

## IBM Garage

Where innovation and transformation  
come together for the enterprise





**IBM Garage is an end-to-end framework for accelerating business transformation.**

**We orient our clients with their customers' pain points.**

**We provoke their imaginations, encourage them to take manageable risks, help them get creative, and provide the tools, technologies, and expertise to streamline product development.**

**The goal is to quickly deploy and scale maximum-impact solutions across the enterprise – and to foster a faster, more sustainable approach to innovation.**

**This is how we do it.**



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# A very human model for business transformation

**It wasn't too long ago** that success in the snack food business was built upon a relatively straightforward formula: slice up some potatoes really thin, fry them in oil and sprinkle on salt, then pack them into bags and onto trucks to deliver to the masses. But the industry dynamic has changed dramatically in recent years. Advances in flavor science, production, and manufacturing have conspired to create an explosion of diversity in flavors, ingredients, form factors, and nutritional content. Once consumers got a taste of hummus-flavored chickpea crisps, Xxtra Flamin' Hot Cheetos, and plantain chips, they'd never again be content to choose between vinegar, salt & pepper, and BBQ. In relatively short order, this "one size fits all" industry became something more like "to each his own."

For a business as large as Frito-Lay, this represents an enormous disruption. The \$18 billion division of PepsiCo comprises 1,200 flavor SKUs and its own national fleet of delivery trucks to improve relationships across the supply chain. "The type of transformation required to deliver the perfect snack at the perfect time for every

**How do you transition from a "one size fits all" business to something more like "to each his own"? Snack food giant Frito-Lay turned to IBM Garage for help.**

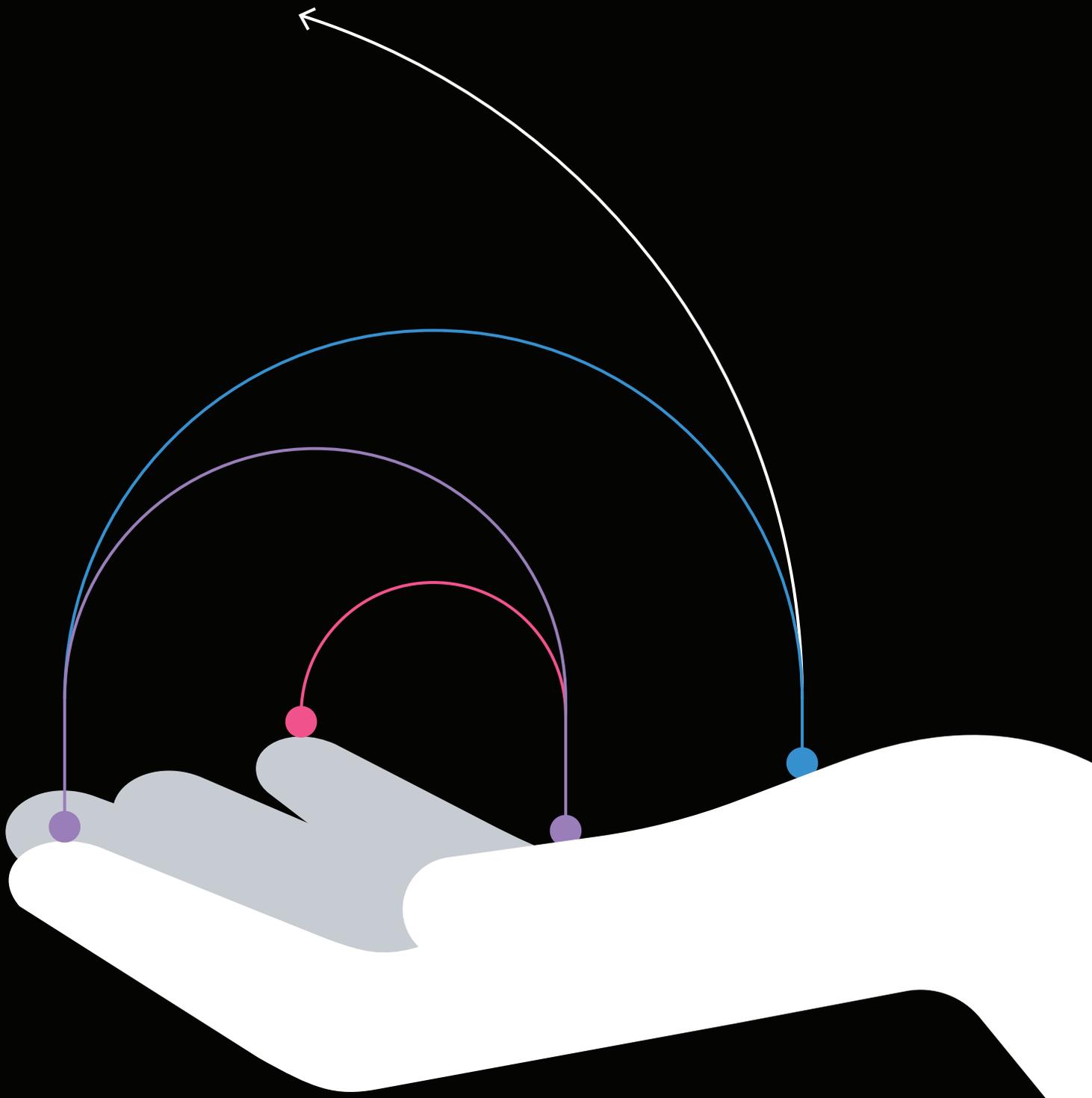
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single customer is massive," says Chief Transformation and Strategy Officer Michael Lindsey. "We have to fundamentally change everything about our value chain." Lindsey had a pretty good idea of what he could handle internally. Frito-Lay is a master at many aspects of business, from product development to marketing and sales, but it would surely need help developing tools to better connect to retailers and consumers. Over the past decade, digital technologies have blurred industrial divides, destroyed business models, and given rise to a raft of incubators, accelerators, labs, innovation centers, and consultancies promising to help companies like Frito-Lay adapt to a new reality. But Lindsey was drawn to IBM Garage for its promise to collaborate from idea conception to software development to scaling solutions across a global marketplace.

