



#### CONTENTS

A strategic playbook for entrepreneurs: 4 paths to success

Disciplined entrepreneurship: 6 questions for startup success

Accelerate entrepreneurship with these AI tools from MIT 13

MIT entrepreneurs explain what founders need to know now

Entrepreneurship and innovation strategy books from MIT 20

#### **Letter From the Editor**

If you've ever tried to turn an idea into something real — a product, a venture, a program — you know that the gap between inspiration and execution can feel huge.

This collection can help close that gap. It offers expert strategic guidance you can actually use, whether you're launching a startup or building something new inside a larger organization. You'll find advice on how to choose the right startup strategy, work with AI-powered entrepreneurship tools, test your assumptions, and build your new business with frameworks grounded in real-world examples.

Here at MIT Sloan, we know that entrepreneurship is a discipline that can be learned. It's something our faculty members prove every day through their research, teaching, and hands-on work with founders and corporate innovators.

Entrepreneurship isn't just about having a big idea. It's about figuring out how to shape it, share it, and scale it. And that's a skill you can develop.

To stay current with the latest thinking from MIT Sloan faculty members and researchers, follow MIT Sloan on LinkedIn or sign up for our Thinking Forward newsletter.

Sincerely, Zach Church Director, Editorial and Digital Content





by Brian Eastwood

Why It Matters

This Entrepreneurial
Strategy Compass
from MIT Sloan
helps startups avoid
conflicting advice and
choose the right path to
commercialization.

It's generally accepted that something like <u>75% of</u> startups fail to reach an exit. While many factors can come into play, from running out of cash to falling short of the competition, the biggest challenge for startups is arguably the struggle to achieve product-market fit and find the right path to success.

For the past several years, <u>Erin Scott</u> and <u>Scott Stern</u> have taught <u>Strategy for Startups: From Idea to Impact</u>, an MIT Sloan Executive Education course that helps entrepreneurs make the right decisions for their early-stage businesses.

Building on more than two decades of academic research with thousands of companies and MIT students, Scott and Stern have developed a systematic approach for startup leadership that is now laid out in a new textbook, "Entrepreneurship: Choice and Strategy," co-authored with Joshua Gans at the University of Toronto.

"Choice is at the core of entrepreneurship. There has been an incredible push to provide actionable frameworks that empower entrepreneurs to navigate their core choices and build the type of company they want to build," said Scott, a senior lecturer in technological innovation, entrepreneurship, and strategic management.

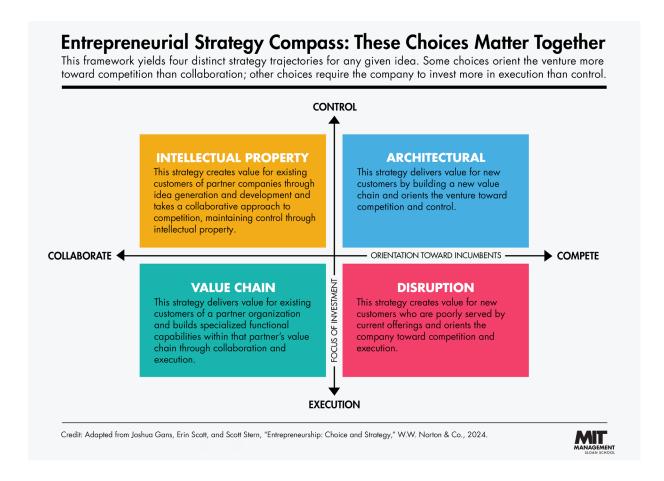
"The motivation behind our framework was to place the entrepreneur and their idea at center stage and reconcile the competing advice entrepreneurs receive as distinct alternative paths for their idea and their company," she said.

#### Picking the right route to commercialization

Scott and Stern previously outlined their framework in articles in Harvard Business Review and Quartz. The underlying theme of their work: A good idea may have multiple paths to value, but pursuing too many paths at the same time often does more harm than good.

After navigating the four domains of entrepreneurial choice — customers, technology, organization, and competition — entrepreneurs are ready to explore Scott and Stern's Entrepreneurial Strategy Compass. This framework describes four strategic routes to commercialization categorized along two dimensions: orientation toward incumbents (collaborate versus compete) and focus of investment (execution versus control).

