SPIGIT®

CROWD POWER:

HOW CROWDSOURCED INNOVATION IS TRANSFORMING MANUFACTURING

The manufacturing industry is no stranger to innovation.

Henry Ford ushered in a new age of mass production in 1913. Jet engines became a reality in 1942. IBM developed the first programming language in 1954.

Manufacturing has, and will continue to have, a history full of innovations.

But transformation is happening. A new era of innovation is upon the industry and it affects manufacturers in every corner of the world.

The Internet of Things, robotics, virtual reality, and other innovations that have been developed in the past 5-7 years have caused manufacturers around the globe to rethink how their businesses operate long-term. This is a critical action if they want continued success.

On the surface, it can seem like a daunting task trying to figure out how newer technologies influence and improve operations and factor into an overall strategy. And with goals like improving operational efficiencies, decreasing costs, and increasing margins always on the minds of manufacturers, it's easy to fall into paralysis by analysis.

Luckily, manufacturers have a resource that can not only offer guidance on technology implementation but also find new ways to bring value to their business and customers. The best part? It's readily available.

What is this resource you may be wondering? Read on to find out.

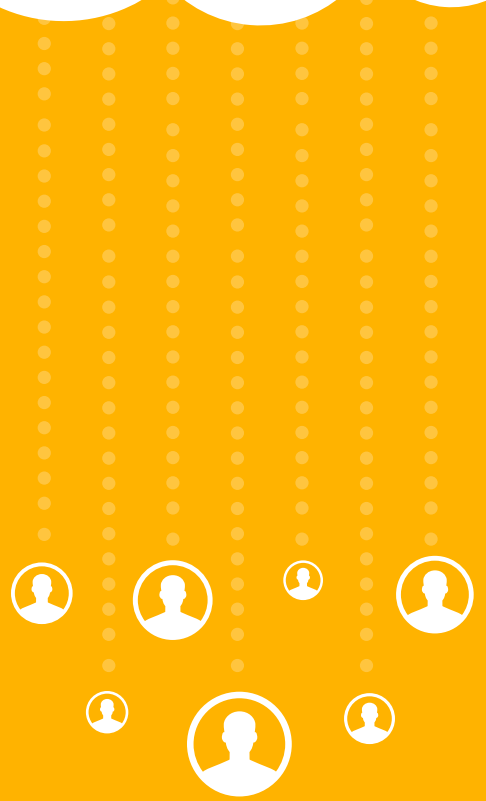
In this ebook, we'll take a closer look at the changing landscape in manufacturing. More specifically, we'll cover:

- **The rapid changes occurring in the industry**
- **The one resource every manufacturer has that will transform their business and how to tap into it**
- **How leading innovators in manufacturing are adopting and benefiting from crowdsourced innovation**

Are you ready? Fantastic. Let's get started.

"Crowdsourcing will give an organization more bang for its innovative buck"

– Gartner



The rapidly changing manufacturing industry

Fact: technology is fundamentally changing how manufacturers operate.

In an industry that historically has relied on manual labor, technology has introduced new possibilities.

The use cases for these technological advances are seemingly endless.

However, with opportunity comes challenges. One challenge that Forrester Research points out is the pace at which technology is moving, which few can keep up with on their own, "Technology, products and services, and markets are changing ever-faster, and few organizations can keep pace alone. They must quickly leverage the business ecosystem to adapt and survive."

What does "leverage the business ecosystem" mean you may be wondering?

It means tapping into the one resource all manufacturers have readily available: people.

3D printing
to develop ideas faster, save money, and prototype easier

Nanotechnology
to create faster, smaller, and more portable systems that can store vast amounts of information

Virtual reality technology
to get a first-person perspective of a vehicle's design and functionality before manufacturing it

Whether it's employees or third party sources like supply chain partners, manufacturers have access to expertise. With this expertise come ideas that can bring value to both business and customer.

Turning to employees, or any crowd of people for ideas, is known as crowdsourced innovation. And some of the most admired manufacturing brands in the world are adopting this practice.

The timing couldn't be better.