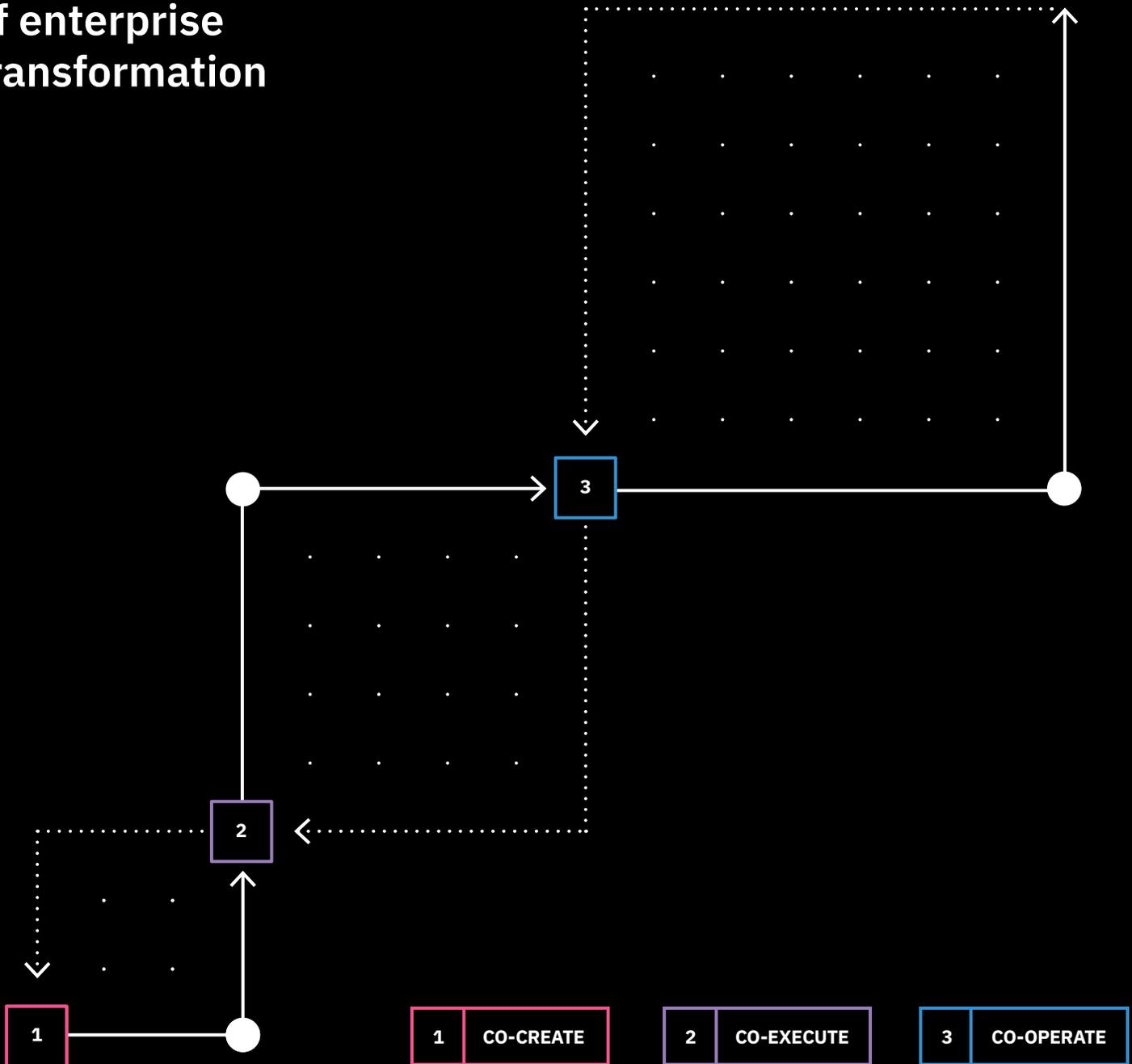
With the resources of an enterprise software behemoth and the metabolism of a Silicon Valley startup, IBM Garage has worked with more than 3,000 companies since its inception in 2014. The IBM Garage Methodology, which is rooted in design thinking practices – like a hyperfocus on user outcomes – and in Lean and DevOps software development techniques, has proven to be especially effective at quickly and sustainably transforming enterprises. In a recent report, Forrester Research found that an average IBM Garage engagement generates 10 times as many ideas as a typical in-house development effort, reduces product design time by 75%, and triples the speed with which new applications reach market.

As impressive as those statistics are, Lindsey suggests they don't fully convey the value his team created with IBM Garage. The collaboration entailed 1,500 hours of research to understand the needs of retailers, a series of working sessions that included ride-alongs with frontline drivers, and a software development phase that culminated in two game-changing digital properties.

The Snacks to You app allows small-scale store owners and food truck operators to schedule deliveries and receive suggestions about seasonal and regional preferences. The Sales Hub platform provides drivers with route details in real-time, tips on efficient delivery tactics and shelf organization, and access to time sheets,



# The three phases of enterprise transformation



1

1

**CO-CREATE**

2

**CO-EXECUTE**

3

**CO-OPERATE**

The first stage of the IBM Garage Methodology features a series of intense design thinking work sessions that encompasses a diverse team of technical, design, and subject matter experts who collaborate to expose the true nature of a client's problem. The goal is to create a granular vision for a minimum viable product (MVP) directed at a particular pain point or customer set.

Next comes a multiweek development cycle that capitalizes on access to the latest IBM technologies, like AI and blockchain, and utilizes Lean and DevOps methods to quickly launch the MVP into the market, where it's tested, mined for insights, and reimaged to better serve users. This process repeats until the solution is ready for wider rollout. If the outcome of co-create is a vision, the goal of co-execute is proving that vision's value.

Once the MVP has been sufficiently refined, it's time to build a more robust solution capable of reaching across the customer base. Co-operate utilizes DevOps processes to broaden a product's feature set, stress-test code, and strengthen security measures. The primary goal here is to deploy the solution widely. "The difference between innovation and transformation is scale," says IBM Garage global lead Debbie Vavangas.

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**IBM Garage clients generate 10x as many ideas, release 6x as many innovations, and triple the speed to market, according to Forrester.**

vacation requests, and scheduling. By mid-2020, 30,000 Frito-Lay customers were using the retail app and the company was planning future engagements to move ordering, invoicing, and warehouse management functions into Sales Hub.

