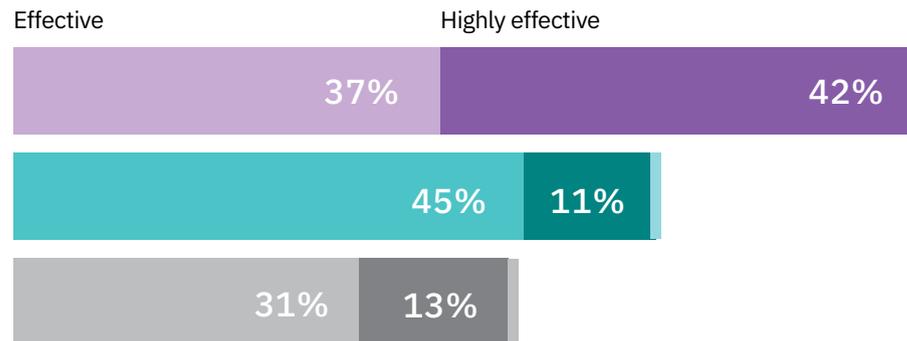
Q: How effective is your enterprise at using data to identify undefined and unmet customer needs?

Innovation in motion

The organization of work is altering dramatically as enterprises collaborate to innovate and ecosystems replace go-it-alone entities. Life Sciences Reinventors are in a far better position to adjust: 82 percent have C-suites with a strong grasp of how the industry is evolving (versus just 63 percent of Practitioners and 50 percent of Aspirationals). The CxOs who head these companies also actively encourage open, continuous dialogue and the sharing of knowledge across their businesses.

There's more. Life Sciences Reinventors are creating nimble enterprises that learn on the fly. Four-fifths of them solicit input from employees to develop new approaches, and many have gone much further. They've established fluid, cross-functional teams to stimulate continuous learning, as well as empowering their teams to decide on the best course of action (see Figure 3).

"The most successful CEOs have a challenging vision. Then they inspire and encourage their employees to show initiative."

Chief Executive Officer, Life Sciences, Japan

Figure 3

Reinventors
Practitioners
Aspirationals

Autonomous teams

Life Sciences Reinventors empower their teams to decide on the best course of action

72%
47%
33%
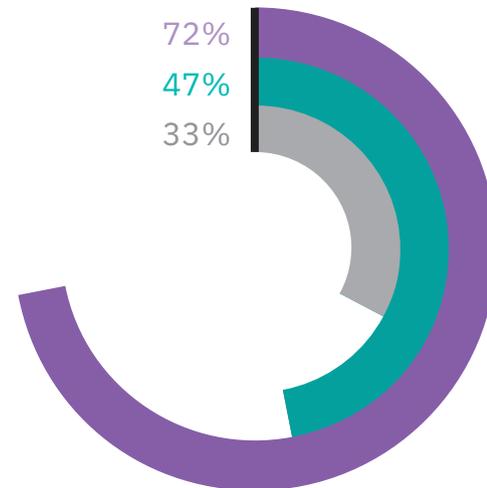
Q: To what extent does your enterprise empower teams to decide on the best course of action? (Percentage of respondents choosing "to a large extent.")

Life Sciences Reinventors are, likewise, more adept at building the right networks of partners, suppliers and distributors, and at putting in place the right resources, including people with the right skills. In short, they combine a dynamic vision with an open culture and agile operations – and these, as our research shows, are the three stepping stones to organizational dexterity.

Strengthening advantage: Actions to take now

Partner to personalize. Collaborate with other enterprises, both inside and outside the life sciences industry, to "go beyond the pill." Use social, mobile and cognitive technologies to develop wraparound services and provide patients with a fully coordinated care experience.

Marry data with design. Use design thinking to make sense of the data you collect and create authentic patient experiences. Bring designers and data analysts together with patients, caregivers and patient advocacy groups. Focus on what patients want, not on what's technically feasible.

Liberate talent. Be clear and transparent. Share your corporate vision with your employees and foster an entrepreneurial culture of agile innovation. Encourage people to use their ingenuity, experiment, take risks and fail fast in the safety of the lab. Look for scientists and digital engineers who can communicate well and are comfortable working in cross-functional teams.

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