IoT & Manufacturing

New tech, untapped potential.

How it works for others. And how it can work for you.

IoT: If you're not up to speed, you're not alone.

Like the Cloud, everyone's heard of IoT.

You probably have (at least) a notion of what it could do for your business. And maybe an uneasy feeling about what it could do for your competition. But if you're not up to speed, relax. A mere 4% of medium-sized manufacturers claim to have an "excellent" understanding of smart IoT solutions. And only 22% have actually deployed them. Smaller companies report the same level of deployment, while larger operators haven't reached the 50% mark yet.

This e-book, based on a survey conducted by Frost & Sullivan, outlines the possibilities IoT offers manufacturers like you, now and in the future.

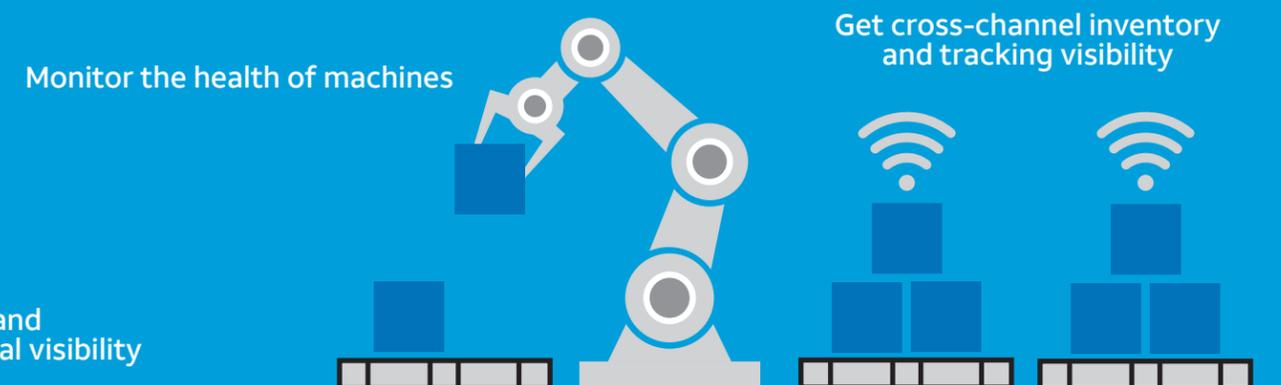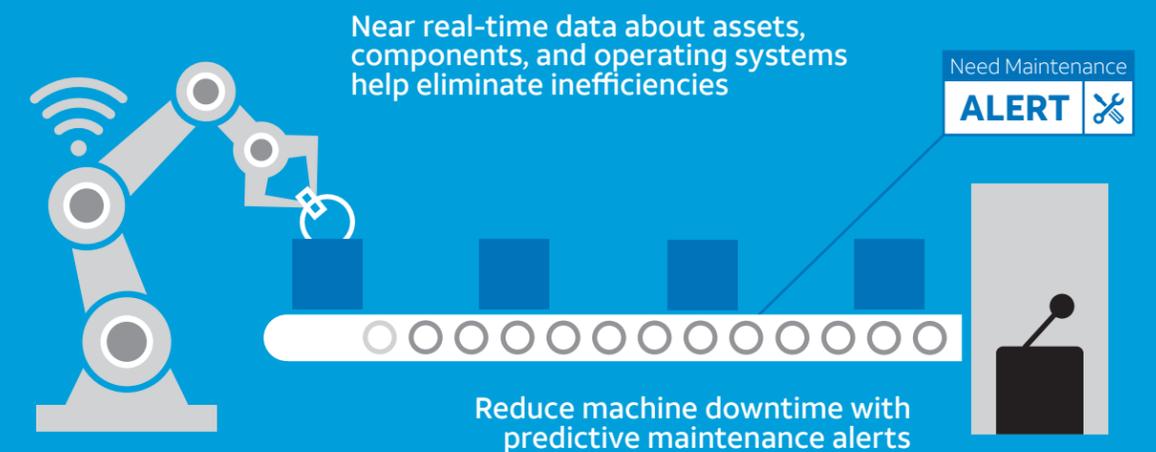## Who has an "excellent" understanding of IoT?

