

Innovation Means Taking Insights to Outcomes



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This is the second of a two-part article on how to create the habit of innovation within an established organization.

As described in [Part One](#) of this article, we're taking the lead on innovation at Navistar. In fact, we were named as one of **Fast Company's Best Workplaces for Innovators**, which speaks to our focus on applying design-thinking to support our customers' business goals.

It's an awesome and exciting transformation, and I am discovering new insights every day. That's the focus of this article. As my team interacts with the various groups that actually deploy innovative concepts in the real world, certain fundamental truths emerge. Key among these is the foundational notion that it's not up to one group to magically transform an organization. Rather, the people within each discipline need to adopt a design-thinking methodology. And this will only happen when leadership makes it clear that the mandate for innovation, which comes from the marketplace, is one they are ready to invest in, promote and reward. This has been key at Navistar.

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Innovation is a business vision.

Navistar has announced to the world its intention to leapfrog our way to leadership positions in zero-emissions transport solutions. How can we hope to drive this kind of transformation through such a big organization? One person at a time. The will to innovate requires personal conviction; then cultural adoption follows. In my experience, if leadership inspires the vision, and teams can prove what's possible, it all falls into place.

Our *ignite!* initiative is endorsed at the highest levels of our organization but is spreading like wildfire at a grassroots level because the platform for growth is there.

Our opportunity, as innovators, is to collaborate with like-minded group leaders who can't wait to get started. We like to work with departments that have articulated the desire to take on specific, thorny challenges.

The truth is, the bigger the problem, the bigger the opportunity to innovate, and the more dramatic the results. For example, what's the most efficient way – considering time and resource management – to implement Manufacturing 4.0 innovations in some of our older plants. We collaborated with the head of Manufacturing and Logistics on a plan that empowers our workforce to better manage quality using digitized, networked, intelligent systems. It's all about keeping people connected, and for Manufacturing 4.0 that means giving workers on the assembly line real-time access to information specific to their workstation. It expedites running updates while protecting quality. Once we were able to showcase a solution with our collaborators in manufacturing, we were tapped by more leaders raising their hands and saying, *it's my turn*.



Innovations are solutions to rigorously defined problems.

Another of the chief principles that design-thinkers embrace is that they are rigorous about defining the problem they've been asked to solve. This may sound obvious, but when people tell you the problem they want help with, they are often telling you *their solution*. A designer responds with questions.

Here's an example. When someone tells a designer they need a big ladder, they are describing one of a thousand possible solutions to the actual problem – which most likely is something as basic as, *we need to reach something*. Any good designer will demand more data. They need to understand the nature of this out-of-reach thing. A designer would seek to observe the user in the context of their need. They would interview potential users to confirm the pain point being addressed. And they would seek to experience as closely as possible what the user does to gain empathy for the user's need. From this, the designer can start to gain insight to the problem.

When we have all available data, and understand the true nature of the problem, we can begin to think about the solution. That solution might be as simple as finding an apple box that people can stand on to reach an upper shelf. Or we may need to design software to drive a giant, autonomous robotic arm. Innovations only matter if they solve real problems in ways that bring more value than whatever came before.

Innovation is a numbers game.



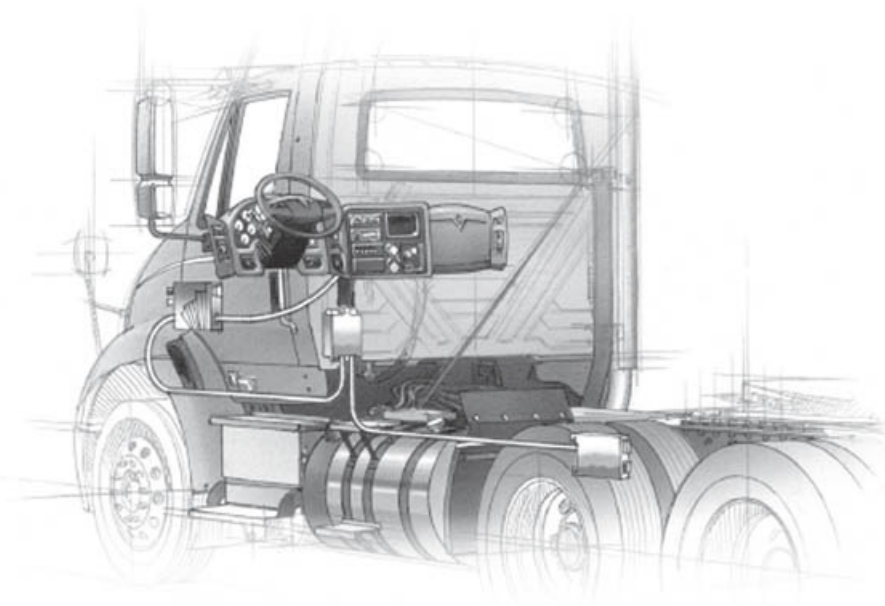
One of the design principles that I endorse and insist on is iteration. I tell people that it takes one thousand ideas to find the one right idea. Each new idea should be tested, expanded upon, revised, rethought, resketched and challenged. And the truth is, I may not know a great (relevant) innovation when I see it. But our customers will. Our partners at Stanford have taught us a saying, “No good idea survives first contact with a customer.” So, we need to find ways to get things in front of them, listen to their input, and iterate some more. Not only will this approach help vet ideas so that the true (useful) innovations rise to the top, but it also saves priceless resources that might otherwise be wasted on chasing the wrong solution.

