

Sustaining INNOVATION

Experts say embracing a sustainability agenda can stimulate innovation, pushing companies to rethink their operations, products, and business models.



Business has entered a challenging new world full of opportunities for strategic innovation, and sustainability will be a major driver of these opportunities into the future. The new framework, which already dominates in a handful of the world's leading companies, is solution-oriented strategic innovation for sustainability, according to Dr. Aileen Ionescu-Somers, director of IMD's Global Center for Sustainability Leadership (CSL) Learning Platform, and Francisco Szekely, the Sandoz Family Foundation Professor of Lead-

unsustainable by their very nature. Very few companies are doing this today, however, some new and more reflective business models are emerging in some corners.

Dr. Ionescu-Somers and Mr. Szekely say managers have started to speak differently about strategic innovation for sustainability in the last few years. It is no longer a niche area of business, but a concept that is moving into the mainstream. Furthermore, managers can take a number of approaches to encourage innovation for sustainability within their organizations. The starting point is to make sure that it is considered an opportunity, not a threat, and to help people realize that high-impact ideas are necessary to change customers' mindsets. It is equally critical for organizations to ensure that they have the right incentives in place — fiscal, regulatory, and legal — to promote a longer-term view that supports sustainability. They say companies that are already making strategic innovation for sustainability report that there are a number of elements that can

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RITESH PATEL
Ogilvy CommonHealth



ership and Sustainability and director of the Global Center for Sustainability Leadership (CSL) at IMD. This translates, they say, into new ways to improve performance through innovation in all three dimensions of sustainable development: environmental, social, and economic.

The two experts say the first type of innovation is characterized by incremental, step-by-step change. Many companies take this approach, largely because they are risk-averse, particularly in recent crisis-affected years. The second — radical innovation — means creating new business models, but doing it within a traditional business system. The third is the game changer: systemic transformation, which reinvents business systems that are faulty and

help to drive improvement in this area.

- ▶ Value the role that leadership will play, in conjunction with clear priorities and a linked corporate strategy, in making this happen.
- ▶ Ensure that the business case for innovation is supported by thorough analysis and scenario planning.
- ▶ Focus on client needs, leverage applied technology, and share knowledge through a transparent approach to research and development within the firm.
- ▶ Ensure that strategy and sustainability performance are embedded in core processes, where they can drive change, rather than being add-ons.
- ▶ Engage staff through a clear strategy, strong



Innovation is not only sustainable; it is essential for long-term survival.

DR. LINDA LOHR
Pfizer

program office, companywide training, and effective communication of best practices.

- ▶ Support strategy development and implementation by promoting an innovative, interactive corporate culture.

Innovation: Serious Business

"As long as there's been business, there's been innovation," says Shideh Sedgh Bina, co-founding partner of Insigniam. "That's how businesses get started; they have new value to offer. I don't know about whether it's sustainable, but I can tell you it has to be sustainable and to the degree to which companies do innovation ad hoc and only focus on the products they create and what they make are limiting themselves. It's the business of business to create new value."



UMA ARUMUGAM, M.D.
Director, Clinical R&D
Early Phase Service,
ICON

I believe the current era and focus on innovation is sustainable in the long term, provided the cost of innovation is built into the capital for R&D budgets and it is given its due recognition. This is more so critical now that we are migrating from a generation of proof of concept to a generation of proof of value studies, and the physicians, patients, and payers alike are expecting value for their monies. It is imperative that a lot more importance is given for innovation models at the outset, while designing and developing plans for clinical assets. Such efforts upstream will enable us to explore ways and means to further R&D, ultimately benefitting all the parties involved and resulting in a huge impact downstream.



FARUK CAPAN
CEO, Intouch Solutions

Innovation must be sustainable. The rate of innovation is moving so fast. Everything is being disrupted so quickly. Stakes are even higher for the pharmaceutical industry. Innovation doesn't only impact customer-facing departments — sales and marketing. Even stoic R&D and manufacturing groups need to constantly reinvent/innovate themselves. But innovation is more than just tech. How can we bring drugs to market faster, cheaper, and better? How can we provide more valuable services to customers? Innovation is only the way.