“Historically, we would have rolled out a big program from our headquarters. Maybe we would have gotten a little bit of feedback along the way, but generally it would have been a traditional waterfall approach to landing new technology,” says Lindsey. “Frankly, the way the world is moving and as fast as things are happening now, we knew we couldn’t go with that approach. We needed what IBM Garage was offering — a new end-user-focused design philosophy. It was a completely new way of working, and it resulted in really fast time to market.” ●

**In the realm of technology**, the word “garage” has become synonymous with innovation. But even colloquially, it has a certain roll-up-your-sleeves connotation. For some, a garage may be merely a place to park the car and keep things out of sight. But for the builders, makers, and entrepreneurs, a garage represents an escape to a different headspace — one where you give yourself permission to start from scratch, where it’s permissible to take risks and consider problems from new angles, where you go in hope of creating something revolutionary.

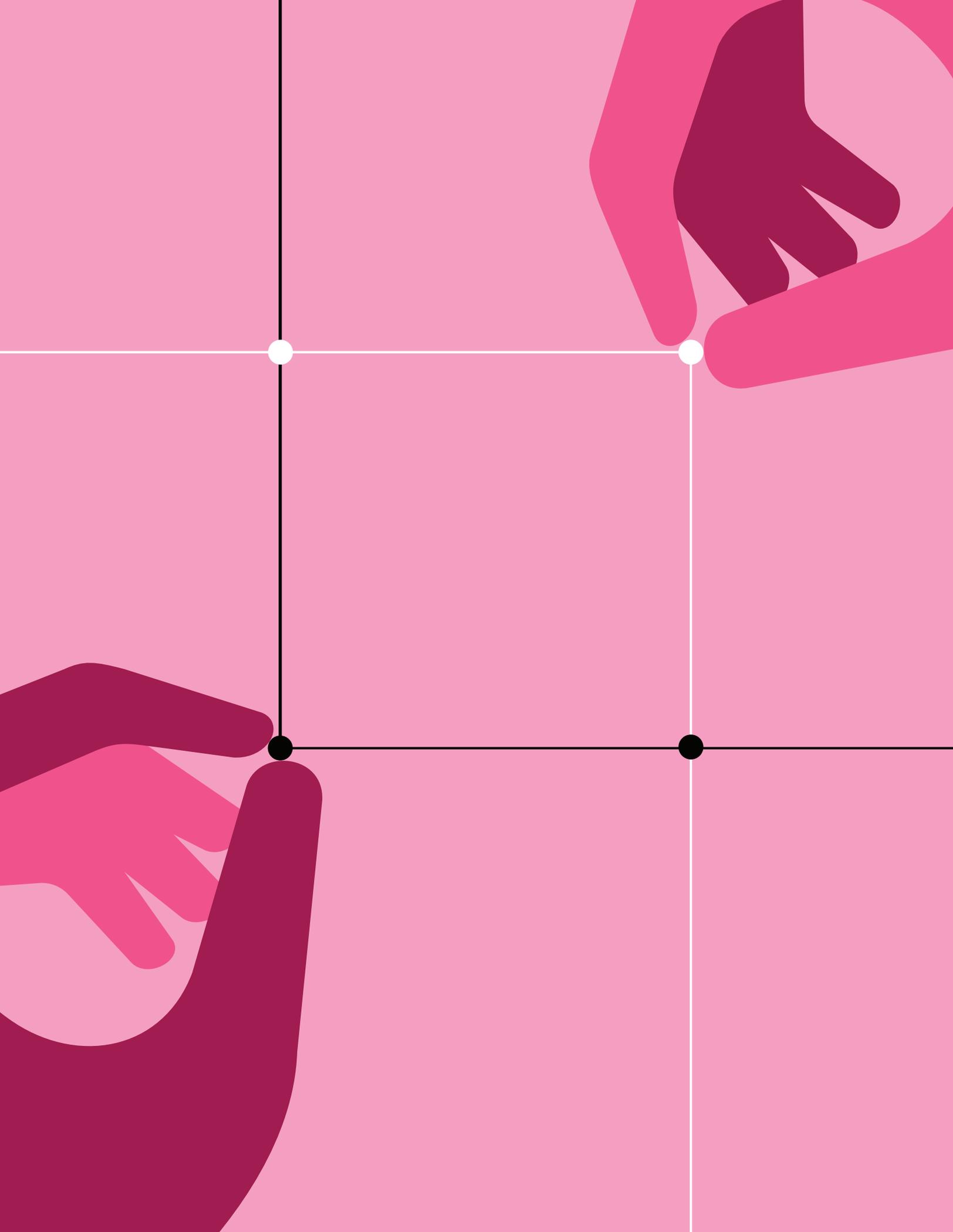
This notion of a new type of headspace, one that’s purpose-built for problem-solving and innovating, is at the core of IBM Garage. “We change the way our clients look at problems, teach the proper methods to quickly build solutions, and provide the resources and expertise to scale them broadly,” says Debbie Vavangas, Senior Partner and IBM’s Global Garage Lead. “It’s about methodically introducing a different way of working — and empowering our clients to transform their company.”

IBM Garage started as an experiment to help grow IBM’s cloud business, but its true value quickly revealed itself as something centered on humanity as much as technology. Clients were starving for hard-won expertise in business transformation paired with empathetic problem-solving techniques and the latest software development technologies and methods. While cloud remains a key asset in deploying solutions, IBM Garage clients sign on for an end-to-end collaboration that incorporates three distinct, overlapping phases (see “The three phases of enterprise transformation”). The IBM Garage Methodology is dexterous enough to be industry agnostic, resonating from financial services to energy to retail and manufacturing. And it’s effective enough to keep clients coming back for more. The most recent Net Promoter Score for IBM Garage came in at a robust 92 — where anything greater than 70 is considered to be world-class.

“It’s really just about putting humans at the center of work, merging diverse skill sets, and iterating,” says IBM Distinguished Designer Joni Saylor. “It’s a simple process that, when implemented fully, can completely remake the way people across an organization think, cooperate, and solve problems.” ●

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Co-create  
a vision for a  
better future



**It's the tail end of July 2020**, and the employees of one of the world's largest museums are, like most people, confined to their homes. The physical museum is shuttered under pandemic rules. But a dozen or so personnel – IT experts, digital specialists, and education experts mixed with curators and content specialists – are gathered virtually in hope of collaborating on a timely new attraction. Calling in over video from California; Dubai; Washington, DC; and elsewhere, the team is discussing the best ways to increase awareness about the links from slavery to the Black Lives Matter movement. The goal is to create an exhibit that boosts education around civil rights issues in the community.

