



inspirage<sup>®</sup>  
THE  
**FUTURE**  
OF THE  
**INTEGRATED  
SUPPLY CHAIN**  
2017

# MARKET RESEARCH STUDY

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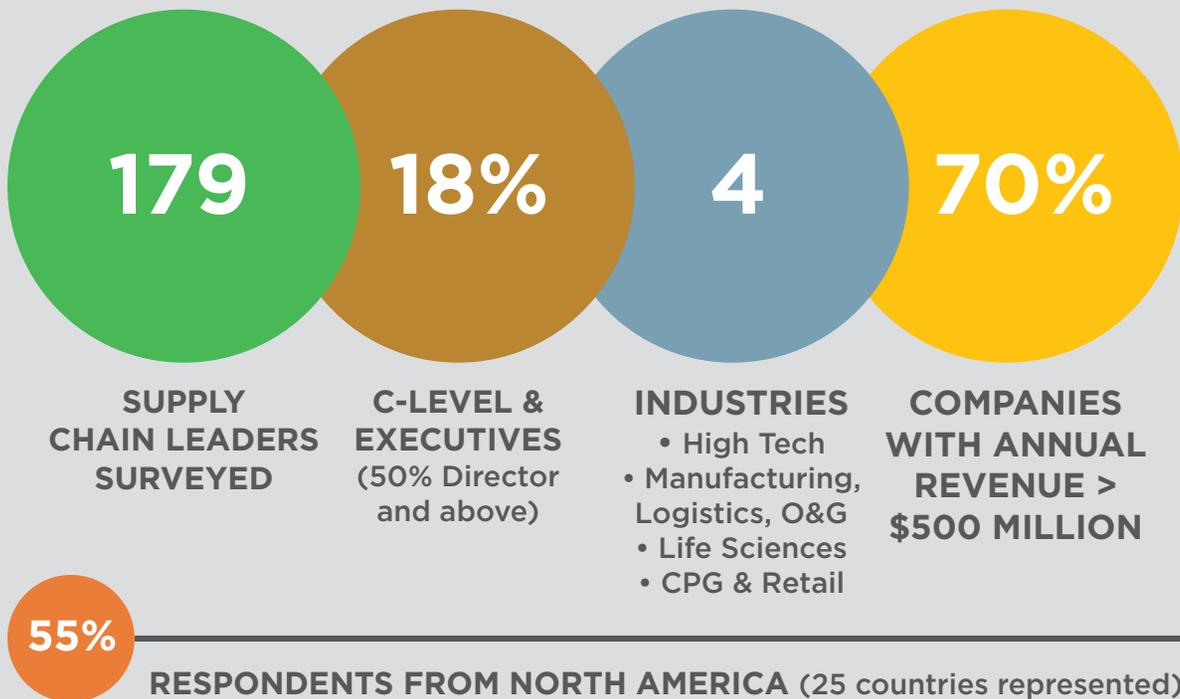
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# ABOUT THE STUDY

As we set out on this journey, we aimed to reach a representative sample of leaders from across industries, company sizes and roles in the organization.

We were able to get a significant number of respondents across the various segments and will call out the differences throughout this report. In our analysis, we have compared and contrasted responses from Large and Mid-size Businesses (with \$500M in annual revenue as the breakpoint), IT and Business Respondents and various Industries.



## OBJECTIVE

Inspirage recently conducted a research study looking into the future of supply chains. We were looking to answer the following questions:

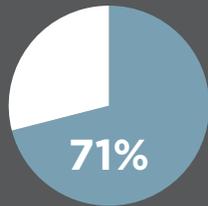
- What are the key challenges supply chain leaders face today?
- What are the biggest priorities supply chain leaders are focused on for the next few years?
- How are businesses performing against each tenet of the Inspirage Integrated Supply Chain Maturity Model?
- What has changed since our *Future of Supply Chain* research study last year?

# KEY THEMES

As the integrated supply chain specialists, Inspirage recently undertook a major research study to understand how organizations are looking to modernize their supply chains. Last year, we studied how supply chain leaders are looking to transform their IT infrastructure. This year, in addition to revisiting some of those questions, we focused more on their overall supply chain vision. Specifically, we looked at how companies are working to build more integrated supply chains - from ideation to execution.

## Theme #1 INTEGRATION

Systems and tools continue to be the #1 obstacle to extended supply chain integration



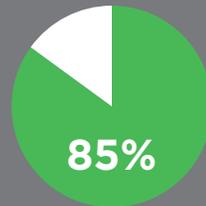
Rely on manual tools to connect with their extended supply chains



Report extensive connectivity with extended supply chain

## Theme #2 SUSTAINABILITY

Sustainability is a top priority, but there's still a lot of work to be done



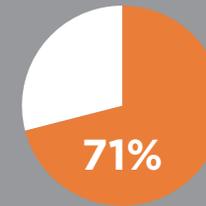
See sustainability as a priority or higher  
(23% consider it a strategic focus)



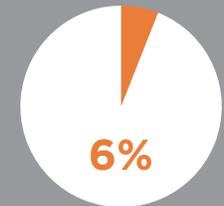
Report sustainability as key company strength

## Theme #3 DIGITAL

A majority of respondents consider digital transformation a key business imperative, but few consider it a corporate strength



Consider digital transformation a key business imperative



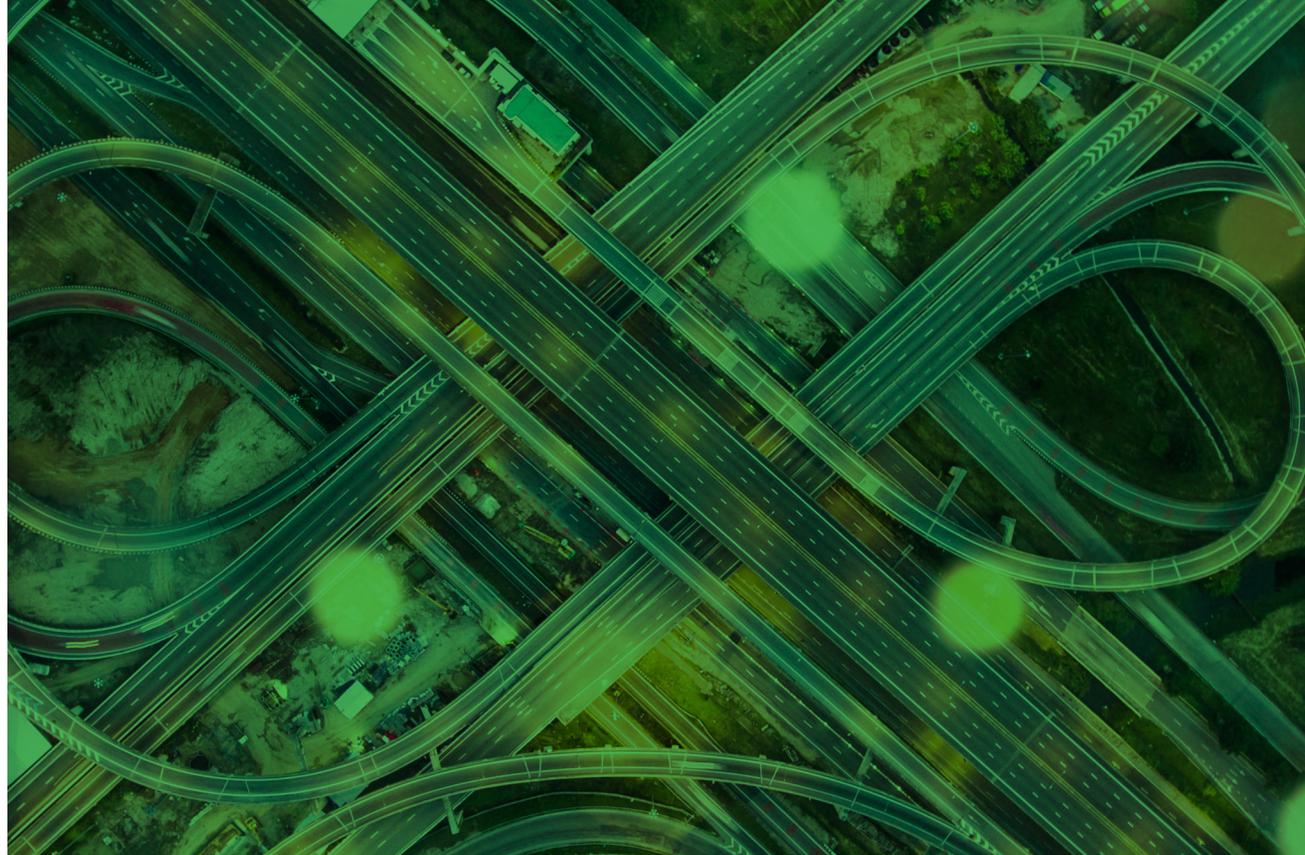
Report digital adoption as key company strength

## The study revealed three key themes:

- 1) Outdated Tools and Systems** coupled with a **lack of integration** are hampering company growth and preventing companies from being more responsive to market and customer demands.
- 2) Sustainability** is a priority and strategic focus for companies, but companies are struggling to achieve their sustainability targets. Not only can businesses gain goodwill with customers through efficient use of natural resources, but increased efficiency is also a way to reduce costs.
- 3) Likewise, Digital Transformation** is a key imperative and the transformation has been started by vast majority of companies; however, few companies consider it to be a key company strength. Digital transformation is essential as tackling this challenge can have other benefits related to market responsiveness, innovation, agility, sustainability and more.

Note that this study is focused exclusively on shedding light on the current state of the industry revealed in our survey. We will be publishing future papers on solutions you can deploy to address each of these themes.

The most  
efficient &  
effective  
supply chains  
are Integrated  
Supply Chains.



