

breathe in(novation)

UNCOVER INNOVATIONS THAT MATTER



MARTY CURRAN

Executive Vice-President &
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INNOVATION BY PRIORITIZATION

CORNING

Corning Incorporated is one of the world's leading innovators in materials science. Their innovations include the encasement for Thomas Edison's electric light bulb, and Corning® Gorilla® Glass for mobile devices. Corning has 61,000 employees and sales of approximately \$14.1 billion in 2021.

Marty Curran was appointed Corning's first innovation officer in August 2012. In this role, Curran manages a portfolio of programs to increase the probability of success for new business opportunities. The innovation office was created to build an entrepreneurial-focused organization that could operate across all business segments to identify and develop near-term revenue opportunities.

Could you elaborate on your current role and responsibilities as Chief Innovation Officer at Corning?

— In 2012, I was appointed Corning's first Innovation Officer. Since I took up this role, we have created the Emerging Innovations Group (EIG), which has a portfolio of programs in nascent stages that provide a bridge between new ideas and our mature business programs. We source new ideas from four areas: Corning's research organization, Corning businesses, "knocks on the door" from potential partners, and as a result of exploratory scouting. EIG was created to identify, prioritize, and develop profitable opportunities by tapping our incredibly relevant expertise and proprietary platforms to develop category-defining products in markets that transform industries and enhance lives. An invention only becomes an innovation when profitable sales occur.



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How should organizations identify the key innovation areas / ideas to focus on?

— The key is understanding your organization's capabilities. What do you know, or what can you do that is truly unique? Then, seek customer problems that you feel you can solve. We differentiate the small "i" innovations that a business manages in the normal course of events from large "I", or New Growth Innovations, where the offering is completely new and unique.

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Corning is the best in the world in three core technologies (glass science, ceramic science, and optical physics); four manufacturing and engineering platforms (vapor deposition, fusion, precision forming, and extrusion); and five market-access platforms (MAPs; optical communications, mobile consumer electronics, display, automotive, and life sciences vessels). We refer to these sets as “3-4-5.” We direct 80% or more of our resources to opportunities that draw from at least two of these capabilities sets. Twenty percent of the time, we’ll work on something new but, as this will be in an area where we lack deep expertise, we’ll be more circumspect and take our time.



Corning Incorporated World Headquarters



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How does the pace of technology change impact how organizations innovate?

— Corning is one of the original S&P 500 companies, and we have watched the cycle of technology adoption accelerate drastically over the last century. For our organization to keep up with the rapid pace of technological change, we want business leaders to take responsibility for innovation – it is a key part of our company's Values (Innovation is one of Corning's 7 Values). This heightened sense of urgency also means that it is important for teams to use tools such as AI, modeling, and simulation, as well as process and prioritization tools. You can never let up!

How difficult is it to manage an innovation portfolio and still meet quarterly and annual financial targets?

— Given the twists and turns of running an innovative business, it's an ongoing challenge to manage a portfolio of startups while adhering to your financial plan. To help manage the volatility inherent in innovation, the Innovation Office "protects" these projects by having EIG as a distinct organization within Corning, separate from business segments. We're also experimenting with Program Offices in our MAPs – run separately – for New Growth Innovations.

Program managers must validate the market opportunity and test the business model by "making one that works" with a "crystallizing customer" before receiving additional budgetary leeway. A "crystallizing customer" is a leading customer in a particular industry that helps refine and establish a new solution and business model and acts as a leading influencer for the rest of that industry segment. This can speed the time to adoption, limit volatility, and minimizes financial risk.

How should innovation be governed in large organizations?

— Large organizations are (correctly) focused on generating steady profit growth, whereas innovative businesses have inherent volatility. Innovations rarely turn out as expected. Corning's approach is to protect New Growth Innovations by utilizing innovation framework tools, prioritizing resources, and encouraging program managers to find and expose "the Big Lie" – that is, to uncover why the innovation may not be adopted – at which point we need to either solve the problem or stop the program. In addition, it's critical to bring bad news to leaders faster than good news, as well as build the correct team and access critical knowledge on demand and in real time. It's amazing how many times a subject-matter expert with deep knowledge will save a project team.

"It's critical to bring bad news to leaders faster than good news."



At what point in the innovation cycle are innovation initiatives scaled back or killed?

— One of the most important disciplines for an Innovation Project Manager is use of our innovation framework tools, which we view as a “toolkit” for managers to regularly utilize. This toolkit lays out methodology, approaches, frameworks, examples, and training for assessing a new opportunity. First, they must develop the foundational assumptions upon which an idea is based. I think of this work as understanding the technical and commercial “lift” required – for you and your customer.

If a key assumption is deemed incorrect, the manager has a chance at this stage to fix it or stop. Even when we stop, we still capture our learnings. Innovations are often based on years of work on multiple projects. If we stop, teams are transitioned to other areas. One thing we do is recognize stopped projects through an annual “Day of Dead Projects” celebration, where lessons learned are shared and teams’ work is recognized by the broader technology organization.



How diverse is the innovation portfolio mix at Corning to address incremental and disruptive innovations?

— Corning’s portfolio of innovations is quite diverse. Our global capabilities are applicable and valuable to a great number of market segments. After a decade in the role, I’m still pleasantly surprised by the constant flow of ideas. The problem is not finding opportunities – it’s prioritizing how we use our time, talent, and treasure.

What do you think is the role of open innovation?

— Crowdsourcing solutions are difficult to adopt because Corning’s capabilities are deeply rooted in our 3-4-5 technical specialisms. Working with suppliers and our value chains give our inventions a multiplier impact. We also sign agreements with many universities each year. Open-innovation models can be beneficial in solving problems quickly and getting to market faster.



FUTURE OUTLOOK

Which book, personality, or mantra/saying inspires you most to drive innovation in your organization?

— You've got to stay curious. There are many good books, by authors including Clayton Christensen, Alex Osterwalder, Jay Levinson, Tim Laseter, and Cliff Farrah. Learning the lessons of history can be empowering; innovation occurs in many ways, so interacting with lots of different potential partners is crucial. Michael Lewis, Malcolm Gladwell, Chernow and Isaacson's profiles [of leading businesspeople], Kearns-Goodwin's Team of Rivals [Abraham Lincoln biography], Loonshots [Bahcall], Bold [Diamandis/Kotler], and The Idea Factory [Gertner] are some other works worth exploring.

What is the technology that will have the most lasting impact on society in the next 5 years?

— Artificial intelligence (AI) and modeling/simulation tools are key areas that will unlock critical information, and will ultimately make us more productive.

What would be your top 3 recommendations to help organizations become more innovative?

— First, hire the right people; if you take care of that, the bottom line takes care of itself. Second, seek out customer problems that match your organization's capabilities – this puts you in the best place to win. And, finally, take risks – they can be measured risks, but nothing gets done without taking some chances!



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