It's somewhat erroneous to think of the IBM Garage Methodology as linear, because it loops back upon itself in a repetition of testing and iterating. But there is a predictable progression. This first phase, known as co-creation, begins with the goal of defining three big problems to attack, known as hills. Hills solidify a collective understanding of the project and intended outcome. Throughout the engagement, stakeholders meet in playbacks to discuss what's working. Concurrently, they collaborate with customers, known as sponsor users, to try out new ideas, identify and abandon dead ends, and solidify useful features in advance of solutions development.

**IBM Garage facilitators guide the process, but they're also provocateurs. With experience across industries, they recognize the patterns that people tend to fall into.**

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In more typical times, this would all happen in two-to-three-day work sessions at a neutral location – IBM Garage has locations in coworking spaces around the globe. All participants are told to turn off digital devices and prodded to participate in conversations intended to increase empathy with specific user segments. This process, known broadly as Enterprise Design Thinking (see “A cheat sheet to Enterprise Design Thinking”), aims to help the team understand a customer's challenges and frustrations and to generate fresh solutions based on that deeper perspective.

In face-to-face engagements, co-creation features lots of sticky notes scattered on whiteboards to outline customer personas and personality traits and to build empathy maps. Work sessions often run all day, inevitably resulting in strong bonds among the diversified team members, forged through equal parts trial, error, progress, frustration, and achievement.

In virtual engagements like these, participants use collaborative software to replicate the process. Everyone is asked to keep cameras and microphones on. Rather than a super-intense few days, the sessions last a few hours each day for a week. “Everyone's trying to adapt old models to virtual settings, and we're no exception,” says Rick Goldberg, Global Design Program Director of IBM Garage. “It's no small affair, because more than 20,000 IBMers are trained in Garage Methodology.”

Day one starts with introductions and icebreakers followed by exercises to define the target customer – a fictional visitor drawn from research, instincts, and experience. IBM Garage facilitators guide the process, but they're also provocateurs. With experience across industries, they recognize the patterns that people tend to fall into – whether that means using jargon in place of clear thinking or slinking back to let more opinionated and vocal colleagues have their say.

It takes an entire session to outline one user, named Bob by the group. He's a 40-year-old Black schoolteacher from a mixed-race family who's relatively knowledgeable about the civil rights movement. He's tech-savvy and social, and has an autistic child. On

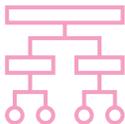
# A cheat sheet to Enterprise Design Thinking

The subtle art of shifting perspectives to solve complex business problems



## Establish empathy

Design thinking is often used synonymously with human-centric design because the early parts of the engagement center on understanding the persona, motivations, and pain points of a specific customer. The thinking is simple: until empathy is established, it's not really possible to design a solution from the user's perspective.



## Explore possible solutions

Once the customer is outlined, the task turns to understanding problems and pain points that need to be solved. The group uses one of many templates to brainstorm creative ideas and prioritize must-have features. Although the goal is to launch a solution as quickly as possible, the focus is to define the right vision that's highly attuned to the customer's prioritized challenges.



## Build an MVP

The partnership moves into the development phase with the goal of releasing the simplest functional piece of software deemed to possess the greatest promise of having impact on the core problem. Using the efficiencies of Lean and DevOps philosophies, pair programming and test-driven development, the focus is on short bursts to produce usable code and a viable solution.



## Test, test, test

It's time to get the now (relatively) stable product into users' hands and see what they think. Does it work? Are they using it? Is the concept valid? Do they like it? Does it change their behavior? Can it be improved? Any surprises?



## Repeat as necessary

Although there's a loose order to the process, it's not exactly linear. It often loops back as the collaborators gather data, reconsider previous efforts, tweak and modify the MVP, and update it in market, employing design thinking principles all the while. If there's a meta-theme to the whole process, it's to be outcomes driven and data obsessed.

day two, the team creates Lily in half the time. She's a 25-year-old White military wife and mother of two who's more of a neophyte on racial issues. She's tech-savvy, curious, and eager to teach her kids about racial issues. Over several days, the group performs exercises to understand how Bob and Lily might be frustrated with the museum's current digital offerings, and to explore how to make everything more seamless, engaging, and enjoyable. Maintaining focus on these users blocks any tendency to throw the kitchen sink into a solution, which would only invite delays. (For example, Bob and Lily speak only English, so there's no sense in accommodating other languages.)

The group crafts an MVP vision statement and distributes feature ownership to internal and external groups while also outlining performance metrics. Ultimately, they broadly agree the MVP will be a searchable online exhibit with desktop and mobile-responsive experiences and links to internal and external content. It'll be in English with 3D object manipulation capabilities and will allow visitors to download audio and video. Future versions may include additional languages, AI-driven recommendations for similar content, and greater accessibility to users with reduced internet proficiency. The initial rollout will measure engagement by total time, time per page, and downloads and clicks. The team further outlines all known and foreseeable assumptions and risks. (Assumption: Visitors want and will use a searchable museum experience. Risk: We are not building to a stated need.) Finally, they prioritize actions based on potential impact and the presence of skills in the organization to ameliorate risks.