**INTEGRATED  
SUPPLY CHAIN**

**MATURITY MODEL**

# AN INTEGRATED SUPPLY CHAIN ...

## The Five Key Tenets of the Integrated Supply Chain Maturity Model

Based on our experience working with 100s of companies all over the world over the past 10 years, we've built a model that highlights the **5 Key Tenets** that are common among truly innovative supply chains. This research confirmed that the most efficient and effective supply chains are "Integrated Supply Chains" and we have built our own "Integrated Supply Chain Maturity Model" that measures how companies are performing against these metrics. This report will look at each of these tenets.

# #1

## Extended Enterprise

... collaborates internally and externally to foster value driven networks

# #2

## Agile

... is connected to customers, suppliers, regulators, carriers, and distribution networks and quickly responds to changing customer and market demands

# #3

## Innovative

... drives innovation end-to-end (not only in its products & services but also in its processes, people, and technology)

# #4

## Sustainable

... develops products in an efficient manner that ensures the highest levels of quality and reduces waste and impact on the environment

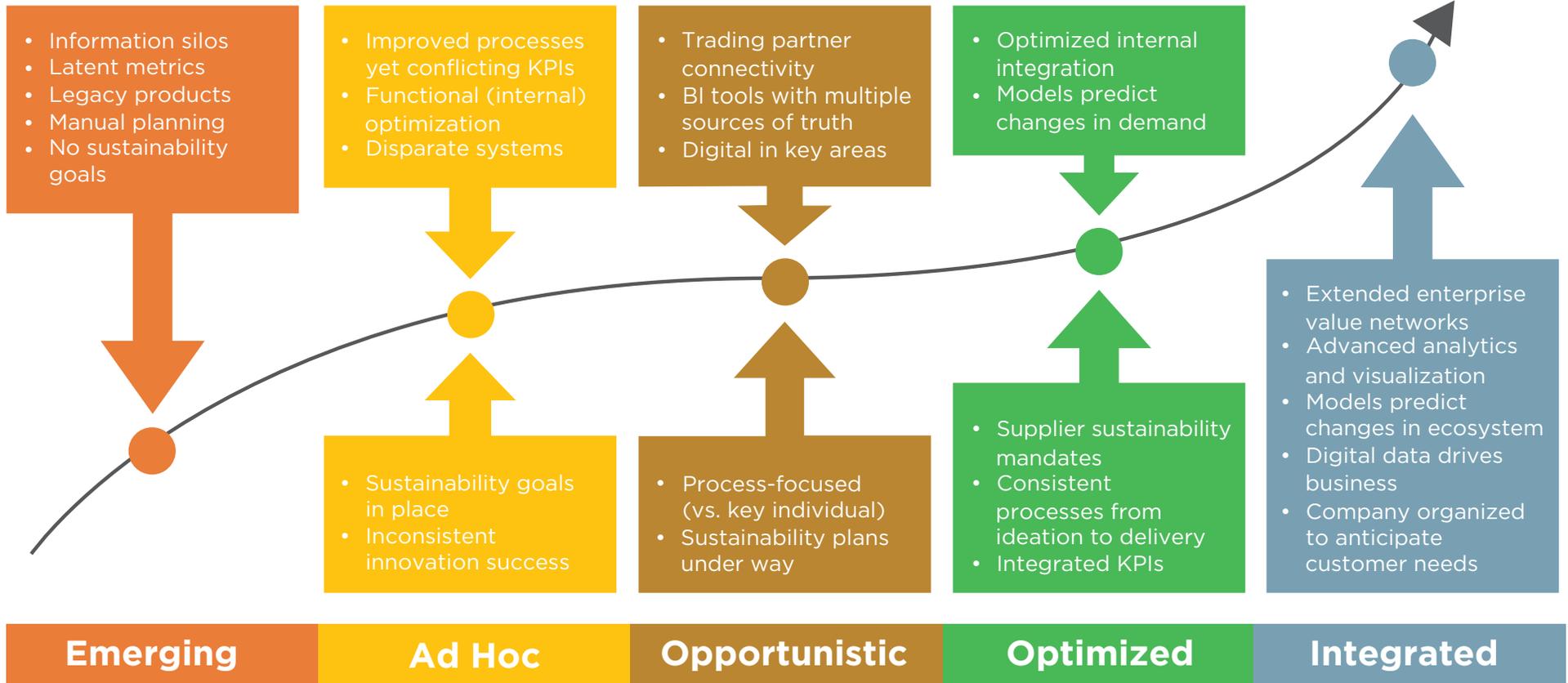
# #5

## Digital

... leverages technology to connect people and machines with each other or information (e.g. IoT, big data and analytics, mobile, cloud, etc.)

# ISC MATURITY MODEL

In addition to the 5 tenets of the Integrated Supply Chain, we look at supply chain effectiveness along our overall maturity model.



# BENEFITS

## HERE ARE A FEW OF THE KEY EXPECTATIONS:



We asked our experts and customers what types of benefits they expect to achieve from building a truly integrated supply chain.



### Speed

With an agile, Integrated Supply Chain, companies enjoy faster time-to-market



### Quality

High quality products not only lead to increased sales, but also reduce return, replacement, and repair costs



### Market Share

Companies with integrated supply chains outperform their competitors in the marketplace



### Risks

By anticipating market and regulatory demands, companies can reduce overall market risks

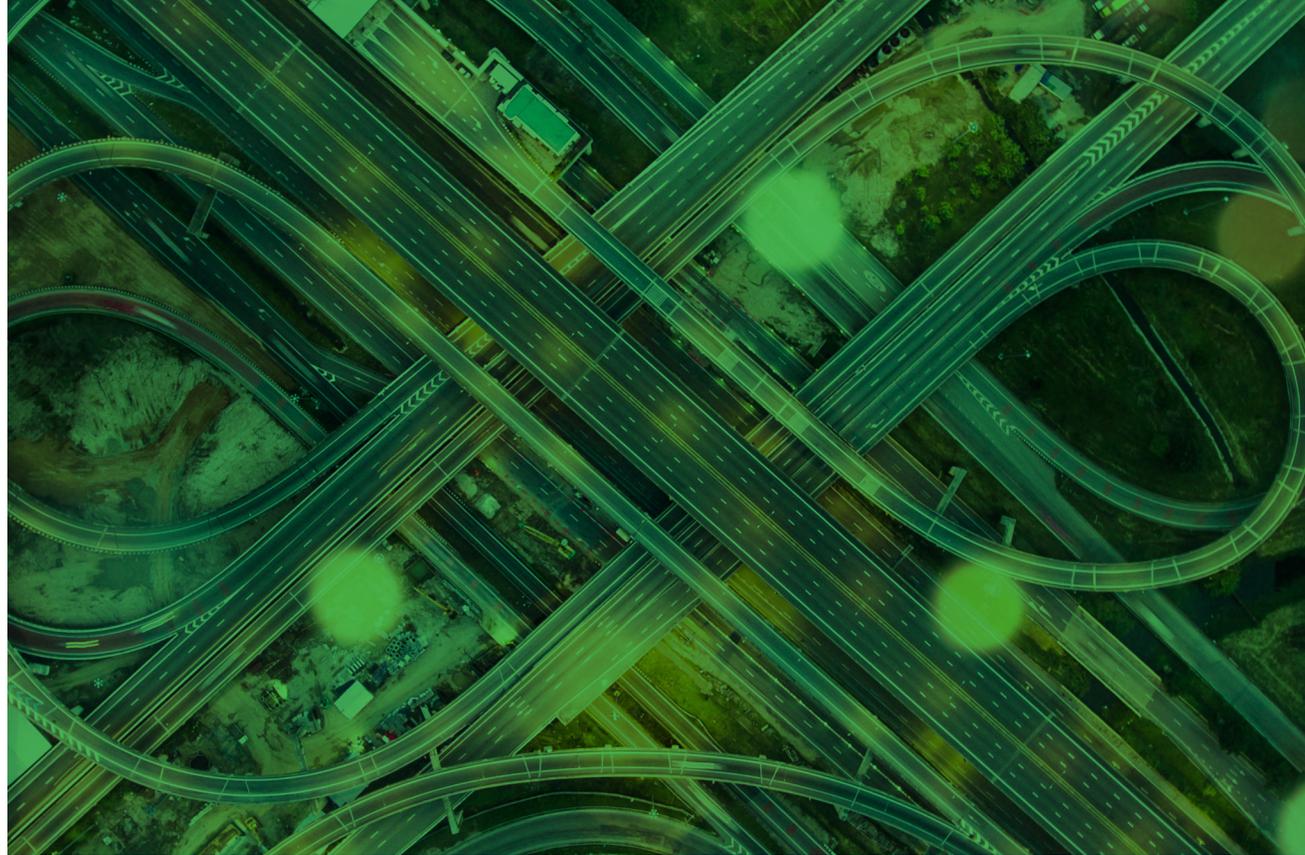


### Value

Combined, the above benefits drive increased shareholder value

Now let's look at how our survey respondents looked at each tenet, starting with the Extended Enterprise.

**This tenet is focused on how companies collaborate internally and externally to foster value driven networks.**



# EXTENDED ENTERPRISE

TENET #1

# TOOLS AND SYSTEMS

Companies can't create more integration outside of their company if they are not integrated internally. Our respondents told us they continue to struggle with having the right tools to integrate more deeply with their extended supply chain. "Integrated tools and systems" was chosen as the top obstacle, with information visibility and communication - actually a byproduct of lack of integration - coming in at second.

Integration was chosen as the top obstacle by respondents by a wide margin, as more than **double** the number of respondents chose "Integrated tools and systems" as the primary obstacle. In fact, Integration transcends all segments, as it was cited as the top obstacle to extended supply chain integration by **all eight** of the segments that we analyzed. Executive interviewees cited outdated systems and manual tools being used in their extended supply chain integration efforts.

