

2015 Manufacturing &
Distribution Monitor Report

Investing for growth and innovation



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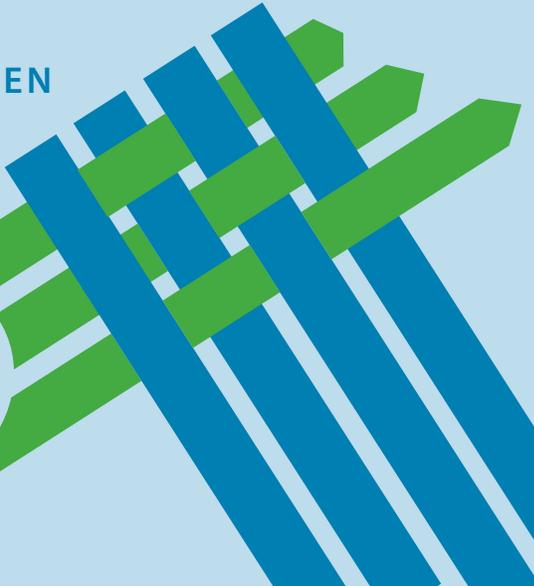
This change will accelerate our vision to be the first-choice advisor to middle market leaders globally.

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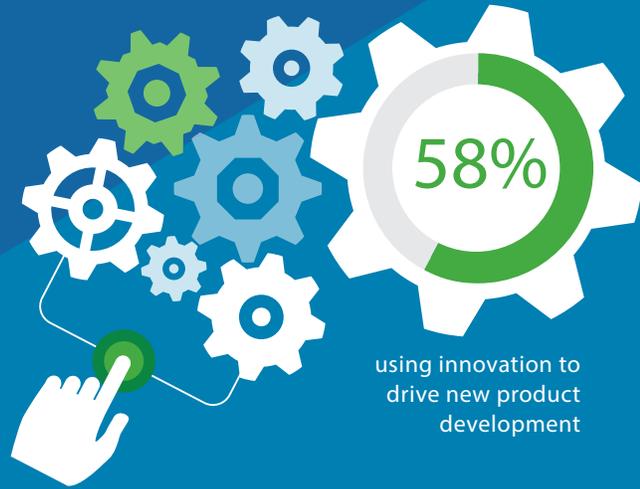
OVERVIEW OF FINDINGS

INNOVATION WOVEN INTO COMPANY CULTURE

41%
of thriving companies have a strong innovation culture



NEW PRODUCT DEVELOPMENT



FORMALIZED PROCESS IS KEY

More companies with formalized process to drive innovation are thriving.



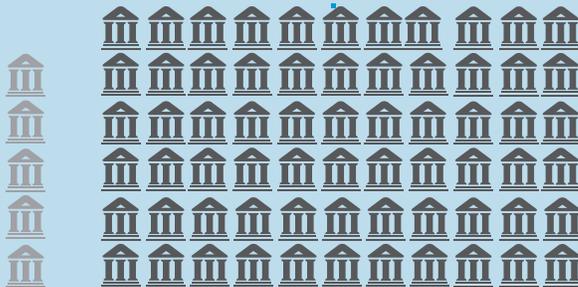
100%

of thriving Asia-Pacific manufacturers report some **FORMAL MEANS OF DRIVING INNOVATION** in their companies

INSTITUTES DRIVING INNOVATION

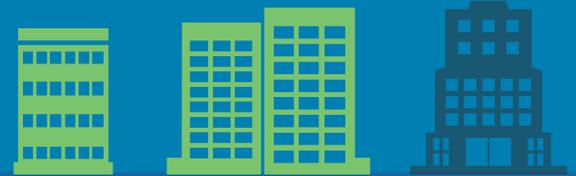
Number of advanced manufacturing institutes:

5
coordinated by the U.S. National Network for Manufacturing Innovation

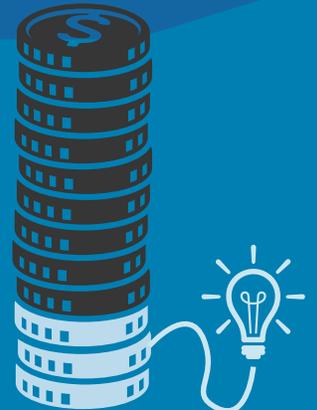


66 coordinated by Germany's Fraunhofer Society

SPENDING ON INNOVATION

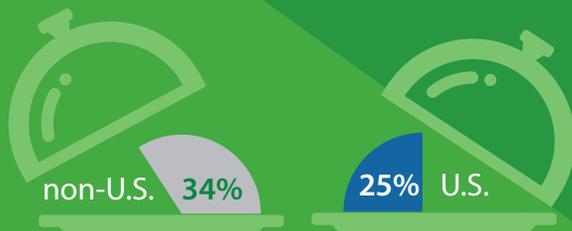


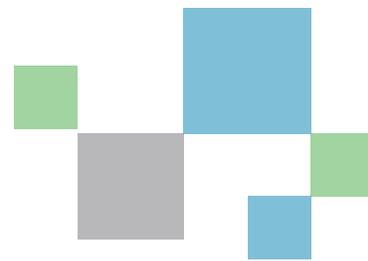
TWO-THIRDS of all companies surveyed will invest **NO MORE THAN 25%** of total plant and equipment spending on innovative enhancements.