4%

16%

12%

■ Large Companies
■ Medium Companies
■ Small Companies
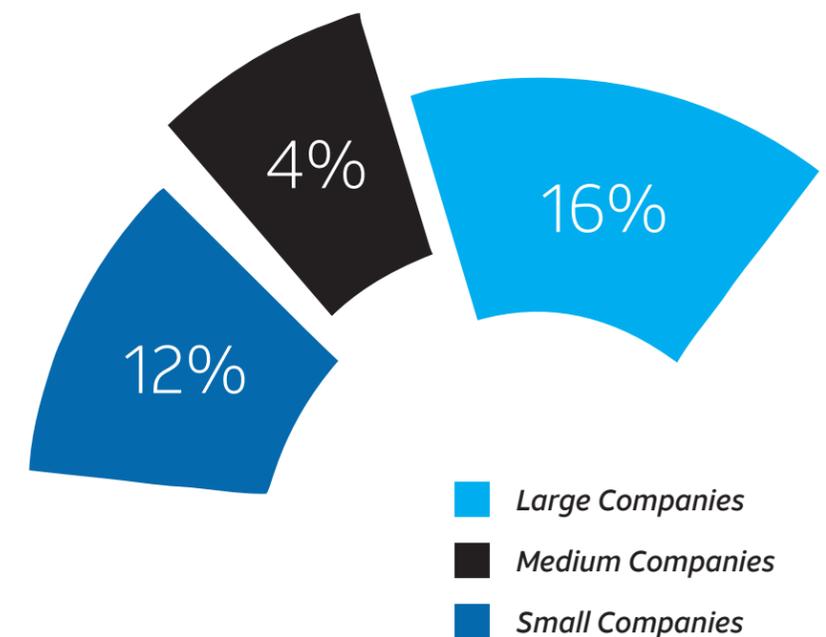
IoT: A working definition

The broadest definition of IoT is pretty straightforward:

"Collections of network sensors that impact operations."

The tasks those sensors can accomplish always seem to be multiplying. In addition to other benefits, the constant flow of near real-time data they generate can (in addition to other benefits) reduce machine downtime with predictive maintenance alerts, expose "blind spots"—the inefficiencies in your operation you never knew existed—and even protect workers on the factory floor. All of which cuts your daily costs and fuels future growth.

High Vibration
ALERT

Sensors, alerts, and notifications can help protect workers

Near real-time data about assets, components, and operating systems help eliminate inefficiencies

Need Maintenance
ALERT

Reduce machine downtime with predictive maintenance alerts

Monitor the health of machines

Get cross-channel inventory and tracking visibility

Share data among management, the field, and workers on the factory floor to improve operations and performance

Remotely manage equipment, set limits, and reduce costs with global visibility and automation tools
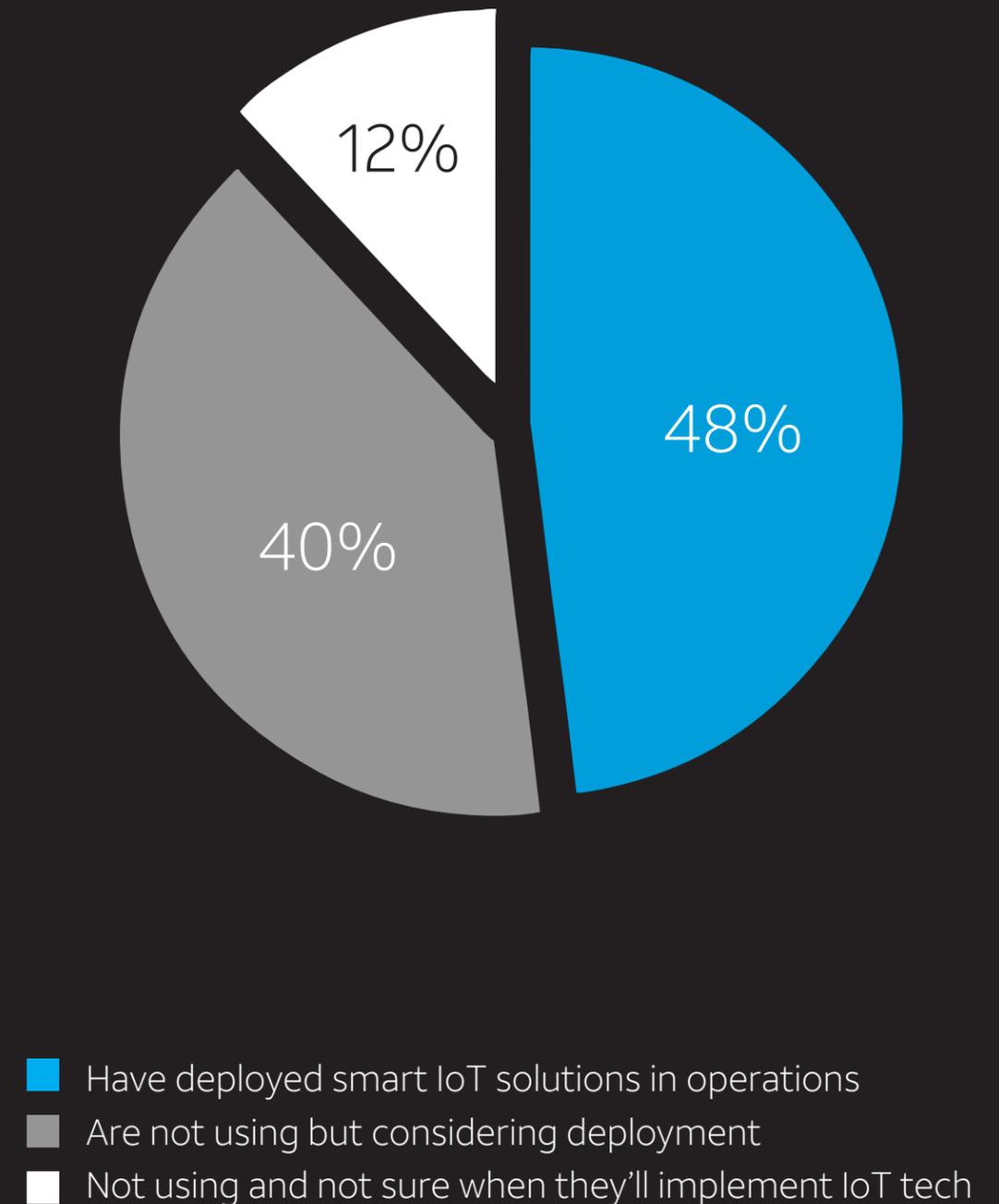
How new is this new technology?

