LEGO's Fan-Powered Innovation Engine

Idea In Short

LEGO's turnaround from near-bankruptcy in 2004 to the world's most profitable toy company rests on one decision: stop treating customers as an audience and start treating them as a research and development (R&D) department. When adult hobbyists reverse-engineered the Mindstorms robotics kit in 1998, LEGO chose collaboration over litigation, a decision that seeded two decades of open innovation. The lesson for executives is not that crowdsourcing works as a marketing gimmick, it is that structured platforms for external ideas, paired with real incentives such as royalties and public recognition, can outperform closed innovation departments. Any company sitting on a passionate user base should ask whether it is extracting free feedback or genuinely sharing product ownership with the people who buy its products.

A Brick That Almost Broke the Company

A LEGO brick measures 31.8 millimeters by 15.8 millimeters and carries eight studs arranged in two rows of four. That geometry, patented in 1958 as the stud-and-tube locking system, has barely changed since, yet it now anchors a company that Bain and other analysts once expected to fail. LEGO was founded in 1932 by Ole Kirk Kristiansen in Denmark as a maker of wooden toys, shifted into plastics in 1946 and built a business on the premise that a simple, repeatable unit could support unlimited combinations. That premise held for decades, but it stopped protecting the company once management diversified into video games, clothing, theme parks and television production during the late 1990s.

By 2003, the strategy had backfired. LEGO reported losses approaching $300 million for the year, sales had dropped roughly 30 percent over two years, and the company carried debt of about $800 million.1 Analysts at the time projected that continued losses could force bankruptcy within about eighteen months. The business that had captivated generations of children was, by its own later admission, close to disappearing entirely.

Jorgen Vig Knudstorp, a former McKinsey consultant who joined LEGO's strategic development unit, became CEO in 2004 at age 35 and pushed the company back toward its core brick business, cutting nearly half its product elements and exiting unprofitable ventures including its video game studio and theme park ownership.2 That retrenchment created room for a second, less obvious shift: LEGO began treating its most devoted customers as a source of product development rather than a market to be sold to.

The Hackers LEGO Chose Not to Sue

The clearest early signal of that shift came from a product LEGO had not originally built for outside developers. LEGO Mindstorms launched in 1998 as a combination of hardware and software, developed with assistance from the Massachusetts Institute of Technology [MIT], that let enthusiasts build programmable robots from LEGO components. Within weeks of release, a Stanford University student had reverse-engineered the kit's software, and other hobbyists soon followed, cracking the firmware and writing new programs more sophisticated than LEGO's own.

LEGO's legal team initially treated this as a straightforward intellectual property [IP] problem and considered pursuing the hackers through the courts. Company leadership eventually reasoned differently: if a handful of MIT researchers could produce something this compelling, thousands of engaged users working independently might produce far more.

> People don't have to work for us to work with us

Instead of suing, LEGO set up an official user forum, added what became known internally as a right-to-hack clause to its license terms and began inviting the modification community to interact directly with its internal product team.3 The redesigned successor kit, LEGO Mindstorms NXT, launched in 2006 and became one of the company's strongest commercial performers, built in direct consultation with the same hobbyists LEGO had once threatened with legal action. The lesson management drew from that reversal was specific: the success of Mindstorms NXT came from co-creation, not from a superior internal engineering process. This episode became a widely cited example of open innovation, a term describing how a company draws on a mix of internal and external expertise, sourced from customers, suppliers and occasionally competitors, to drive product development rather than relying solely on an in-house research and development (R&D) function.

Turning a Fan Base Into a Standing R&D Department

The Mindstorms experience convinced LEGO leadership that customer feedback deserved a permanent institutional home rather than a one-time correction. The company established the LEGO Ambassador Program, which gives selected fan community leaders direct, ongoing access to LEGO's internal teams to discuss upcoming kits, review prototypes and surface ideas from broader fan forums. Through this channel, LEGO gains early exposure to emerging themes, technical possibilities and potential partnerships, while participating fans gain a genuine stake in decisions that shape products they already care about.

LEGO extended this logic into its investment activity as well, backing external businesses building products adjacent to its existing lines rather than developing every adjacent capability internally. This willingness to invest outside its own walls signaled that LEGO viewed its innovation boundary as porous rather than fixed, a marked departure from the vertically integrated model it had followed through most of the twentieth century.

The most visible outcome of this institutional shift was a crowdsourcing platform LEGO built in partnership with a Japanese website called Cuusoo, a word that translates roughly to wish or imagination.4 That partnership later evolved into LEGO Ideas, a standalone platform where fans submit original concepts and campaign publicly for community votes.