INNOVATIVE SERVICES

Percent of companies that use innovative services as a tactic





Innovation as a strategic imperative

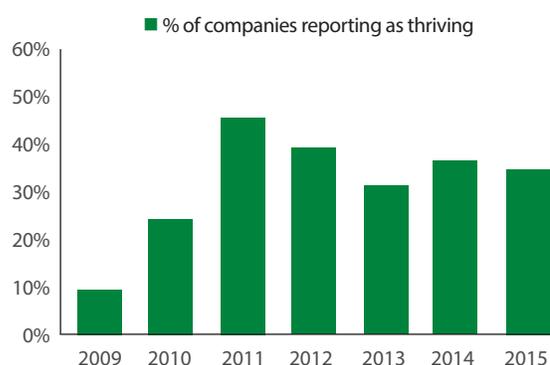
For years, many U.S.-based manufacturers have operated under the belief they have the world's most innovative technologies, processes and programs. However, findings in the 2015 McGladrey Manufacturing & Distribution Monitor survey illustrate that U.S. manufacturers and distributors trail their global counterparts in many key areas that fuel innovation and, in turn, business growth. These areas include confidence in protecting and growing foreign market share, strategic planning, formal processes to identify emerging technologies or drive innovative activities, and taking a broad-based approach to innovation investments.

This report is part of a series taking an in-depth look at how manufacturers and distributors are investing their time, efforts and resources in global growth, innovation and information technology. In particular, this report examines notable innovation-related highlights from the 2015 Monitor.

There were 1,660 respondents to the 2015 Monitor survey, which was conducted in March and April 2015. Participants were primarily C-level executives from chair to chief information officer, most of whom (65 percent) were at companies based in the United States; the remainder were from companies based throughout Asia, Europe, Brazil, Canada and Mexico.

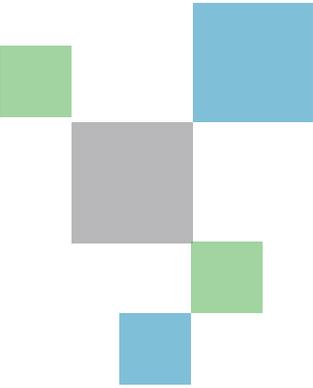
After a brutal recession that hammered both the United States and global economies, manufacturing has become one of the bright spots in an otherwise-sluggish U.S. economic recovery, adding back about 800,000 jobs by early 2015.¹ However, that recovery has been on an uneven path. In 2011, for example, 45 percent of U.S. companies in the Monitor survey reported they were thriving. But that confidence level fell during the next two years, and has remained relatively flat since 2014 (Figure 1).

FIGURE 1. U.S. thriving companies year over year



In fairness, U.S. manufacturers are facing a variety of long-term headwinds, including currency manipulation, trade policies, regulatory issues, and an ongoing need to attract and retain younger workers. More recently, a strong dollar has slowed the growth of U.S. manufacturing exports in foreign markets.

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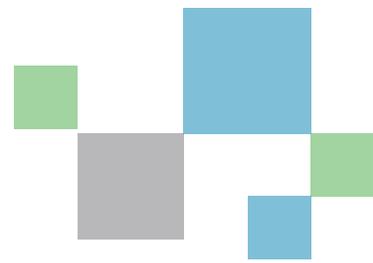
These themes signal the urgent need for fresh, innovative thinking about manufacturing's role in the overall U.S. economy. Where can that begin? Consider the following:

- **Build effective partnerships to fuel manufacturing innovation.** A sound step in that direction occurred last year, when President Barack Obama signed into law the Revitalize American Manufacturing and Innovation Act.² This public-private partnership will attempt to harness a nationwide network of manufacturing innovation institutes, with the goal of boosting development and commercialization of cutting-edge ideas in advanced manufacturing.
- **Take a more holistic view of innovation.** According to the 2015 Monitor, thriving Asia-Pacific-region companies do the best job of spreading their innovation spending across a broad range of investment categories—not just a handful of sales, marketing or product development pockets. While

trailing their Asia-Pacific counterparts, thriving European manufacturers reported more broad-based innovation investments than peer companies in the United States and Latin America. Clearly, this suggests U.S. manufacturers should take a closer look at return on investment for driving innovation in non-traditional areas, which may include customer service, delivery and logistics, regulatory compliance and cybersecurity risk mitigation.