Lack of integrated tools and systems is the main obstacle to extended supply chain integration



INTEGRATED  
TOOLS AND  
SYSTEMS

INFORMATION  
VISIBILITY &  
COMMUNICATION

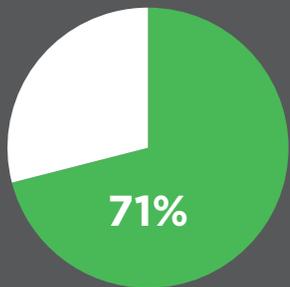
CHANGE  
MANAGEMENT

N = 177

# INTEGRATION TOOLS

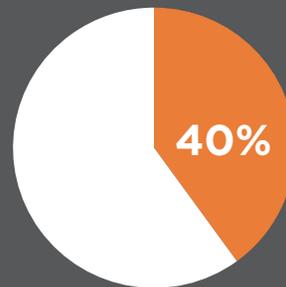
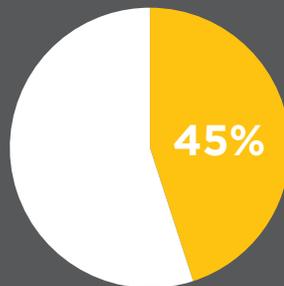
Manual tools are still overwhelmingly used for integration

Which of the following do you use to integrate more deeply with your extended supply chain? (Select Multiple)



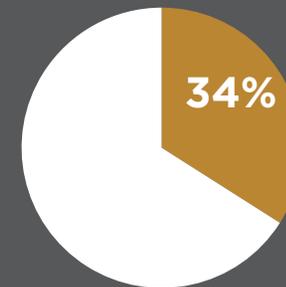
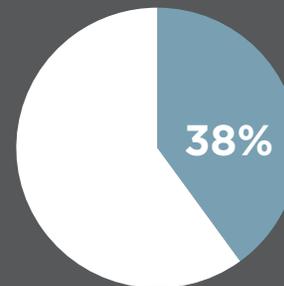
Manual tools  
(example:  
spreadsheets)

Fragmented  
systems



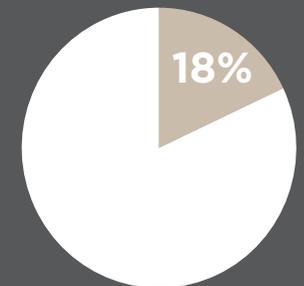
Unified  
ERP

Business  
Intelligence



Partner trading  
portals &  
exchanges

Cloud-based  
tools



N = 178

Manual tools and fragmented systems are widely used but are not the right tools for business transformation

This lack of system integration can be explained in part from the fact that many companies still rely on manual tools such as spreadsheets and fragmented systems to manage their supply chains. This doesn't make it easy for companies to transform and grow their business.

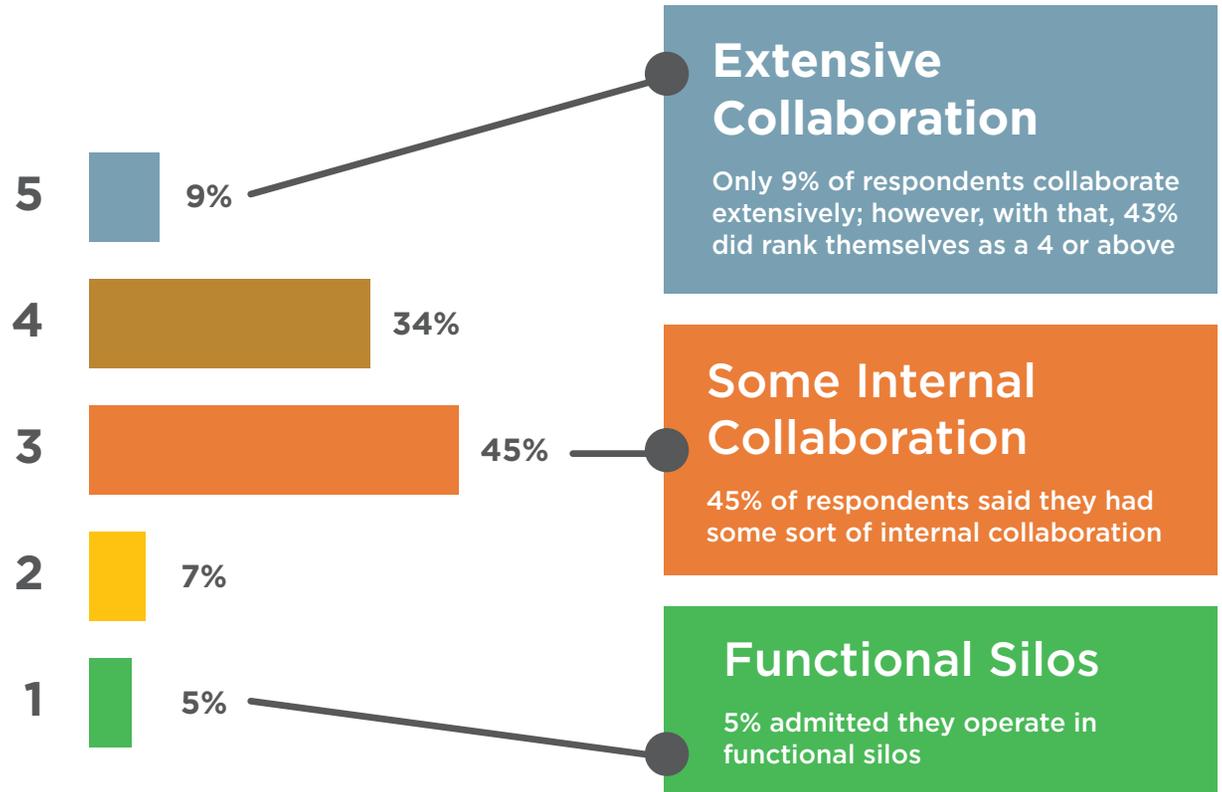
# COLLABORATION

Companies continue to focus on improving collaboration

How well does your company collaborate internally?  
(Rate from 1 to 5)

N = 175

Only 6% consider internal collaboration a key company strength



In our study, we asked several questions twice, in slightly different ways. For the internal collaboration pair of questions, respondents were asked how well their company collaborates internally. Almost half of respondents viewed their company as having some internal collaboration or ad hoc internal collaboration in some groups. However, less than 10% of respondents feel that their company has extensive internal collaboration or view it as a key company strength. It comes as no surprise that a lack of internal collaboration is an obstacle for extended supply chain integration as it risks duplication of efforts and wasted resources.

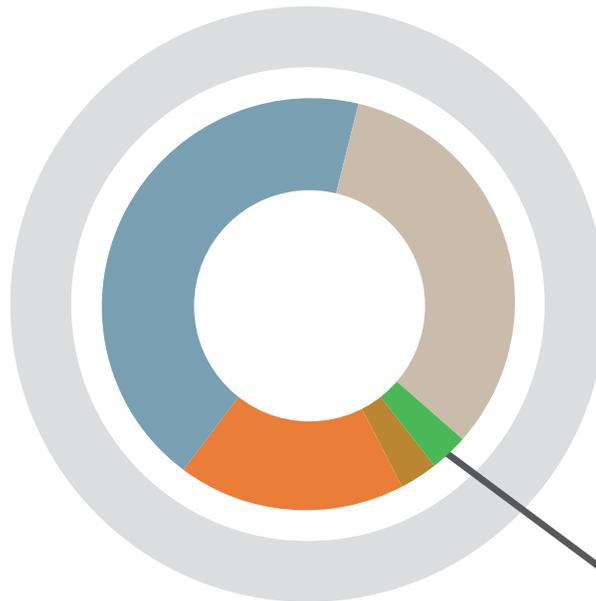
Mid-size companies were more likely to consider their company to have extensive collaboration, which makes sense based on their smaller size. However, large companies were twice as likely as mid-size companies to consider their company to have above average collaboration. This could be the result of more robust policies to encourage corporate collaboration.

# PARTNER INTEGRATION

Companies integrate with partners and customers on only an ad hoc basis

Rate from 1 to 5: How well does your company connect and collaborate with your extended supply chain (customers and partners)?

- 1 3% - No connectivity
- 2 18% - Limited connectivity
- 3 44% - Ad hoc connectivity
- 4 33% - Moderate connectivity
- 5 3% - Extensive connectivity



Rate from 1-5: Connectivity with external partners and customers

Only 6% of respondents listed connectivity with external partners and customers as a key strength

N = 156

The future of business rests with extensive connectivity with supply chain partners

N = 174

The entire Integrated Supply Chain model is built around extended supply chain integration. Consider that when people purchase things at online sites such as Amazon, they expect complete transparency - to know when it will arrive and be able to track its progress. That's only possible by online retailers connecting with transportation partners. But there are so many more possibilities with extended supply chain integration, and the companies that are able to do it quickly will be the ones who can capitalize the most.

High tech companies are most likely to integrate with their extended supply chain, with Mid-size companies least likely to.



# Our 2<sup>nd</sup> tenet looks at a company's ability to respond to changing marketing environment.

Agile companies anticipate changes in customer and market demands.

