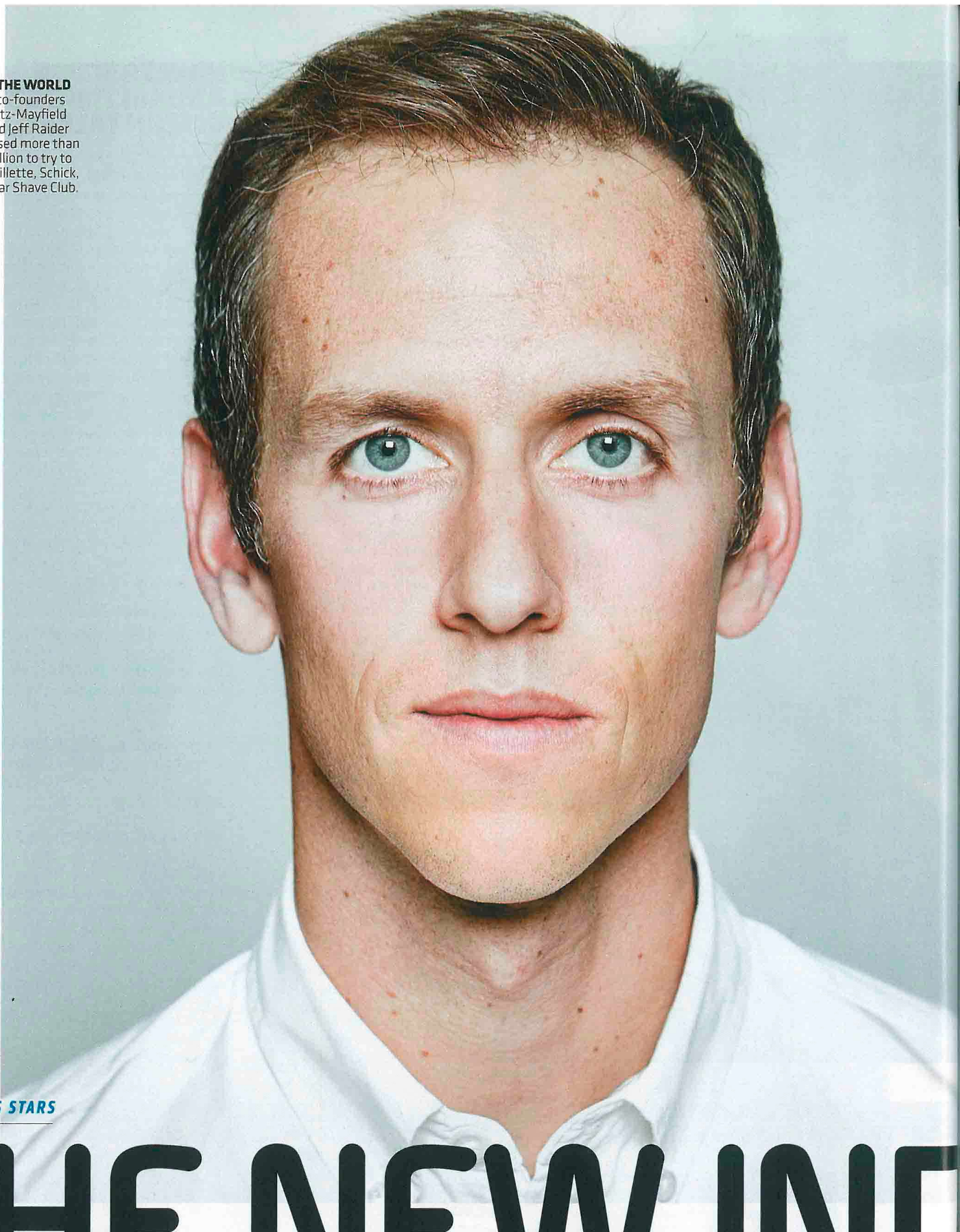


SHAVE THE WORLD
Harry's co-founders Andy Katz-Mayfield (left) and Jeff Raider have raised more than $250 million to try to upend Gillette, Schick, and Dollar Shave Club.