On the global stage, the Monitor survey shows U.S. manufacturers and distributors have arrived at an important pivot point, at which leaders must move from seeing innovation as an isolated research and development function to a holistic imperative that encompasses all aspects of the enterprise. By “upping the game” in this way, U.S. manufacturers can take a big step forward in the race to drive productivity and profitability.

Disparities between U.S., Non-U.S. companies

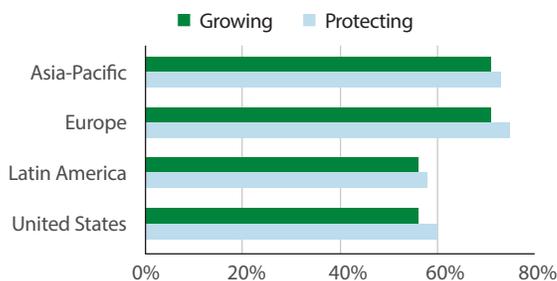


U.S. leaders uneasy about protecting and growing foreign market share

While both U.S. and international business leaders express strong confidence in their ability to protect and grow their domestic markets, U.S. and Latin American executives are significantly less optimistic about their prospects for international market share. In fact, just under 60 percent of U.S. and 58 percent of Latin American manufacturing leaders say they are very or somewhat confident about protecting nondomestic market share (Figure 2). That's well below the confidence levels reported by European manufacturers (75 percent) and Asia-Pacific leaders (73 percent).

When asked about the prospects for growing nondomestic market share, the results were strikingly similar (56 percent of U.S. and Latin American executives were very or somewhat confident, as compared to 71 percent of Asia-Pacific and European business leaders).

FIGURE 2. Confidence in growing and protecting foreign market share



“Global currency trends are a significant reason why many U.S. manufacturing leaders may be less confident of protecting or growing foreign market share,” says Murat Tasel, a partner in McGladrey’s tax services practice. “The U.S. dollar has risen nearly 20 percent during the past year against the euro and Japanese yen and somewhat less against many other Asia-Pacific and Latin American currencies. The strong dollar is a drag on U.S.-manufactured goods, because it makes them more expensive for many foreign consumers to purchase.”

Recent export data supports this analysis. For example, the Manufacturers Alliance for Productivity and Innovation says the strong dollar is the main cause for a mere 1.5 percent projected rise in U.S. manufacturing exports this year, well below the 3.2 percent jump recorded for 2014.³

Gaps in strategic planning and innovation

Surprisingly, just 40 percent of U.S. manufacturing and distribution executives participating in the Monitor say their companies have strong strategic planning processes, well below the 55 percent of non-U.S. business leaders who are confident in this area. This gap persists in programs to identify new or emerging technologies, as non-U.S. companies lead U.S. manufacturers by 13 percentage points in this category (41 percent and 28 percent, respectively).

While the percentage of U.S.-based manufacturers reporting a strong culture of innovation was slightly higher than the full non-U.S. sample, 40 percent of Asia-Pacific manufacturing leaders say their companies excel in this regard. That’s slightly higher than the region-specific indices for the United States (38 percent), Europe (34 percent) and Latin America (27 percent)

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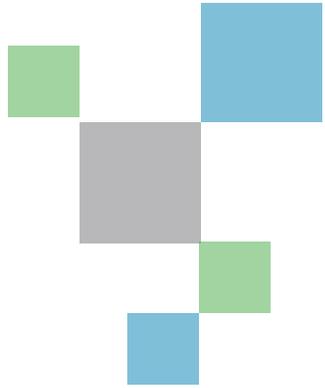
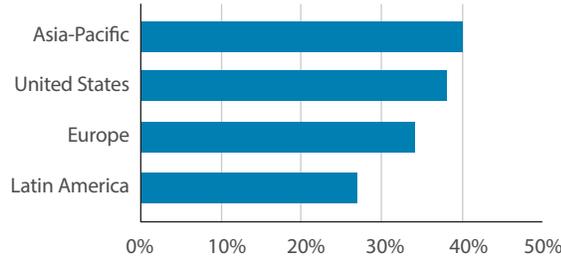


FIGURE 3. Companies with a strong culture of innovation



(Figure 3). In addition, 41 percent of thriving companies overall report a strong innovation culture, which is more than 8 percentage points higher than manufacturers who say they are holding steady or declining.

There may be a pair of reasons why Asia-Pacific manufacturers are leading the pack on innovative cultures. Since manufacturing businesses tend to be newer in that part of the world (when compared with Europe and North America), they tend to be more nimble and willing to invest in cutting-edge technologies and processes. And, when U.S. companies outsourced manufacturing functions into the region, those businesses often needed to find new—or innovative—ways to re-engineer financial, production and workforce practices in order to sustain the new requirements.