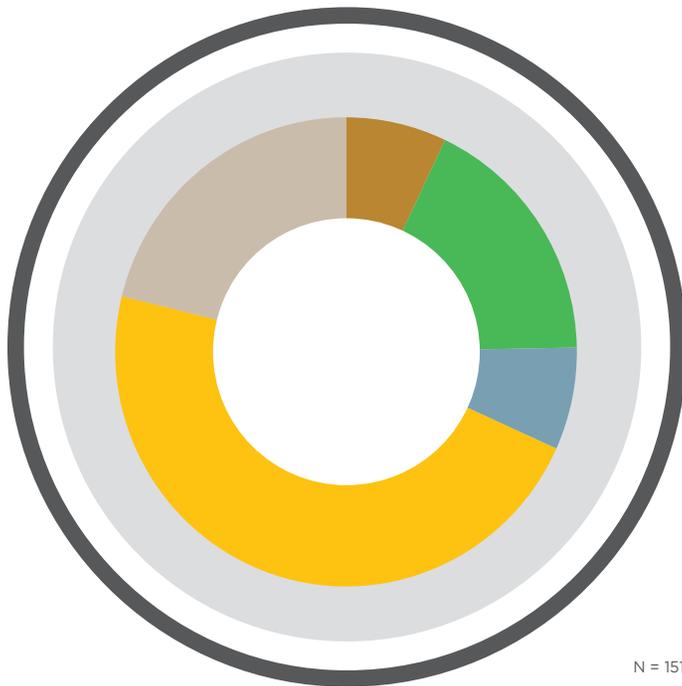
## AGILITY

### TENET #2

## ESTABLISHING METRICS & IMPLEMENTING CHANGES

Respondents cited agile systems and processes

In which areas are you working to improve your systems and processes? (Select One)



N = 151

6% - No initiatives in place

15% - Establishing new metrics

9% - Starting to act on new metrics

40% - Implemented process changes and measuring results

18% - Completed multiple measurement & improvement cycles

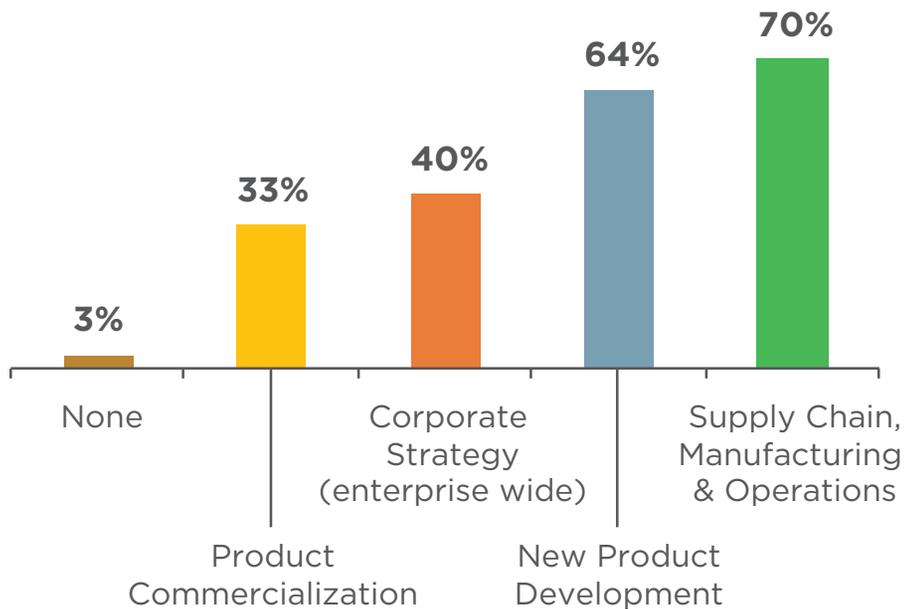
**Almost 60% of companies have implemented process changes & are measuring results**

A key factor in a company's ability to produce innovative products in a agile manner, entails creating metrics and then implementing process changes based on the results. In our study, almost 60% of respondents have reached at least Level 4, meaning they've implemented process changes and measuring results, 18% of which have reached Level 5.

# AGILITY: FOCUS AREAS

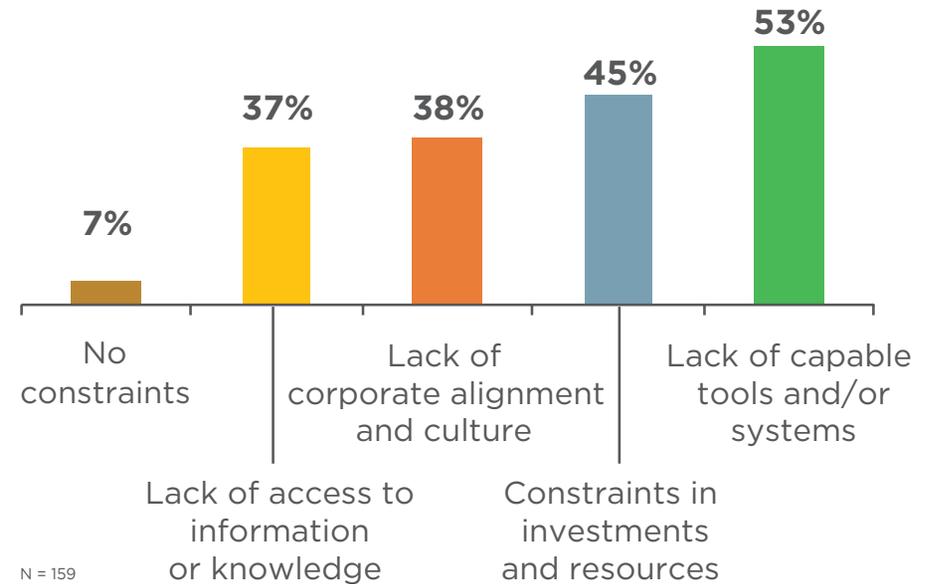
Supply chains are starting to focus on being responsive, but outdated tools and systems again hinder growth

Which areas of your organization have started to focus on being more responsive to market and customer demands?



N = 159

Which of the following are preventing you from being more responsive to market and customer demands?



N = 159

## Outdated tools and systems continue to hinder growth

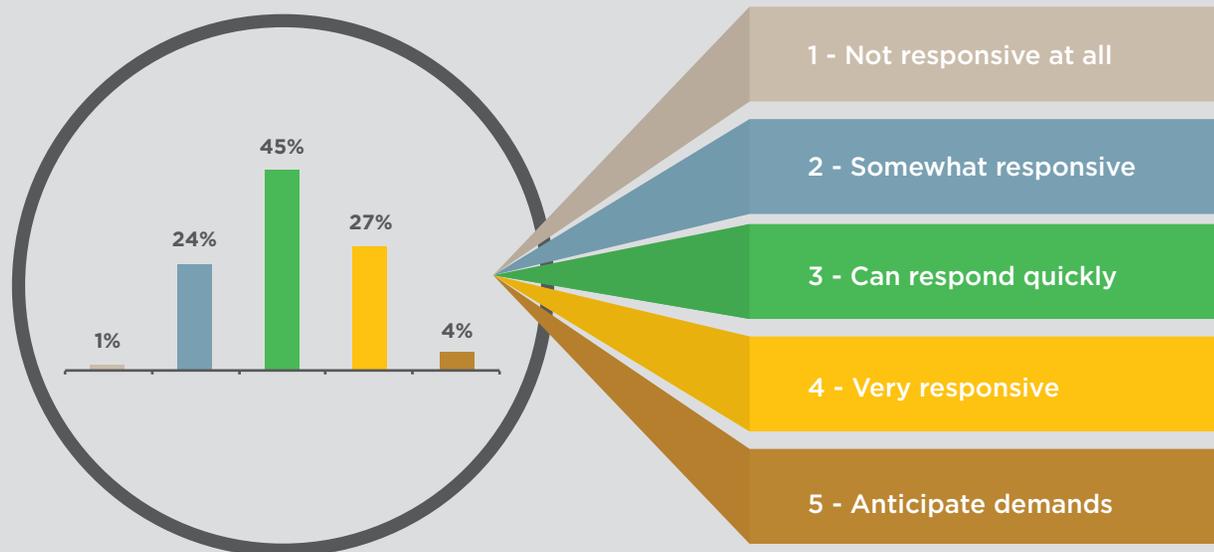
While we're beginning to see some functions — such as Supply Chain, Manufacturing & Operations or New Product Development — begin to focus on being more responsive to market and customer demands, outdated tools and systems, like with the Extended Enterprise, are the #1 obstacle preventing companies from being more responsive to their partner needs.

Interestingly, large businesses consider themselves to be more responsive than mid-size businesses; however, mid-size businesses typically don't have the resources to build or maintain robust tools & systems.

# MARKET DEMANDS

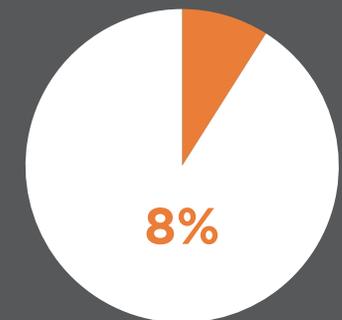
Companies are responsive,  
but not yet proactive

Rate from 1 to 5: How responsive is your company to customer and market demands?



N = 157

Only 8% of  
respondents list  
**RESPONDING  
TO MARKET  
DEMANDS** as  
a key strength



**Companies who thrive will learn how to anticipate market demands, not just react to them**

Being reactive is expected by customers and the market. However, those that are effectively able to anticipate and provide for market demands will thrive in the increasingly competitive marketplace. Companies in our study were effectively able to react and respond quickly to market demands, however, only 4% of our respondents felt that their company is able to anticipate demands. Again, when we looked at this topic from a different angle, slightly more companies (8%) consider market responsiveness a key company strength, but without anticipating demands, that might be an overly optimistic self assessment.

Mid-size companies are slightly more likely than large companies to be responsive to customer and market demands. With a relatively smaller organization, Mid-size companies can act more quickly to concerns and demands.



# Our 3<sup>rd</sup> tenet looks at Innovation from end-to-end.

Not just products  
and services but also  
processes, people,  
and technology.

