

ENGINEERING & PRODUCT DESIGN

5 Ways to Become an Innovation Leader



Defined as "the act or process of introducing new ideas, devices, or methods," innovation is very often easier said than done in the business environment. Challenged to continually meet operational, customer, and shareholder demands, organizations tend to lose sight of the big picture and wind up falling short of their long-term innovation goals.

And while small innovation gains may seem inconsequential, the firm that sets its sights on continual improvement in this area reaps large rewards over time. In fact, as a corporate imperative that requires discipline, creativity, and commitment, innovation gives organizations clear competitive advantages in a corporate world where many leaders are too busy putting out daily fires to be able to unleash and capitalize on new ideas.

The question is, how can companies become innovation leaders in an environment where creativity and imagination are the keys to ongoing success and growth? For answers, IHS Markit worked with Supply & Demand Chain Executive magazine to conduct its 2016 Success in Innovation Survey. Based on the survey results and insights from its top innovation experts, IHS Markit developed five practices that companies can use to become innovation leaders in their respective industries.



Sector / Industry	
Aerospace & Defense	12.1%
Automotive	12.1%
Chemicals, Plastics & Rubber	3.4%
Consumer Products/Electronics	6.9%
Design & Construction	2.9%
Education	3.4%
General Manufacturing	9.8%
Government	2.3%
Medical Devices/Equipment	4.0%
Metals & Mining	0.0%
Oil & Gas	8.6%
Retail	2.9%
Semiconductor & Components	1.7%
Transportation Services/Logistics	6.9%
Utilities/Energy	5.2%
Other	17.8%

Respondents' Demographics







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Respondents' Views of Their Organizations' Performance

How often do you meet financial goals?



Make Your Mark on the Innovation Landscape

One look around the business world reveals a climate that's ripe for innovation, but also one where established firms are steering clear of this opportunity. As domestic and global competition continues to increase—with a larger swath of firms chasing a shrinking group of customers—even the Fortune 500 isn't immune to this trend. In fact, 40% of the firms that ranked on the Fortune 500 in 2000 are no longer on the list. That's because where many companies had just a handful of competitors back in 2010, they're now dealing with dozens of different firms that are coming after their customers.

Add the fast pace of technological advancement to the mix and the environment becomes even more challenging. Companies that overlook this fact are quickly finding themselves going head-to-head with entities that put the How do you perform in terms of innovation?



time and effort into becoming innovation leaders not only in their own industries, but also in the business world as a whole. Key roadblocks include the cost to develop or introduce innovations, insufficient collaboration with vendors and/or customers, and the lack of a culture of innovation within the organization itself.

Also hampering innovation is the fact that related failures are often viewed negatively by the organization – a stigma that could prevent individuals from embracing the reality that "failure is a necessary part of innovation." The good news is that the survey results point to clear lines in the sand separating innovation leaders and laggards. Using the survey to identify those differences, IHS Markit developed these five best practices that all organizations can follow on the path to becoming innovation leaders.



Five best practices that all organizations can follow on the path to becoming innovation leaders.

1. Develop a corporate culture that enables and supports innovation

In developing a culture that fosters innovation, company leaders must make it easy for engineers and other team members to solve problems faster, find information they need to get their jobs done quickly, and leverage best industry practices. Employees must also be able to tap into a broad set of content relevant to their industry and/or field, work on different types of projects that require knowledge of different fields, and get up to speed quickly on new topics, projects, and processes.

% of respondents citing these as top innovation success factors



collaboration with vendors



and/or customers

strategic focus on innovation in the organization

2. Don't be afraid to fail fast, and fail forward

One in five professionals says that innovation failures are viewed negatively in their corporations. And while embracing constant failure isn't good either, there is a clear delineation between how leaders view failure and how laggards view it. Forty-six percent of leading firms, for example, say that failure is viewed positively, whereas just 26% of laggards feel the same way. It's easy to say innovate or die, but it's difficult to live this motto as a culture in your company. That's because you can't just pay lip service to the idea; you have to foster that culture of not being afraid to fail fast and fail forward. If your culture is conducive to innovation, and if workers aren't afraid to stick their necks out and try something new, the innovation mindset will come.



say cost is the



report that innovation failures are viewed negatively in their organizations

3. Tap into the innovative strength of individual engineers and designers

People want to work at innovative corporations, they want to contribute their individual ideas to these corporations, and they very often view corporate culture as the single most important success factor enabling innovation. In fact, one in four professionals surveyed says that interaction with colleagues is the leading source of innovative ideas, and about half of them say their companies consistently allocate a budget for innovation discovery.

7<mark>8</mark>%+ say it's personally important to them to work view innovation as being essential to their at an organization viewed as innovative organization's success Hali of organizations consistently allocate budget say that interactions with colleagues are the leading source of innovative ideas

4. Focus on breaking down the barriers to success

Being an engineer in today's business world isn't easy. The barriers to success are getting higher and higher, and the number of projects these professionals are working on is increasing exponentially. According to our survey, 50% of engineers are working on more projects than they were just a few years ago, but with fewer and fewer resources. These barriers to success can impede innovation and cause organizations to fall behind their competitors. Focus on breaking down these barriers to success and creating an environment that supports and nurtures innovative thinking.

