

The Corporation Innovation

'Mosh Pits' Of Creativity

Innovation labs are sparking teamwork-and breakthrough products

THE RAZR, MOTOROLA'S half-inch-thick, ultralight cell phone, broke a few rules in the industry when it appeared late last year. It's impossibly compact, simple to operate, and elegant, with an artfully hidden antenna and impressive photographic capabilities. The phone marked a sleek detour from the drive toward bulky features, such as powerful storage devices and high-power cameras, that were fattening up phones and preoccupying rival cell-phone makers. No wonder the Razr has sold a breathtaking 12.5 million units in less than a year.

But Motorola also had to break some internal rules to get the Razr to market. The biggest: Much of the critical work on the phone was done at a downtown Chicago innovation lab known as Moto City—rather than solely in the company's sprawling traditional research and development facility in suburban Libertyville, Ill. Decorated in a trendy palette of oranges and grays, Moto City fills the 26th floor of a high-rise once occupied by a dot-com.

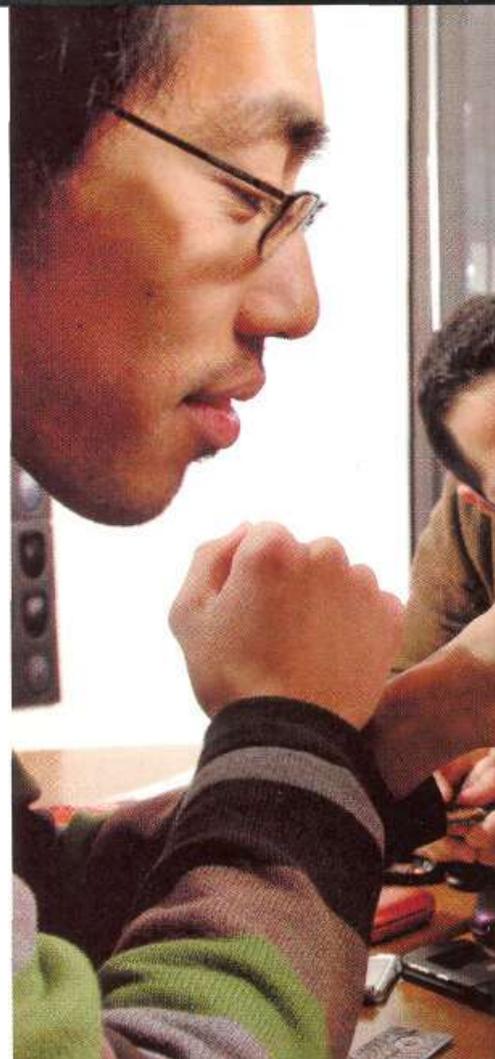
To hustle the phone into production,

Motorola engineers left their cubicles in Libertyville to team up with designers and marketers 50 miles to the southeast in Moto City. With its open spaces and waist-high cubicles for even senior managers, the lab fostered teamwork and a breaking down of barriers—both of which contributed to the success of the project. Razr developers, for instance, bypassed a normal process of running new-product ideas past regional managers across the world. Because they wanted to lead the market, not just give managers and customers what they thought they wanted, the Razr team put aside normal practices. "We did not want to be distracted by the normal inputs we get," says Gary R. Weiss, senior director of mechanical engineering. "It would not have allowed us to be as innovative."

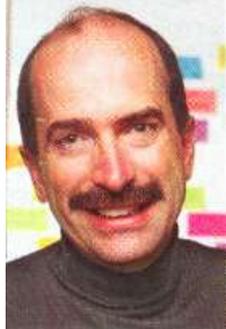
FASTER, FASTER

INNOVATION LABS are a key part of a movement to overhaul old-style R&D. They are designed to complement, and sometimes even replace, the intensive traditional system—which required that scientists or engineers toil away privately for years in the pursuit of patents, then hand their work over to product developers, who

in turn dropped it onto designers' and marketers' laps for eventual shipment out to the public. The leisurely old handoff approach worked fine a few decades ago, when the likes of Bell Labs and RCA Laboratories could take years to develop transistors and color TVs, knowing they would enjoy protected markets for years more. But today's rapacious competition means innovations grow stale fast. Companies must churn out updates far more quickly.



PLAYBOOK: BEST-PRACTICE IDEAS



How to Build a Successful Innovation Lab

Tom Kelley, general manager of IDEO, shares his insights

ESTABLISH A HOME ROOM FOR IDEAS

The ideas should bounce around, but the location shouldn't. Commit to a clearly marked, dedicated place for innovation, near where staffers work so that they visit frequently.

PLAY EXECUTIVE Pictionary

Allow lots of space for whiteboards and visuals. People need to sketch out ideas to communicate them well. Use walls; avoid delicate surfaces that can't take heavy use.

