



- SUBSCRIBE
- RENEW
- GIVE A GIFT
- DIGITAL EDITION

[Print](#) | [Close](#)

The Insourcing Boom

AFTER YEARS OF OFFSHORE PRODUCTION, GENERAL ELECTRIC IS MOVING MUCH OF ITS FAR-FLUNG APPLIANCE-MANUFACTURING OPERATIONS BACK HOME. IT IS NOT ALONE. AN EXPLORATION OF THE STARTLING, SUSTAINABLE, JUST-GETTING-STARTED RETURN OF INDUSTRY TO THE UNITED STATES.

By Charles Fishman

For much of the past decade, General Electric's storied Appliance Park, in Louisville, Kentucky, appeared less like a monument to American manufacturing prowess than a memorial to it.

The very scale of the place seemed to underscore its irrelevance. Six factory buildings, each one the size of a large suburban shopping mall, line up neatly in a row. The parking lot in front of them measures a mile long and has its own traffic lights, built to control the chaos that once accompanied shift change. But in 2011, Appliance Park employed not even a tenth of the people it did in its heyday. The vast majority of the lot's spaces were empty; the traffic lights looked forlorn.

In 1951, when General Electric designed the industrial park, the company's ambition was as big as the place itself; GE didn't build an appliance factory so much as an appliance city. Five of the six factory buildings were part of the original plan, and early on Appliance Park had a dedicated power plant, its own fire department, and the first computer ever used in a factory. The facility was so large that it got its own ZIP code (40225). It was the headquarters for GE's appliance division, as well as the place where just about all of the appliances were made.

By 1955, Appliance Park employed 16,000 workers. By the 1960s, the sixth building had been built, the union workforce was turning out 60,000 appliances a week, and the complex was powering the explosion of the U.S. consumer economy.

The arc that followed is familiar. Employment kept rising through the '60s, but it peaked at 23,000 in 1973, 20 years after the facility first opened. By 1984, Appliance Park had fewer employees than it did in 1955. In the midst of labor battles in the early '90s, GE's iconic CEO, Jack Welch, suggested that it would be shuttered by 2003. GE's current CEO, Jeffrey Immelt, tried to sell the entire appliance business, including Appliance Park, in 2008, but as the economy nosed over, no one would take it. In 2011, the number of time-card employees—the people who make the appliances—bottomed out at 1,863. By then, Appliance Park had been in decline for twice as long as it had been rising.

Yet this year, something curious and hopeful has begun to happen, something that cannot be explained merely by the ebbing of the Great Recession, and with it the cyclical return of recently laid-off workers. On February 10, Appliance Park opened an all-new assembly line in Building 2—largely dormant for 14 years—to make cutting-edge, low-energy water heaters. It was the first new assembly line at Appliance Park in 55 years—and the water heaters it began making had previously been made for GE in a Chinese contract factory.

On March 20, just 39 days later, Appliance Park opened a second new assembly line, this one in Building 5, to make new high-tech French-door refrigerators. The top-end model can sense the size of the container you place beneath its purified-water spigot, and shuts the spigot off automatically when the container is full. These refrigerators are the latest versions of a style that for years has been made in Mexico.

Another assembly line is under construction in Building 3, to make a new stainless-steel dishwasher starting in early 2013. Building 1 is getting an assembly line to make the trendy front-loading washers and matching dryers Americans are enamored of; GE has never before made those in the United States. And Appliance Park already has new plastics-manufacturing facilities to make parts for these appliances, including simple items like the plastic-coated wire racks that go in the dishwashers.

In the midst of this revival, Immelt made a startling assertion. Writing in *Harvard Business Review* in March, he declared that outsourcing is “quickly becoming mostly outdated as a business model for GE Appliances.” Just four years after he tried to sell Appliance Park, believing it to be a relic of an era GE had transcended, he’s spending some \$800 million to bring the place back to life. “I don’t do that because I run a charity,” he said at a public event in September. “I do that because I think we can do it here and make more money.”

Immelt hasn’t just changed course; he’s pirouetted.

What has happened? Just five years ago, not to mention 10 or 20 years ago, the unchallenged logic of the global economy was that you couldn’t manufacture much besides a fast-food hamburger in the United States. Now the CEO of America’s leading industrial manufacturing company says it’s not Appliance Park that’s obsolete—it’s offshoring that is.

Why does it suddenly make irresistible business sense to build not just dishwashers in Appliance Park, but dishwasher racks as well?