In a study about innovation in manufacturing, PwC stated, "To meet their growth targets and start to catch up with the top innovators, we believe industrial manufacturing executives will need to define or refine a solid innovation strategy."

The study goes on to say, "The sector's [manufacturing] most innovative companies grew 38% over the last three years—nearly 12% per year—while the least innovative managed just 10% growth over the same period."

Ultimately, innovation has to be on every company's mind. And with 92% of industrial manufacturing executive agreeing that innovation is important for future growth, It can't be just an afterthought.

John Dulchinos, Vice President of Global Automation at Jabil, says it best, "We are on the verge of what will be a revolution in manufacturing."

92%

Of industrial manufacturing executives agree that innovation is important for future growth.

– PwC

A Closer Look at Crowdsourced Innovation

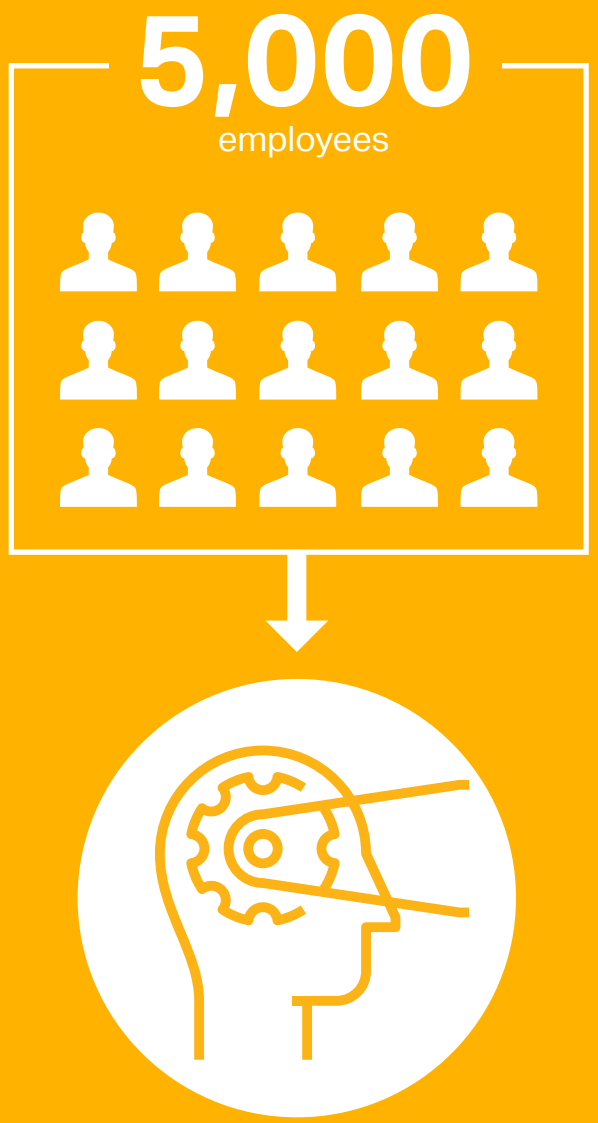
Before we dive into specific industry examples, let's take a closer look at crowdsourced innovation.

First, why is it valuable?

Imagine, for a second, your company makes auto parts and has 5,000 employees working in a plant. That's 5,000 people that know your supply chain and customer needs, operations, and other key factors that keep the business moving.

If you're looking to find and implement innovative ideas for cost savings, process efficiencies, or risk mitigation, wouldn't these employees provide a great resource for ideas? They offer an unparalleled bank of knowledge and expertise.

You don't want to miss out on the opportunities that are just sitting there waiting to be discovered.



This is why crowdsourced innovation is powerful. It's the vehicle that enables employees, in this example, to share their ideas and collaborate with the entire company to drive value for the business and customer. And for executive teams, it allows them to uncover ideas that would've otherwise remained undiscovered from the people that know their business best.

Sourcing ideas is just one component in the overall innovation equation.

What about refining and developing the ideas, and then bringing them to market?

To manage the entire process, innovation management software is quickly becoming the go-to solution being adopted by manufacturers around the world.