INNOVATION

TENET #3

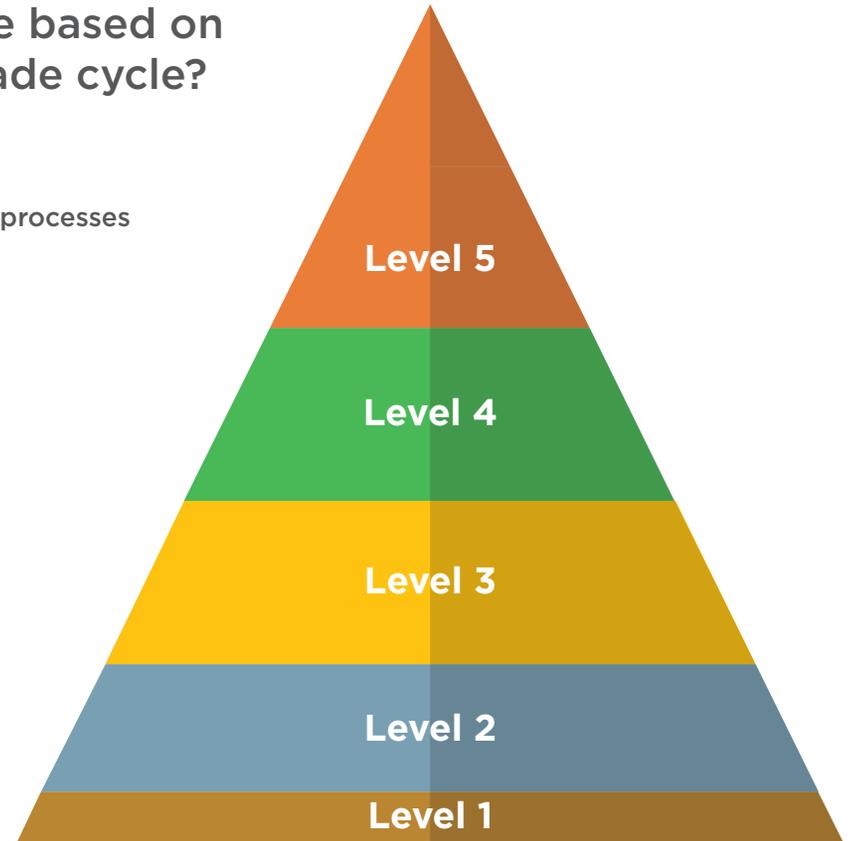
# ANALYSIS AND PERFORMANCE METRICS

Companies are effectively using analysis and performance metrics in their innovation cycles

How do your internal teams continually innovate based on analysis from each new product launch or upgrade cycle?

- Level 5 - 28%**  
Performance metrics are collected, analyzed and leveraged to improve processes
- Level 4 - 20%**  
Performance is analyzed, but feedback to product process is limited
- Level 3 - 18%**  
Some teams are regularly performing reviews
- Level 2 - 19%**  
Teams analyze on an ad hoc basis
- Level 1 - 6%**  
Performance analysis is not performed

N = 146



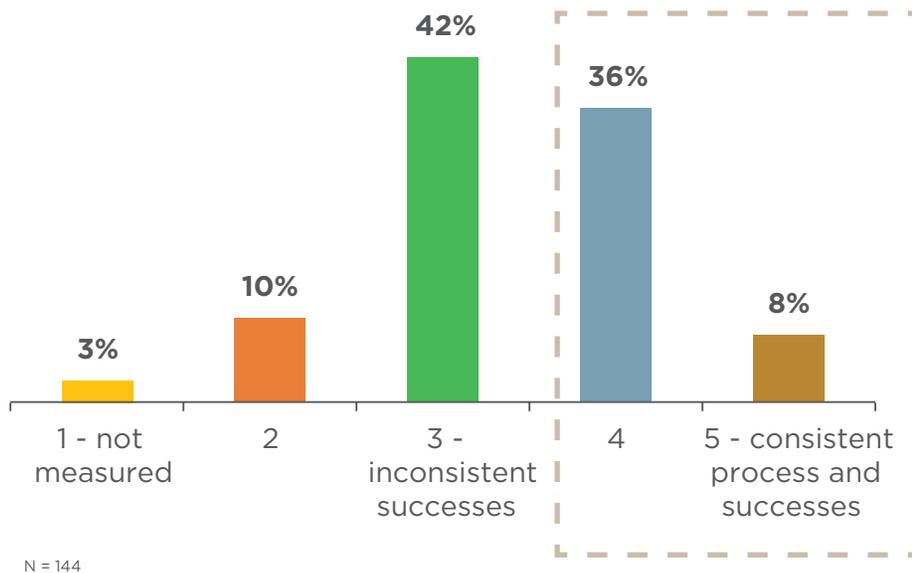
Measuring how innovative a company is can be challenging and of all the 5 Tenets, respondents rated themselves highest in terms of their ability to be innovative. One indicator of a company's ability to innovate is their ability to analyze the performance metrics of their products, and many of our respondents are doing a good job at this. This is particularly the case in High Tech companies, with almost 50% of high tech companies at Level 5, while Retail and CPG companies have the lowest likelihood. Not surprisingly, more large companies are at Level 5 than Mid-size companies.

It is important to note that companies may be reviewing analysis and performance; however, they may not be able implement or improve their innovation performance based off of the information.

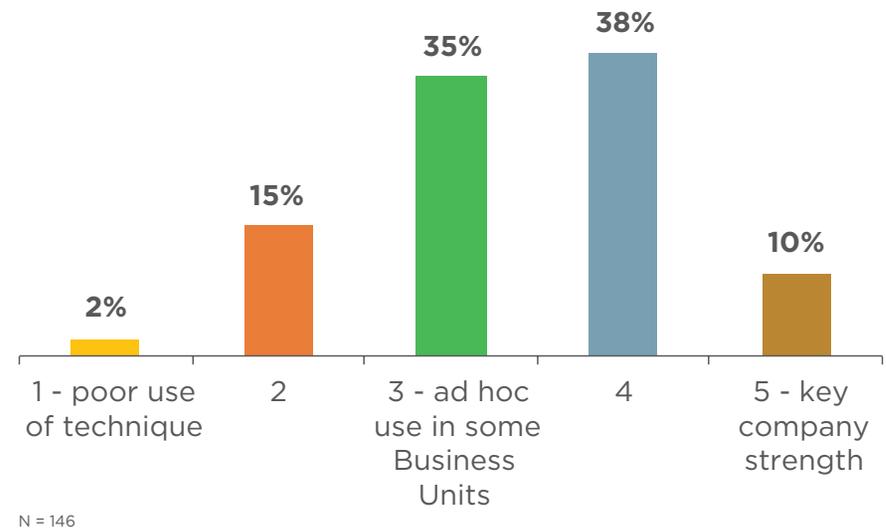
# NEW PRODUCT LAUNCHES

New product and service launches are more ad hoc and inconsistent

How successful are new product or service launches in your existing or new markets?



Rate from 1-5:  
New product introduction



Companies need more consistent product and service launches.

While companies report consistent new product introduction processes from a product development standpoint, they may not be effectively interpreting or learning from the data as their product successes are very inconsistent. While almost half of companies are currently operating at the top 2 levels of innovation, the vast majority of that number is at level 4, with only 8% at the highest level of innovation.

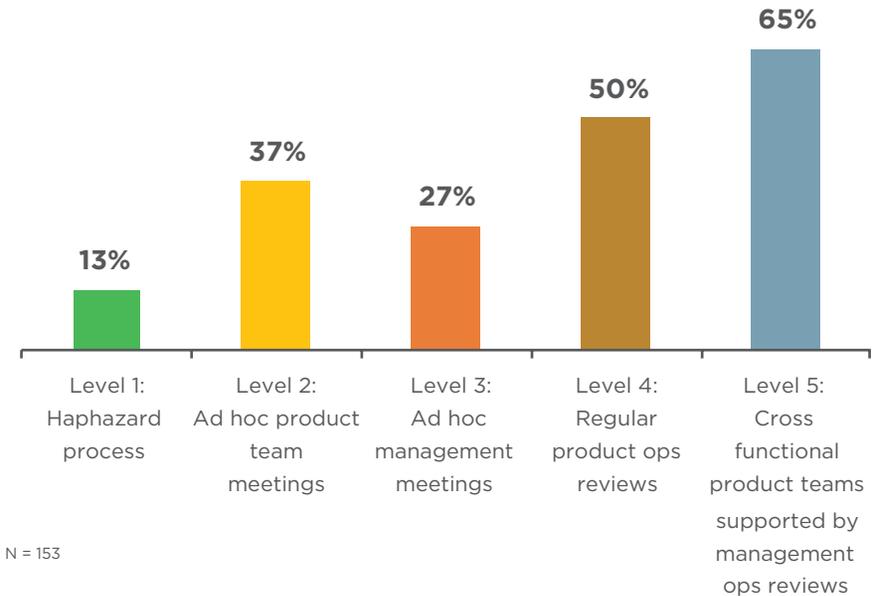
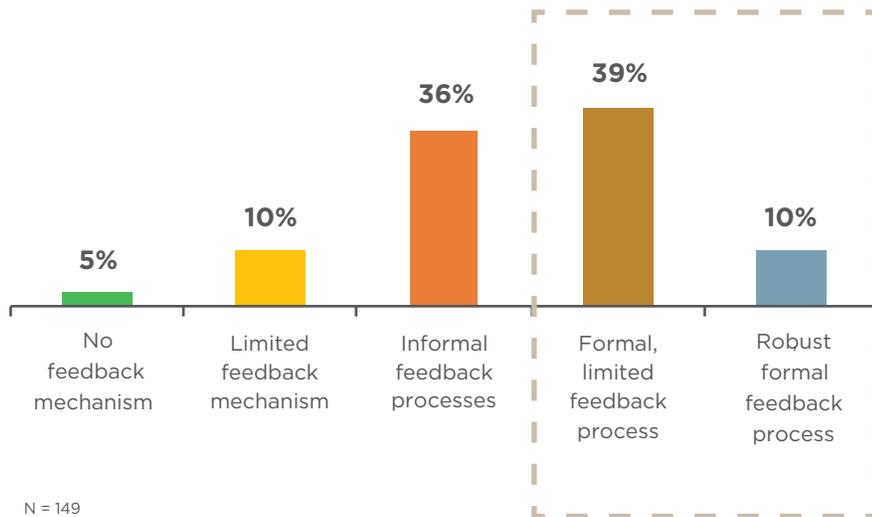
High tech companies are more likely to have consistent process and successes when it comes to new product and service launches, while Retail / CPG companies are the least consistent.

# DESIGN PROCESS

Respondents cite using feedback and ops reviews which are built into the product design process

How do you incorporate internal and external feedback into product design?