RISK FEELING FOOLISH

In brainstorming sessions, go for quantity and avoid being judgmental. Conformity is a creativity-killer. To keep some structure, number the ideas. A hundred ideas per hour—you're cooking.

STOCK UP AT STAPLES

To create the feeling that the lab is a place to thrive, stock it liberally with items such as prototyping kits, Post-its of all sizes, fat-tipped felt markers, and X-Acto knives.

NICOLAS ZURCHER/IDEO

MOTO CITY Motorola's innovation lab is in downtown Chicago

clearly a separate part of the operation. Called the Cave, the center boasts bean-bag chairs, comfy couches, and adjustable lighting that makes people feel as if they're far from the office. Teams of staffers from engineering, marketing, and design meet there with child psychologists or other specialists to share ideas. After observing families at play in the field, they return to brainstorm—or "sketchstorm," as they call it. Then they build prototypes of toys from foam, cardboard, glue, and acrylic paint.

Mingling with people from various disciplines has been key at the three-year-old operation. Staffers such as Tina Zinter-Chahin, senior vice-president for research and development, call the interaction spelunking, since it's based on an idea of taking a "deep dive" into product development. "People at first were skeptical," says Zinter-Chahin, noting that toy designers didn't care to spend so much time with marketers. "They said: 'Come on, I'm going to go away for five days and take a marketing person?' We found that while they aren't great with foam and glue guns, they're great at hashing out an idea and positioning the product."

Already, Fisher-Price staffers can point to successes. After observing babies as they learned basic skills, the

spelunkers realized that moms spent a lot of time teaching kids about such things in the house as doors, light switches, drawers, and kitchen utensils. While the company could boast about toys that make noise or flash lights, it was short on real-world practical stuff. It solved the problem with Laugh and Learn Learning Home, a \$65 model home made of plastic, where kids can crawl through a front door and explore the alphabet, numbers, music, speech, and different sounds. A smash hit in its 2004 debut, it's now a full line of toys. The out-

Labs are also being used to smooth out production glitches

ing beehive. Teams of people from different disciplines gather to focus on a problem. They brainstorm, tinker, and toy with different approaches—and generate answers that can be tested on customers and sped to the market. At times, it's true, innovation labs can seem like dot-com flashbacks, full of pretentious rhetoric, black-clad engineers, and interior design clichés like cappuccino machines and foosball tables. But the fact is that the concept has been embraced by companies far removed from Silicon Valley. These organizations have discovered that innovation labs can be a powerful tool for big corporations to cut through their own bureaucratic bloat.

A central tenet of the innovation lab movement is that layout and design are crucial. Mattel Inc.'s preschool toy unit, Fisher-Price, has its center at company headquarters in East Aurora, N.Y., but it's

Already, Motorola has unleashed follow-on phones, such as the candy-bar style Slvr and the rounded, pert-looking Pebl, along with a bevy of novel colors, such as hot pink, for the flip-top Razr.

Certainly, the need for speed in innovation stretches beyond high-tech companies. Outfits as varied as Mattel, Steelcase, Boeing, Wrigley, Procter & Gamble, and even the Mayo Clinic now use such labs to shatter bureaucratic barriers that have grown up among inventors, engineers, researchers, designers, marketers, and others. Such barriers, say today's management gurus, are an outdated legacy of Frederick Winslow Taylor, the late-1800s industrial engineer who advocated breaking down tasks so that different departments could handle jobs successively, leading to the assembly line. While well suited to the 20th century, the style can only crimp innovators in the 21st century, says Jack Tanis, director of applied research at Steelcase. Now, "Taylorism is breaking down," he adds.

Instead of assembly line, think swarm-

fit has high hopes for a couple of forthcoming products, such as the Easy Clean high chair, the result of a spelunk about issues moms had feeding kids.

Although innovation labs are typically created to generate new product ideas, they are also sometimes used to improve manufacturing processes. At Boeing Co., for instance, nearly 3,000 engineers and finance and program management staffers from scattered locations in the Renton (Wash.) area were moved last year to the factory where 737 jetliners are assembled. "If you are in the office area, you can feel and hear the noises in the factory and can look out your window and see the wing tips going down that line," says Larry Loftis, director of manufacturing

Older workers may have a hard time giving up private offices

Such changes aren't always seamless. Older workers, especially baby boomers, may have a hard time giving up cherished perks such as private offices, say consultants at Steelcase who help design innovation lab workspaces—and sell companies the pricey furniture for them. Some workers define their success by counting ceiling tiles, measuring out the square footage they've got in their private space, and comparing it with that of others. By contrast, Generation Xers and others new to the workforce more often will trade privacy for amenities such as in-house recreational areas. Steelcase's design center, for instance, boasts a waist-high shuffleboard where staffers can unwind.

