Speaker 1: Welcome to the MIT CISR research briefing series. The Center for Information Systems Research is based at the Sloan School of Management at MIT. We study digital transformation.

Nils Fonstad: Hi, I'm Nils Fonstad, a research scientist with MIT CISR. Today, I'm pleased to share with you the March 2022 research briefing that I co-authored with Martin Mocker: Three Imperatives to Learn from Your Digital Innovation Initiatives.

Digital transformation involves a great deal of uncertainty, which companies are starting to mitigate by increasing how much they learn during the process of innovating. Companies are investing in approaches such as A/B testing, sponsoring hackathons, partnering with startups, generating minimum viable products, and co-creating with customers.

However, in many companies, only one stakeholder group is enhancing what it learns from its efforts: innovation teams. These teams monitor how three attributes, what is possible with digital technologies, the needs of end users, and what is valuable for the company, interact and evolve to inform further iteration and produce a successful innovation.

But two other stakeholder groups also need to learn from digital innovation initiatives: senior executives and experts from corporate functions. Senior executives need to learn how to identify the most strategically valuable initiatives with the aim of better allocating resources, most notably scarce talent, to a portfolio of initiatives that addresses immediate opportunities and threats and advances on longer term strategic objectives. Experts from corporate functions, such as legal, risk and compliance, human resources, and IT, need to learn from initiatives to identify challenges that are common across multiple initiatives and to build resources that help multiple initiatives make better innovations faster and cheaper.

We have defined three learning imperatives that address a company's needs to learn continually about building three things: a successful innovation, a portfolio of initiatives that realizes strategic objectives faster, and shared resources that propel multiple initiatives. Each learning imperative represents the aim of a specific stakeholder group and the group's approach to learning that best achieves that aim. All three learning imperatives are pursued by collecting data regularly from digital innovation initiatives. The companies we've studied that have successfully tackled these learning imperatives have reported creating more valuable digital innovations for their customers, delivering a higher number of digital innovations without increasing overall effort, reducing time to market through the utilization of shared resources, and reacting more swiftly to changing threats and opportunities while also achieving strategic objectives.

In this research briefing, we outline three learning imperatives and provide examples of how three companies from our research—Posten Norge, BBVA, and Munich Re—are pursuing them to achieve strategic objectives more effectively and efficiently.

The first learning imperative is learning to build a successful digital innovation. MIT CISR research has highlighted the importance of testing and learning in developing a successful digital innovation. More and more innovation teams are taking iterative test and learn approaches and drawing on methodologies such as agile and design thinking to continually generate insights from past efforts and adapt their next efforts based on what they've learned. Without continually learning about key aspects of a successful innovation, a team risks spending resources on innovations that are not useful to end users, are expensive or impossible to scale, and fail to create strategic value for the company.

The Nordic postal and logistics group, Posten Norge, developed an approach to digital innovation called the helix model in reference to changing the company's DNA. Drawing on design thinking, the helix model defines a valuable innovation as one with the greatest overlap of three attributes. It is one, desirable. Customers and end users want it. Two, feasible. Posten Norge can provide it. And three, viable. It makes business sense. The helix model also defines the process that an innovation team must follow, which entails three phases of learning: explore, create, and implement. In each phase, the innovation team generates a distinct set of insights that helps determine whether the team will advance to the next phase, and if so, what they do next. The approach has discouraged teams from pursuing innovations of little or no value and increased the likelihood that they will create competitively advantageous innovations.

This first learning imperative details why an individual innovation team needs to learn from its own efforts. Senior executives and experts from corporate functions need to learn from multiple initiatives, which is what the second and third imperatives are about.

The second learning imperative is learning to build a portfolio of initiatives. Senior executives need to build and maintain a portfolio of digital innovation initiatives that helps advance a diverse set of long-term strategic objectives, while also addressing unanticipated needs that suddenly arise due to changes in the business environment. The executives must choose which innovation initiatives receive resources and how many. This is a challenge because senior executives may be unaware of how initiatives relate to strategic objectives and KPIs, and they don't know how initiatives will evolve after funding or how the business environment will evolve.