Taken as a whole, this data highlights an opportunity for U.S. manufacturing leaders to boost their commitment to strategic planning, which should include an analysis of how to build and sustain a robust culture of innovation. Since the Monitor data illustrates how thriving companies tend to have more defined innovation cultures, this type of strategic investment can pay dividends by identifying new ideas, driving them across the enterprise and setting appropriate metrics to measure return on investment.

Global innovation largely product-focused

The Monitor survey reveals a tight correlation between U.S. and non-U.S. companies on core practices used to drive innovation. At 58 percent, new product development is the most frequently used tool, easily outpacing new operations practices (38 percent), sales practices (33 percent) and marketing practices (32 percent) as paths to transformational change (Figure 4). However, the survey also shows that non-U.S. companies are much more likely to use new services as an innovative tactic (34 percent as compared to 25 percent of U.S. companies).

FIGURE 4. Formal processes used to drive innovation or transformational change



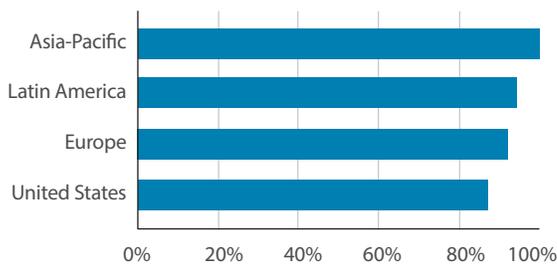
As an example, one box manufacturer worked with Pizza Hut and a large advertising agency to design the “Blockbuster Box” for a dinner and a movie experience. In this Hong Kong market promotion, Pizza Hut released four artistic pizza boxes, each with separate QR codes to stream a different movie via smartphone. After removing the pizza from the box and scanning the code, customers simply needed to remove a perforated

hole on one side of the pizza box, plug in a lens that came with the order, start the movie by positioning the smartphone behind the lens and close the box lid.⁴ This cross-promotion was a hit, and demonstrates the potential for manufacturers to extend their value proposition through helping customers fulfill new service offerings or promotional campaigns.

Strong linkage between formal innovation processes and business health

In the United States, slightly more than 83 percent of all manufacturers in the Monitor say they have formalized processes to drive innovation. That is modestly lower than findings for all global competitors (91 percent Latin America, 90 percent Asia-Pacific and 86 percent of European manufacturers). But a closer look at thriving companies suggests a solid connection between innovative activities and business vitality. For example, every thriving Asia-Pacific manufacturer in the Monitor survey indicated they have some formal means of driving innovation in their companies, marking a sizable 10 percent jump over the region's total sample. Meanwhile, the scores of thriving U.S., European and Latin American manufacturers who report having formal innovation processes went up by an average of 5 percentage points from their full regional samples. (Figure 5).

FIGURE 5. Thriving companies with formal innovation processes



Operational, IT investments seek to maintain, not transform

A strong majority of global manufacturing and distribution companies are focused on simply maintaining operational and information technology (IT) capabilities, instead of enhancing those services to drive innovation or transformational change. On the operational side, nearly two-thirds of all companies in the Monitor survey say that no more than 25 percent of total plant and equipment investment will go toward innovative enhancements. This pattern is more pronounced in information technology, where 68 percent of all survey participants plan minimal investments in potentially transformative IT products or services.

This “maintain, not transform” posture may be a lost opportunity for manufacturers who are currently not taking advantage of the types of innovations and technologies available to them. A U.S. water bottle manufacturing company, for example, recently took a hard look at its manufacturing operation, which was becoming outdated and less cost competitive. The firm made the decision to invest in production innovation by installing automated equipment that integrated all key manufacturing functions on a single technology platform. This transformative investment helped reduce manufacturing costs, enhance product development, minimize product defects and reduce the level of manual labor in the production line.

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BIGGER ISN'T ALWAYS BETTER

In recent years, many veteran observers say traditional manufacturing is in the midst of significant and highly disruptive change. For instance, the innovation advisory company PARC says this “Manufacturing 2.0” environment is creating a new ecosystem that could threaten the standard form of vertically integrated, large-scale manufacturing, similar to how the personal computer radically changed the fortunes of mainframe computing.⁶

Global ranking based on overall innovation

| | |
|----|----------------|
| 1 | South Korea |
| 2 | Japan |
| 3 | Germany |
| 4 | Finland |
| 5 | Israel |
| 6 | United States |
| 7 | Sweden |
| 8 | Singapore |
| 9 | France |
| 10 | United Kingdom |

Global ranking based on manufacturing innovation

| | |
|----|---------------|
| 1 | Switzerland |
| 2 | Ireland |
| 3 | Singapore |
| 4 | Germany |
| 5 | Austria |
| 6 | Sweden |
| 7 | South Korea |
| 8 | Japan |
| 9 | Iceland |
| 10 | United States |