In the 1960s, as the consumer-product world we now live in was booming, the Harvard economist Raymond Vernon laid out his theory of the life cycle of these products, a theory that predicted with remarkable foresight the global production of goods 20 years later. The U.S. would have an advantage making new, high-value products, Vernon wrote, because of its wealth and technological prowess; it made sense, at first, for engineers, assembly workers, and marketers to work in close proximity—to each other and to consumers—the better to get quick feedback, and to tweak product design and manufacture appropriately. As the market grew, and the product became standardized, production would spread to other rich nations, and competitors would arise. And then, eventually, as the product fully matured, its manufacture would shift from rich countries to low-wage countries. Amidst intensifying competition, cost would become the predominant concern, and because the making and marketing of the product were well understood, there would be little reason to produce it in the U.S.

anymore.

Vernon's theory has been borne out again and again over the years. Amana, for instance, introduced the first countertop microwave—the Radarange, made in Amana, Iowa—in 1967, priced at \$495. Today you can buy a microwave at Walmart for \$49 (the equivalent of a \$7 price tag on a 1967 microwave)—and almost all the ones you'll see there, a variety of brands and models, will have been shipped in from someplace where hourly wages have historically been measured in cents rather than dollars.

But beginning in the late 1990s, something happened that seemed to short-circuit that cycle. Low-wage Chinese workers had by then flooded the global marketplace. (Even as recently as 2000, a typical Chinese factory worker made 52 cents an hour. You could hire 20 or 30 workers overseas for what one cost in Appliance Park.) And advances in communications and information technology, along with continuing trade liberalization, convinced many companies that they could skip to the last part of Vernon's cycle immediately: globalized production, it appeared, had become "seamless." There was no reason design and marketing could not take place in one country while production, from the start, happened half a world away.

You can see this shift in America's jobs data. Manufacturing jobs peaked in 1979 at 19.6 million. They drifted down slowly for the next 20 years—over that span, the impact of offshoring and the steady adoption of labor-saving technologies was nearly offset by rising demand and the continual introduction of new goods made in America. But since 2000, these jobs have fallen precipitously. The country lost factory jobs seven times faster between 2000 and 2010 than it did between 1980 and 2000.

Until very recently, this trend looked inexorable—and the significance of the much-vaunted increase in manufacturing jobs since the depths of the recession seemed easy to dismiss. Only 500,000 factory jobs were created between their low, in January 2010, and September 2012—a tiny fraction of the almost 6 million that were lost in the aughts. And much of that increase, at first blush, might appear to be nothing more than the natural (but ultimately limited) return of some of the jobs lost in the recession itself.

Yet what's happening at GE, and elsewhere in American manufacturing, tells a different and more optimistic story—one that suggests the curvature of Vernon's product cycle may be changing once again, this time in a way that might benefit U.S. industry, and the U.S. economy, quite substantially in the years to come.

The GeoSpring water heater—the one that just came home to Louisville from China—looks a little like R2-D2, the *Star Wars* robot, although taller and slimmer. It has a long gray body, and a short top section—the brains—in gray or bright red, with a touch-pad control panel.

The magic is in that head: GE has put a small heat pump up there, and the GeoSpring pulls ambient heat from the air to help heat water. As a result, the GeoSpring uses some 60 percent less electricity than a typical water heater. (You can also control it using your iPhone.)

The GeoSpring is the kind of product we've come to expect will arrive on a boat from China—not much more than a curve of rolled steel, some pipes and heating elements, a circuit board, a coat of paint, and a cardboard box. And for the first two and a half years that GE sold the GeoSpring, that's exactly where it came from.

At Appliance Park, this model of production—designed at home, produced abroad—had been standard for years. For the GeoSpring, it seemed both a victory and a vulnerability. The GeoSpring is an innovative product in a mature category—and offshore production, from the start, appeared to provide substantial cost savings. But making it in China also meant risking that it might be knocked off. And so in 2009, even as they were rolling it out, the folks at Appliance Park were doing the math on bringing it home.

Even then, changes in the global economy were coming into focus that made this more than just an exercise—changes that have continued to this day.

Oil prices are three times what they were in 2000, making cargo-ship fuel much more expensive now than it was then.

The natural-gas boom in the U.S. has dramatically lowered the cost for running something as energy-intensive as a factory here at home. (Natural gas now costs four times as much in Asia as it does in the U.S.)

In dollars, wages in China are some five times what they were in 2000—and they are expected to keep rising 18 percent a year.