Which of the following techniques are built into the product design process? (Select multiple)



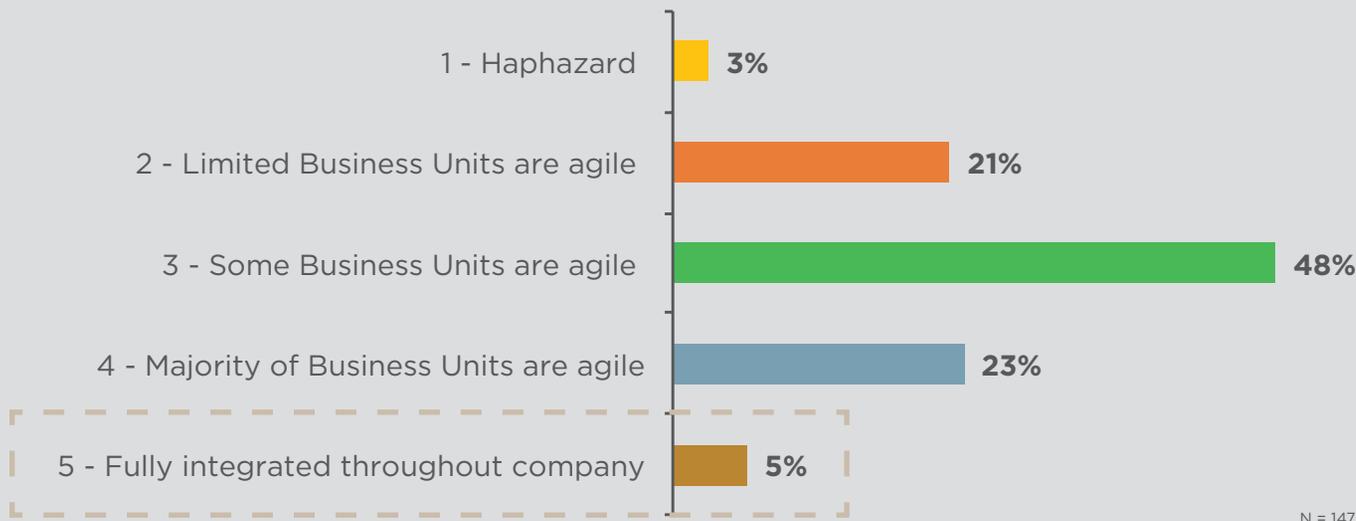
Almost half of companies have incorporated feedback into product design while 65% have implemented cross functional product teams supported by ops reviews.

Agile companies incorporate formal feedback processes and build cross functional teams in their product design (see Tenet #1: Extended Enterprise). Almost half of respondents have incorporated feedback into product design, including 10% that mentioned robust, formal feedback processes. Interestingly, more IT respondents believe their organizations incorporate feedback into product design than business respondents (18% versus 7%). This could be because business respondents simply may not be aware of all the techniques incorporated into the product design process.

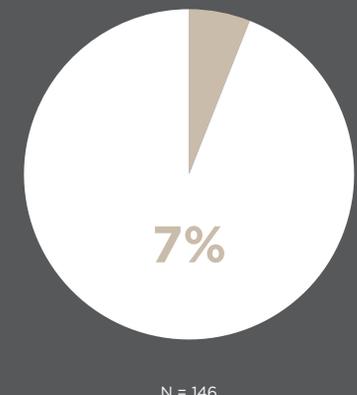
# PRODUCT DEVELOPMENT PROCESS

There are still opportunities to improve product development process agility

How would you rate the agility of your product development process?



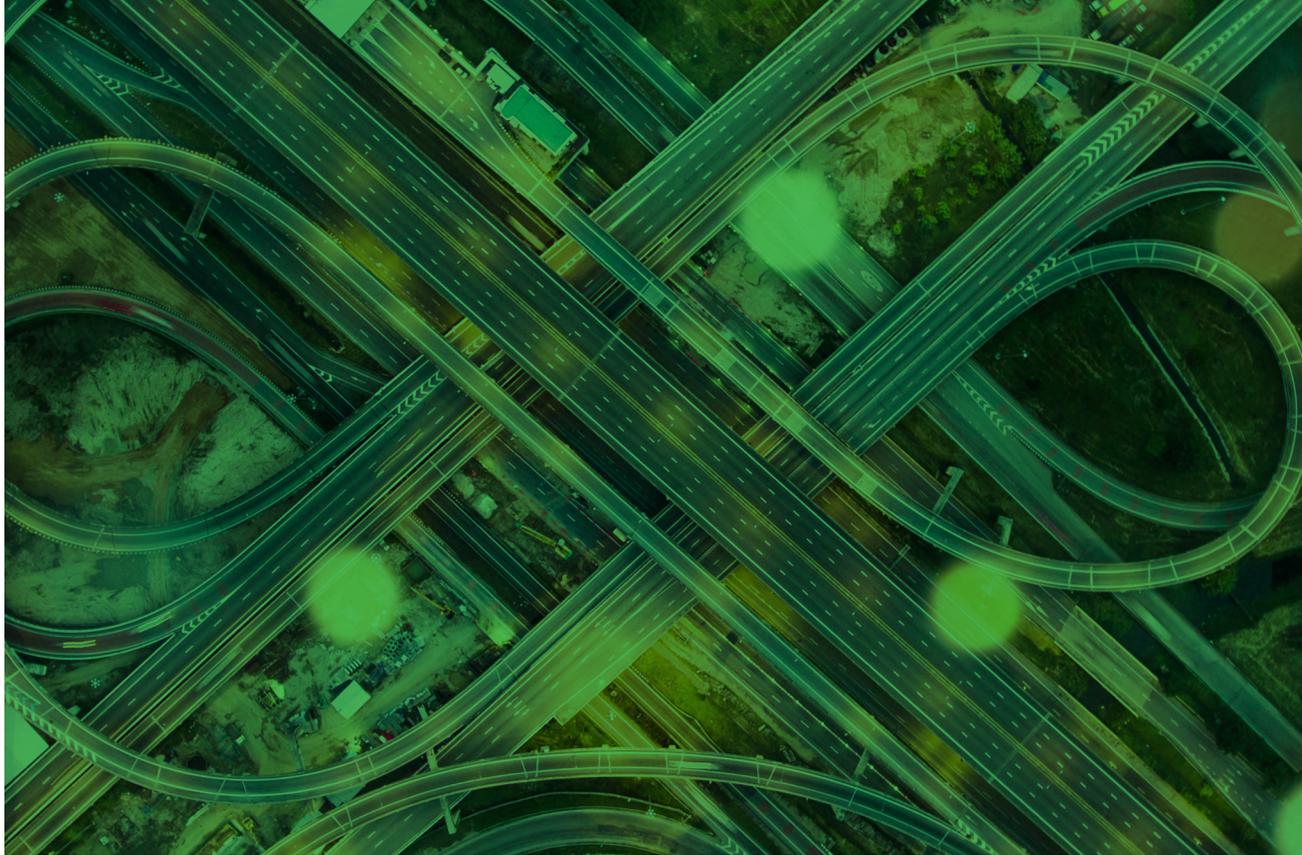
Consider agility a key company strength



Only 5-7% consider their company's product development process to be fully integrated or a key company strength.

While companies are incorporating many of the key processes that are important for agile product design, true agility remains elusive. One reason could be that their systems are preventing them from achieving their goals. As cited previously, 71% of respondents are reliant on manual tools for many of the functions in their supply chain, which will certainly impact their ability to achieve their goals.

**Drilling into the 7% of respondents that consider agility a key company strength, we find that these companies are much less likely to rely on manual tools and instead have deployed unified ERP systems and / or are on the Cloud.**



**Our 4<sup>th</sup> tenet, Sustainability, maps to one of the top 3 themes of our study and is a key issue the today's boardrooms.**

This tenet addresses the ability to develop products in an efficient manner that ensure the highest levels of quality and reduce waste and impact on the environment.