RISING STARS

THE NEW IND

Photographs by **SHAYAN ASGHARNIA**

USTRIALISTS

The co-founders of New York City's e-commerce startup Harry's are taking an unconventional path to category disruption—purchasing a nearly century-old factory in Germany

By **BERNHARD WARNER**

THE SMELL OF dying unicorns is in the air on a gray February day in downtown Manhattan. The Nasdaq has just fallen to a 15-month low, and e-commerce company Gilt Groupe, once valued at more than a billion dollars, was recently unloaded in a fire sale for $250 million. Jeff Raider, co-founder of online shaving startup Harry's, is trying to diffuse the jitters permeating his company's loft space. "Last year was the year of the unicorn," he says to the room of mostly 20-something employees. "This," he adds, "is the year of the cockroach."

Harry's, Raider argues, is better prepared than most for a future of less magical, and more earthly, stamina. "Times are about to get harder for e-commerce companies," he says. "But I think it's helpful to be aware of the fact that we have a real business. We are making real money." Plus, the 35-year-old reminds them, "we have a factory."

Behind this fact lies an unlikely story of disruption that pairs blue-collar craftsmanship with a VC-fueled business model. Four thousand miles from the Harry's loft in SoHo is a sleepy German village called Eisfeld, population 5,600. A three-hour drive from Frankfurt, the hamlet is best known for its medieval castle. But what's put Eisfeld on the map is Feintechnik, a factory that's been churning out double-edge razor blades since 1920.

Eisfeld has had it particularly rough since World War II ended, when the Soviets drew the Iron Curtain along its southern boundary, leaving the town trapped on the wrong side of history, and the factory in the hands of East Germany. The new communist regime threw Feintechnik's founder, charged with being a "brutal, capital-hungry businessman," into a prison camp. Following unification, the factory was bought by an Italian entrepreneur in 1991. In 2007, it was sold to two European private equity firms. By then, Feintechnik had become the behind-the-scenes razor-blade maker for dozens of mostly European retailers and distributors.

Raider and his Harry's co-founder, Andy Katz-Mayfield, first heard about Feintechnik in late 2011. At the time, the two MBAs were gearing up to launch an online shaving club that could mount an assault on the razor duopolists, Gillette and Schick, which had a century-old grip on the $17 billion men's grooming category. Dollar Shave Club was already trying to knock the incumbents off balance by igniting a price war. But Raider and Katz-Mayfield wanted to seize a different angle—creating a better-designed razor and shaving experience for a reasonable price. So the longtime buddies ordered high-end razor blades made everywhere from Egypt to Japan and holed up in their respective bathrooms, using their faces as their lab. "It was physically and emotionally scarring," half-teases Katz-Mayfield, recalling their nicked-up jawlines.

Dissatisfied, they finally tried to track down the Croma, an elusive European blade they had read about on shaving blogs. "We started Googling around and discovered it was produced by this factory in Germany called Feintechnik," says Raider. It was one of the few places in the world that had mastered a technique called the gothic arch cut, which sharpens the steel on both sides into a parabolic edge, giving the blade both remarkable sharpness and strength. When they called the factory, it became clear this wasn't Berlin or Munich—barely anyone spoke English. But when the Cromas finally arrived, they knew immediately they had found their future supplier.