For all its potential, IoT is still in its infancy. Even for larger manufacturers, levels of deployment have yet to top 50%. Adoption consideration hovers around 40%.

On average, those who have adopted IoT only did so in the last two or three years. And almost a third of larger firms say they're waiting for this young technology to mature a bit. In other words, if your company isn't on board with IoT, you're in good company. There's still time to grab a seat on the learning curve.

Manufacturers' use of smart IoT solutions

48%

40%

12%

■ Have deployed smart IoT solutions in operations
■ Are not using but considering deployment
□ Not using and not sure when they'll implement IoT tech

Enormous (untapped) potential.

Roughly one-third of manufacturers surveyed have deployed smart IoT solutions. Of those, 61% are tracking supply chains, with equipment and inventory management at 57% and 50%, respectively. Collectively, these numbers reflect loss prevention and theft concerns.

Those applications will undoubtedly yield savings and efficiencies. But interest in solutions that could give a real competitive edge—workforce management and wearables for field service
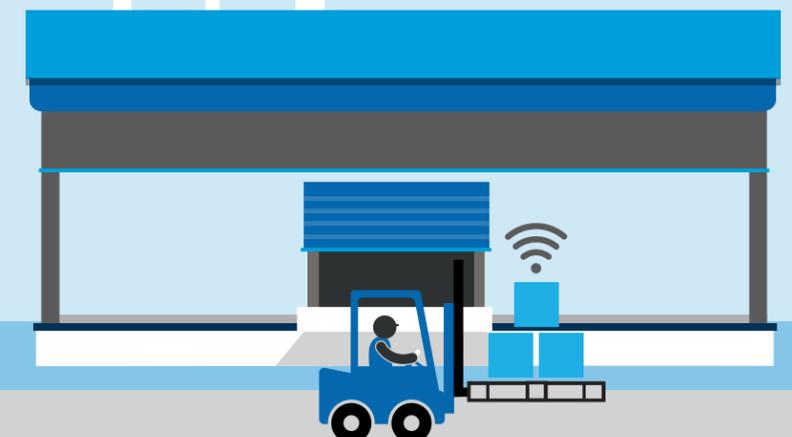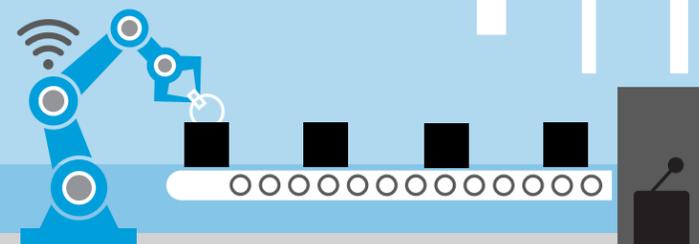
workers, not to mention IoT's predictive capabilities—is less pronounced among those manufacturers surveyed.

Given IoT's novelty, that's unsurprising. And no doubt those stats will change, as 60% expect their IoT budgets to rise in the next 12 to 24 months.

