



Better together: How co-innovation
is driving success for startups

From smartphones and cloud computing to ride-sharing services and electric cars, disruptive technology is changing the way we live – and nobody understands disruption better than startups. Whether they're independent entities funded by VCs or emerging companies within the walls of a large corporation, startups recognize the power of technology to solve problems and improve lives, and they have been instrumental in challenging the status quo and shaping our society.

But startups can't be expected to do it all alone. Lean operating budgets and a need to move quickly demand that these organizations make efficient use of their limited resources – and that means not “reinventing the wheel” when it comes to their underlying tech. By working with the right partner who can provide the right resources and expertise at the right time, startups are free to focus on what matters most: bringing their innovation to market.

Joining forces to drive disruption

In a world where technological expertise is so specialized, businesses can sometimes struggle to innovate on their own. That's where **co-innovation** comes in. Co-innovation occurs when companies collaborate to develop a solution for the market. By sharing knowledge across organizational boundaries and utilizing each participant's unique strengths, these partnerships can realize a vision that neither could have achieved alone.



Why would a company co-innovate?

Imagine you're the CEO of a traditional automaker. You know that autonomous vehicles are the future, so you decide your company needs to start developing a vehicle with driverless technology. There's only one problem: while your company may excel at manufacturing cars, it has no experience building and designing the specialized technology required for autonomous driving. So, what happens when you realize you need to incorporate, for example, advanced sensors into your autonomous car's design?

You could work on **developing the technology yourself** from scratch, which would allow your company to custom design it to your exact specifications. But this would require a significant investment of time and resources: you'd need to retrain existing staff, or hire new talent with expertise in sensor technology; you'd need to research and develop your own products; and you'd need to figure out how to manufacture that sensor at scale. All in all, it's not an efficient option, especially when advanced sensor technology already exists on the market.

You could **purchase from a supplier**. This would save on R&D and manufacturing costs, but your company would still need to determine what kind of sensor tech it needs and how best to integrate an off-the-shelf product into its vehicles. Without sensors engineered specifically to meet your vehicles' requirements, the results might be substandard. And what happens if your supplier has a challenge meeting your overall demands or your quality standards?

That leaves us with **co-innovation**. In this scenario, you'd join forces with a company that specializes in advanced sensor technology in order to engineer a solution together. By collaborating with another organization, you're able to develop an autonomous vehicle more quickly, efficiently and cost-effectively than if you had attempted to do it all yourself.

How does co-innovation work?

Like any good partnership, co-innovation relies on trust and transparency. Collaborators must be aligned in their goals from the outset, and this means having a detailed understanding of what each company is trying to achieve.

Typically, a company would seek to co-innovate when the solution it's pursuing requires expertise or technology that is outside its wheelhouse. Co-innovation is especially attractive to companies looking to incorporate cutting-edge technology into their solution where an off-the-shelf product either won't suffice or doesn't yet exist.

For example, let's say a design engineering company is developing a solution that requires an audio sensor with the ability to detect frequency ranges between 0 and 2,000 hertz. The startup's engineers identify a microphone on the market that's able to detect frequency ranges of 20 to 1,200 Hz – not exactly what they need, but close. The startup might then approach the manufacturer and see if they'd be open to co-innovating.

If the manufacturer agrees, the next step would be for both companies to sign a mutual non-disclosure agreement (NDA). This protects both companies' interests: the startup can share details about their go-to-market strategy, and the manufacturer can share their roadmap of technologies that are currently in development.

Once the companies understand each other's goals and capabilities, they can determine if it's a good fit. What problem is the startup trying to solve, and can the manufacturer help them solve it? From there, they collaborate to design a solution. In the end, the startup gets the component they're looking for, and the manufacturer gets a practical application for their technology. Everyone wins.

Co-innovation and startups

By nature, startups are lean. Their focus is on attacking a problem and providing a solution to the market. While they may be creating a product or service that *requires* a specific technology, they likely don't have the time or the resources to develop that technology themselves – much less manufacture it.

This is where startups can really benefit from a strategic partnership with a larger and more established tech company. Here are some key advantages to this arrangement:

1. Strong industry and technical knowledge

Established companies can generally offer a wealth of knowledge about a particular industry, gleaned from years or even decades of experience working in the space. As a result, they can provide market insights – and foresee potential future challenges – that the startup may not have considered.