TIM DAVIS
CEO and Founder, Exco InTouch

We're seeing a huge increase in innovation at the moment and I believe much of it is due to



the potential being unleashed by consumer technology and consumer giants such as Google and Apple. The challenge within clinical research is how to translate these advances into tangible research benefits. But more importantly, perhaps, is how we encourage regulatory agencies to develop appropriate guidance that enables us as an industry to integrate these innovations into healthcare as a whole while maintaining regulatory validity.



MARK HEINDL
CEO, PDR

Innovation is sustainable only for companies aimed at succeeding. We have to see innovation not as an add-on to corporate culture, like an annual service day, but as the engine that drives the industry's longevity. The history of this business is not one of relying on a handful of strong brands, important as they might be, but of expanding the scope of what medicine is capable of doing. The patent cliff, regulations, M&A, and other factors are all making companies anxious. The only way to face those challenges is to ask what comes next and get in front of it. Today's innovators are tomorrow's survivors.



TIM HOUGHTON
Head of Digital
Production, Langland

In business, it doesn't take much to elevate innovation to the halcyon status of pure science. Products get made, not always to meet a need, unless that need is to demonstrate an organization's talent for innovation. The result is that products that people neither want nor need get shoehorned into the customer experience. Sustain-

able innovation comes from a different place. It stems from finding solutions to actual challenges that make a real difference to everyday life. Can it be maintained? Yes, so long as there is genuine purpose.



SVEN JUNKERGARD
Chief Technology Office,
Zephyr Health

Innovation has to be sustainable, given the fundamental changes in healthcare today. Despite the precarious global economy, increasing competitive pressures and the constant need for data-driven decisions to deliver growth are not going away. Because the life-sciences industry lags behind others in embracing this data, we need to find ways to catch up. As such, innovation in data gathering and integration must continue to be prioritized by companies to stay in the game and, better yet, emerge as leaders.



RONALD MAHEU
President and CEO,
PharmaCommunications Systems

There will always be organizations where innovation will eventually become unsustainable, but those organizations will all eventually be rendered redundant by organizations that have made innovation part of their culture. Long-term success in all industries depends on innovation; in technology companies, however it's absolutely crucial to survival. Innovative technology organizations only remain innovative if their people continually embrace the solutions that have not yet been tried, the solutions that have not yet been developed, and the solutions that have not yet been thought of.

Linda Lohr, Ph.D., senior director of portfolio strategy, worldwide research & development at Pfizer, says innovation is not only sustainable, it is essential for long-term survival.

"As mergers, acquisitions, and business deals thrive, diverse corporate cultures collide, erupting change and morphing established

business models and practices," she says. "Organizations are compelled to innovate new approaches to maximize competitive advantage and to deliver on strategic objectives. Additionally, new regulatory filing paradigms such as breakthrough therapy designations and priority reviews promote innovation to meet the needs of precision medicine and rare

disease patient populations and to successfully bring therapies to market faster."

According to Vas Narasimhan, global head drug development and chief medical officer at Novartis, The Global Burden of Diseases, Injuries, and Risk Factors Study (GBD) — the largest and most comprehensive effort to date to measure epidemiological levels and trends



JEANNE MARTEL
President,
Clinical Mind

I don't think there's any turning back, innovation has come slower to marketing and medical affairs, but it is coming and it continues to change our society at a rapid pace. I think the key challenge for us is keeping up with the changes and understanding how innovations may apply to our business in a safe and compliant way. While innovation is important, we shouldn't feel the pull to adopt all that is shiny and new but to carefully consider what makes sense given the legal and regulatory constraints of our pharmaceutical environment.