- Intellectual property emphasizes idea generation, retains control of a startup's product, and aims to achieve growth by creating value for existing customers of a partner.
- Architectural builds and controls a novel value chain for new customers and succeeds by meeting a specific need for each stakeholder in the value chain.
- Value chain builds and executes specialized products and services within a partner organization's existing value chain, in a model similar to a consulting relationship.
- Disruption creates value for a niche set of customers by redefining existing value chains and competing with incumbents that are poorly serving their customers.



Making these choices can be difficult, given that the four strategies often conflict with one another.

Take the example of PillPack, the online pharmacy co-founded by Elliot Cohen, MBA '13, and TJ Parker. One path for the company would have involved collaborating with established retail pharmacies such as CVS and Walgreens (a value chain strategy); another would have meant competing with them and working directly with consumers (an architectural strategy with elements of disruption).

Ultimately, PillPack chose the latter. That resulted in very different early priorities for the venture and closed the door to partnering with companies such as CVS and Walgreens, but it opened the door to collaborating with new market entrants such as Amazon. The day Amazon acquired the company in 2018 for approximately \$1 billion, CVS, Walgreens, and RiteAid lost \$11 billion in market capitalization.

#### Test two strategies, then choose one

To make educated choices as an entrepreneur, Scott and Stern recommend a sequential learning process known as test two, choose one for the four strategies within the compass. This is a systematic process where entrepreneurs consider multiple strategic alternatives and identify at least two that are commercially viable before choosing just one.

As the authors write in their book, "The intellectual property and architectural strategies are worth testing for entrepreneurs who prefer to put in the work developing and maintaining proprietary technology; meanwhile, value chain and disruption may work better for leaders looking to execute quickly."

Scott referred to Vera Wang as a classic example of sequential learning. As a Ralph Lauren employee and bride-to-be at 35, Wang told her team that she felt there was an untapped market for older women shopping for wedding dresses. The company disagreed, so Wang opened her own shop — but she didn't launch her line of dresses immediately.

Instead, Scott said, Wang filled her shop with traditional dresses and offered only one new dress of her own. The goal was to see which types of customers were interested, as well as which aesthetics ultimately sold, before she started designing her new line. "[Wang] was able to take what she learned about design, customer messaging, and price point and build it into her venture," Scott said.

#### **Experiment before you commit**

The sequential learning model can also help entrepreneurs discover that an idea won't work before they become too heavily invested in it.

Taxie was a startup founded in September 2020 by MIT students whose mission was to reduce ride-sharing's carbon emissions by renting fully insured electric vehicles to drivers. The company did everything right — talking to ride-share drivers at Boston's Logan Airport, becoming drivers themselves, purchasing an electric vehicle, and refining their business model. That lean, hypothesis-driven experimentation process ultimately provided them with early clarity to fold the venture.

"They realized the business was sensitive to fluctuations in operating costs, and the founding team realized it wouldn't have the environmental impact they were looking for," Scott said. Contrast that experience with that of rental car giant Hertz, which backed out of renting EVs to Uber drivers amid high repair costs and poor execution — and left itself with a \$245 million charge on the books.

In confronting market decisions like the ones Taxie faced, startups often attempt to pivot, but that decision comes with challenges too. "The fact that we see people pivot is an observation that choices matter," Stern said. "Pivots are possible, but they're not without cost. You may have to lay off staff, or you may need to renegotiate with your investors.

"We tell entrepreneurs not to be afraid that they may have to pivot, but also to understand that if they pivot around core strategic choices, it will take time and effort," he continued. "In most cases, a startup only gets so many chances to do that." 💼



CREDIT: SVETAZI/ISTOCK

## <u>Disciplined entrepreneurship: 6 questions</u> <u>for startup success</u>



by Bill Aulet

Why It Matters

In the updated version of "Disciplined Entrepreneurship," MIT Sloan's Bill Aulet delves into the importance of knowing your customer, scaling your business, and more.

A decade ago, entrepreneur and MIT Sloan educator <u>Bill Aulet</u> proposed a disruptive concept in the business world: Disciplined Entrepreneurship. In his 2013 book of the same name, Aulet assured readers that not only could entrepreneurship be taught, but his 24-step framework could help them learn it.

"Some people tell me that entrepreneurship should not be disciplined, but chaotic and unpredictable — and it is," Aulet wrote. "But it is just in such situations where a framework to attack the problem in a systematic manner will be the most valuable."

Now Aulet is offering "<u>Disciplined Entrepreneurship:</u> 24 Steps to a Successful Startup, Expanded & Updated." In the following excerpt, Aulet, managing director of the Martin Trust Center for MIT Entrepreneurship, outlines

six themes that offer a proven general outline of how to create a sustainable innovation-based business.