Many innovation labs try to encourage the sense, however illusory, that hierarchy has been tossed out the window. Motorola CEO Edward J. Zander, 58, comes by the company's design center once a week or more, both because it's close to his downtown Chicago home and because he likes the informality and energy: Many cellphone designers are twentysomethings or only slightly older. "The market for handsets today is young people, and we have a lot of young people here," says Zander, saying the center is "like a mosh pit."

FAR FROM THE SUITS

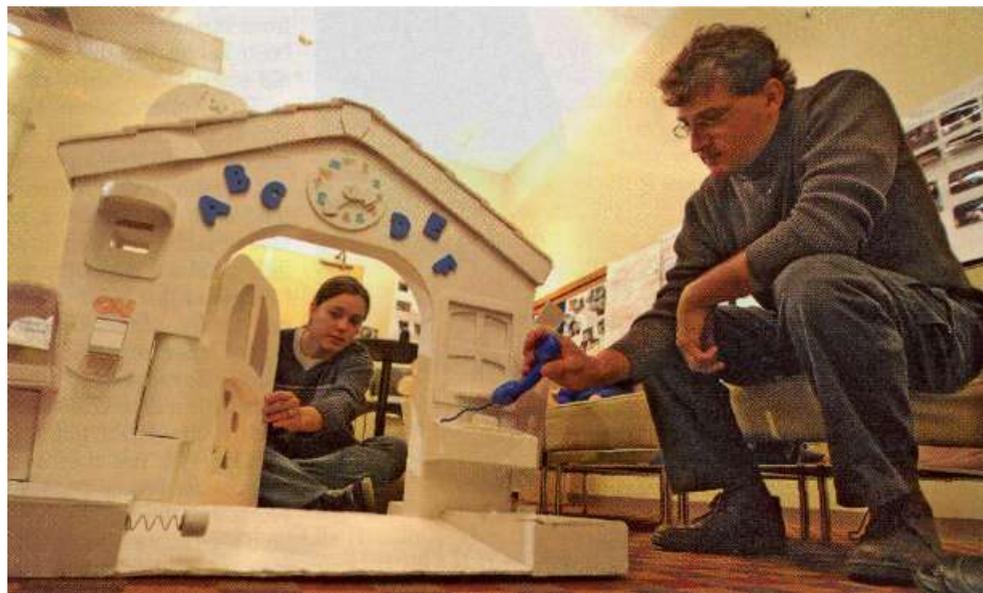
INDEED, MOTOROLA broke another rule by locating its center far away from the "suits" in corporate headquarters, putting it downtown because the spot suited staffers better. Designers can walk down the street or hop on the subway to see their phones in use. And many of the place's young workers shudder at the idea of working in Libertyville. "I grew up in the suburbs, and I didn't want to go back," says Michael Paradise, a 23-year-old industrial designer.

Consultants who advise companies on such innovation labs are fond of lofts, where high ceilings create a sense of openness. A lack of walls conveys the idea that communication is free-flowing. And an absence of private offices suggests that teamwork is the highest priority. "We think everything worth doing is done by groups, not by individuals," says Tom Kelley, general manager of IDEO, a Palo Alto (Calif.) design consulting firm. He urges an end to rigidly aligned cubicles in favor of loose, eclectic arrangements because all those cubicles marching ahead in a line "sends a signal that you've got to be on your best behavior." Instead, he says, people

need to feel free to be creative.

To be sure, innovation labs are not panaceas. If the ideas that emerge from these facilities are flawed, the products undoubtedly will be failures. And if managers don't get behind winning but perishable ideas quickly, the products could likewise be doomed. But for big companies that are stuck in creative ruts, these labs can be places where something magical gets started. ■

-By Joseph Weber in Chicago, with Stanley Holmes in Seattle and Christopher Palmeri in Los Angeles



for the 737. "There is a constant reminder for the engineers."

Such shifts smooth the way toward faster working arrangements. To urge people to mingle, Boeing created common break areas where mechanics and engineers can talk shop over coffee or a snack, building informal relationships that could speed both daily working processes and innovations. Now, if a mechanic finds that a part doesn't fit, he can find an engineer to redesign it nearly on the spot. Or when a jet with a novel interior design first rolls on the line, the engineers and mechanics can make changes, as needed. "When things don't fit exactly right, they can change the engineering or blueprint in hours, instead of weeks or months," Loftis says.

For some companies, innovation labs are not places where all old ways are killed off once and for all. Instead, they let employees retreat from their normal workplaces to solve problems and then return reenergized. Procter & Gamble Co.'s Clay Street Project, named for its Cincinnati location, is a haven where teams of staffers from various disciplines go for stints of 6 to 10 weeks or so to wrestle with product problems. Free in such comfortable environments, they can look at challenges afresh. "They try to create transforming breakthroughs," says Roger L. Martin, dean of the Rotman School of Management at the University of Toronto and a P&G adviser.

THE CAVE Fisher-Price's lab in East Aurora, NY.