LEGO Ideas and the Economics of Fan Creativity

LEGO Ideas operates on a straightforward mechanic: any submission that collects 10,000 supporter votes within a year qualifies for formal review by LEGO's internal product and legal teams, who assess commercial viability alongside licensing complications. Ideas that pass review move into production as officially licensed LEGO sets, and the original submitter receives a share of net revenue, generally cited at 1 percent, plus free copies of the finished product and public credit as the set's creator.5

That royalty is modest in isolation, but its symbolic value has proven larger than its financial size. Creators of successful LEGO Ideas sets have been profiled by major news outlets and treated as celebrities within fan communities, a form of recognition that costs LEGO comparatively little yet generates enormous goodwill among the exact demographic most likely to buy, promote and defend its products. The platform also functions as a low-cost market research tool: a concept that struggles to reach 10,000 votes reveals limited demand before LEGO commits manufacturing or marketing resources to it, while a concept that clears the threshold arrives with a built-in customer base already primed to purchase.

Harvard Business School's Digital Innovation and Transformation initiative has described this mechanism as a way for LEGO to let crowds design products for the company rather than simply reacting to what LEGO designs.6 That framing captures a genuine shift in where product decisions originate, even though LEGO's internal teams still retain final authority over what reaches the shelf.

The Adults Who Never Stopped Playing

One consequence of LEGO's open innovation strategy has been the growth and formal recognition of Adult Fans of LEGO [AFOL], a community segment that industry estimates place at roughly 5 to 10 percent of total LEGO sales. This adult market did not appear by accident. Products such as Mindstorms and later Technic and licensed architecture sets were built with sufficient complexity and nostalgia appeal to hold the attention of buyers well past childhood, and the Ambassador Program and LEGO Ideas gave that same audience a direct route to influence future releases.

The secondary market for LEGO sets illustrates how far this dynamic has traveled. Discontinued or limited-edition kits now trade among collectors for prices that occasionally reach several thousand dollars, a level of resale demand more commonly associated with fine art or vintage watches than with children's toys. LEGO has leaned into this cultural standing rather than resisting it, licensing sets around film franchises, historical architecture and adult hobbyist interests that would have seemed far outside the company's mandate before its 2004 restructuring.

A useful illustration of how far LEGO's cultural reach now extends:

> actor Irrfan Khan became the only Indian actor honored with an official LEGO minifigure, produced in connection with his role in a major film franchise, a small but telling sign of how thoroughly the brand has embedded itself across global pop culture rather than remaining a regional toy manufacturer

What Executives Outside the Toy Industry Should Take From This

LEGO's experience offers a transferable governance lesson rather than a toy-industry curiosity. The company did not simply ask customers what they wanted, a practice most consumer businesses already attempt through surveys and focus groups. It built structured, rules-based mechanisms, a licensing clause protecting hobbyist modification, a standing ambassador channel and a voting threshold tied to guaranteed review, that converted informal enthusiasm into a repeatable pipeline feeding actual production decisions.

Executives evaluating whether to open their own innovation process should weigh three specific questions this case raises. First, does the organization have a legal or policy stance, similar to LEGO's original threat of litigation against Mindstorms hackers, that is actively suppressing valuable customer-driven innovation. Second, is there a clear and public threshold, comparable to the 10,000-vote LEGO Ideas gate, at which external ideas earn guaranteed internal review rather than disappearing into an inbox. Third, are contributors compensated in a way that is proportionate and durable, whether through royalties, public recognition or both, rather than through one-off prizes that fail to sustain long-term participation.

LEGO's return to profitability and its eventual position as the world's most profitable toy company by the mid-2010s followed the combination of disciplined cost-cutting under Knudstorp and this externally sourced innovation pipeline, not either factor alone.7 Companies studying the brick maker's recovery should resist the temptation to copy only the crowdsourcing platform while ignoring the governance discipline, including clear IP terms and a real path from idea to production, that made the platform trustworthy enough for outside contributors to invest their own time and creativity in it.

- 1How LEGO Nearly Collapsed - And Staged One Of The Greatest Turnarounds In Business History
- 2At LEGO, Growth And Culture Are Not Kid Stuff
- 3LEGO Mindstorms
- 4How LEGO Used Crowdsourcing To Achieve 21st Century Success
- 5LEGO Ideas
- 6Lego Ideas: Leveraging Crowds To Design Your Product For You

- 7From Bankruptcy To Billions: Lego's Blueprint For Business Transformation

Summary

LEGO's recovery was not a matter of better marketing or a lucky movie deal. The company survived a near-collapse by redesigning how it sourced ideas, opening its product roadmap to hobbyists, hackers and children, and building formal channels through which that input could reach production lines. The Mindstorms hacking episode, the LEGO Ambassador Program and the LEGO Ideas platform each represent a deliberate choice to trade some control for a wider base of creativity. The financial results, an $800 million debt load erased and global leadership of the toy industry regained, followed from that choice rather than preceding it. Executives who study LEGO should focus less on the bricks and more on the governance: clear rules for participation, tangible rewards for contributors and a willingness to let customers shape the roadmap. That combination, more than any single product, explains why the brand remains relevant nearly a century after its founding.