This excerpt has been edited and condensed for clarity and length.

+++++

#### Theme 1: Who is your customer?

It is crucial to start the process with the customer and work everything back from there. Brainstorm and identify how your idea/technology can serve a variety of potential end users.

As a startup, you have limited resources, and focus is essential. Select one market segment where you feel you have the highest odds of success while also giving you legitimacy and strategic assets to grow further.

Use primary market research techniques to build out a robust demographic and psychographic description of your end user. This keeps the focus on the end user, deepens your understanding of the primary customer, and calculates the total addressable market size for your beachhead market.

To make sure your beachhead market is not too big or too small, estimate the revenue per year you will get in your beachhead market if you achieve 100% market share.

Profile the persona for the beachhead market by identifying one actual real end user in your beachhead market who best represents your end user profile. This creates great focus in your organization and serves as a touchstone for all decisions going forward.

Create a list of the next 10 customers after the persona who closely fit the end user profile. This validates the persona and all the assumptions you have made so far.

#### Theme 2: What can you do for your customers?

Describe the full longitudinal experience of the persona and what opportunity there is for improvement. This will provide invaluable information for future steps to create specificity with regard to solutions, value, and accessing the customer.

Create a visual description of the product as well as a simple draft brochure, landing page, or digital representation of the proposed product. You need to make

sure your team and the customer all have a common agreement on what the product is.

Summarize in as concrete a way as possible the value your product will create for the target customer. Customers buy based on value; it needs to be clear that you can show it.

Determine the single thing that you will do better than anyone else that will be very difficult for others to copy. Having a clear definition of your core will allow you to focus your limited resources to build and reinforce it.

Represent visually your position relative to the other alternatives in the persona's top two priorities. Customers don't care about your "core," but they do care about benefits relating to their priorities.

### Theme 3: How does your customer acquire your product?

Determine all the people who are involved in making the decision to acquire your product — including influencers. This starts the process to determine the cost of customer acquisition.

Detail how the decision-making unit decides to buy your product. This will be critical input to determine the length of the sales cycle and identify critical bottlenecks in the process.

Visually map the short-, medium-, and long-term way you will create and fulfill demand for your product. This will be critical input to calculating the cost of customer acquisition over time.

## Theme 4: How do you make money off your product?

Review the different ways to get paid for your product and choose the best one aligned with all key stakeholders' interests.

Determine a framework to test pricing for your new product and decide on what the initial price will be. Small changes in pricing can have a huge impact on your profitability.

Estimate the net present value of the total profits you will get from a new customer over the time period they will be your customer. To complete the unit economics, you now need to estimate and understand the drivers of the lifetime

value of an acquired customer; it should get to at least three times the cost of customer acquisition.

Estimate the total marketing and sales expense in a given period to get new customers and divide this by the number of new customers. The unit economics are a simple but effective proxy for how sustainable and attractive your business will be as it scales.



#### Theme 5: How do you design and build your product?

Identify key assumptions to be tested before you begin to make heavy investments in product development. It will be faster and much less costly now to test the assumptions and allow you to preserve valuable resources and adjust as needed.

Test each of the individual assumptions you have identified. This scientific approach will allow you to understand which assumptions are valid and which ones are not and then adjust when the cost of doing so is much lower and can be done much faster.

Define the minimal product you can use to start the iterative customer feedback loop — where the customer gets value from the product and pays for it. You must reduce the variables in the equation to get the customer feedback loop started with the highest possibility of success with simultaneously the most efficient use of your scarce resources.

Offer your minimum viable business product to your target customer and obtain quantitative metrics regarding the adoption rate of the product, the value the target customer is getting from the product, and proof that someone is paying for the product. Numbers don't lie. Show concrete evidence, and don't rely simply on anecdotal evidence.

#### Theme 6: How do you scale your business?

Calculate the annual revenues from the top follow-on markets after you are successful in your beachhead market. It shows the potential that can come from winning your beachhead and motivates you to do so quickly and effectively.

Develop a longer-term plan to add functionality so you can address additional markets over time. It is important to think ahead and have a plan so your team is ready to keep moving forward after delivering the minimum viable business product.

Excerpted from "Disciplined Entrepreneurship: 24 Steps to a Successful Startup, Expanded & Updated," by Bill Aulet. © 2024 Bill Aulet. Reprinted by permission of Wiley. All rights reserved.