American unions are changing their priorities. Appliance Park's union was so fractious in the '70s and '80s that the place was known as "Strike City." That same union agreed to a two-tier wage scale in 2005—and today, 70 percent of the jobs there are on the lower tier, which starts at just over \$13.50 an hour, almost \$8 less than what the starting wage used to be.

U.S. labor productivity has continued its long march upward, meaning that labor costs have become a smaller and smaller proportion of the total cost of finished goods. You simply can't save much money chasing wages anymore.

So much has changed that GE executives came to believe the GeoSpring could be made profitably at Appliance Park without increasing the price of the water heater. "First we said, 'Let's just bring it back here and build the exact same thing,'" says Kevin Nolan, the vice president of technology for GE Appliances.

But a problem soon became apparent. GE hadn't made a water heater in the United States in decades. In all the recent years the company had been tucking water heaters into American garages and basements, it had lost track of how to actually make them.

The GeoSpring in particular, Nolan says, has "a lot of copper tubing in the top." Assembly-line workers "have to route the tubes, and they have to braze them—weld them—to seal the joints. How that tubing is designed really affects how hard or easy it is to solder the joints. And how hard or easy it is to do the soldering affects the quality, of course. And the quality of those welds is literally the quality of the hot-water heater." Although the GeoSpring had been conceived, designed, marketed, and managed from Louisville, it was made in China, and, Nolan says, "We really had zero communications into the assembly line there."

To get ready to make the GeoSpring at Appliance Park, in January 2010 GE set up a space on the factory floor of Building 2 to design the new assembly line. No products had been manufactured in Building 2 since 1998. An old GE range assembly line still stood there; after a feud with union workers, that line had been shut down so abruptly that the GeoSpring team found finished oven doors still

hanging from conveyors 30 feet overhead. The GeoSpring project had a more collegial tone. The “big room” had design engineers assigned to it, but also manufacturing engineers, line workers, staff from marketing and sales—no management-labor friction, just a group of people with different perspectives, tackling a crucial problem.

“We got the water heater into the room, and the first thing [the group] said to us was ‘This is just a mess,’” Nolan recalls. Not the product, but the design. “In terms of manufacturability, it was terrible.”

The GeoSpring suffered from an advanced-technology version of “IKEA Syndrome.” It was so hard to assemble that no one in the big room wanted to make it. Instead they redesigned it. The team eliminated 1 out of every 5 parts. It cut the cost of the materials by 25 percent. It eliminated the tangle of tubing that couldn’t be easily welded. By considering the workers who would have to put the water heater together—in fact, by having those workers right at the table, looking at the design as it was drawn—the team cut the work hours necessary to assemble the water heater from 10 hours in China to two hours in Louisville.

In the end, says Nolan, not one part was the same.

So a funny thing happened to the GeoSpring on the way from the cheap Chinese factory to the expensive Kentucky factory: The material cost went down. The labor required to make it went down. The quality went up. Even the energy efficiency went up.

GE wasn’t just able to hold the retail sticker to the “China price.” It beat that price by nearly 20 percent. The China-made GeoSpring retailed for \$1,599. The Louisville-made GeoSpring retails for \$1,299.

Time-to-market has also improved, greatly. It used to take five weeks to get the GeoSpring water heaters from the factory to U.S. retailers—four weeks on the boat from China and one week dockside to clear customs. Today, the water heaters—and the dishwashers and refrigerators—move straight from the manufacturing buildings to Appliance Park’s warehouse out back, from which they can be delivered to Lowe’s and Home Depot. Total time from factory to warehouse: 30 minutes.

For years, too many American companies have treated the actual manufacturing of their products as incidental—a generic, interchangeable, relatively low-value part of their business. If you spec’d the item closely enough—if you created a good design, and your drawings had precision; if you hired a cheap factory and inspected for quality—who cared what language the factory workers spoke?

This sounded good in theory. In practice, it was like writing a cookbook without ever cooking.

Lou Lenzi now heads design for all GE appliances, with a team of 25. But for years he worked for Thomson Consumer Electronics, which made small appliances—TVs, DVD players, telephones—with the GE logo on them. Thomson was an outsource shop. It designed stuff, then hired factories to make much of that stuff. Price was what mattered.

“What we had wrong was the idea that anybody can screw together a dishwasher,” says Lenzi. “We thought, ‘We’ll do the engineering, we’ll do the marketing, and the manufacturing becomes a black box.’ But there is an inherent understanding that moves out when you move the manufacturing out. And you never get it back.”

