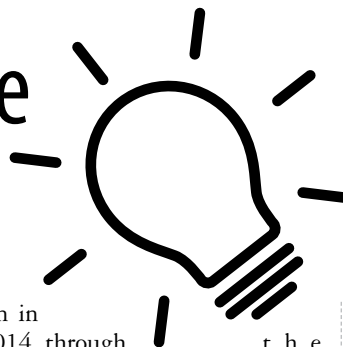# Creating a Culture of **Innovation**

To create a culture of innovation, pharma companies will need to encourage different ways of thinking.

By definition, innovation is "a new idea, creative thoughts, new imaginations in form of device or method." Innovation is also viewed as the application of better solutions that meet new requirements, unarticulated needs, or existing market needs.

"Innovation means being creative with what a product can be," says Mike Rea, CEO of IDEA Pharma. "By thinking a bit differently, the resulting product profile is the right product profile, not just the first thought."

Mr. Rea and his company started to identify innovation in pharma in 2014 through the Pharmaceutical Innovation Index (PII) with the goal to measure, score, and celebrate a company's ability to deliver innovation to patients. IDEA Pharma objectively evaluates performance based on a rolling five-year period (2013-2018), and operates on the simple premise: if the same molecule was given to two different companies in early phase, which would make the best of it?

"This year provides perhaps the strongest indication yet of how unevenly distributed that competency — launching meaningful medicines — is," Mr. Rea says. "If the industry is spending $5 billion per approval, and yet deriving only 7% of its revenue from new drugs, we are in an odd place."

The PII index shows just how fluctuating the goal of innovation can be with companies falling in and out of the top 10.

So, the question arose, what if innovation were embedded into every organization's culture?

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JENNIFER CHO, PHARM.D.
Deputy Chief Scientific Officer,
Datacubed Health

Innovation is a driving force in the pharmaceutical industry as companies strive to develop first- or best-in-class drugs that will provide a competitive edge. However, with R&D costs estimated as high as $2.6 billion for each new drug, companies' ability to innovate may be constrained by R&D costs and pressure to generate a return on investment. Despite this, pharmaceutical companies would benefit tremendously from prioritizing innovation as a core tenet of their cultures. As companies such as Apple, Amazon, PayPal, and Peloton have demonstrated, cultures that prize innovation can generate unique solutions and products that are highly profitable and drive future innovation. One way that pharmaceutical companies can prioritize innovation is by investing in technology. Mobile technology deployed to study participants' smartphones represents a uniquely promising solution that could assist with subject recruitment and retention, eConsent, seamless integration of self-reported adverse events and patient reported outcomes, study medication adherence, and other facets of clinical trial conduct. Technology platforms could also be used by pharmaceutical companies to reshape the paradigm of data sources that are deemed acceptable by regulatory authorities, especially with respect to real world evidence. The key to unlocking unparalleled innovation in the pharmaceutical industry lies in technology. Companies that are truly innovative will be open to trying new technology solutions and integrating them in creative ways within study design.

JEDD DAVIS
Chief Product
Development Officer,
Publicis Health

I like to think that innovation already exists within every organization's culture, it just needs to be unlocked. There is so much creativity that exists across an employee base waiting to be tapped to improve outcomes for our clients and their patients. What gets in the way is how we value the work we deliver today, and the innovation we are creating for tomorrow. It's literally valued on a dollars-per-hour basis, while the solutions provide so much more in terms of business growth. Every time I sit down with folks and ask what we can do better, they always ask about having more time to think critically about business problems, and more time to dream up innovative solutions. Often cited is Google's 10% time, when employees can work on whatever interests them. Creating the space — physical and temporal — for folks to think is critical. Consider our personal lives, when was the last time you had a critical decision to make about a child, parent, loved one, friend, pet? Do we allocate a certain number of minutes to find a solution? No, we ponder until we're satisfied that we've found the best solution. Now imagine if we took that same approach to work — we'd have a lot better thinking more quickly. We'd be able to engage multiple perspectives from co-workers with varying experiences. We'd have better partnerships with clients and teams because we'd be thinking through solutions together instead of delivering piece-meal "deliverables" scoped to the minute and penny. Imagine how refreshed employees would feel if in addition to current work, they were encouraged to work on something near and dear to them.