# Accelerate entrepreneurship with these AI tools from MIT



by Meredith Somers and Zach Church

Why It Matters

These digital advisers help users swiftly navigate the 24-step Disciplined Entrepreneurship process.

Apple co-founder Steve Jobs described the computer as <u>a bicycle for the mind</u>. What the <u>Martin Trust Center for MIT Entrepreneurship</u> is working with has a bit more horsepower.

The vehicle: the Disciplined Entrepreneurship JetPack, a generative artificial intelligence tool trained on Trust Center managing director <u>Bill Aulet's</u> 24-step <u>Disciplined</u> <u>Entrepreneurship</u> framework.

Introduce a startup idea to the JetPack, "and it's like having five or 10 or 12 MIT undergraduates who instantaneously run out and do all the research you want based on the question you asked, and then they bring back the answer," Aulet said.

A second JetPack has been trained on Trust Center managing director <u>Paul Cheek's 15 startup tactics</u>. Both are part of <u>MIT's Orbit website</u> for entrepreneurs and use a large language model from OpenAI. The name was

inspired by the acceleration a jet pack provides and the need for a human to take advantage of the boost and guide its direction.

The tools are currently being used by entrepreneurship students and piloted outside MIT; there is a <u>waitlist</u> that prospective users can join. Both JetPacks are also available to participants in either of two MIT Sloan Executive Education courses: the <u>Entrepreneurship Development Program</u> and the new Entrepreneurship Development Accelerator.

#### Powering startup development

Entrepreneurs are already using the JetPacks to build real businesses. After serial entrepreneur Remington Hotchkis sold his latest venture — a subscription coffee business — he signed up for the five-day Entrepreneurship Development Program and started using the tools to test ideas and work through the Disciplined Entrepreneurship steps. An Angeleno, he arrived on campus in January while fires raged back home in Los Angeles.

As part of the program, Hotchkis pitched a rudimentary business idea to his classmates that was aimed at defending California from future fires. "By the end of the week, they had a real business with customer letters of intent, investors willing to invest, and a highly motivated team," Aulet wrote in a blog post.

Today Hotchkis is building the startup <u>EmberShield Technologies</u> "full time, with a gusto, commitment, and fulfillment he had never had before," Aulet wrote. "And he continues to use the JetPack tool every day to make course corrections."

MIT Sloan MBA student <u>Jarrett Heflin</u> used the Disciplined Entrepreneurship JetPack to build <u>Spondi</u>, which helps people with severe autoimmune conditions "connect the dots between their symptoms and lifestyle factors" such as diet, sleep, and activity. The JetPack functions like "a research engine built for MIT's startup method. It operates like a classmate, not a generic chatbot. JetPack works backward from the customer, giving me actionable insights I can validate immediately," Heflin said.

There is "no fluff — just traction-ready intel," Heflin said. "I use it to pressuretest go-to-market angles, customer problems, and product strategies — fast. It gives me a three-month head start on every venture."

#### **Testing the JetPacks**

One of the earliest beta users, <u>Shari Van Cleave</u>, MBA '15, demonstrated how to use the Disciplined Entrepreneurship JetPack in a YouTube video last August.

She submitted an experimental idea for mobile electric vehicle charging, and within seconds the AI tool suggested market segments, <u>beachhead markets</u>, a business model, pricing, assumptions, testing, and a product plan — and that's only seven of the 24 steps of the Disciplined Entrepreneurship framework that she explored.

"I was impressed by how quickly the AI, with just a few details, generated recommendations for everything from market-sizing (<u>TAM</u>) to lifetime customer value models," Van Cleave said in an email. "Having a high-quality rough draft means founders, whether new or experienced, can execute and fundraise faster."

The JetPacks can also help entrepreneurs who might already have an idea and be well on their way through the 24-step process. For example, they might want insights about how their company can improve its performance or determine whether there's a better market to be targeting.

"Our goal is to lift the field of entrepreneurship, and a tool like this [will] allow more people to be entrepreneurs and be better entrepreneurs," Aulet said.



# MIT entrepreneurs explain what founders need to know now



by Betsy Vereckey

#### **Why It Matters**

Launching a venture?
Read this advice from
MIT entrepreneurs in
residence on navigating
artificial intelligence,
the economy, and
uncertainty.