The granular discussions can occasionally frustrate participants, especially those with long tenures. Sometimes that's because clients come to IBM Garage knowing the problem they want to solve – say, a life insurance company suffering from soft sales to Gen Z – only to realize it's a symptom of something much larger. It can also be uncomfortable for subject matter experts to have their instincts and assumptions challenged. “The process is just doing whatever it might take to qualify the shape, the structure, and the validity of the idea – and using data as much as possible,” says Vavangas. “We create a vision. And then we go out and test, test, test.” ●

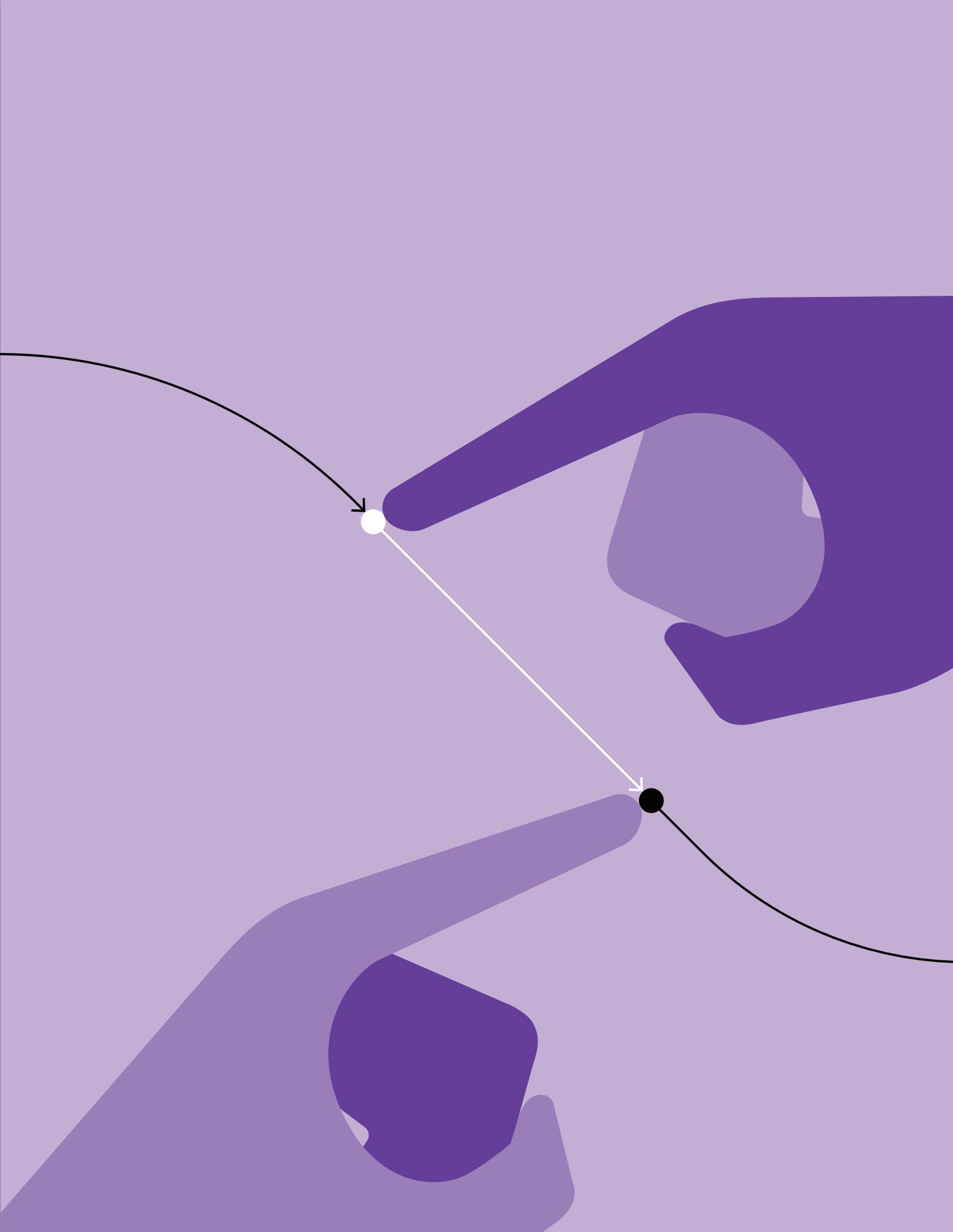
## Parallel paths to kick-start solutions development

Adjusting tools, time frames, and expectations, while maintaining IBM Garage's core mission amid the COVID-19 pandemic

|               | Physical space   | Virtual space   |
|---------------|--|---|
| SETTING       | Collaboration spaces at client sites and in IBM locations around the globe, working with hundreds of clients at any given time.  | Via webcam from anywhere in the world, often accommodating more participants than in-person workshops.  |
| RULES & TOOLS | Universal participation standing at whiteboards, using markers and sticky notes, and engaging in lots of conversation to create empathy maps and detailed personas of hypothetical users.                                    | Video on and microphone unmuted, digital canvas software, virtual whiteboards, online Kanban boards to make connections, collaborate on ideas, and record workflow.         |
| SCHEDULE      | Two intense eight-hour days.   | Five half-day sessions (because no one should ever be expected to spend eight straight hours on a video call!).   |
| BONDING       | Lots of focused time together ideating and challenging assumptions forges a tight unit. It's all a means to break down hierarchies, fuse departments, and remove boundaries standing in the way of creative problem-solving. | Icebreakers, virtual water cooler time, and walk breaks spur creativity, strengthen bonds, and achieve the same behavior-modification goals that exist in a physical space. |

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# Co-execute solutions at startup speed



Many consultancies are happy to identify a client's problems, hand over a 100-page report explaining how to solve them, and be on their way. IBM Garage wholly invests itself in creating solutions and bringing them to fruition.

After the co-creation phase, it's time for co-execution, where engineers, designers, and business experts from both IBM and the client collaborate on a series of three-to-six-week iterations, working in close lockstep all the while. The primary goal of this phase is to launch the MVP as quickly as possible. It's not a prototype or a demo, but rather a fully developed, small-scale product that solves a specific real-world problem for the target customer without committing to the type of robust, expensive engagement that would serve most or all of a customer base and cost millions of dollars.

Many of the world's biggest companies – from every major industry – have spent time in IBM Garage. Often they engage during a period of profound disruption, as was the case recently with Audi UK. The luxury automotive giant wanted help modernizing its online presence and aligning it more precisely with the brand's reputation for high-tech German automobile design. With 90% of car purchases starting online, having a seamless digital presence that matches Audi consumers' expectations is vital. With showrooms shuttered due to COVID-19, it suddenly became even more crucial.