50%
Inventory

61%
Supply chains

57%
*Equipment*

Getting beyond maintenance and tracking

The competitive imperative to be on the cutting edge of technology drives 42% of large manufacturers. For smaller organizations, (perhaps thinking that IoT can level the playing field somewhat) the number leaps to 82%.

From there, manufacturers are hoping IoT can help them with everything from extending equipment life to more predictive outcomes. For instance, smaller companies say they anticipate being more responsive to changing market conditions (55%), and even "future-proofing" their facilities (55%).

42%

Drives large companies

**82%**
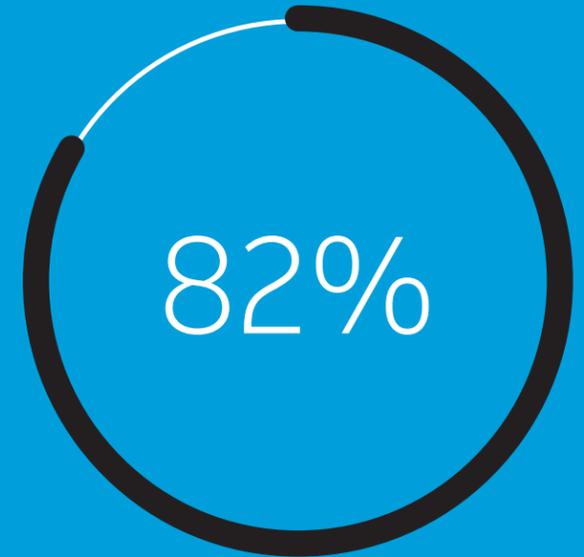
Drives smaller companies

Additionally, 55% of smaller companies say they anticipate IoT helping them to be more responsive to changing market conditions and "future-proof" their facilities.

Having second thoughts? You're not alone.

For 64% of smaller manufacturers (with correspondingly smaller budgets), IoT's upfront costs are a major concern. And even in medium and large organizations with more ample funding, those costs are giving 56% of CFOs food for thought.

Jumping into a new technology early is smart. But, especially at this stage of IoT maturity, working with an experienced technology leader is the surest way to get the best solution for your business at the best price.
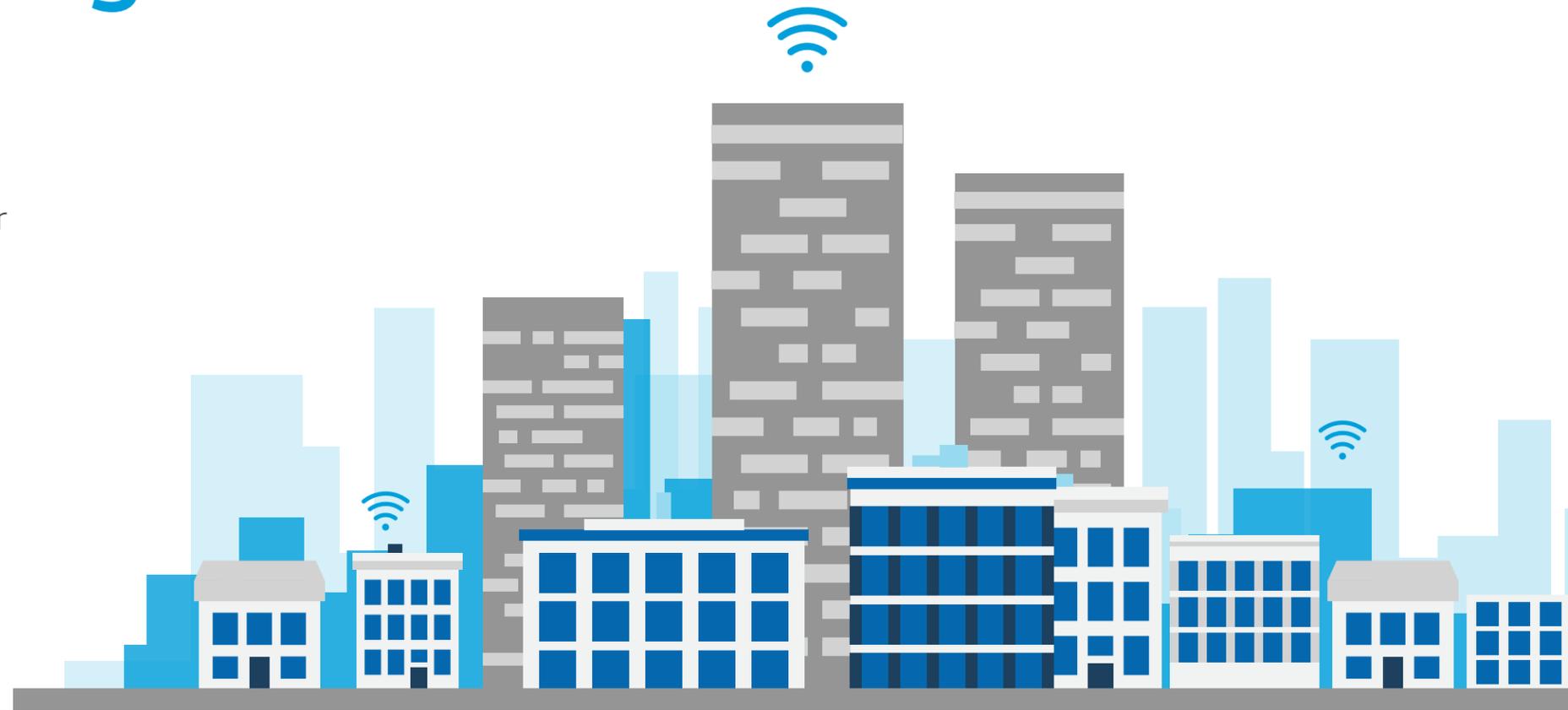
Related to upfront costs are *worries about ROI.*
Again, smaller manufacturers lead the field, but medium and large organizations aren't that far behind.