ROSS FETTEROLF
Co-founder, Sonic Health

I was fortunate enough to start my career at an agency that was an early adopter in the digital pharma space. We made it our mission to stay ahead of the digital trends, and looked to ▶

FAST FACT

- FEWER THAN HALF OF TOP 30 COMPANIES GAINED AN APPROVAL IN 2018.

- MORE THAN HALF OF THE APPROVALS IN 2018 WERE FOR RARE DISEASES.

- 39 OF THE 59 FDA APPROVALS IN 2018 WENT TO SMALL- TO MID-SZIED BIOTECH COMPANIES.

Source: IDEA Pharma

Innovation means being creative with what a product can be.

MIKE REA
IDEA Pharma

Top 10 Pharma Innovators

Rank	Company
1	Gilead Sciences
2	AbbVie
3	Eli Lilly
4	Pfizer
5	Merck & Co.
6	Sanofi
7	Novo Nordisk
8	Roche
9	Novartis
10	GSK

Source: IDEApharma

The Pharmaceutical Innovation Index ranks the top 30 pharmaceutical companies by their ability to bring products from early phase to market, and to commercialize them successfully, utilizing a range of clinical, regulatory, and commercial metrics.

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▶ industries outside of healthcare to inspire our thinking. As digital offerings from more traditional agencies caught-up to ours, we adopted an innovation model in the form of a "LABS" team — borrowed without shame from Google. The LABS team was made up of subject area experts pulled from the organization to solve challenges at a more holistic level in the hopes of supporting all our clients versus just one. This experience helped shape my career, and I believe, would have a similar effect on any organization — be it an agency or a pharma company. In fact, we worked with a large pharma company that found itself "forced" to innovate due to looming, large-scale patent expirations. So, looking back — and forward — what did innovation do for us? First, we embraced rapid ideation — creating prototypes, testing, and evolving them quickly, and continuing the process until we got it close to right. This made it okay to create something imperfect out of the gate, with the reassurance that it would get better over time, aka fail forward. Next, we built "co-creation" with clients or the community into all our projects. This meant that we involved people outside the agency walls in our process. This led to transformative thinking, better relationships, and ultimately, better ideas or solutions. I'm a firm believer that the tenents of innovation can have a profound impact on the culture of any organization, and the sooner we embrace this approach, even taking just a small step in this direction, will create positive and lasting results.

ERICK GAUSSENS, PH.D.
Co-founder, Principal Consultant and Chief Scientific Officer, ProductLife Group
There are three core components to truly embed innovation within an organization. The first is thinking outside the box or the ability to make a connection between seemingly unconnected situations. A culture built on innovation gives people the freedom to use outside-the-box thinking in creative ways. Innovation can be further advanced by applying AI to carry out smart assessments of the ideas brought forward to make an impartial recommendation. Second, engineering is a crucial element in innovation because it transforms outside-the-box ideas into something tangible. The spirit of innovation is to end up with something that is engineered and therefore can be used. Often, people are reluctant to change a way of working or adopt new tools, but if innovation is embedded in the culture, and ideas are presented in a proper, engineered way and in a way they can understand, they would be more willing to adapt. The third key element is the contextual value-add that an idea brings to the organization. The same innovation could be used in different ways and different contexts, so you have to consider in which context the innovation will be used and what value will it bring to the organization.

BERT HARTOG, PH.D.
Senior Director Clinical Innovation, Janssen Pharmaceutica NV
For companies developing new treatment solutions, innovation is critical for long-term survival. The current ways of working must also be innovated to allow for the adoption of future breakthroughs. The world is changing ever faster, expectations from patients and physicians continue to increase, and companies have to learn how to adapt and incorporate the most promising innovation in new ways of working. The combination of a dedicated innovation function, to spur innovation, demonstrate the value novel capabilities can create, and act as a catalyst and knowledge hub to connect within the company is a critical element to a culture of innovation. Innovation requires an organization to ▶

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▶ be open to new ways of doing things. In our industry, an organization should constantly challenge itself to find the most efficient way to bring novel therapeutics to patients faster.
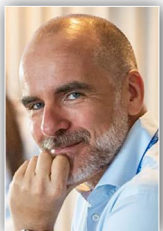
MIKE JAGIELSKI
President and CEO, KCR