What does innovation management software do?

It utilizes crowdsourcing to enable you to organize every stage of your company's innovation process, from generating ideas to bringing them to market, maintaining a competitive edge that drives business results.

Ultimately, innovation management puts you in a position to take action when great ideas reveal themselves.

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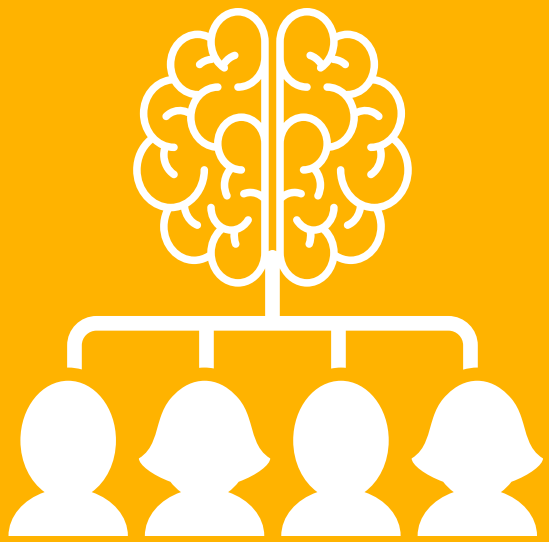


Innovating with crowds

By now you realize just how quickly the manufacturing industry is transforming thanks to things such as:

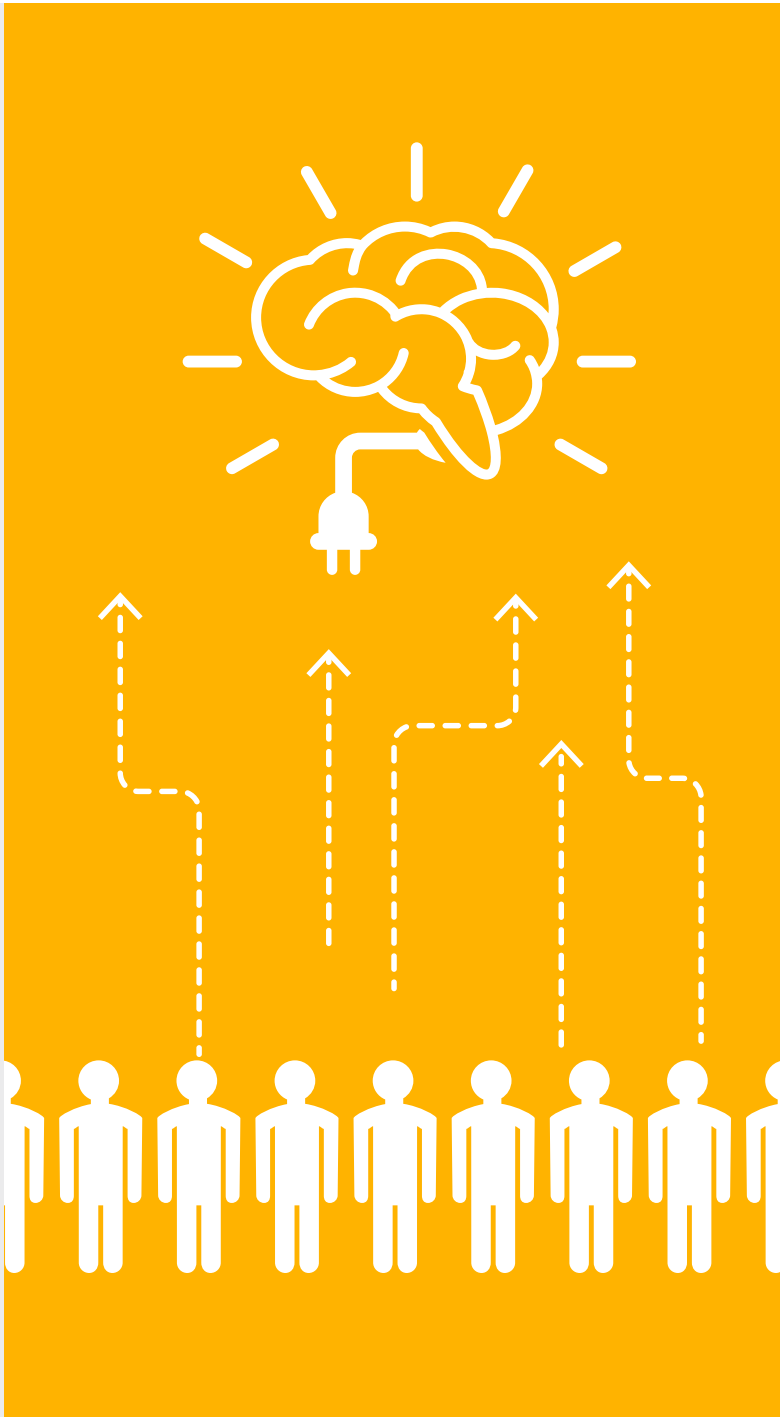
The Internet of Things

Cross industry co-creation

Automation

You've also heard that manufacturers are turning to crowdsourcing to find ideas and using innovation management software to manage the entire innovation process, surfacing new ideas on how to increase efficiencies, identify new products and markets, and identify risks and failings early.

Now, here are specific examples of companies using crowdsourced innovation to solve hard problems and get ahead of competition.



Polaris:
Taking on Goliath

Who is Polaris?

Polaris is an American manufacturer of motorcycles, snowmobiles, ATVs, and neighborhood electric vehicles based in Minnesota.

Do you know the story of David versus Goliath?

Polaris is in the same industry as juggernaut Harley Davidson, which is one of the most recognizable brands in the world and the proverbial Goliath in the industry.

Competing against a company like Harley Davidson can be tough to put a dent in the market. Many have tried, but the popularity of the brand makes it an uphill battle.

However, Polaris knew something that other companies in the industry didn't know – or at the very least didn't pay much attention to at the time.

Like many manufacturers, Polaris created an innovation program with the end goal of identifying new products and market opportunities. But they understood one very important step to achieving this outcome: tapping into their employees' expertise was going to be crucial.

Through their innovation program, which is powered by Spigit, Polaris released several phenomenal vehicles including:

A new breed of three-wheeled motorcycles, the Slingshot, that has been compared to the Batmobile

The industry's first electric motorcycle (beating Harley Davidson to market)

In total, the company has released four award-winning vehicles through their innovation program.

While their vehicle line is remarkable, it's the way the original ideas came to light that's most noteworthy.

Each vehicle was a vision from the mind of a Polaris employee. Not the executive team. Not an outside consultancy.

And because idea sharing was encouraged, employees had the confidence and tools to collaborate with colleagues to develop ideas to a state where they could be taken to market.

The story gets better...

The simple act of empowering employees to be internal entrepreneurs helped propel Polaris into the spotlight right next to Harley Davidson. And at times, leapfrogging the industry's Goliath.

Today, Polaris is considered an industry innovator. And they've found ways to continue bringing value to their business.

For example, reducing the time needed to go from idea to implementation by 80%.

Their innovation program has been instrumental in getting them to this point. And it's all thanks to the realization that innovative ideas were sitting right under their noses. They just needed a way to uncover them.

Key takeaway:

There's a very important lesson in this story.

1

For companies to succeed in the modern age, there has to be a sense of transparency and encouragement from executive teams when it comes to sharing and incubating ideas.

2

On one hand, encouraging employees to share ideas is a fantastic initiative. But if you're not doing anything with those ideas, that's when you start wasting time and resources.

Siemens: Solving the toughest traffic challenges

Who is Siemens?

Siemens is a worldwide leader in resource-saving technologies like offshore wind turbine construction and combined-cycle turbines for power generation, a major provider of power transmission solutions, and a pioneer in infrastructure solutions and automation.

Traffic. Anyone who has ever driven a vehicle or been in one when everything comes to a sudden halt will say the same thing, they hate it with a passion.