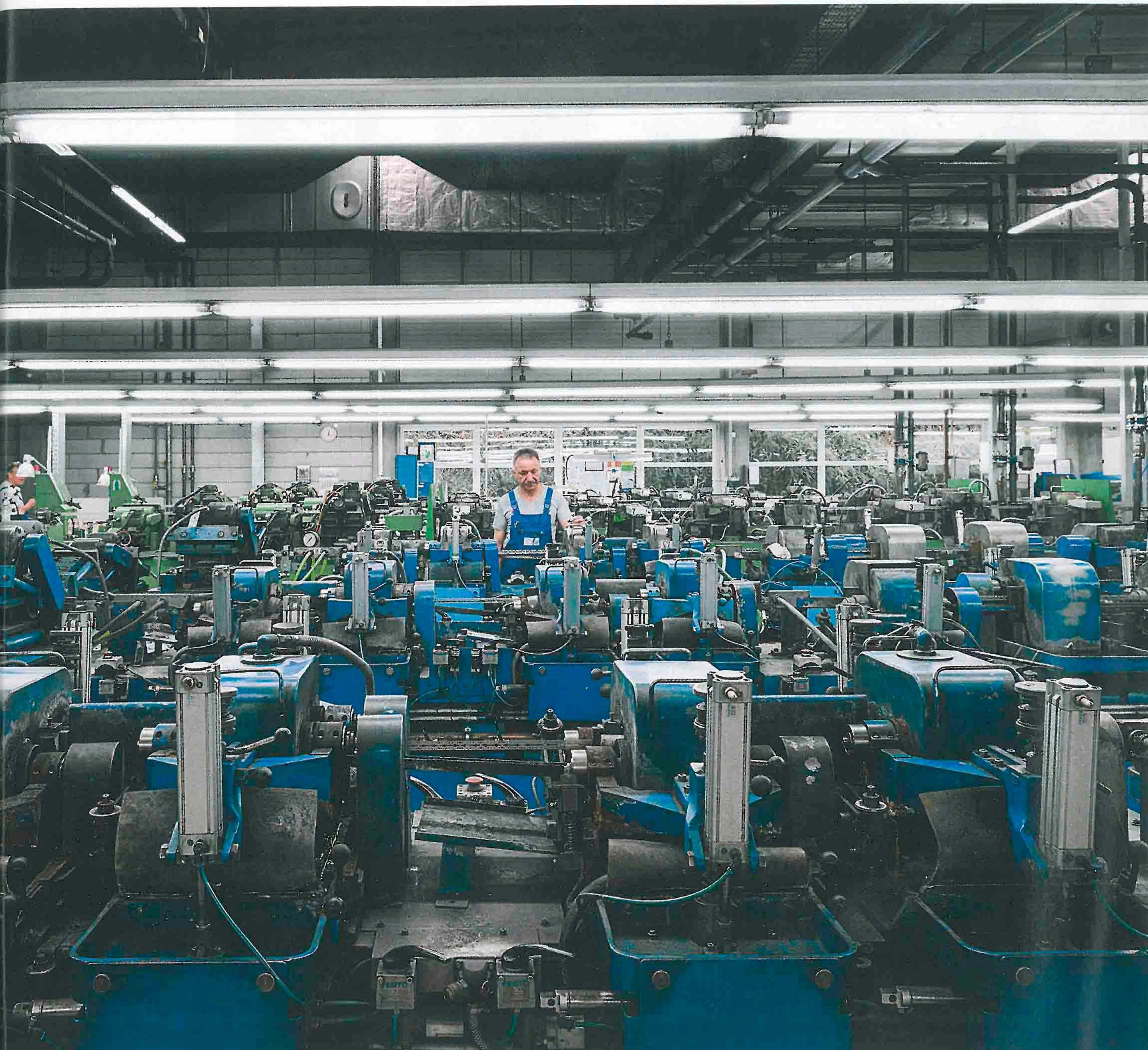
Within weeks, the two boarded a flight to Germany to persuade the then 91-year-old manufacturer to produce the blades for their upstart, which at the time was little more than an idea. There they met with Feintechnik CEO Heinz Dieter Becker and his factory associates, and tried to impress them with their business school–charged vision. Raider even played what he thought was their most valuable card—he co-founded the hot American eyewear startup Warby Parker.