Innovation becomes paramount for the success and status of pharma companies in the clinical research ecosystem. Innovation means different things for different people. For us, innovation is a development strategy that allows us to differentiate our service offerings by including the most advanced technology in a sensible and responsible manner. Second, we know that all organizational designs have advantages and disadvantages regarding innovation implementation. Innovation can be applied across the entire life of the project, from study design to software for statistical analysis. Yet, the largest and most meaningful impacts are reached in clinical trial execution and thus, clinical development solutions providers play an integral part in achieving this. Nevertheless, I believe that organizations with flatter structures are better prepared to engage in innovative cultural conversations for several reasons. First, because they tend to see innovation and customization as a selling point against larger corporations, they can leverage their marketing plans on these subtle but important differences. Their smaller organizational structures also allow them to be more adaptable to change. Lastly, because these similarities bring like-minded businesses together, flat companies tend to collaborate with organizations that are also more open to innovation. This is beneficial in terms of cost awareness, trial speed, and accessing highly specified patient populations.

CINDIE KAZMER
Senior Director, Project Management, Cenduit

Embedding innovation into an organization's culture means giving people permission — permission to

challenge the status quo, to explore, to color outside the lines, to think without boundaries. In our industry, it means focusing innovation on developing solutions that result in better site experiences, and better patient outcomes. Innovation is often driven by necessity. I believe that necessity is the mother of invention. However, what sometimes limits innovation is our understanding of what is necessary. Creating a culture of innovation requires an environment of communication and collaboration, internally within teams and across functional areas, as well as externally with sponsors and industry groups.

NINA KIRSHENBAUM
VP, Analytics Services, Crossix

We would see better products and steeper competition if innovation was embedded into every organization's culture. In many industries, the phrase "we've always done it this way," is the worst possible perspective, and it rings especially true in healthcare. Innovation breeds efficiency, which creates more time, money, and energy for the things that actually help improve patients' lives. From a competitive standpoint, as more and more companies solve healthcare issues, there is an inherent need to keep up —prompting an industrywide push toward new ideas.

RAMA KONDRU, PH.D.
Chief Technology Officer and Chief Information Officer, Medidata

The digital transformation of healthcare is upon us — embrace the innovation. It must be embedded in every team. I believe innovation is not an obligation or far-reaching goal, but a necessity for powering smarter treatments and healthier people. Every group, department, or employee within an organization should lead with innovation to conquer the difficult challenges ahead of us to cure cancer, Alzheimer's, and other indications.

Companies that have a deep understanding of the disease and leverage data and technologies such as AI will create compelling solutions that will drive transformative medical innovation. Innovation

can happen external to any one company so partnerships are key.

ANTONY LOEBEL, M.D.
President and CEO Sunovion Pharmaceuticals

If innovation were embedded into every organization's culture, we could better harness the collaborative involvement of academic, government, and industry scientists and researchers and learn from each other's experience. Everyone would benefit if we could continually bring a diverse range of perspectives to bear to solve unmet medical and global health needs. In the context of embedding innovation into every organization's culture, it is important to recognize that there are multiple issues facing the pharma industry, many of which have the potential to limit or undermine the opportunity to invest in important new R&D advances. As an industry, we must ensure that we guard against influences that would stifle innovation to the detriment of patients. In our complex ecosystem we should find ways to work together on new methods of diagnostic assessment, patient monitoring, and data analysis which need to be constantly developed to keep up with the pace of scientific and clinical advancement.

AMIR MALKA
President and Co-Founder, BioForum

Consider what happens when innovation isn't embedded in an organization's culture. Competitors will certainly get ahead of you, but what's more important to keep in mind is that talented employees won't join or stay with your organization. To remain motivated and committed, people need the space to dream big and be given opportunities to try new things and occasionally fail along the way. Missteps are part of learning, and continuous learning is a core attribute of an innovative, entrepreneurial culture. It's that simple: what makes an organization special is its people. All too often, ▶

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▶ however, as companies scale and face revenue and other business pressures, they lose sight of this. While an easy mistake to make, it's one that can be avoided. What really matters is creating a vision, hiring the right people and building collaborative teams that can achieve more together than as individuals. When you focus on people and create a sense of community, treating employees and colleagues as members of an extended family — one that you choose carefully — they do their best work. And that's because they then care even more — about their teams and colleagues; the company's vision, mission and values; and its long-term success. Ultimately, that's what drives innovation and financial success.