Data from 2015 Bloomberg Innovation Index

While the benefits of a more innovation-focused manufacturing environment are appealing, evidence suggests that U.S. companies are falling behind their global competitors in the race to commercialize profitable, high-margin products and services. In the *2015 Bloomberg Innovation Index*,⁷ the United States ranked sixth overall, as measured by key data in R&D investments, manufacturing, high-tech companies, postsecondary education, research employment and patents. However, in the manufacturing segment, the United States fall to 10th place. Why? Because nations such as Switzerland, Ireland, Singapore, Germany and Austria have a more abundant base of advanced, high-margin manufacturing (when adjusted for population differences). Despite its status as the world’s largest manufacturer, China finished

41st in Bloomberg’s manufacturing innovation rankings, largely because its output is mainly centered on low-tech products.

Unquestionably, there are outstanding examples of innovative manufacturing outside of the concentrated activity centers in Asia-Pacific and Europe. For example, Pittsburgh-based Aquion Energy grew out of academic research into nontoxic renewable battery technology at Carnegie-Mellon University. This research led to the development of a renewable, environmentally friendly battery chemistry that uses saltwater and manganese. As a bonus, Aquion’s technology does not have the overheating issue of lithium-ion batteries. The company has attracted significant venture capital financing, broke ground on a manufacturing plant in 2012 and was named one of the world’s 10 most innovative energy companies this year by *Fast Company* magazine.⁸

Meanwhile, Chilean-based CAP Group is a mining and steel production holding attracting attention for its decision to use 100 percent desalinated seawater in a new iron production operation, thus preserving limited freshwater supplies in the surrounding Atacama Desert. The plant was built to run several hours each day on solar power, which reduces electrical costs, and all ore processed at the site is transported via an innovative duct system. That saves transportation costs and heavy wear on local highways. For those accomplishments, *Fast Company* named CAP Group’s Cerro Negro Norte production mine one of the 10 most innovative businesses in Latin America.⁹

Thriving Asia-Pacific firms take a more broad-based innovation approach

In eight of 13 investment categories, a higher percentage of non-U.S. firms plan to drive growth through investments in non-traditional areas, such as customer service, delivery and logistics, supply chain management and monitoring, financial strategy, regulatory compliance and cybersecurity risk mitigation. The only category in the overall survey sample where U.S. manufacturers and distributors expect to make a significantly higher level of growth investment is sales practices and lead generation (35 percent as compared to 29 percent aggregate for Asia-Pacific, Europe and Latin America).

However, when the Monitor data is viewed through a thriving lens, Asia-Pacific companies are, by far, the most broad-based investors for business growth. At least 30 percent of thriving manufacturers in this region say they expect to drive growth through investments in 11 categories, topped by marketing strategy and execution (64 percent), research and development (R&D), product development and product innovation (52 percent), operations improvements and process innovation (47 percent), and delivery and logistics (43 percent). In contrast, at least 30 percent of thriving European companies plan to drive growth across seven categories, while comparable investments by thriving Latin American and U.S. companies were confined to six and five categories, respectively (Figure 6).

“Clearly, a more holistic view of innovation may well be what separates winners from losers in the advanced manufacturing sector,” says Frank Le Bihan, a principal in McGladrey’s international services office. “Given the confluence of increased shop floor automation, big data analytics and a rapid rise of digital manufacturing, it’s likely that future innovation gains will be driven by nations with deep pools of science, technology, engineering and mathematics talent.”

Developed markets in Asia-Pacific and Europe are very well-positioned to drive innovation effectively, since math and science test scores for high-school students in those regions are consistently higher than those in the United States and Latin America.⁵ Conversely, many emerging economies in Asia-Pacific and Latin America may struggle to innovate, since developing nations often do a poor job of protecting intellectual property and facilitating a growth-oriented business climate.

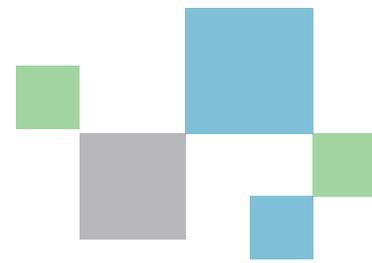
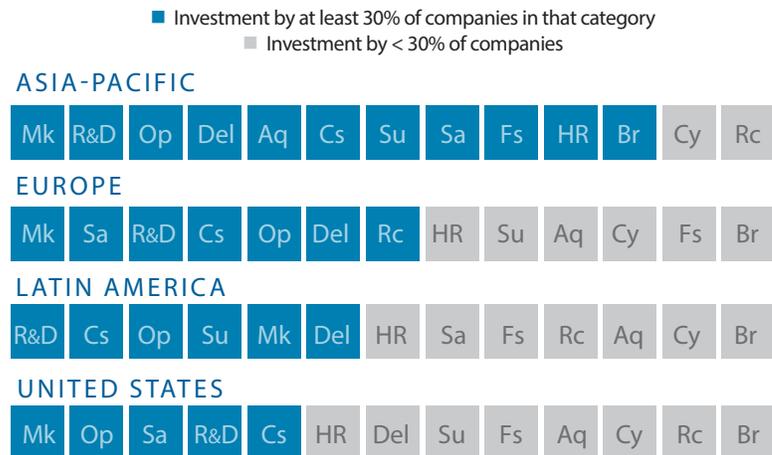