It happens slowly. When you first send the toaster or the water heater to an overseas factory, you know how it's made. You were just making it—yesterday, last month, last quarter. But as products change, as technologies evolve, as years pass, as you change factories to chase lower labor costs, the gap between the people imagining the products and the people making them becomes as wide as the Pacific.

What is only now dawning on the smart American companies, says Lenzi, is that when you outsource the making of the products, “your whole business goes with the outsourcing.” Which raises a troubling but also thrilling prospect: the offshoring rush of the past decade or more—one of the signature economic events of our times—may have been a mistake.

Business practices are prone to fads, and in hindsight, the rush to offshore production 10 or 15 years ago looks a little extreme. The distance across the Pacific Ocean was as wide then as it is now, and the speed of cargo ships was just as slow. A lot of the very good reasons for bringing factories back to the U.S. today were potent arguments against offshoring in the first place.

It was important to innovate, and to protect innovations, 10 or 15 years ago. It was important to have designers, engineers, and assembly-line workers talk to each other then, too. That companies spent the past two decades ignoring those things just shows the power of price, even for people who should be able to take a broader view.

Harry Moser, an MIT-trained engineer, spent decades running a business that made machine tools. After retiring, he started an organization called the Reshoring Initiative in 2010, to help companies assess where to make their products. “The way we see it,” says Moser, “about 60 percent of the companies that offshored manufacturing didn't really do the math. They looked only at the labor rate—they didn't look at the hidden costs.” Moser believes that about a quarter of what's made outside the U.S. could be more profitably made at home.

“There was a herd mentality to the offshoring,” says John Shook, a manufacturing expert and the CEO of the Lean Enterprise Institute, in Cambridge, Massachusetts. “And there was some bullshit. But it was also the inability to see the total costs—the engineers in the U.S. and factory managers in China who can't talk to each other; the management hours and money flying to Asia to find out why the quality they wanted wasn't being delivered. The cost of all that is huge.”

But many of those hidden costs come later. In the first blush of cheap manufacturing, it's easy to overlook the slow loss of your own skills, the gradual homogenization of your products, the corrosion of quality and decline of innovation. And it's easy to assume that globally distributed production will hum along more smoothly than it often does in practice: however strong the planning, some of those shipping containers will be opened to reveal damaged or substandard goods, and some of them won't have the number or variety of goods a company needs at that very moment. “All you need is to have to hire one or two 747s a couple times to get product here in a hurry,” says Shook, “and you lose those savings.”

Thomas Mayor, a senior adviser with Booz & Company who specializes in manufacturing strategy, says that in industry after industry, he is seeing the same kind of reassessment GE has made. When asked about the value of the original rush offshore, Mayor laughs.

“Twelve years ago, I saw a lot of boards of directors and senior executives saying, ‘Three years from now, I'm going to be sourcing \$4 billion in product from China. Go figure out how to make it happen.’”

Part of the rationale, from the start, was merely to gain a foothold in the Chinese market. And for many companies, that made sense, at least to some extent. “But if you press them on their *savings* by sourcing from China for North America, I get stories like ‘Oh, I asked about that six months ago. I had five finance guys working on it, and they couldn’t come up with any savings.’ At the end of the day, they say, ‘If we were doing this for the U.S. market, we should never have gone to China in the first place.’”

GE is not alone in moving the manufacture of many of its products back to the U.S. The transformation under way at Appliance Park is mirrored in dozens of other places, with Whirlpool bringing mixer-making back from China to Ohio, Otis bringing elevator production back from Mexico to South Carolina, even Wham-O bringing Frisbee-molding back from China to California. The Boston Company published a paper in May on ways for investors to capitalize on the U.S. factory revival. ISI Group, an investment-research company, put out a 98-page report in August, piling up reasons for the return of a strong U.S. industrial sector. Nancy Lazar, who co-authored the ISI Group report, says, “This is the beginning of a manufacturing renaissance. I’ve been saying this since 2009. Even the industrial companies told me I was crazy. Why are they telling me I’m crazy? Because they’ve spent the last 15 or 20 years putting the plants outside the U.S. That’s over.”

The recalibration of costs in recent years is one reason, and the competitive benefit of keeping production stateside is another. But the logic of onshoring today goes even further—and is driven, in part, by the newfound impatience of the product cycle itself.