But their pitch was met with Teutonic indifference. Raider's Warby cachet—which would have easily seduced venture capitalists back home—proved useless. Becker had never even heard of Warby Parker. To the Germans, they were just another web startup looking for razors to sell, with one major exception. The Harry's co-founders didn't want Croma knockoffs; they wanted customized cartridges with their own unique flex and pivot. "I think they were pleasantly amused by us," says Katz-Mayfield.

For the next five months, Raider and Katz-Mayfield continued to court the Germans, finally landing a supplier deal in May 2012. But what would come next was an unexpected turn, one that belies the conventional wisdom of most startups today. In recent years, direct-to-consumer e-commerce startups like Harry's have emerged across virtually every product category. From panties (MeUndies) to mattresses (Casper) to hair dye (eSalon), these companies pitch themselves as legitimate threats to business as usual, able to provide a better-designed, higher-quality product and customer experience for a fraction of the cost. The allure for entrepre-

Photograph by **ALASTAIR PHILIP WIPER**

CULTURE CLASH
The workers who operate the multimillion-dollar blade machines at Harry's factory in Eisfeld, Germany, have years of training—unlike their new bosses, who had zero manufacturing experience.

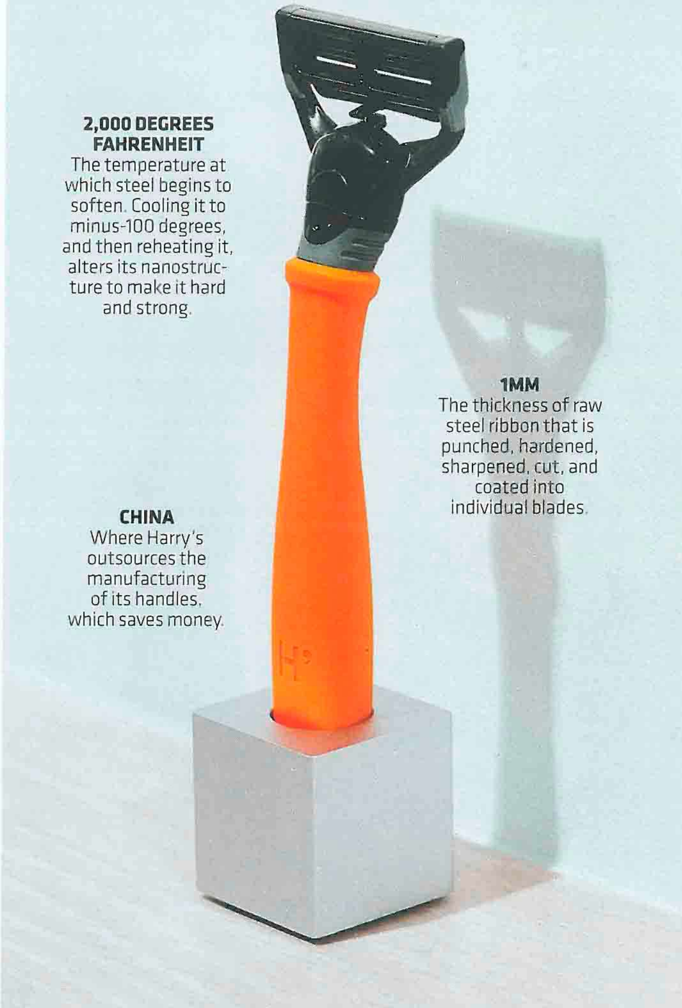


"People ask, why'd you raise so much money?" says Raider. "It's all for this. You're looking at it."

neurs and their investors is high growth and low overhead, in part because these e-commerce players are more resellers than producers.

But once Raider and Katz-Mayfield got inside that model, they realized it didn't work for razor blades. To win the shaving wars, they would need to make an incredibly expensive bet: Harry's couldn't just contract a factory to make its razors. It would need to actually buy the factory. For $100 million.

Harry's seemed to mimic the Warby Parker model, but with a fundamental difference: High-end blades require more specialized engineering than glasses.