BRIAN OVERSTREET
CEO,
Advera Health Analytics

The current focus on innovation is sustainable for the long term because the public is demanding it. The current health system is unsustainable and innovation will drive a change in the status quo — improving patient outcomes and lowering cost. To remain as is would be negligence — the equivalent of knowing there is lead in children's toys but making no accommodations to rectify the issue. To ignore innovation is to ignore the potential to save lives.



VENKAT SATHIYAMOORTHY
Senior VP, Connected
Care, Tunstall

Innovation goes hand-in-hand with a focus on providing continual improvement in the ever-changing environ-

ment. Competition naturally creates an environment that seeks new and innovative solutions. Innovation is a key differentiator in all industries, and companies will continue to invest in new technologies that will provide new solutions to overcoming challenges in delivering high-quality healthcare to patients and healthcare providers. Sustaining innovation within a company requires a leadership team that is committed to innovating and leads by example. Other factors for success are ensuring that all employees are aware of the innovative culture and desire to create new products and services, are transparent in their decisions, and ensure all innovations contribute to the financial stability of the organization.



PHILL SHAFFER
Director of Product,
Atlantis Healthcare

Innovation can be an uncomfortable particularly for those entrenched within the current healthcare system. Many individuals see innovation as representing a change to the way they work and uncertainty in how it will impact their ability to support patients. It can also mean the learning of new skills or processes. Individuals are naturally resistant to change, so for innovation to be sustainable it's important that the benefits are made clear across all functions and roles. If organizations are serious about supporting a culture of innovation, they need to provide their teams with the right working environment and cross-functional team structures to think innovatively. Within digital health, much innovation is about providing patients with more engaging experiences driven from user entered design. With the right environment we can design products that integrate into a patient's day-to-day life. As long as innovation continues to offer us these advantages, organizations can continue

to disrupt the current healthcare system and deliver products that help patients to better self-manage.



TAREK SHERIF
CEO, Medidata
Solutions

We are at the beginning of a much bigger era of innovation. While the need has always been there, it has grown over time and we are now just scratching the surface of fulfilling it. The academic and translational research breakthroughs of today will beget more breakthroughs over time. Just as importantly, the barriers to innovation that existed around infrastructure and cost are coming down. New ideas can scale up quickly without the massive upfront investments of yesterday. The efficiencies brought on by new technology are saving time and money that can be put toward new research, which ultimately means more candidates for potential breakthrough therapies.



MARK STEVENS
Senior VP, Marketing &
Communications,
Publicis Touchpoint
Solutions

The focus on innovation is not only sustainable but absolutely necessary to sustain life in the long run. If you want to get really excited — and maybe a little anxious — about the future of innovation, read the works of Ray Kurzweil. He proposed "The Law of Accelerating Returns," positing that the rate of change in a variety of evolutionary systems (including technological growth) tends to increase exponentially. He predicts that before

worldwide — shows ongoing unmet need in nearly every therapeutic area.

"We must set a high bar for innovation to substantially improve standards of care," he says. "The industry is addressing this need by taking advantage of the convergence of digital technology, big data, and the ease of genetic sequencing and gene editing. Likewise, Novartis leverages this convergence to upend the drug development process. We see a world

where we can study a broader range of targeted therapies that can be tested in more efficient trials, allowing us to quickly bring the next wave of innovative solutions to patients."

Melinda Richter, head, Johnson & Johnson Innovation JLABS, says the urge to innovate is ingrained in human nature.

"As long as there is unmet need in healthcare, we will be driven to explore innovative solutions to improve the health and wellness

of people around the world," she says. "We are committed to accelerating innovation at all stages of development and forming close relationships with innovators to determine how we can best support their ideas and commercial solutions for patients."

JLABS is part of the Johnson & Johnson Innovation network of initiatives that include four regional innovation centers — Asia-Pacific, Boston, California, and London; venture

mid-century we will have millions of blood-cell sized devices — nanobots — inside our bodies fighting diseases and improving cognitive abilities. By 2045, the pace of change will be so astonishingly quick that we won't be able to keep up, unless we enhance our own intelligence by merging with the intelligent machines we are creating.