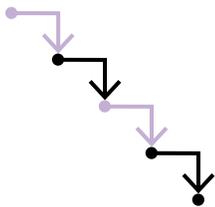
As the Audi and IBM Garage teams dug in, they determined that Audi's digital presence was fragmented and sorely lacking the ability to analyze or even really capture data to understand online buying habits. "We had separate mobile and desktop websites and two separate agencies running both," says Antony Roberts, Audi UK's Head of Digital. "So obviously everything that we did was duplicated. The experiences were different. And we got no benefit from SEO." Moreover, Audi's internal processes were slow. The digital team tended to roll out new products and features every nine to 12 months.

Together, the Audi-Garage team developed a strategy to shift digital offerings to the cloud, adopted a new content management system, and began using Lean and DevOps development practices. ●

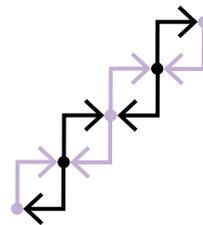
## The evolution of software development

Half a century of progress in creating digital solutions

## Waterfall



## Agile



### What is it?

It's a linear, relatively inflexible product development method characterized by a sequential workstream in which each team waits for the completion of a previous phase before engaging.

### What is it?

It's a flexible, collaborative development process focused on creating and managing small, workable, bug-free batches of code. It breaks the planning into chunks, and prescribes workflows in short time-boxed periods to minimize errors and misconceptions.

### Where did it come from?

It's based in engineering and construction project management where delays or iterations were incredibly costly. It was first applied to software in the middle of the 20th century.

### Where did it come from?

It dates back nearly 20 years to a group of software engineers who demanded greater focus on people, workable code, continual testing, and iteration.

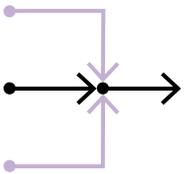
### What's it good for?

Waterfall development is now primarily relegated to physical products or designed objects.

### What's it good for?

Most software design teams now use some form of Agile. The goal is flexibility – both in project outcomes and the makeup of teams producing the code. Everything is tested and revised as necessary throughout the project.

## Lean



### What is it?

Popularized by the 2003 book *Lean Software Development: An Agile Toolkit*, it's a set of values, principles, and practices created to guide software development in organizations that want to streamline, save time, reduce waste, and improve time to value.

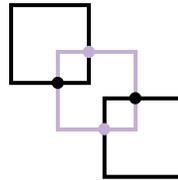
### Where did it come from?

Lean and its derivatives owe a debt to Toyota's "lean manufacturing" and just-in-time manufacturing philosophy.

### What's it good for?

Lean is about reducing overhead and undelivered inventory using techniques and tools that include value stream mapping, continuous flow, and minimizing work in progress.

## DevOps



### What is it?

A programming method that unifies siloed teams to ensure continuous development and delivery of high-quality products that are more applicable to actual user experience and needs. It integrates large enterprise development and operations teams throughout the software "design, develop, and deploy" cycle. Another version, DevSecOps, also includes IT security departments.

### Where did it come from?

Like Lean, DevOps rose out of, and is complementary to, Agile. It's especially useful in enterprises that have not previously collaborated in software production.

### What's it good for?

The goal is to shorten the development process, achieve efficiencies through automation, and fix bugs fast. Additionally, DevOps focuses on uniting software designers with the IT staffers who service the systems, run help desks, and operate the software at full-scale operation.

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**“IBM Garage is a fantastic model to work with,” says Rajan Sharma, CIO and Head of Supply Chain at Bestseller India. It cuts across technologies and domains to get a better solution and leverage what is ready.”**

**While his taxi sped away from the airport** in Bangalore, India, Rajan Sharma’s mind was racing to solve a riddle. Bestseller India, where he serves as CIO and Head of Supply Chain, was the fastest growing fashion retailer in the country — so why were the sales of his top label slowing down?

It was the summer of 2019 and the overall performance of Bestseller India was impressive. Ever since launching 11 years ago, the company grew at an average rate of over 50% a year. But then, Bestseller India’s top-selling brand encountered headwinds. Sharma and his team traveled from Mumbai to Bangalore, India’s IT capital, for answers. “We were looking for a partner,” Sharma says, “who could not only bring in the new technologies, but also understood the fashion space well.”

Understanding the fashion industry in India is notoriously difficult. Within a population of almost 1.4 billion people, India encompasses hundreds of dialects, religions and ethnic groups. Consumer preferences change from town to town.

Bestseller India is a subsidiary of Bestseller, a worldwide retailer based in Denmark that is a leader in “fast fashion” — a dynamic

business model that moves trendy clothes from the runway to the rack in a matter of days or weeks. When fast fashion hits the mark, fresh clothing designs fly off the shelves. But if the new designs miss with consumers, inventory gets marked down — and some of it ends up in landfills. In fact, for the global fashion industry as a whole, 20% of clothing produced eventually goes unsold.

Historically, most fashion retailers tend to rely upon past experience and “gut” instinct to decide which designs to manufacture, what quantities to produce, and where to market their wares. But the diversity and dynamism of the Indian market revealed the limitations of a gut strategy.