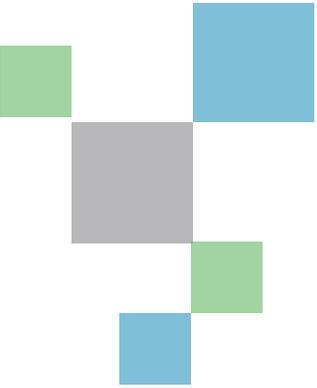
FIGURE 6. Innovation investments by region



Investments indicated by descending order >

Categories include:

| | |
|--|---|
| HR: Human resources and talent management | Su: Supply chain management and monitoring |
| Fs: Financial strategy and execution | Op: Operations improvements and process innovation |
| Rc: Regulatory compliance | Mk: Marketing strategy and execution |
| Del: Delivery and logistics | Sa: Sales practices and lead generation |
| Aq: Acquisition of another business | R&D: R&D and product innovation |
| Cy: Cybersecurity risk mitigation | Cs: Customer service and support |
| Br: Business risk mitigation | |



Partnerships that help fuel and commercialize ideas

“Germany’s Fraunhofer Society operates a contract research division, which is a useful resource for smaller manufacturers lacking their own R&D function.”

When the U.S. Revitalize American Manufacturing and Innovation Act was signed into law in 2014, it established the administrative umbrella for a National Network for Manufacturing Innovation (NNMI).¹⁰ These manufacturing institutes are designed to improve public-private collaboration, reduce costs and risks for companies seeking to commercialize new ideas and build a talent pipeline to sustain advanced manufacturing. Currently, five institutes are in the federal program, each with unique manufacturing focus areas, such as 3-D printing, wide bandgap semiconductors and advanced fiber-reinforced polymer composites.

By design, each institute reflects a broader coalition of resources, expertise and funding. For example, the Institute of Advanced Composites Manufacturing Innovation (IACMI) in Knoxville, Tennessee is actually a consortium of 11 companies, nonprofits, universities and research laboratories anchored by the University of Tennessee, Knoxville. The IACMI will operate with \$250 million in funding, which includes \$70 million of federal investment and the remainder from institute members.¹¹ All other NNMI members will operate in similar fashion and, over the next decade, the Obama Administration envisions the broader program could grow to as many as 45 institutes.

“For these new ideas to truly thrive, leaders of U.S. advanced manufacturing companies must build more collaborative bridges between sales, research and production, strengthen partnerships with suppliers and employees, and leverage any available innovation institute resources,” says Karen Kurek, a partner in McGladrey’s industrial products practice.

For many observers, the gold standard for advanced manufacturing innovation institutes is the Fraunhofer Society in Germany (the Society).¹³ This organization, founded shortly after World War II with just three employees and a small office, has grown into a highly respected network of 66 institutes and research establishments. The Society leverages a series of “innovation clusters,” which are designed to pool manufacturing strengths and resources in specific regions. Within the clusters, the Society often allocates funds to several manufacturers who “provide specific tasks in a continuous chain of invention” to a finished product. Typically, the Society will fund only collaborative projects that have the best chance to solve specific problems or address specific marketplace opportunities. Additionally, the Society operates a contract research division, which is a useful resource for smaller manufacturers that don’t have the financial capacity to invest in their own R&D operation.

WHY DO INNOVATION INSTITUTES MATTER?

Because it is increasingly difficult to successfully separate idea creation from production processes. A recent issue of MIT Technology Review noted that “manufacturing will make its most essential economic contribution as an incubator of innovation: the place where new ideas become new products.”¹²

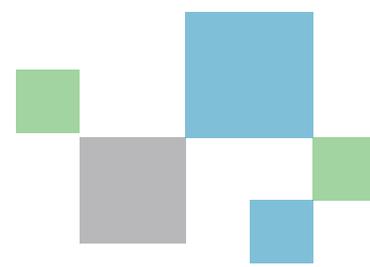
Another partnership model is the European Union's Horizon 2020 program, backed by a combination of 1.2 billion euros in EU funding and private sector support. A key focus area for Horizon 2020 is its "Factories of the Future" initiative, which prioritizes innovation proposals for advanced manufacturing processes, adaptive (or smart) manufacturing systems, resource-efficient factories, human-centered manufacturing and customer-focused manufacturing. Project proposals are reviewed annually, and accepted projects are co-funded by the EU and select private sector members.¹⁴