56%
Small

36%
Medium

54%
Large

Learn from what others are learning.

What do other manufacturers expect from IoT? More importantly, what has IoT delivered?

Higher quality products and services, reduced manufacturing costs, and improved workflow ranked high among the expectations of larger companies. These outcomes were just as important to smaller organizations.

According to the manufacturers surveyed, those expectations are being met. A resounding 87% of organizations surveyed reported themselves "extremely satisfied," "very satisfied," or "satisfied" with their smart IoT solutions.

4%	24%	59%	11%	2%

- ■ Extremely satisfied
- ■ Very satisfied
- ■ Satisfied
- ■ Somewhat satisfied
- ■ Don't Know
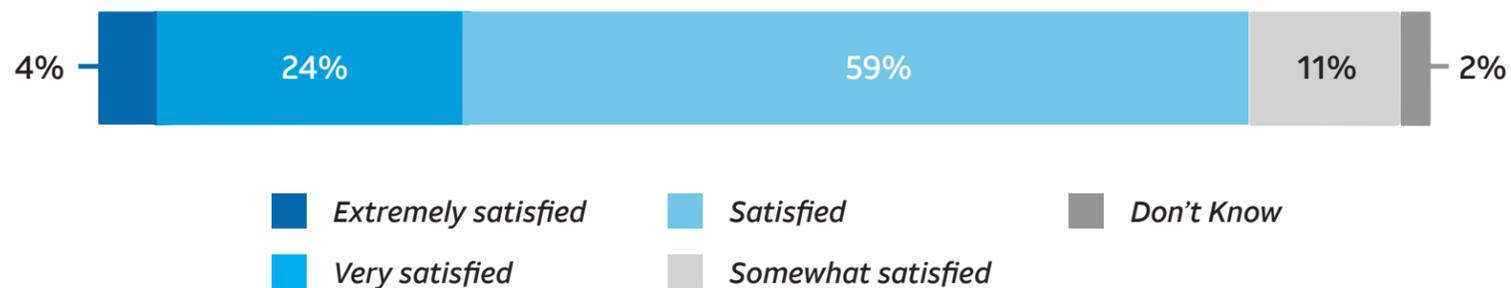
Even at this early stage of implementation, the numbers are very encouraging.
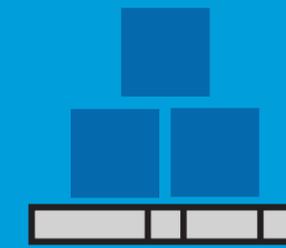
58%
Higher quality products and services

63%
Reduced manufacturing costs

58%
Improved workflow

What does the future hold?

The short answer for manufacturing: more IoT.

Fifty-nine percent of manufacturers surveyed said their spending on smart IoT solutions would increase in the next 12 to 24 months. And that percentage holds steady for small, medium and large operations, regardless of what they produce.

With a focus on operational efficiencies and competitiveness, manufacturers are betting that the cutting edge of technology will give them an edge in the marketplace. And with 87% reporting their satisfaction with IoT, that's a pretty safe bet.

Learn more about
Manufacturing IoT Solutions

87% of manufacturers report their satisfaction with IoT