MIKE WILKINSON
Executive VP and Chief
Information Officer,
PPD

Innovation is sustainable for the long term. Time, cost, and resources required for traditional drug development exceed \$1 billion per approved product for major pharma companies. These costs continue to increase and are unsustainable. It is important to identify and implement more informative, efficient clinical trial methodol-

ogies enabled by digital technologies to improve data quality and operational efficiency while reducing research costs.



ALEX ZAPSOCHNY
President and CEO,
iCardiac

Not only is innovation sustainable, but we expect the pace of innovation in the industry to continue to accelerate.

While some aspects of innovation have taken longer to be fully felt within the drug development industry, what we are experiencing now reflects the broader acceleration of innovation in many areas of science and technology development. In particular, we are excited at the prospect of what new mobile, wearable, and data integration technologies will do to make clinical trials and drug development more efficient in the coming years.

There needs to be a deep understanding of what innovation is to avoid it being just a buzzword.

MIKE REA
IDEA Pharma



investing through JJDC; as well as Janssen Business Development for later-stage M&A. The full suite of cross-sector tools provided by Johnson & Johnson Innovation are designed to identify, access, and accelerate the best science — internal or external — at all stages of development and rapidly advance it through clinical research to reach patients in need.

"To be sustainable we have to continually innovate," says Amir Kalali, M.D., head, Neuroscience Center of Excellence at Quintiles, as well as a founder and co-chair of the scientific

program committee of the CNS Summit. "Innovation can enable our ethical duty to conduct the next generation of clinical trials, including evidence-based design; leveraging crowdsourcing of knowledge; improved subject engagement; more inclusive, accessible, efficient, and affordable studies; improved subject recruitment and therefore timelines; radical new ways of continuous subject assessment; more transparency of data to subjects, investigators and data consumers; and more collaboration. These improvements will more

likely lead to successful trials and better adherence, generate clinically meaningful data, and enable precision medicine."

Ritesh Patel, executive VP, chief digital officer, Ogilvy CommonHealth Worldwide, believes innovation needs to be taken seriously and should be brought in-house as a practice just as pharma has done over the past several years with other functions, such as CRM, CLM, automation, etc.

"And here's why, in the next two to three years, there is going to be acceleration in innovation in all industries, but healthcare in particular because there is a global army of fearless entrepreneurs, fueled by global consumers, who are connected and willing to take a risk on a product to help them," he says. "This is just going to accelerate."

Mr. Patel believes innovation in the life-sciences industry is only just scratching the surface.

"What started in the United States and Europe is now in parts of Asia, and there are people waking up and realizing they have ubiquitous connectivity in Australasia, Africa, and Latin America; they have access to app developers who can build the process for them within weeks; they have the capability to reach millions of people very quickly," he says. "Ubiquitous connectivity, inexpensive technology, and access to funds aren't going to go away. Anybody can go to Kickstarter, for example, to obtaining funding. The ability for entrepreneurs to connect around the world and find capabilities to build a prototype within weeks and then scale quickly will continue."

Mr. Patel encourages the senior leadership of the pharmaceutical industry to examine and understand all of the things they have to do right, from managing the discovery of the molecule to managing end-of-life products.

"I think they need to understand, even if it's one area, how can they innovate and show the company or the shareholders or employees that there is a huge opportunity for their companies," he says.

Mike Rea, CEO of IDEA Pharma, says there is some concern that innovation can become a buzzword in the same way that other terms such as patient-centricity have become overused, despite each being meaningful and sustainable.

"The risk is that innovation becomes a buzzword delivered by management consultants as an area of focus for this year, and then they move on to the next thing next year," he explains. "I think if pharmaceutical companies can get better at launching what's in their pipelines, this is at the core of innovation sustainability. At the same time, there needs to be a deep understanding of what innovation is to avoid it being just a buzzword." ^{PV}