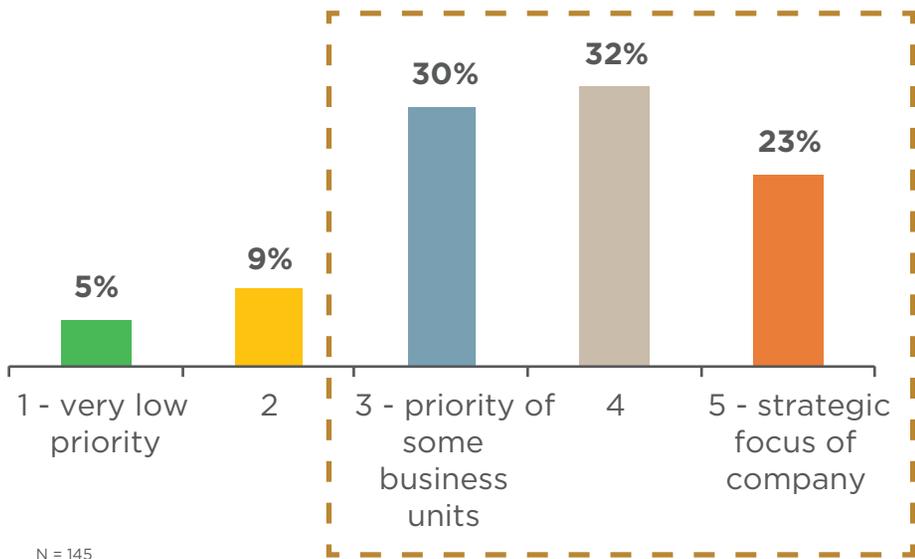
**SUSTAINABILITY**

**TENET #4**

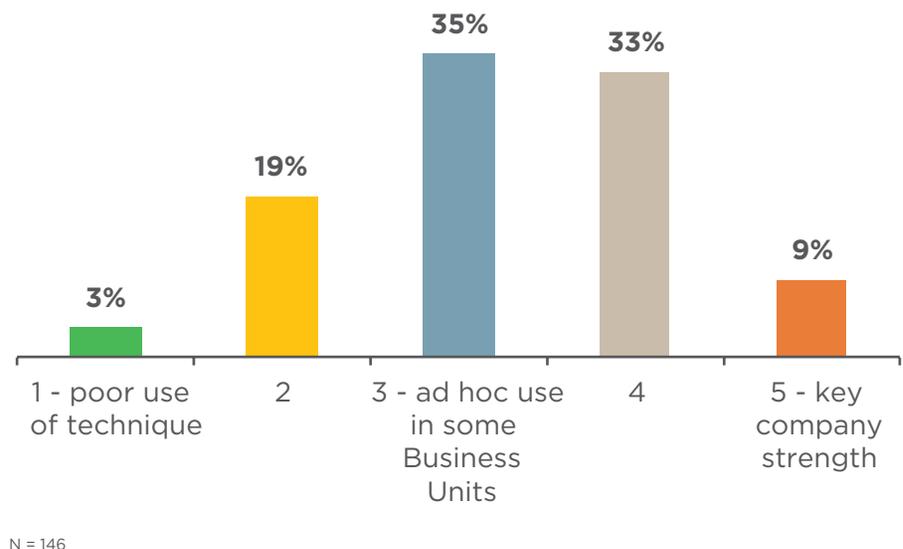
# IMPORTANCE OF SUSTAINABILITY

Sustainability is a priority, even a strategic focus, for most companies

### How important is sustainability in your company?



### Rate from 1-5: Product sustainability



**85% of companies see sustainability as a priority or higher**

Sustainability is important to the vast majority of respondent companies, with 85% of companies seeing it as at least a priority of some business units, and 23% viewing it as a strategic focus of their company. Sustainability is not just about conserving environmental resources, but it also impacts the bottom line. Not only can one enjoy cost savings through reduced waste, but companies can also increase revenues through goodwill and recognition in the marketplace.

Manufacturing, Logistics, and Oil & Gas companies are more likely to view sustainability as a strategic focus of their company (39%) than other segments.

# REGULATIONS FOR TARGET MARKETS

Most product teams do not fully understand regulations for target markets before development

At the beginning of product development, do your product teams know which regulations will be required to sell the product into target markets? (Select One)



- 1 8% - Not tracked
- 2 16% - Regulations checked when sales process starts
- 3 15% - Limited markets verified during development
- 4 15% - All markets verified during development
- 5 38% - Product teams know target markets before development

Less than 40% of companies know regulations to sell into target markets

N = 147

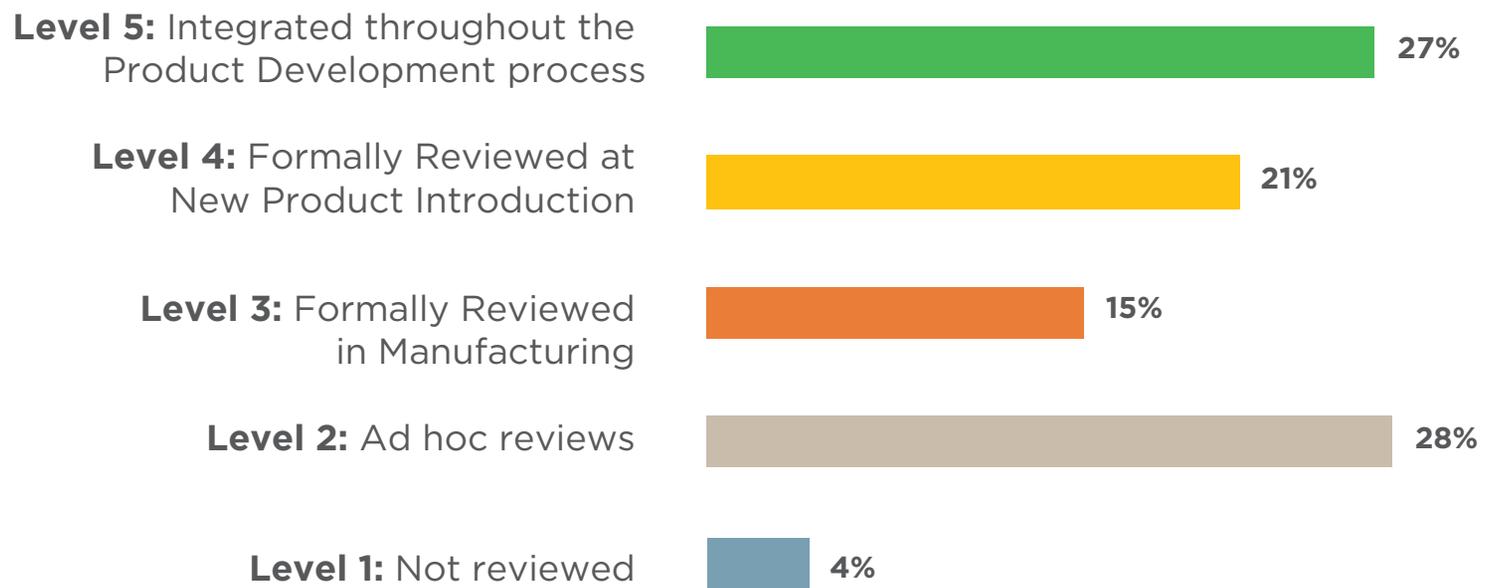
Although companies say sustainability is a priority, they are not factoring it into their product design process. Many industries and markets face a changing regulatory environment, so it's important for companies to take them into account before product development, however, we found that only 38% actually take regulations into account **prior to development**. A larger percentage don't look at regulations until it's too late, with 15% starting after design has started, 16% when it's time to start the sales cycle, and 8% not at all.

By segment, Manufacturing, Logistics and Oil and Gas companies are significantly more likely to know the regulations (57%), while CPG/Retail companies are least likely (26%).

# REVIEWS FOR PRODUCT OPTIMIZATION

Companies are mixed in using reviews for product optimization

Do your product processes include reviews to ensure the product is optimized for manufacturing, shipping, service and disposal? (Select One)



N = 145

As many companies are operating at Level 5 as those operating at Level 2

Companies are currently operating at both ends of the spectrum with regard to including reviews for product optimization. Almost as many companies operate at the highest level (#5 - Feedback integrated throughout the product development process), as there are at the Level 2 stage (Ad hoc reviews).

High Tech companies (39%) are more likely to use reviews for product optimization while CPG/Retail companies (12%) are least likely.



# Last, but certainly not least, is the Digital tenet.

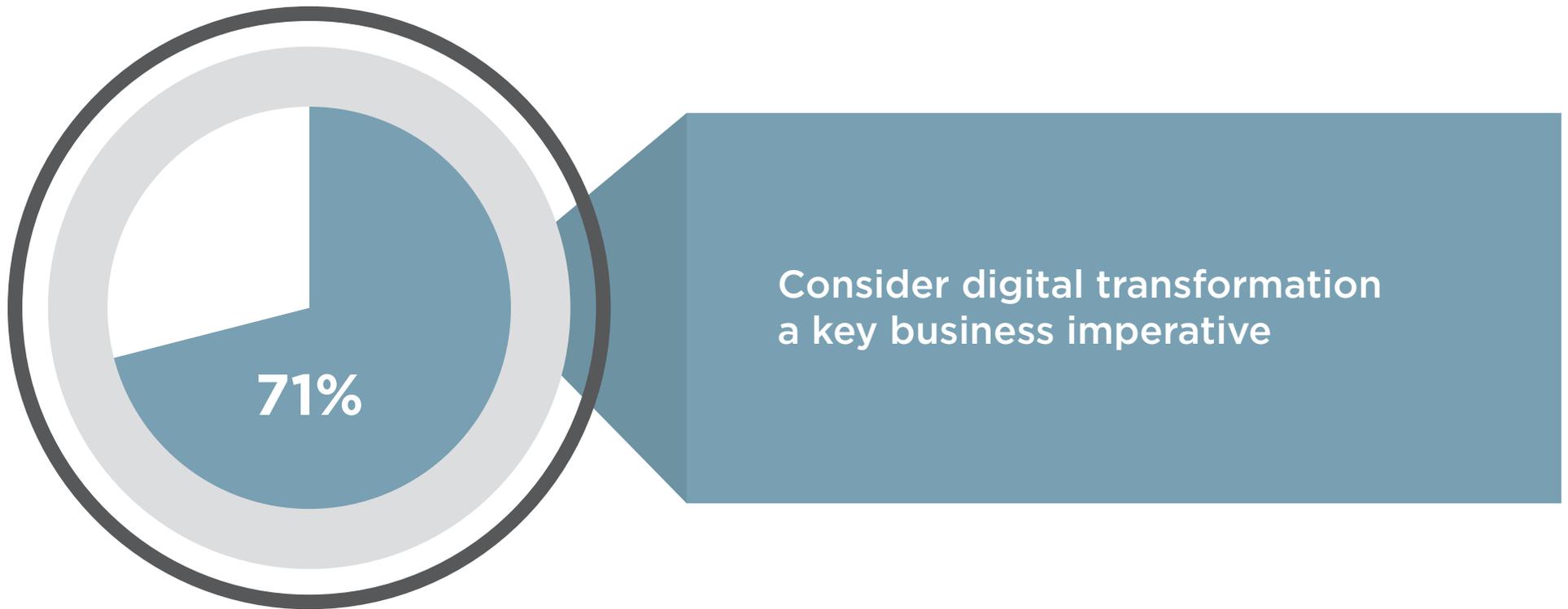
This looks at a company's ability to leverage technology to connect people and machines with each other or information (e.g. IoT, big data and analytics, mobile, cloud, etc.).