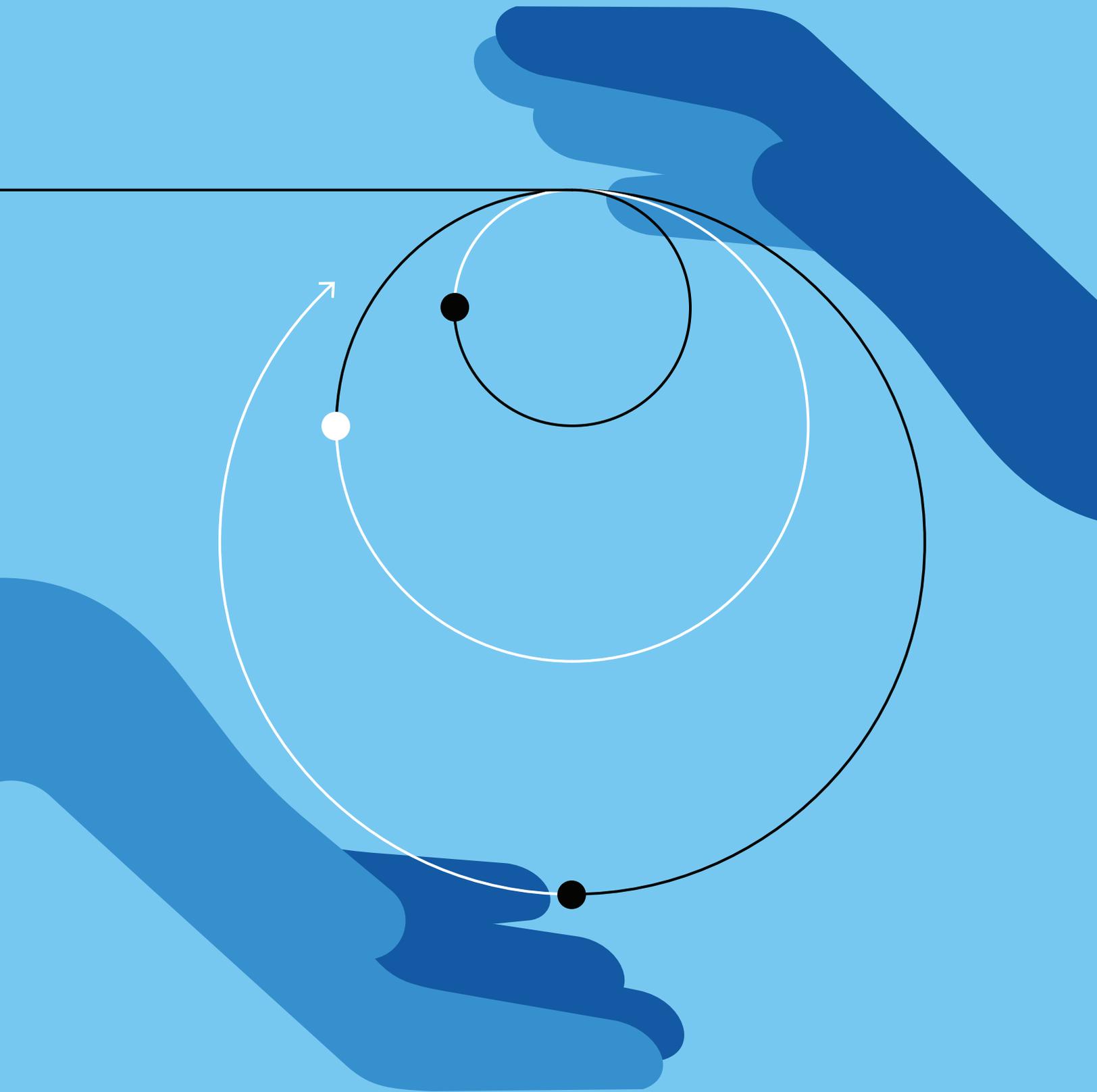
Sharma needed a technological advantage for his designers and buyers to develop better forecasts and deliver the right product at the right time. Confident that IBM offered the right combination of IT experience and retail industry acumen, Sharma and his Bestseller India team expanded the project scope. In addition to turning around sales, Sharma recognized an opportunity to transform business processes by tapping the competitive advantages of AI-powered decision-making.

Bestseller India was eager to collaborate with experts who could introduce innovative practices and new ways of working. The company chose to work with the proven IBM Garage development framework to transform its business and culture. The Bestseller-Garage team built a new platform — called Fabric.ai — which became the first AI-powered tool for the Indian fashion industry. The project focused on creating intelligent workflows for key business processes, empowering employees to work smarter with access to real-time data and insights through AI-powered tools.

With IBM Garage, Bestseller India can benefit its customers, its business, and the planet. During the co-execute phase of the IBM Garage Methodology, the joint IBM and client team develops, tests, and proves the MVP, iterating until it’s right. ●

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# Co-operate on full-scale transformation



**It's one thing to quickly develop** and launch an MVP into the marketplace, but niche applications, no matter how successful, don't change the nature of businesses. To achieve true transformation, digital innovations need to scale. They need to be robust from a security perspective. They need to be stable and free of bugs. And they need to be deployed across a flexible cloud architecture that can handle variations in demand.

Co-operate is the stage where an IBM Garage engagement transitions from startup mode into the major leagues, employing all the deep expertise and reach that come with partnering with one of the world's largest enterprise software companies. "We bring together the business process, the experience, and the technology," says Vavangas. "It's this combination, the interweaving of the three, that creates an actual transformative experience for the client."

**IBM Garage clients often find themselves drawn to a new way of working and leave eager to adopt it inside their organizations.**

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One of the key guiding principles in this phase is known as DevOps. It's a fast-track programming method that prioritizes collaboration between formerly siloed departments to increase the fluidity and efficiency of product releases, the quality of the underlying code, and the speed that teams can respond to end user needs. "The Garage Methodology aligns a client's internal stakeholders and drives them to work closer together than they may ever have done," says Rachel Reinitz, IBM Garage founder and CTO. "We give them a laser-like focus to quickly imagine a pilot product that can transform their business and go to full scale incredibly rapidly, often in six to 12 weeks."

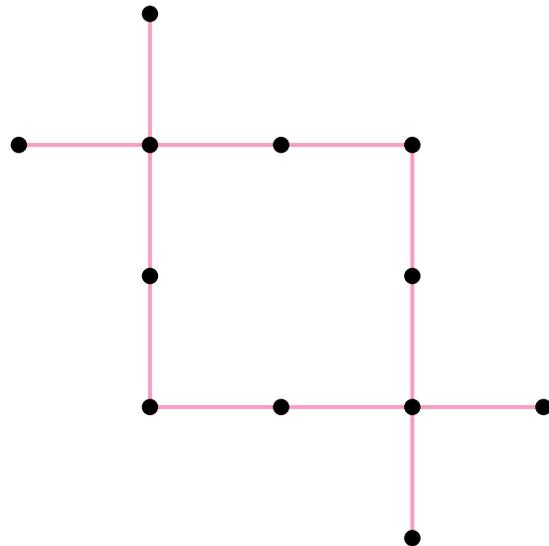
Some innovation "garages" focus entirely on design thinking. Others help clients get through the initial product development. But co-operation is where clients feel the unique power of plugging directly into the power of the IBM mothership. IBM spends billions of dollars every year developing technologies through IBM Research. The company has an unrivaled reputation as a leader in software security and a world-renowned team of business experts who work with Fortune 100 companies in every industry, from finance and healthcare to retail and energy.