Besides being downright frustrating, traffic brings on a whole host of other issues, including increases in carbon dioxide and higher rate of accidents – and it's a problem that is encountered by people around the world.

Recognizing the need to find new ways to tackle these challenges, Siemens decided to find solutions. But they took a different approach to uncovering ideas.

Siemens quickly understood that in order to increase the chances of finding innovative solutions to traffic problems, they had to go beyond their four walls, despite having a robust R&D department. So, they called on the people who knew the pitfalls of traffic first hand for input – the public. And not just in a certain region, but globally.

To take advantage of the ideas the public had around solving traffic problems, Siemens created the Mobility IDEA Contest using Spigit.

The idea behind this was to enable anyone to easily share their ideas and collaborate on existing ones to make improvements. Their goal was to find creative solutions to five major challenges in the traffic industry, including:

Decreasing carbon dioxide

Reducing congestion in downtown areas

Finding new ways to address the impact of parking

Siemens created a process and platform to surface ideas from professionals, students, and the general public around the world. They then encouraged crowd collaboration to refine the ideas down to a shortlist for implementation.

In the end, a panel of internal experts listened to idea pitches and chose three finalists, each of whom were students who brought unique ideas to the table - such as building an infrastructure to support self-parking autonomous vehicles and using quadcopters to find the shortest routes.

With 30% of downtown traffic being created by people looking for parking, Siemens decided to prototype the idea that could make an impact immediately: using quadcopters to monitor and identify open parking spots.

Ben Collar, Director of R&D, Siemens Mobility, Intelligent Traffic Systems, reacted to having students as the three finalists, "Having all three winners of this first contest of its kind at Siemens come from the university level only further proves the importance of developing the great minds of tomorrow to help solve our most pressing challenges."

Key takeaway:

1

Great ideas can come from anyone. The Siemens story is a perfect example of this.

2

Siemens could've easily stayed within their four walls trying to come up with ideas. But they realized how ineffective this was when it came to something virtually everyone in the world interacts with on a daily basis.

3

They understood that in order to make an impact globally, you have to enlist the help of people around the world. With the Mobility IDEA Contest, they achieved this.

Conclusion

As technology accelerates the pace of transformation in the manufacturing industry, manufacturers have to adapt to stay ahead.

The best way to do this is to use the number **one resource they already have: people**. Their collective expertise is the catalyst that brings change and business results.

There could be a million dollar idea sitting in the mind of an employee. The last thing you want from a business perspective is to have that employee leave and start his or her own company because you didn't take action.

As innovators like Polaris and Siemens continue using crowdsourced innovation as the foundation of their innovation efforts successfully, more manufacturers will follow suit in order to drive business value and stay ahead of the innovation curve.