2,000 DEGREES FAHRENHEIT The temperature at which steel begins to soften. Cooling it to minus-100 degrees, and then reheating it, alters its nanostructure to make it hard and strong.

1MM The thickness of raw steel ribbon that is punched, hardened, sharpened, cut, and coated into individual blades.

CHINA Where Harry's outsources the manufacturing of its handles, which saves money.

JEFF RAIDER CAN BE maddeningly agreeable. While Dollar Shave Club founder Michael Dubin boasts how "f**king great" his blades are—as he did in his company's 2012 viral video—Raider wants to know what *you* think of his. No matter how a question is lobbed at him about his competitors, he won't disparage Gillette's charge-the-moon pricing model or DSC's outsource-everything production model. "We respect everyone in the industry," he says like a politician, when pressed. The 33-year-old Katz-Mayfield, the quieter of the two, is more willing to play bad cop, when necessary. "We joke about negotiating," he says. "I'm a little bit more calculating." As is the case with many co-founders, their contrasting personalities—Raider with his affinity for the softer sides of business, like branding and customer experience, and Katz-Mayfield with his analytical, keep-the-trains running attitude—work in their favor. "It's like a marriage," says Katz-Mayfield. "He can finish my sentences. I can finish his."

Raider started his first company in 2009. He was getting his MBA at Wharton, when he and three of his buddies started riffing on the injustices of the monopolistic eyewear industry. The four would soon hatch Warby Parker, now valued at $1.2 billion.

Meanwhile, Katz-Mayfield was living in Santa Monica, California, working for a startup after getting his MBA at Stanford. One afternoon in 2011, he stopped by a drugstore to pick up razor blades and shaving cream, and was struck by the absurdity of the experience. First, he had to track down a store clerk to unlock the case where the razors were kept. Then at the register, he had to shell out a small fortune. "It was like $25 for a four-pack of razor blades and shaving cream. I was like, 'How did I just spend that kind of money?' " recalls Katz-Mayfield. "I can remember the emotion. You know as a consumer when you are getting taken advantage of."

Overnight, his outrage morphed into an opportunistic idea: There must be a way to create a new kind of razor-blade-customer experience. He thought about Warby Parker, which was challenging a single dominant manufacturer—Italy's Luxottica—with a high-quality, far cheaper alternative. Razors, dominated by two corporations, couldn't be all that different from glasses. It just so happened Katz-Mayfield had a direct line to Raider, whom he had worked with at Bain & Company a decade earlier, and then at Charlesbank Capital Partners. Katz-Mayfield called his old buddy and Raider immediately agreed that someone had to Warby Gillette. "Why not us?" Katz-Mayfield interrupted. Says Raider, "I thought, here we go again. I sat back in my chair and it felt like day one at Warby Parker."

By the early fall of 2012, the duo had quit their jobs, and Katz-Mayfield moved back to New York City. They had done their razor reconnaissance, and after that first trip to Eisfeld, Katz-Mayfield wooed Feintechnik, traveling regularly to Germany to meet with CEO Becker, whose direct German business style melded well with Katz-Mayfield's data-oriented tendencies.

Back in New York, Raider was developing the Harry's offering: Unlike DSC, which had already established

OPENING SPREAD: GROOMING: ELISA FLOWERS/BERNSTEIN & ANDRIULLI. THIS PAGE: SHAYAN ASGHARNIA itself as the razor company for bro Millennials looking for a deal, Harry's would feel like a well-designed masculine experience. The brand would have a heavy whiff of Warby, with vintage-named shaving kits including the "Truman Set" and the "Winston Set." It would offer multiple options—ranging from an $8 cartridge pack to a $39 kit with aftershave balm—all of which could be purchased with a plan or à la carte.