Companies we've studied learned to build and maintain a valuable portfolio of initiatives by standardizing the information strategic initiatives provide and how often they provide it. Executives evaluate innovation initiatives at frequent intervals based on updated business cases. In other words, reassessments of costs and benefits to inform resource allocation changes.

At BBVA, executives require that business cases for new initiatives be expressly linked to corporate level strategic objectives and related KPIs. They developed a project canvas, essentially a form of a business case that every strategic innovation initiative updates quarterly. Each project team reports on the output it delivered and its value using metrics that are common across the bank. The team also reports on its plans for the next quarter, including needed talent. The project canvases enable executives to produce each quarter an updated holistic view of their portfolio of initiatives that is linked to strategic objectives. Executives learn, among other things, how deliverables from initiatives relate to strategic objectives, how changes in talent relate to the performance of initiatives, and how change to the portfolio influence some strategic objectives more than others.

As they learn, executives improve at assessing value, coaching initiatives to develop more realistic and effective business cases and execution plans, and prioritizing initiatives based on those plans. Consequently, they get far better at quickly reallocating resources, most notably scarce talent, among initiatives as needs change.

The third learning imperative is learning to build shared resources. Most digital innovation teams prefer to innovate autonomously to maintain speed and agility. But some corporate functions, such as IT architecture, which has an interest in maintaining simplicity and operations, are keen to coordinate initiatives in order to address challenges that are common across them with a shared set of reusable resources. Many IT architects try to proactively build resources that all initiatives can use, for example, a platform of shared digital services. But because initiatives evolve in unanticipated ways, shared resources and initiatives needs often become misaligned, and the resources end up hindering initiatives more than helping them. To avoid this, owners of shared resources need to learn continually about both initiatives' challenges and what makes shared resources sufficiently valuable to warrant the costs to initiatives and the company for developing and maintaining them.

One way companies help owners of shared resources to learn more from initiatives is to change how the owners engage with initiatives. For example, a company can appoint IT architects to co-lead initiatives, then have the owners of shared resources learn from the architects about common challenges of the initiatives and the value of shared resources. Based on their learnings, the resource owners can develop and maintain the resources in an iterative manner. The resulting shared resources are more likely to add value by helping initiatives get innovations to end users faster, reducing the cost of or making it easier to scale an innovation, or enhancing the user experience, and for not just one but many initiatives.

Munich Re invests in dozens of initiatives concurrently, generating new sources of revenue by delivering insurance as a service. In 2018, the company created a unit called Business Technology that helps innovation initiatives build digital offerings by providing shared expertise and reusable digital components. Business Technology assigns an IT architect to each of the most valuable initiatives as its initiative chief technology officer, or ICTO. The ICTO and a business-side product owner act as co-founders of the initiative with the ICTO drawing on digital technologies to build deliverables. Initiative CTOs share experiences with each other to identify challenges common across multiple initiatives and work closely with Business Technology to help build and maintain a platform of shared digital services. To assess whether services continue to add value to initiatives, Business Technology links each service to KPIs, such as time-to-market, better customer experience, and cost reduction, that reflect the service's value to initiatives and guide its adaptation for the betterment of not just individual initiatives, but the entire company.

Learning to learn more from initiatives. The three learning imperatives demand learning within each digital innovation initiative across the entire portfolio of initiatives and when developing shared resources. Pursuing the imperatives will likely require a company to change its approach to developing digital innovations, how and how frequently it assesses initiatives, and how those providing shared services interact with initiatives. The reward for these efforts is an organization that uses resources more efficiently and continuously creates greater value from digital innovations for customers and the organization. Companies simply can't afford not to learn more from digital innovation initiatives.

Speaker 1: Thanks for listening to this reading of MIT CISR research. And thanks to the sponsors and patrons who support our work. Get free access to more research on our website at cisr.mit.edu.