Innovation scales.

This tees up another thing about innovation that, in my world, is invaluable. Today, the tools of technology and IT systems have advanced to the point that, in small incremental ways, we can create new systems and try them out in real-world settings. For example, we're currently implementing a solution with a group of truck customers and our dealers that is essentially a service appointment scheduler. This is not earth shattering, right? But on one single platform, it brings together all the relevant data that Navistar, our dealers and customers have related to optimizing the service schedule. It is laser focused on a single challenge.

By focusing on one critical touchpoint - getting trucks in and out of service with minimal hassle - we've learned so much and, importantly, established a living laboratory for further learning.

Conversely, if we'd started big - trying to solve for *every possible customer touchpoint* - we'd still be defining the problem. Instead, we've been able to tweak features and add incremental capability while being good stewards of our resources. All while building data that allows us to improve the service and expand our reach. The lesson here is simple - start small, learn, iterate, and scale up.



Innovation is a source for new revenue streams.

Ultimately, the point of innovation in business is to better serve the stakeholders while growing new revenue streams. Take the example I just described. We were able to help customers schedule service in a way that optimizes their uptime (because we have predictive data). Applied across their fleet, they realize additional savings in operating cost, which gives them a fresh reason to value the responsiveness of our dealers. And as dealers increase their service throughput (because the scheduler is smart and connected to our parts and service database) they become more profitable and place more trust in the relationship with Navistar. And when that happens, we not only increase short-term parts sales, but improve long-term dealer and customer repeat business. We have observed that more and more customers bring not only Navistar trucks, but other brands into our dealerships because they love this service.

At some point, we may scale this little project up and develop it as a new Navistar-branded software product. But right now, our people are focused on finding new solutions to our customers' pressing problems. That, as I said at the outset, is the mother lode of innovation.

Innovation is connection.

In my experience, innovation tends to involve connections. Connecting people. Connecting ideas. Connecting data points. Connecting the tech tools that help us design solutions. At Navistar, people are connecting around a sense of purpose.



We are focused on finding new ways to deliver the things that matter most to our stakeholders, whether that's employees, customers, or the planet itself. If we think in terms of life-centered design, we have to think in terms of connectedness. That means we can't externalize things that have a downside – like greenhouse gases. We need to own that as part of our big-picture plan.

Data analysis is key to making meaningful connections – to pinpointing the relationship between a customer need and a product or service opportunity. Currently, we collect data off our trucks something like every 15 seconds across approximately 150 different attributes. That's a lot of data, but it's not enough. We want to get to the point where we are processing a constant stream of data across thousands of attributes. That way, we can write crazy-smart AI algorithms that connect data in ways that bring unimagined benefits to our dealers and customers. We're not there yet, but that's where things are going. Innovation is just waiting to happen.

Finally, I should point out that as we solve problems, we build trust with those we serve. That's a vital connection. Considering the transformation underway in the world of commercial truck retailing, and the unprecedented business shift required to sell and service zero-emissions and autonomous vehicles, we must foster mutual understanding and cooperation.

To have a bank of trust means people have confidence in the process of innovation.

Our design thinking training program (using IDEO University) has already graduated six classes and has over 100 certified graduates. Each of these employees are ambassadors and mentors for innovative thinking. The confidence and trust they inspire goes a long way towards advancing the transformation before us, and the exciting innovations that will make it possible. Ultimately, our ability to be curious, to imagine and explore, comes from a place where it's safe to take risks.

In this sense, we must begin with the understanding that innovation is grounded in trust.