Raider managed to raise $4 million in seed funding led by New York venture firm Thrive Capital. Then, two months after Harry's launched in March 2013, Raider and Katz-Mayfield encountered the best worst-case scenario for a startup. Initial shaving kit sales, boosted by an email campaign and strong word-of-mouth referrals, outperformed expectations. In two weeks, they sold all of their inventory, plus 12 weeks' worth of backup stock. "We were blowing through projections," says Raider.

The co-founders suddenly realized that if they were going to build an enduring company, they needed to transform the business. They asked Becker if Feintechnik would co-invest in a production line dedicated to Harry's blades. He demurred. "He said they weren't structured that way, that they didn't have the capital," says Raider. That's when it hit the co-founders: Our two-month-old company runs the risk of outgrowing our 93-year-old supplier.

The only way to properly scale would be something nearly unheard of—to own the entire supply chain out of the gate. It meant that the company's biggest spending priorities wouldn't be on code, but on steel, machinery, and workers. Forrester analyst Sucharita Mulpuru says there's a simple reason it's so rare for a startup to make this kind of bet. "It's an enormous capital cost," she says. "It's literally putting the cart before the horse."

SHOULD YOU BE A FULL-STACK STARTUP?

A new breed of startup is betting that the key to toppling an industry is to do just about everything yourself. It may sound counterintuitive in this golden age of "light" business models—contracting workers, scaling with software, outsourcing production—but Chris Dixon, general partner at Andreessen Horowitz, encourages select companies to pursue this model, dubbing them "full-stack startups."

If you develop a new technology, says Dixon, rather than selling or licensing it to the existing companies in that industry, consider building "a complete, end-to-end product or service that bypasses" them—from design to distribution.

The potential upsides are huge, but so are the financial risks. It also requires an incredibly agile entrepreneur—"a special kind of founder," says Dixon. Here are three ways companies are stacking up.

HARRY'S: OWN THE MANUFACTURING

For Harry's, vertical integration was driven by one crucial factor: There are only a few manufacturers in the world that can make what it sells—high-end razor blades—at scale. It's better to own such rare know-how outright, the co-founders concluded. But Harry's doesn't advise everyone to shell out $100 million for a factory. "For others, it might be a really bad idea," says Harry's co-founder Jeff Raider. His advice: Own the production only if it creates a distinct competitive advantage.

NEST LABS: MASTER DESIGN

Not all full-stackers own every piece of the supply chain. Sometimes, they just own the parts that count. Nest Labs, founded by former Apple designers, creates its own hardware—smart thermostats, smoke and carbon monoxide detectors, and home-surveillance cameras—and the software that runs it, which gives the company much more control of the user experience and future product innovation.

TESLA: INVENT A NEW SUPPLY CHAIN

To establish a market for its electric cars, Tesla has completely reimagined the supply chain by owning everything from the factory to the showroom to the charging stations. It's an expensive gamble, but it will be incredibly hard for incumbents to do the same and catch up.

"WE WERE NOT LOOKING FOR a buyer when they approached us," recalls Martin Spirig, a partner at Invision Private Equity, the Swiss firm that purchased Feintechnik, along with Austrian-based Alpine Equity Management, in 2007. The firm had already invested millions in the gothic arch machinery, boosting Feintechnik's sales and profitability. Still, Spirig was intrigued enough to meet with the Americans. "I appreciated their enthusiasm," says Spirig, who, unlike Becker, was impressed by Raider's Warby Parker pedigree. Additionally, he found he had something in common with the co-founders. "I'm also an ex-Bainee," he says.

But Raider and Katz-Mayfield didn't yet have the cash to be serious bidders. "That's when I had to take off my startup-founder hat and put on my private equity hat," says Katz-Mayfield, who had done leveraged buyouts with Raider at Charlesbank. According to their calculations, they would have to raise a staggering $100 million, something most investors wouldn't entrust to a startup in its infancy.