Thanks to the recent \$34 billion acquisition of Red Hat, it also has ready access to more than 8 million open source developers. "Scaling a solution isn't about pressing a different button or just having technology. It's about possessing the experience and talent to know where to deploy the solution, and making sure it's secure, robust, reliable, and relevant to the intended audience," says Chris San Soucie, Director, IBM Garage. "We have so many software architects who are also cloud native developers who are also security gurus. You don't find that combination of talent in many places."

Upon completion of an IBM Garage engagement, clients tend to see ripple effects that go beyond the effect of a solution in the marketplace. They often find themselves drawn to a new way of working and leave eager to adopt it inside their organizations. Frito-Lay is a case in point. Since its initial IBM Garage engagement, the company has expanded its use of the Garage Methodology throughout its organiza-

# Etihad Airways delivers premium travel

Ambitious digitization  
project creates memorable  
travel experiences



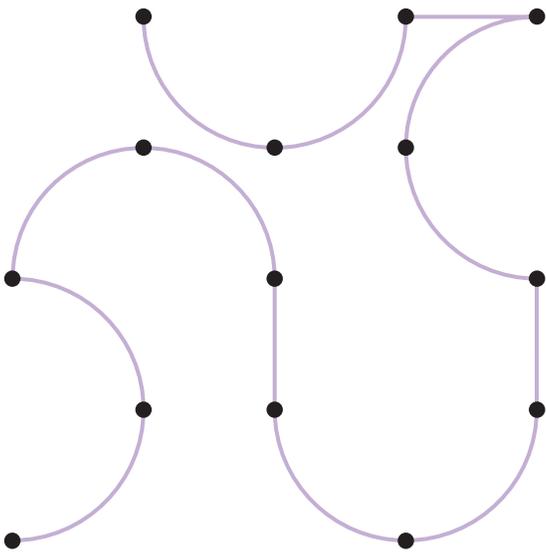
## 1. Co-create

### What was the problem?

Etihad aims to personalize customers' preferences — for meals, in-flight services, transportation — and exceed expectations. In terms of technology, this requires the airline to bring together customer services — and rich data on passenger preferences — into a single view.

### What was the vision?

"I wanted the digital journey to match our really fantastic in-flight experience. I wanted the team to transform our current system leveraging cloud technology and microservices and build this complex solution in less than three months," says Mike Papamichael, VP, Technology and Innovation, Etihad Airways.



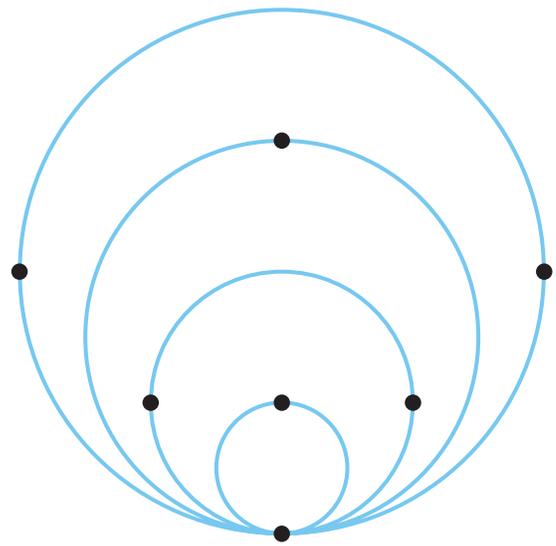
## 2. Co-execute

### What did they make?

Following a rapid proof of concept to show that the new web check-in solution would be able to communicate with reservation services, the joint Etihad Airways and IBM Garage team created the solution on IBM Cloud in just 15 weeks.

### How did it do?

The new, modernized web check-in solution empowers guests of Etihad Airways to manage their own travel online, including the check-in process itself, the selection of seats, and the printing of boarding cards.



## 3. Co-operate

### Did it scale?

With the IBM Garage Methodology's focus on scaling, the check-in solution is currently generating 1,700 WhatsApp boarding passes and 4,000 email boarding passes daily. It has already been rolled out in several different languages.

### What was the ROI?

When Etihad Airways finishes decommissioning its legacy check-in software, IT maintenance costs will fall, with even larger financial benefits coming from the reduced cost to serve at check-in.

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**The outcome of any Garage is not the MVP or even the learning that comes with it. It's the confidence a client gains to go forward and solve the toughest problems.**

tion. Even working remotely, the company's digital team has increased the pace of deploying new code and app features from monthly to weekly, according to Frito-Lay's Michael Lindsey. The team has also halved the time required to respond to user feedback.

The impact has been profound. Using Snacks to You, retailers can more reliably order products and maintain stock levels, even without a regular delivery person to guide them. Sales Hub is consistently updated with personalized schedules so employees in the field don't have to come into distribution centers or meet with managers, reducing the chance of coronavirus transmission while increasing productivity. In response to the pandemic, Frito-Lay built an online portal that lets small-business customers such as bodegas and food trucks order Frito-Lay snacks online.

But the real value derived from IBM Garage has been a new corporate ethos. "What I've learned most from working with Garage is that you have to think through every link of the chain," says Lindsey. "From the consumer, to the buyer, to the person who's stocking the shelves, to the driver who's driving the delivery truck, to the person in the manufacturing plant. It's so important to connect all of that backward and make sure everything seamlessly connects. That new way of thinking is what has allowed us to quickly adapt and respond to this fast-paced, unpredictable world that we're all living in now."

That's the type of resolution that IBM Garage always strives to achieve. "The outcome of any Garage is not the MVP, or even the learning that comes with it, but rather the confidence that a client gains to go forward and solve real problems," says San Soucie. "The method isn't just teaching developers how to do things differently. It's teaching product owners how to see the customer differently, teaching finance how to understand the metrics differently, teaching operations how to view efficiency differently – so that everyone can move faster together." ●

# IBM Garage at a glance

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**IBM Garage****Where innovation and transformation come together for the enterprise**

IBM Garage is an end-to-end model for accelerating digital transformation at scale. It helps you generate innovative ideas and equips you with the practices, technologies, and expertise to rapidly turn those ideas into business value.

When you work with IBM Garage you bring customer pain points into focus. You empower your team to take manageable risks. You adopt leading technologies, speed up product development, and measure the value of everything you do. We support you in your business goals, whether that's helping you respond quickly to disruption or guiding your full-scale transformation.

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