#### **MIT Entrepreneurs in Residence**



JENNY LARIOS BERLIN CO-FOUNDER OF OPTIMUS RIDE, AN MIT SPINOUT



**DEVON SHERMAN DALEY**FOUNDER OF MASSCHALLENGE FINTECH,
A STARTUP ACCELERATOR



CHRIS MOSES
CO-FOUNDER OF ARSENAL HEALTH,
A HEALTH CARE AI COMPANY



BEN SOLTOFF ECOSYSTEM-BUILDER IN RESIDENCE AT THE MARTIN TRUST CENTER FOR MIT ENTREPRENEURSHIP

Successful entrepreneurs know how to thrive amid uncertainty. They pare down to the essentials. They lean into change. And they solve problems by sidestepping traditional constraints.

With that in mind, we asked four <u>entrepreneurs in residence</u> at the Martin Trust Center for Entrepreneurship at MIT for advice on managing risk, harnessing artificial intelligence, and launching during uncertain times. Here's what they had to say:

# What advice would you offer entrepreneurs trying to navigate the current economic landscape? How can and should they approach launch and scale in an age of uncertainty?

<u>Jenny Larios Berlin</u> — Entrepreneurship is always about managing uncertainty. My advice is to learn to listen to yourself. If the problem you want to solve is so critical and essential to you, then solve it! The only wrong decision is no action.

<u>Devon Sherman Daley</u> — Uncertain times can exacerbate problems that need to be solved, and entrepreneurs excel at solving problems. <u>Disciplined entrepreneurs</u> don't simply avoid or eliminate risk. Rather, they excel at managing inevitable risk as intelligently as possible by identifying and acting upon opportunities to de-risk.

<u>Chris Moses</u> — Survival requires focus and efficiency. Early-stage companies need to practice operational excellence and increase the speed at which they learn from their customers. When companies are flush with capital, focus and efficiency tend to fall to the wayside; companies that have done bootstrapping are better off for it. As the saying goes — you've got to nail it before you scale it.

<u>Ben Soltoff</u> — Startups should look beyond the best-known venture capital firms and consider grants, angels, family offices, more specialized VCs, and corporate venture arms. For climate and energy ventures, the largest pool of capital by far is infrastructure financing rather than traditional VC. Startups may not be able to access that sort of capital right away, but they should be strategically moving in that direction if they want to have any chance at scaling.

# What's one thing you wish someone had told you when you were starting your first company? What unexpected roadblocks did you hit, and how can others avoid them?

Larios Berlin — Understand the difference between commitment and attachment. Commit to building your venture, but beware of getting too attached to an outcome, because it starts to narrow your thinking.

Sherman Daley — My advice, particularly for B2B companies, would be to drill down on potential customers to make sure they are not going to be a drain on the strapped resources of your founding team before moving forward with them.

*Moses* — Surround yourself with mentors who are both supportive and brutally honest. Mistakes are unavoidable, but the entrepreneurs I've seen progress the fastest are those who actively seek out advice and mentorship.

**Soltoff** — Entrepreneurs should take the time to collect information and set the right course, but this intentionality comes at the risk of analysis paralysis. At a certain point, you need to take action and move forward.

## How is artificial intelligence changing entrepreneurship? What opportunities does it open up, and what should founders work to avoid?

Soltoff — In terms of building ventures, AI can be crucial, but it is a technology, not a solution in itself. Adding AI to something does not automatically make it better than the status quo. And regardless of how AI is used, it's going to require a lot of energy. There is a huge demand for solutions that allow data centers to run more efficiently and for solutions that provide them with clean power, both of which are essential to ensuring that the further growth of AI does not wreak havoc on the climate.

Sherman Daley — Here at MIT, we're very excited about AI's ability to enhance the entrepreneurship experience. Orbit, our digital platform with a generative AI assistant, offers personalized guidance to entrepreneurs based on our Disciplined Entrepreneurship methodology. In particular, it's been energizing to see how Orbit can help students who perhaps didn't identify as entrepreneurs play around with an idea and see it come to life in a matter of seconds, [giving them] increased confidence in their entrepreneurial abilities.

Larios Berlin — One of the things AI is particularly good at is completing work involving data processing. I mention this because the venture-building part of entrepreneurship requires working from <u>first principles</u>, designing experiments, collecting data, and making decisions from insights gathered. AI has rapidly accelerated the process of collecting, synthesizing, and analyzing data.

*Moses* — The downside of these amazing tools is that it makes it even easier to skip steps and build too quickly, reinforcing the common practice of launching and learning rather than being more methodical and putting the work in to better understand your market.