So Raider began working his network. At Warby, one of his co-founders, Neil Blumenthal, had always been the face of the company, while Raider remained in the shadows. (He left Warby Parker in mid-2010, but is still on its board.) Now Raider had his chance to be the frontman. He contacted a Warby Parker board member and top executive at Tiger Global whom he often went to for advice and he and Katz-Mayfield presented their rationale for why the New York City–based hedge fund should get in on such an expensive endeavor. Even though Harry's appeared to mimic the Warby Parker model, they explained, there was something fundamentally different between razors and glasses: The engineering required for high-end blades was much more specialized. Like most in the direct-to-consumer space, Warby was an outsourcer, designing the products and sourcing the materials—but then contracting them out to a manufacturer.

The main competition that Harry's faced, Dollar Shave Club, was doing even less—purchasing already designed razors from Seoul-based Dorco, and then reselling them. That meant DSC's product was not just a commodity; it was also subject to the whims of its supplier. In 2012,

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Dorco actually became a direct competitor when it began a North American push of its SXA 1000—a product nearly identical to DSC's top-of-the-line Executive. If Harry's was vertically integrated, it could avoid getting Dorco'd. This would also create a valuable feedback loop between its customers and its engineering team that would enable the company to perpetually improve its existing products and develop new ones. Under Harry's, Feintechnik would continue to function as the white-label producer for dozens of other retail brands, giving Harry's built-in operating profit from day one.

STEELING MARKET SHARE
Katz-Mayfield on his monthly visit to Feintechnik, where he oversees recruitment and factory expansion.

Tiger Global called the co-founders a week after their pitch. "They said, 'We're in. Let's do it,'" says Katz-Mayfield. By the end of the year, he and Raider had also gotten their seed backer, Thrive Capital, along with five other investors, to help raise $122.5 million, including $35 million in debt.

On January 22, 2014, Katz-Mayfield and Raider officially became Feintechnik's new owners. "In this industry," says Invision's Spirig, "you can gain expertise only through experience, by manufacturing millions and millions of blades." Ten-month-old Harry's paid its way to inheriting 94 years' worth of experience. Now the real work would begin.

ON A FRIDAY evening in September, hundreds of Eisfeld locals assemble at Feintechnik's grounds in a packed party tent. Sausages and hamburger patties sizzle on the grill, while children get their faces painted by a clown. Most of the townsfolk cannot understand a word the Harry's co-founders say, but some show up with a gift—a bottle of schnapps. Then a German politician bestows on Eisfeld's newest power brokers a $5.2 million development grant, declaring, "The time is now!" for this new American-German axis to knock out Gillette and Schick.

When news of the Harry's deal first broke almost two years earlier, German magazine *Der Spiegel* called it "a curious combination of U.S. entrepreneurial spirit and German engineering." The Harry's co-founders had gone from managing a 35-person e-commerce startup to running an intercontinental manufacturing operation with more than 400 employees and customers in 40 countries. To ease the learning curve, Raider and Katz-Mayfield had spent the six months leading up to the acquisition immersing themselves in every part of Feintechnik's business, from machinery to German labor laws. To help with the transition, they persuaded Becker to stay on for four years and then hired two Germans in Eisfeld—one a manufacturing expert, and the other to lead sales and marketing. But nothing at Wharton or Stanford could have prepared them for the task of bridging the cultural differences they would encounter.

The first time Raider and Katz-Mayfield arrived at Feintechnik as the new bosses, it must have felt like a diplomatic mission. They were concerned that its most highly skilled workers, used to steady, reliable growth, would not want to work for two young startup guys with a bold plan for disruption and no manufacturing experience. It didn't help that neither of them could speak a lick of German. "I was standing on

ALASTAIR PHILIP WIPER

wooden crates looking out at hundreds of people and all of a sudden, I was like, 'Man, we better make this work,'" says Raider. Feintechnik was Eisfeld's biggest employer. Beyond their investors, he realized, "there's a whole town depending on us."