MATT MCNALLY
CEO, Outcome Health
In my experience, to truly embed innovation into culture, diversity and inclusion must be prioritized. And D&I needs to be more than a goal, it must be a company value. To innovate on how to better support patients, you can't have a team of like-minded people working to solve this; you'll just keep talking in circles and run out of new ideas. Innovation requires different opinions, backgrounds, and experiences; without a spark, there is no fire. Taking into account diversity of perspective, age, sex, gender, and ethnicity cultivates fresh points of view, which healthcare needs, so that ultimately every person's unique health journey can be considered and supported.

SY PRETORIUS
Executive VP, Chief Medical & Scientific Officer, Parexel
If innovation was embedded into every organization's culture, new innovative ideas and approaches to clinical development would be accepted more readily and more frequently, propelling our industry into a fresh, exciting and inspiring era. In turn, this would expedite drug development, drive down the cost associated with developing a new drug, and ultimately help us get new medicines to patients sooner, fundamentally changing the outlook for those suffering with disease. By harnessing the power of innovation in drug development, the sky is the limit.

CAROLINE REDEKER
Senior VP, Corporate Development, Advanced Clinical
If innovation were embedded into every organization's culture, it would be a better world for clinical research and more rewarding for professionals striving to bring new treatments to patients across the globe. Imagine a day when patients are aware of all the clinical trials available to them, enrollment timelines can be shortened, and patients are engaged and retained for every trial. While important strides in technology, standardization, risk assessment, and global regulatory collaborations have improved, the clinical research process, opportunities for data sharing, using real world data, decreasing sample sizes, and developing protocol and statistical designs that use existing data are ripe for exploration and innovation. There is an opportunity to think collectively, think smarter, and produce better results in the way we approach and manage clinical trials. Further, in an industry that is experiencing a true talent war, engaging and retaining employees is more important than ever. If innovation were embedded in all organizations, employees would be more engaged and morale would be higher as the employee pool would be tasked with identifying innovative solutions to the problems they experience day to day. Making innovation a priority would not only save companies time and money, and increase employee morale and retention, but it would also help us achieve our ultimate goal of providing hope and improving lives as new and better treatments get to patients as quickly as possible.

ARMON SHAREI
CEO, SQZ Biotech
A culture of innovation is crucial for the success of any company, and every organization should welcome and reward the growth of new ideas, some of which could be the next breakthrough in the industry. As a key ingredient to innovation, scientists need to value the elegance of simple solutions. Often innovation can be mistaken for the search for the most complex and intricate solution to a problem, but so many times, the most efficient and effective solution is the simplest path. Simplicity has tremendous value in science, and it should always be the first place innovators look to answer the questions they are facing.

MICHAEL SIERRA
VP, LEO Science & Tech Hub, LEO Pharma
The pharmaceutical industry is facing disruption at the interface between patients, doctors, healthcare professionals, and payers, in the same way that Uber and AirBnB have disrupted other industries. It is vital for innovation to become part of the DNA of employees, departments, and functions within an organization, not only delegated to one unit or set of titles. One of the foundations for driving innovation in any organization is competent teams that can solve complex problems, challenge the status-quo, and drive innovation. Innovation is a mindset, a way of thinking and behaving. We do not hire "innovative" employees. We bring talented, diverse, and committed individuals into an innovative environment. A team of subject matter experts across a broad range of fields brings balance and versatility to be able to address the different challenges an organization may face. Teams need to find the right balance of depth of expertise but also the breadth. By encouraging out-the-box thinking, we can fuel innovation in the pharmaceutical industry that truly improves patient care. This is our main focus. We need to increase our knowledge of how the use of new technologies for data acquisition can improve deep disease understanding, as well as give patients control over their disease. Partnerships are equally vital. Human relationships fail if each individual focuses solely on their own needs. Scientific collaborations are no different. We need to think about how we can make our partners successful.

Amazon, Google, Facebook, and Apple are all moving into healthcare. They are all innovating. For us, we want to be riding that wave of innovation, not be crushed by it. **PV**