Many large tech companies can also tout a deep bench of engineering and technology to draw from, in some cases spanning many industries. Rather than developing technology specific to a market, many large tech companies are developing core technology that can then be applied to multiple markets.



This wide breadth of technical expertise enables them to accelerate the development of technology faster than others.

2. Custom-designed solutions

Knowledge-sharing is a key aspect of co-innovation that differentiates it from a typical supplier-customer relationship. After all, if your tech supplier doesn't know what you need the part for, how can they ensure that their technology is being properly utilized?

A partner that understands your business model and knows what you're trying to achieve can bring far more value to the table than a traditional supplier. First, they may be able to offer a custom solution that suits your needs better than anything currently available "off the shelf." When a company sees that there's a market demand or application for a specific technology, it can modify its roadmap to accelerate development of tech that's currently in R&D.

Second, a partner can bring new ideas to the table. Because an established company understands their core technology so well, they have unique insights into what works and what doesn't. They might have suggestions for how to improve a product based on your goals and objectives, or they could propose alternative solutions if there are concerns about cost or timing.

3. Ongoing improvements & support

Successful co-innovation results in a long-term partnership that's built on trust and respect.

When companies jointly create a product from the ground up, it makes for a smoother and more efficient development process. The startup provides iterative feedback that helps the established supplier improve its tech and design each new generation of that tech with the startup in mind. The startup is then free to focus on its end-user while the established supplier continues to improve their technology.

Additionally, working with an established company mitigates some of the risk involved in creating a new product. If there are issues with a component 10 years down the road, the startup can reasonably assume that the supplier will still be around to provide support.

4. Manufacturing at scale

Many well-known brands are eager to collaborate with cutting-edge startups on innovative projects. Yet startups are often reluctant to pursue such partnerships, fearing their own operations are too small and too low volume to be of interest to an established company. Instead, they'll engage with a less experienced, smaller supplier – and end up running into problems when it's time to scale.

The right tech partner can help a startup go from collaborative design to prototype and all the way through mass production because the infrastructure is already in place. And plenty of companies are hungry for the opportunity to be a part of this process from the beginning, even if it means starting small.

As partners, you're in this together – and thus deeply invested in each other's success.

Co-innovation in action

A promising Silicon Valley startup partners with a global technology leader to take its products to the next level

Tropos Motors is a startup that manufactures and distributes all-electric vehicles, with a focus on low-speed commercial (eCUVs). These vehicles are designed for utility and versatility while keeping environmental concerns and safety at the forefront, and their applications range from emergency services to facilities, agriculture and last-mile cargo delivery. The startup is drawing attention from public and private fleet owners alike as they look to reduce operation and maintenance costs and diminish their environmental footprint.

To help take its ABLE™ eCUV line to the next level, Tropos partnered with Panasonic, a global leader in automobile electrification and energy storage systems. The two companies have teamed up to co-innovate the vehicle's capabilities and features.

"Panasonic is working together with Tropos Motors to address the needs of businesses that depend on small commercial vehicles with the right mix of technologies and electrification solutions that also add societal value by providing cleaner alternatives," said Scott Morrison, Director of Advanced Engineering at Panasonic Automotive. "If you can have a vehicle that has all of the capabilities of a larger truck, but in a smaller package, that is what makes it more appropriate for the job. It is not about down-sizing. It is about right-sizing."

For Panasonic, this partnership creates an opportunity to improve on existing tech through real-world testing and iterative feedback.

"One of the things that we bring to [Panasonic] is the ability to take their technologies and put them into practical applications very quickly and very efficiently," said Tropos CEO and founder, John R. Bautista III.

In turn, Bautista believes that co-innovation with an automotive leader will enable Tropos to bring advanced levels of connectivity, efficiency, and performance to their ABLE™ vehicles. "Any benefit that we can get reaching into [Panasonic's] vast resource of technology ... is going to reap great benefits."



Moving forward together

At first glance, it might seem as though established suppliers and startups couldn't be more different: startups want to disrupt existing markets, while many traditional companies devote considerable resources towards iterating on what's already working. With each organization focusing on its own goals and priorities, how could these distinct entities ever manage to form a lasting partnership?

Yet not only have such collaborations proven to be successful – they may actually be the secret to sustainable innovation. When new startups and reputable technology companies unite in common purpose to achieve a bold vision, they can develop solutions that change the world.