Just a few years ago, the design of a new range or refrigerator was assumed to last seven years. Now, says Lou Lenzi, GE’s managers figure no model will be good for more than two or three years. This phenomenon is not limited to GE. The feverish cycle of innovation and new products beloved in the electronics world has infected all kinds of consumer categories. Products that once seemed mature—from stoves to greeting cards—are being reinvigorated with cheap computing technology. And the product life cycle is speeding up—many goods get outflanked by “smarter” versions every couple of years, or faster.

Factories take a while to settle into a new product, a new design. They face a learning curve. But models that have a run of only a couple years become outdated just as the assembly line starts to hum. That, too, makes using faraway factories challenging, even if they are cheap.

It is not, in fact, your mother’s refrigerator anymore. The highest-end French-door fridge being made at Appliance Park retails for \$3,099. Its auto-fill water spigot is unique, and it is lit inside by 10 recessed LED bulbs that use almost no energy, create almost no heat, and never burn out.

The addition of high-tech components to everyday items makes production more complicated, and that means U.S. production is more attractive, not just because manufacturers now have more proprietary technology to protect, but because American workers are more skilled, on average, than their Chinese counterparts. And the short leap from one product generation to the next makes the alchemy among engineers, marketers, and factory workers all the more important.

One key difference between the U.S. economy today and that of 15 or 20 years ago is the labor environment—not just wages in factories, but the degree of flexibility displayed by unions and workers. Many observers would say these changes reflect a loss of power and leverage by workers, and they would be right. But management, more keenly aware of offshoring’s perils, is also trying to create a

different (and better) factory environment. Hourly employees increasingly participate in workplace decision making in ways that are more like what you find in white-collar technology companies.

In late 2008, Dirk Bowman and Rich Calvaruso, both manufacturing managers at Appliance Park, were looking to shake up the place, desperate to keep it relevant. Bowman oversees all manufacturing at Appliance Park. He started there 29 years ago, fresh out of college, as the second-shift foreman on the dishwasher line. Calvaruso has worked for years in manufacturing at GE, and now helps other people at Appliance Park invent and then reinvent their work on the assembly lines.

“The dishwasher line was extremely long,” Bowman says. “It went from the back of the factory to the front, and back again. It was very loud. It was very expensive—each operator was surrounded by parts, a lot of inventory. It was a command-and-control operation.” It was the kind of operation Chinese companies could readily out-compete, and the kind U.S. factory managers were happy to outsource.

Both Bowman and Calvaruso knew something about “lean” manufacturing techniques—the style of factory management invented by Toyota whereby everyone has a say in critiquing and improving the way work gets done, with a focus on eliminating waste. Lean management is not a new concept, but outside of car making, it hasn’t caught on widely in the United States. It requires an open, collegial, and relentlessly self-critical mind-set among workers and bosses alike—a mind-set that is hard to create and sustain.

In the simplest terms, an assembly line is a way of putting parts together to make a product; lean production is a way of putting the assembly line itself together so the work is as easy and efficient as possible.

“We thought, ‘We gotta try something new,’” says Bowman. “‘We have to be competitive.’” Calvaruso put together a group that included hourly employees and told it to completely reimagine dishwasher assembly. The group was given this crucial guarantee: regardless of the efficiencies it created, “no one will lose their job because of lean.”

So the dishwasher team remade its own assembly line. It eliminated 35 percent of the labor.

What happened to the workers who were no longer needed for dishwasher assembly? Bowman and Calvaruso created another team and asked them to pick a dishwasher part they thought Appliance Park should, once again, be making itself. The team picked the top panel of the door—appliance people call it the “dishwasher escutcheon.” It’s the part you grab to open and close the dishwasher, where all the controls and buttons are. If you use a dishwasher, you touch the escutcheon.

“The escutcheon is a high-interface part with the consumer,” says Bowman. “We wanted to control the quality. We can deliver it more easily right here. And we actually thought we could do it cheaper.” And now they do.

That’s how the outsourcing cycle starts to turn. Once you begin making the product itself, you get the itch to make the parts, too.

The dishwasher’s initial assembly-line redesign was a primitive version of lean. The full-blown, sophisticated version has spread across Appliance Park, into the work of the engineers, the designers,

the salespeople, the bosses. Another team took a design for a new dishwasher into a room and pulled it apart. As originally designed, the door had four visible screws. The marketing people on the team wanted the door to have no visible screws—they wanted it iPhone-sleek. The operators loved that idea—four screws is a lot of assembly-line work. The engineers and designers came up with a design that holds the door together with one hidden screw and a rod.