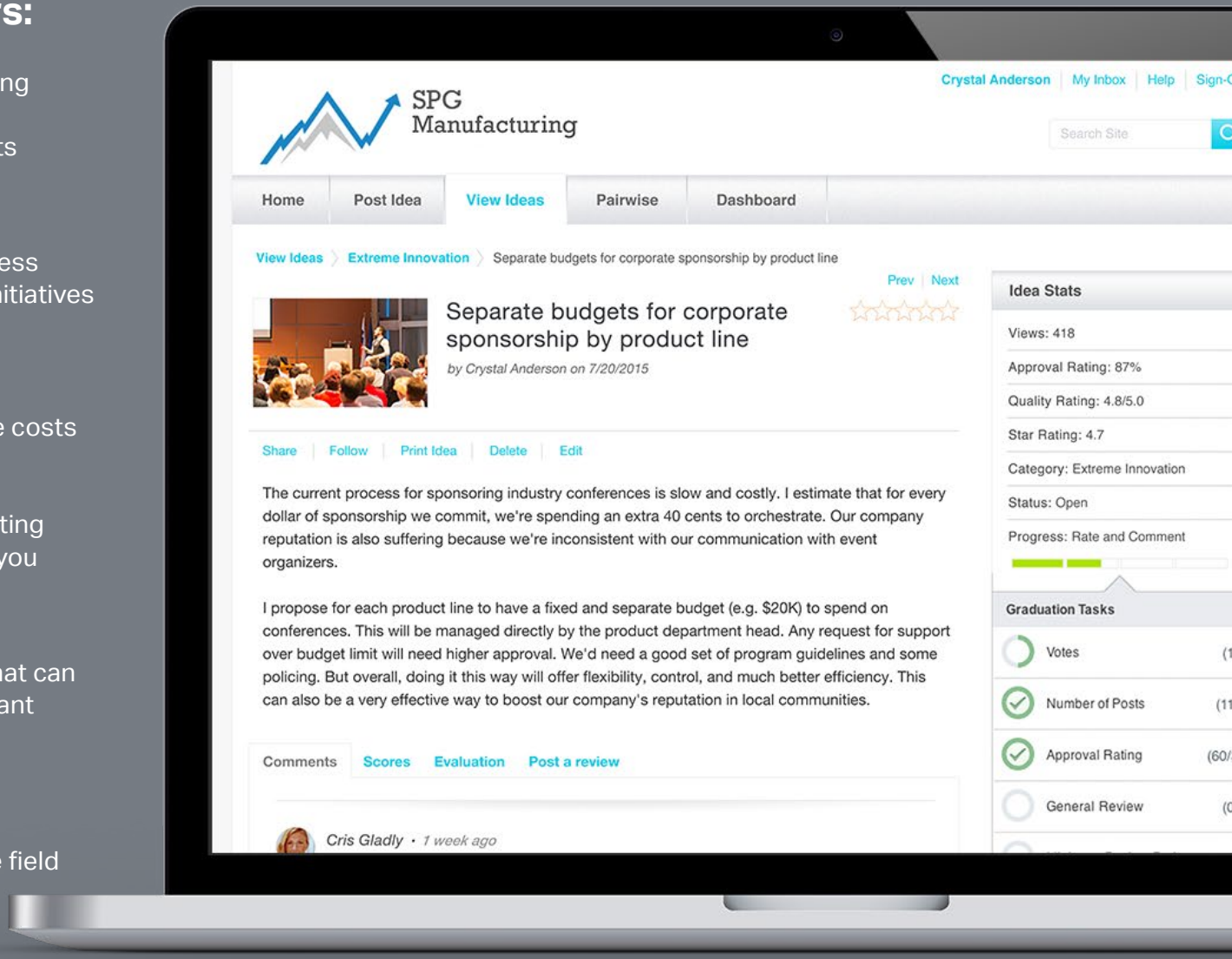
The question is, will you?

Spigit Innovation Management Software

Spigit crowdsourcing software for innovation management enables manufacturers to draw on the skills and expertise of employees, supply chain partners, and customers in order to solve and execute upon business demands and create significantly better results than are typically found by individuals or small teams. Spigit customers leading innovators in manufacturing including Polaris, Siemens, Great Dane Trailers, and many more.

Spigit helps manufacturers:

- Increase margins by co-creating with employees to generate stronger value-added products
- Improve operational and cost efficiencies by powering process improvement programs and initiatives (e.g. Six Sigma, Lean, Kaizen)
- Uncover new ways to improve process efficiency and reduce costs
- Avoid costly mistakes by spotting and acting on ideas that help you "fail earlier"
- Identify the internal experts that can make an impact — whether plant workers or office staff
- Innovate everywhere — in a warehouse, plant, or out in the field



About Spigit

Spigit is the market leader in innovation software for the enterprise. Spigit has powered innovation and process improvement for large enterprises in industries including financial services, manufacturing, healthcare, and energy. Spigit's cloud software enables organizations to engage their employees, customers, and partners to invent new products, optimize processes, and build cultures of innovation. Global companies who partner with Spigit have already generated over $1 billion in increased revenue and over 200 patents. Spigit's proprietary automation, patent-powered algorithms, and highly configurable, secure, and multi-lingual platform makes Spigit the only solution that will scale seamlessly across the enterprise. Spigit is headquartered in San Francisco with offices in the USA, UK, France, Germany, and Australia. Learn more at www.spigit.com.

Learn More About Spigit