5. Leverage state-of-the-art knowledge sources and technology tools

Leading companies don't just leave innovation up to chance. Instead, they utilize knowledge sources and technology tools to support ongoing innovation and discovery. They help their engineers and designers effectively manage the reams of information coming at them from patents to standards, journals to publications, and everything in between. Using advanced analytical tools, for example, companies are exploring new concepts (e.g., nanotechnology or new forms of batteries), watching trends in intellectual property (IP) or patents over time, and staying abreast of competitive activities. This, in turn, helps companies understand who the leaders and the laggards are and pinpoint what the former is doing differently. Then, companies can use these trends to help spark new ideas and get up to speed quickly without having to continually reinvent the wheel. By focusing on the technology that supports innovation, companies can literally build that innovation into their DNA and make it a cumulative factor in their organizational success.

Which knowledge sources or technology tools does your company use to support innovation discovery?	Leaders	Laggards
Patent documents / databases	37%	54%
Standards, codes, regulations	50%	63%
Trade journals, reports, written research	63%	60%
Customer or channel systems / databases	57%	43%
Supplier or contractor systems / databases	35%	49%
Technology and technology trends	70%	60%
Competitor data / documentation	48%	40%
Social media feeds / sentiments	15%	23%
Online community analytics (i.e. engineering behaviors)	11%	14%
Open Innovation tools	24%	3%
Internal management systems (QMS, PLM, CAD, ERP)	30%	23%
Internal colleague / dark data (emails, SharePoint, etc.)	26%	26%
Internal enterprise search tools	17%	17%
Knowledge management systems	28%	20%
Don't Know / Not Sure	2%	9%
Other (please specify)	4%	9%

Getting Onboard with Innovation

We live in a world driven by innovation. If your company is afraid to innovate, inevitably it will fall behind because there is going to be a competitor that is not afraid to take the leap. Innovation isn't just about doing things faster and better; it's also about finding the right time in the development process to infuse innovation into the mix. By incorporating the right tools, resources, and support structures, leading firms are embedding innovation disciplines upfront in the development process and then nurturing it through to the finish line.

Unleash the Technical Enterprise

It's time for organizations to combine content, search and analytics to "make a leap" and become the knowledgedriven, innovative enterprises they aspire to be. That's where IHS Engineering Workbench comes in. It's the only rapidly-deployed, next-generation platform for the technical enterprise that provides global organizations with a complete and comprehensive set of content, next-generation search capabilities, and advance tools to drive profitable growth and competitive advantage from the technical workforce. Using the platform, companies can effectively arm knowledge workers with the technical expertise they require without bogging them down with superfluous data.

Innovative and ground-breaking in its own right, Engineering Workbench connects engineering, scientific, and technical professionals – and internal communities across the technical enterprise – with more than 110 million must-have engineering and technical reference books, patents, technical articles, reports, design principles and other essential content. It also connects these workers to their own internal knowledge sources and helps them foster knowledge retention, transfer, and discovery, while using next-gen search technology to extract answers and derive insights from internal and external content sources. Furthermore, Engineering Workbench provides advanced research, problem solving, and analytical tools (such as root cause analysis, technology and patent trend analysis, consumer insights or intelligence), to extract product ideas from social media.

Empower your engineering community with IHS Engineering Workbench. Learn more at **www.ihs.com/ewb.** Engineering Workbench reduces the total cost of ownership (TCO) of information and technology purchases, while increasing the return on investment (ROI) of existing information and technology deployed across the enterprise. Tailored to the unique needs of enterprise knowledge workers, Engineer Workbench empowers business leaders to equip their technical workforce with a holistic lightweight framework consisting of vetted technical content, advanced research capabilities, and a consistent user experience that's designed specifically for the technical audience. This, in turn, enables the processes and activities associated with knowledge work, and helps improve innovation, drive operational efficiency, control costs, and mitigate risk.

With Engineering Workbench, scientists, researchers, engineers, technicians, and other knowledge workers finally have a single information, analytics, problem solving, and decision-support platform. This enables information-laden organizations to transform into knowledge-driven corporations that benefit from improved product quality, faster time to market, reduced costs, global opportunities, better regulatory compliance, and improved customer satisfaction.

For more information www.ihsmarkit.com

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About IHS Markit

IHS Markit (Nasdaq: INFO) is a world leader in critical information, analytics and solutions for the major industries and markets that drive economies worldwide. The company delivers next-generation information, analytics and solutions to customers in business, finance and government, improving their operational efficiency and providing deep insights that lead to well-informed, confident decisions. IHS Markit has more than 50,000 key business and government customers, including 85 percent of the Fortune Global 500 and the world's leading financial institutions. Headquartered in London, IHS Markit is committed to sustainable, profitable growth.

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