In the Asia-Pacific region, Singapore's close proximity to China and steady supply of science and engineering talent from local universities have made it an ideal innovation hub. The country's National Framework for Research, Innovation and Enterprise has two major objectives: commercializing technology or engineering-focused academic research, and helping small to midsize companies move promising R&D ventures into the marketplace. These programs are backed by a number of funding mechanisms, such as an Early Stage Venture Fund, in which the government will match up to \$10 million in private investment.¹⁵

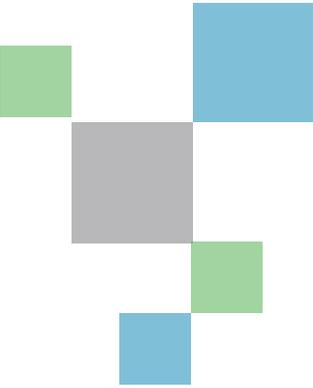
These collaborative models have helped drive some promising results. For example:

- A recent *Harvard Business Review* article¹⁶ praised Germany for its network of public institutions (such as Fraunhofer, which is partially supported by the government) that help companies improve ideas, invest in workforce training and deliver innovations that help drive widespread productivity gains. That helps explain why German manufacturers employed 22 percent of that nation's workforce and contributed 21 percent of gross domestic product (GDP) in 2010. That's well above the 11 percent of overall employment and 13 percent of GDP that U.S. manufacturers delivered that same year.

- The EU's Horizon 2020 program has funded more than 150 research and development projects across the eurozone since 2010. These projects cover a wide range of manufacturing innovation possibilities, including supply chain configurations, virtual factories, material processing and handling, customer-driven design, energy efficiency, emissions reductions, new processing technologies and efficiency upgrades to existing machines and technologies.
- In Singapore, Underwriters Laboratories recently opened an \$8 million Global Additive Manufacturing Center of Excellence, which will focus on advanced training, process and material validation. This is part of a larger innovation cluster approach in Singapore, which includes incubator sites and global manufacturing satellite operations in a wide range of niche markets. For example, BASF, ExxonMobil, Lanxess, Mitsui Chemicals, Shell and Sumitomo Chemicals are among a top-tier roster of major manufacturers that have invested more than \$35 billion in production and R&D centers in Singapore's Jurong Island complex. Meanwhile, Singapore has used a favorable tax climate, supplier-manufacturer partnership incentives and aggressive vocational skill training programs to build its precision manufacturing sector. Today, there are 2,700 manufacturers in that niche, building everything from aircraft engines to semiconductor chips. That helps explain why manufacturing now accounts for about 25 percent of Singapore's overall GDP.¹⁷



"Singapore has used a favorable tax climate, supplier-manufacturer partnership incentives and aggressive vocational skill training programs to build its precision manufacturing sector."



What business leaders can do

As noted, manufacturing companies with a strong culture of innovation generally perform at a higher level than those lacking that type of environment. And, when a manufacturer effectively leverages innovation as a strategic imperative, it becomes much easier for leaders, managers and line employees to challenge conventional thinking and bring their best ideas to the table.

There are a number of practical steps leaders can take to kick start innovation in their manufacturing operations. These include:

Establish a tone from the top. As with any other change initiative, senior leadership must establish a strong vision for how a culture of innovation can help grow the business, expand markets or opportunities and help the company stand out from competitors. While such “tone at the top” is important, it needs to be more than words. Senior leaders need to ensure that specific innovation activities are clearly identified, prioritized and assigned to appropriate business units. Additionally, senior leadership needs to ensure that they appropriately invest in these activities.

Demand accountability, provide flexibility. Creating a culture of innovation does require additional effort, particularly in the early stages of change. When assigning points of accountability in the organization, be specific about expectations and timelines. That’s why it’s a good idea to involve key department leaders and a human resources representative to help develop specific expectations, timelines and staff accountabilities. When the rollout plan is complete, make sure it allows some flexibility for staff to meet both their regular responsibilities and innovation deliverables.

Create success measures. Innovation activities are useful only if they deliver tangible value to the business. For that reason, make sure all innovation initiatives contain specific success measures. For

example, if the company is working on a product line extension, success may be measured by how well it increases market share, expands business with existing customers, minimizes retooling of production lines or improves profit margins.

Enhance employee engagement. When innovation is presented as a corporate priority, it can help attract great ideas from unexpected places. To harness that potential, create top-down and bottom-up communications loops. These may include regular innovation forum discussions, where people leading innovation projects can discuss progress, take employee questions and solicit feedback.

One manufacturer used a creative twist to foster innovative thinking by launching a “Midnight Lunch Lab,” taken from the Thomas Edison concept of the same name. In this modern version, company management and engineers start with lunch and extended conference room conversations on key product development challenges. Afterward, the group can move into any one of four lab or machining rooms in the company’s prototyping center, which allows them to translate the verbal conversations to hands-on activity.