### What's a unique lesson that participants take away from the Trust Center's Entrepreneurship Development Program?

Larios Berlin — Entrepreneurship is a craft, and it can be taught. EDP participants are always surprised at how much they are able to accomplish in a short period of time. We try to keep our ear to what's going on in the field on an ongoing basis so that we can keep things super fresh and practical for budding entrepreneurs.

Sherman Daley — Our Disciplined Entrepreneurship methodology stresses the importance of figuring out who your customer is and what you can do for your customer before building a product. We push our students to remain open to pivoting away from what they originally envisioned as their product based on the insights they uncover during their primary market research. It's a crucial mindset to develop in the early stages of building a business, to remain as customercentric as possible.

Soltoff — I've often seen entrepreneurship taught in a piecemeal fashion, with excellent deep dives into one topic or another but nothing bringing it all together. Our approach is more integrated and holistic. We look at the whole puzzle, not just a single piece.



# Entrepreneurship and innovation strategy books from MIT



by Zach Church

Why It Matters

With an unstable 2025 underway, these books can help entrepreneurs and innovators develop resilient, thoughtful, and successful strategies. Like so much else in the U.S. economy, the forecast for startups and entrepreneurs is anything but stable. With nothing guaranteed about the future, a resilient and thoughtful strategy matters. Four recent books from MIT Sloan faculty members introduce frameworks and models that can aid founders, innovators, and leaders as they navigate the uncertainty ahead.

<u>Disciplined Entrepreneurship: 24 Steps to a</u> <u>Successful Startup, Expanded & Updated</u>

Professor of the practice Bill Aulet

**Disciplined Entrepreneurship: Startup Tactics** 

Senior lecturer Paul Cheek

Twelve years ago, entrepreneur and MIT Sloan educator <u>Bill Aulet</u> introduced the concept of disciplined entrepreneurship in his book of the same

name. Aulet assured readers that not only could entrepreneurship be taught, but his 24-step framework could help them learn it.

"Some people tell me that entrepreneurship should not be disciplined, but chaotic and unpredictable — and it is," Aulet wrote. "But it is just in such situations where a framework to attack the problem in a systematic manner will be the most valuable."

Last year, Aulet released an expanded and updated version of the book. Accompanying it was <u>Paul Cheek's</u> "Disciplined Entrepreneurship Startup Tactics," which addresses questions like <u>how and when to hire technical talent</u>. Aulet is the managing director of the <u>Martin Trust Center for MIT Entrepreneurship</u>. Cheek is the center's executive director.

### Accelerating Innovation: Competitive Advantage Through Ecosystem Engagement

Senior lecturer Phil Budden and associate dean for innovation Fiona Murray

"Accelerating Innovation" guides leaders through engagement with innovation ecosystems so they can better derive value from both external actors and internal resources. Phil Budden and Fiona Murray discuss five stakeholder types in these ecosystems that they identified in their research: research institutions, entrepreneurs, corporations, investors, and governments.

While Silicon Valley and Greater Boston garner a lot of attention as innovation hubs in the U.S., innovation ecosystems can develop anywhere, Budden and Murray show, as they examine sectors like quantum computing in Copenhagen, mining in Perth, and fintech in Cairo and Dubai, among many other examples. The frameworks and models they describe are applicable around the world, in organizations and ecosystems of every type and size.

#### **Entrepreneurship: Choice and Strategy**

Senior lecturer Erin Scott and professor Scott Stern, with University of Toronto professor Joshua Gans

Building on more than two decades of academic research with thousands of companies and MIT students, <u>Erin Scott</u>, <u>Scott Stern</u>, and <u>Joshua Gans</u>, who is a visiting scholar at the <u>MIT Initiative on the Digital Economy</u>, have developed a

systematic approach for startup leadership that is now laid out in this new textbook.

The underlying theme of their work: A good idea may have multiple paths to value, but pursuing too many paths at the same time often does more harm than good.

After navigating the four domains of entrepreneurial choice — customers, technology, organization, and competition — entrepreneurs are ready to explore the authors' Entrepreneurial Strategy Compass. This framework describes four strategic routes to commercialization categorized along two dimensions: orientation toward incumbents (collaborate versus compete) and focus of investment (execution versus control).



#### mitsloan.mit.edu/thinking-forward

Insights from MIT experts, delivered every Tuesday morning.

MIT Sloan Office of Communications Building E90, 9th Floor 1 Main Street, Cambridge, MA 02142



Questions and Comments: ideasmadetomatter@mit.edu
mitsloan.mit.edu ©2025 MIT Sloan School of Management