So he and Katz-Mayfield began the transition slowly, taking a measured approach to communicating their vision to the Eisfeld team. But integration dragged out for nearly two years, something, Raider says now, he wishes he had wrapped up in months. Then there were the micro-collisions that emerged almost weekly—things like the Americans inundating their Eisfeld counterparts with a dozen one-line emails during the course of the day, rather than sending a single, comprehensive to-do missive, which the Germans preferred. In an effort to align the two cultures, now nearly every week a team from New York—distribution, product development, supply chain, IT—flies to Germany to work side by side with the Eisfeld team, and vice versa. "I don't want to sugarcoat things," says Raider. "Changing the mindsets of some of the people who've worked here for 15 years is really hard. It's a process of finding champions."

Yet even with a bumpy cultural transition, two years into purchasing Feintechnik, the Harry's co-founders say they have proof their gambit is working. "Gen 2," as its referred to internally, is the company's newest product, which is set to debut this summer. According to early designs, it's a razor cartridge that will pack five double-edge blades, a sixth rear-edge "trimmer blade," and a cartridge head that pivots at greater angles. Gen 2 was jointly designed by product development teams in New York and Eisfeld and crafted by German engineers, with each feature influenced by Harry's customers. While the Gen 2 is not revolutionary for the industry, Harry's believes that its product-development model—beginning with its customer-experience team and ending on the factory floor—will be. "This was 100 percent enabled by being vertically integrated," says Katz-Mayfield.

The more Gen 2s Harry's sells, the co-founders argue, the more customer feedback the company will have to develop the next iteration, or another breakthrough product. Gillette, historically the most innovative of the razor companies, has released, on average, a couple of unique product lines every decade. It took Harry's only two years to turn all of its customer data into a new release. The hope is to speed past Gillette in the next decade.

Already, the largest competitors of Harry's are showing signs of being flustered. "The advent of Dollar Shave Club and Harry's has got to be the most significant disruption to this space since the electric razor," says Ken Cassar, an e-commerce analyst at Slice Intelligence, noting that online shaving clubs are the fastest-growing segment in men's grooming, some 10 percent of the $3.3 billion U.S. market. While, according to Slice, DSC is the top online subscription shaving club, last year Harry's grew more than twice as fast as the entire online market, even outpacing DSC. Gillette, whose profits have been flat in recent years, has sued both Harry's and DSC for patent infringement. (In 2013, it filed the charges against Harry's, and then dropped the suit a week later.) Last summer, the corporation joined the online wars with its own ripoff, Gillette Shaving Club.

Harry's is now gearing up for more growth. The co-founders project that revenue will top $200 million by year-end, with sales from Harry's itself accounting for a bit more than half. By 2018, the company plans to double its production capacity to two billion blades per year. To do that is incredibly expensive. Harry's has since raised another $171 million, over $100 million more than what DSC has raised. It's also built a second production facility—which is slated to double in size—and is expanding the original factory. With nearly 100 positions to fill in the next two years, Raider and Katz-Mayfield are scrambling to find talent who not only understand complex manufacturing, but are also willing to relocate to this German backwater. If they can't, Raider says, it "will impede our growth, for sure. We can buy all the machinery we want, but we'd have nobody to run it."

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For all the change under way in Eisfeld, Raider and Katz-Mayfield have no intention of putting down local roots to manage it. When they visit, they still prefer to live out of a suitcase, staying at a hotel 20 minutes down the road. Katz-Mayfield spends at least one week a month here, but he has yet to learn German. It's for reasons like this that a German documentarian named Ulli Wendelmann, known for hard-hitting exposés on the German prison system and Russia's oligarchy, recently filmed a documentary examining the oddball marriage between the New York startup and the former East German factory. The Harry's co-founders understand the scrutiny. "It's not like we are 60-year-old German industrialists who've come here," Raider says. "We have to build credibility with the people." For now, at least according to Wendelmann, they seem to be doing all right. "The feeling for the two New York cowboys is very good," he says.

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