Provide rewards. When useful ideas are surfaced in such forums, work with human resources or an employee’s supervisor to produce appropriate recognition. This could range from a simple thank-you note from a senior leader to a cash award, depending on the level of contribution. In addition, leverage regular internal communications mediums to update the workforce on innovation projects and progress toward success measures. These communications should also provide a conduit through which employees can submit ideas or observations on specific innovation programs.

Growth and **innovation** TAKEAWAYS

Establish a tone from the top.

Leadership must establish a strong vision for how a **CULTURE OF INNOVATION** can help grow the business, expand markets or opportunities and help the company stand out from competitors.



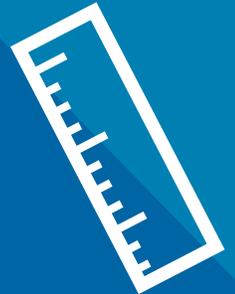
Demand accountability, provide flexibility.



When assigning points of accountability for innovation initiatives, **BE SPECIFIC ABOUT EXPECTATIONS AND TIMELINES**, involve key department leaders and a human resources. Upon completion, **ALLOW FLEXIBILITY** to meet both their regular responsibilities and innovation deliverables

Make sure all innovation initiatives contain specific success measures.

Innovation is useful only if they **DELIVER TANGIBLE VALUE** to the business. Make sure all innovation initiatives contain specific success measures like increases in market share, expand business with existing customers, minimize retooling of production lines or improve profit margins.



Use group discussions on innovation to review progress, take employee questions and solicit feedback.

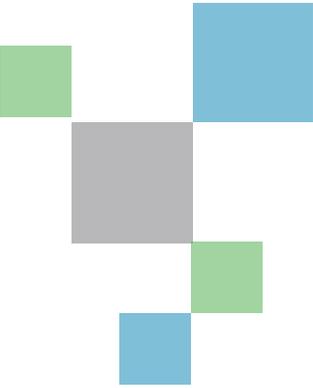
Create top-down and bottom-up **COMMUNICATIONS** loops. Regular discussions, where people leading innovation projects can discuss progress, take employee questions and solicit feedback.



Provide rewards.

Work with human resources or an employee's supervisor to appropriately **RECOGNIZE INNOVATIVE IDEAS AND ACCOMPLISHMENTS**. This could range from a simple thank-you note from a senior leader to a cash award, depending on the level of contribution.





Acknowledgements

Methodology

The 2015 McGladrey Manufacturing & Distribution Monitor was conducted using an online questionnaire promoted by McGladrey, industry associations, and a research panel organization to manufacturing and distribution companies. There were 1,660 total valid respondents to the 2015 Monitor survey, with completed questionnaires received in March and April 2015. Responses were received by The MPI Group, an independent research firm, and then entered into a database, edited and cleansed where necessary to ensure answers were plausible. All respondent answers to the 2015 McGladrey Manufacturing & Distribution Monitor are confidential. As an incentive to complete the study, participants that provided contact information are being provided a customized benchmark report.

2015 Manufacturing & Distribution Monitor series

The 2015 Monitor is a series of reports on issues of concern for the manufacturing and distribution industries. Topics in this series include: global growth, investing for growth and innovation, and information technology and data security. The reports are available online at www.mcgladrey.com or through your local McGladrey representative.

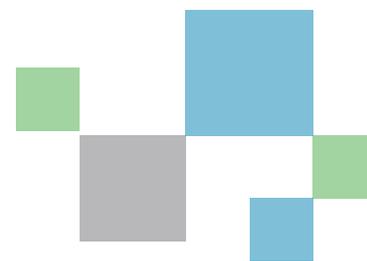
Focus group insights

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- Mark Holzman, Chief Financial Officer, Saval Foods Corporation
- Gary Kratchovil, Executive Vice President of Operations, Citrus and Allied Essences
- Kevin Monaco, President, Turf Equipment

2015 Manufacturing & Distribution Executive Summits

Nearly 1,000 manufacturing and distribution professionals participated in the McGladrey Manufacturing & Distribution Executive Summits held throughout the country in the fall of 2014. Contact your local McGladrey office or go to www.mcgladrey.com/industrialproducts for details on the 2015 Summits and to learn about our other industry events, resources and services.

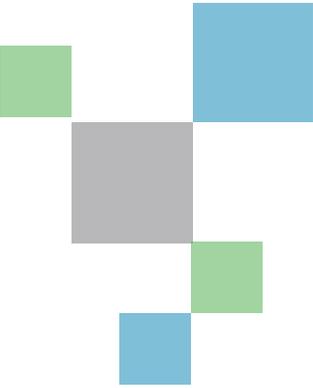


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