“It’s easier to assemble,” says Calvaruso. “It’s cheaper. And the fit, feel, and finish are better.”

If the people who design dishwashers sit at their desks in one building, and the people who sell them to retailers and consumers sit at their desks in another building, and the people who make the dishwashers are in a different country and speak a different language—you never realize that the four screws should disappear, let alone come up with a way they can. The story of the four disappearing screws on that dishwasher door is why Jeffrey Immelt has the confidence to spend \$800 million to bring Appliance Park back to life.

At the public event in September, Immelt captured the lessons of the new Appliance Park. “I think the era of inexpensive labor is basically over,” he said. “People that are out there just chasing what they view as today’s low-cost labor—that’s yesterday’s playbook.”

GE is rediscovering that how you run the factory is a technology in and of itself. Your factory is really a laboratory—and the R&D that can happen there, if you pay attention, is worth a lot more to the bottom line than the cost savings of cheap labor in someone else’s factory.

Outsourcing and the disappearance of U.S. factory jobs were the result of what often seemed like irresistible market forces—but they were also the result of individual decisions, factory by factory, spreadsheet by spreadsheet, company by company.

Appliance Park will end this year with 3,600 hourly employees—1,700 more than last year, an increase of more than 90 percent. The facility hasn’t had this many assembly-line workers in a decade. GE has also hired 500 new designers and engineers since 2009, to support the new manufacturing.

GE’s appliance unit does \$5 billion in business—and today, 55 percent of that revenue comes from products made in the United States. By the end of 2014, GE expects 75 percent of the appliance business’s revenue to come from American-made products like dishwashers, water heaters, and refrigerators, and the company expects that its sales numbers will be larger, as the housing market revives.

What’s happening in factories across the U.S. is not simply a reversal of decades of outsourcing. If there was once a rush to push factories of nearly every kind offshore, their return is more careful; many things are never coming back. Levi Strauss used to have more than 60 domestic blue-jeans plants; today it contracts out work to 16 and owns none, and it’s hard to imagine mass-market clothing factories ever coming back in significant numbers—the work is too basic.

Appliance Park once used its thousands of workers to make almost every part of every appliance; today, every component GE decides to make in Louisville returns home only after a careful calculation that balances quality, cost, skills, and speed. Appliance Park wants to make its own dishwasher racks, because it can, and because the rack is an important part of the dishwasher experience for customers. But Appliance Park will likely never again make its own compressors or motors, nor is it going to build a

microchip-etching facility.

And of course, manufacturing employment will never again be as central to the U.S. economy as it was in the 1960s and '70s—improvements in worker productivity alone ensure that. Back in the '60s, Appliance Park was turning out 250,000 appliances a month. The assembly lines there today are turning out almost as many—with at most one-third of the workers.

All that said, big factories have a way of creating larger economies around them—they have a “multiplier effect,” in economic parlance. Revere Plastics Systems, one of GE’s suppliers, has opened a new factory just 20 minutes north of Appliance Park, across the Ohio River in Indiana, and has 195 people there working in three shifts around the clock. The manufacturing renaissance now under way won’t solve the jobs crisis by itself, but it could broaden the economy, and help reclaim opportunities—and skills—that have been lost across the past decade or more.

It’s possible that five years from now, everything will have unraveled—that the return of factory jobs will have been a temporary blip, that Appliance Park will be closed. (Business practices, after all, are prone to fads.)

But that doesn’t seem likely. Bringing jobs back to Appliance Park solves a problem. It is sparking a wave of fresh innovation in GE’s appliances—every major appliance line has been redesigned or will be in the next two years—and the experience of “big room” redesign, involving a whole team, is itself inspiring further, faster advances.

In fact, insourcing solves a whole bundle of problems—it simplifies transportation; it gives people confidence in the competitive security of their ideas; it lets companies manage costs with real transparency and close to home; it means a company can be as nimble as it wants to be, because the Pacific Ocean isn’t standing in the way of getting the right product to the right customer.

Many offshoring decisions were based on a single preoccupation—cheap labor. The labor was so cheap, in fact, that it covered a multitude of sins in other areas. The approach to bringing jobs back has been much more thoughtful. Jobs are coming back not for a single, simple reason, but for many intertwined reasons—which means they won’t slip away again when one element of the business, or the economy, changes.

This article available online at:

<http://www.theatlantic.com/magazine/archive/2012/12/the-insourcing-boom/309166/>

Copyright © 2012 by The Atlantic Monthly Group. All Rights Reserved.