**DIGITAL**

**TENET #5**

## KEY BUSINESS IMPERATIVES

Digital is a priority in business units, but not a strategic focus or key strength

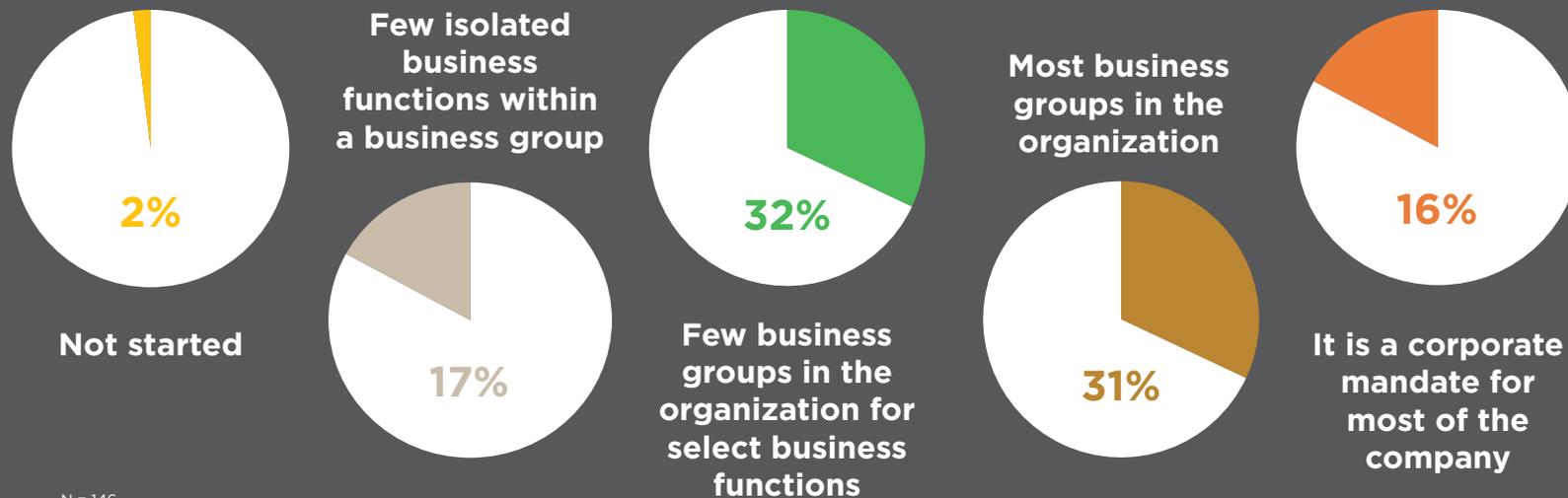


Digital transformation results not only in reduced costs in the long term, but could also improve the customer experience. It's no surprise that almost all of the companies in this study have started on their digital transformation journey. In fact, over 60% of respondents have some or most of their business groups prioritizing digital technologies (levels 3 and 4), and another 16% of companies see digital transformation as a corporate mandate.

# DIGITAL JOURNEY

Almost all companies have started their digital transformation

How would you describe where your company is on the digital journey?  
(Select One)



N = 146

Most companies could still do more work in this area.

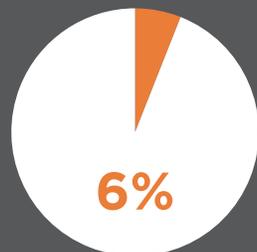
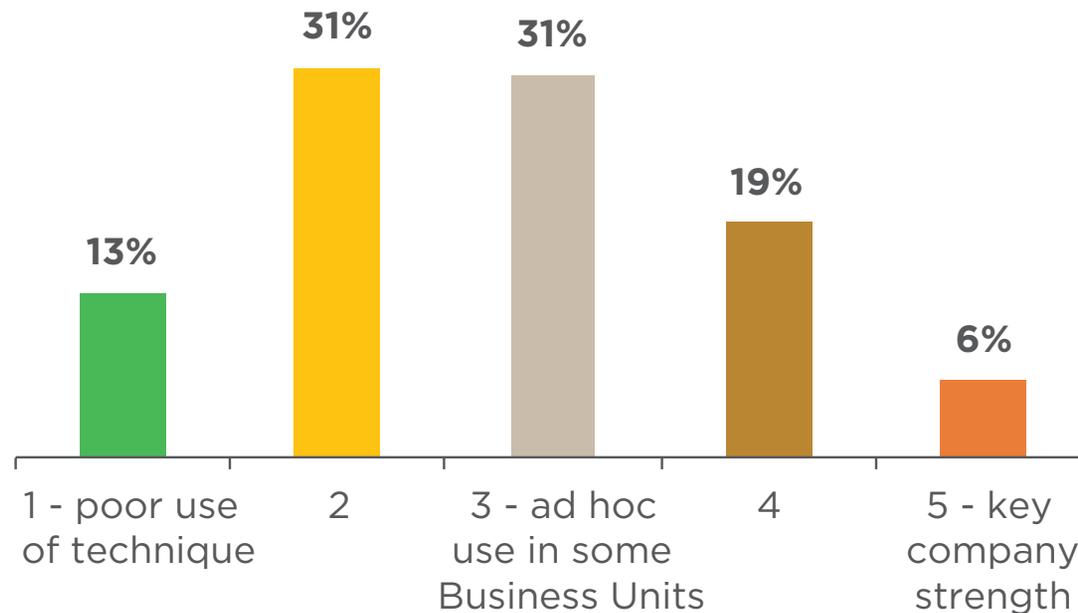
While half of our respondents stated that digital is a priority in some business units, only 6% consider it as a key company strength.

**This question saw interesting differences by segment.** More large businesses than mid-size businesses have digital transformation as a corporate mandate (20% to 8%). More IT respondents said that their company had digital transformation as a corporate mandate than business respondents (24% to 14%). And our biggest differences comes from the verticals. While only 8% of Retail/CPG companies have digital transformation as a corporate mandate, 22% of high tech companies and 24% of manufacturing, logistics and oil and gas companies do.

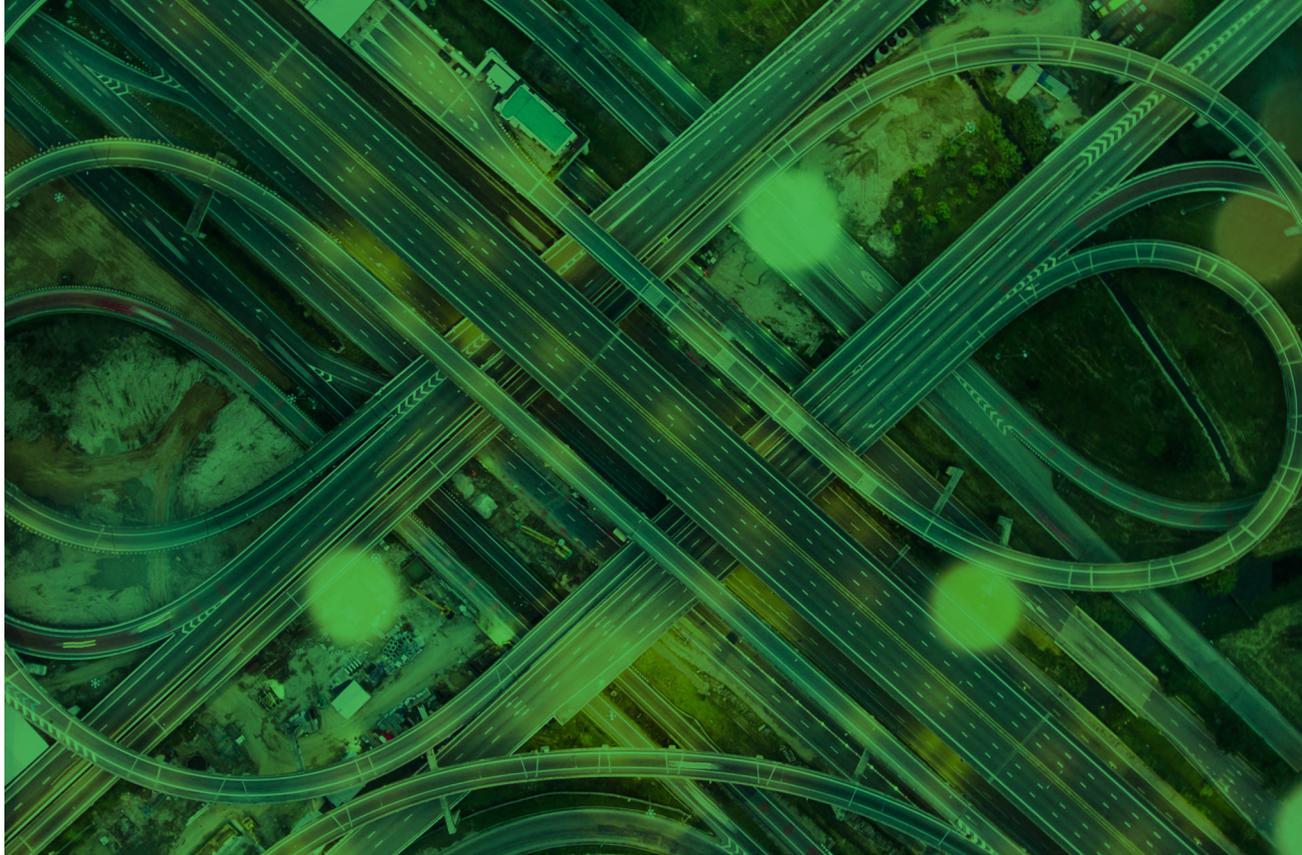
# ADOPTION OF DIGITAL TECHNOLOGIES

Digital is a priority in Business Units, but not a strategic focus or key strength

Rate from 1-5: Adoption of digital technologies (such as IoT)



While people think it's an imperative, the adoption is haphazard at best and as a result, only 6% see it as a key company strength.



We use our research studies as a barometer to build solutions and services that address our customer's concerns.

Last year we looked at supply chain leaders reactions to emerging Cloud technology. We found that their top 3 concerns were understanding the ROI from cloud solutions, integrating new cloud solutions to their existing systems and how quickly they can deploy those solutions.

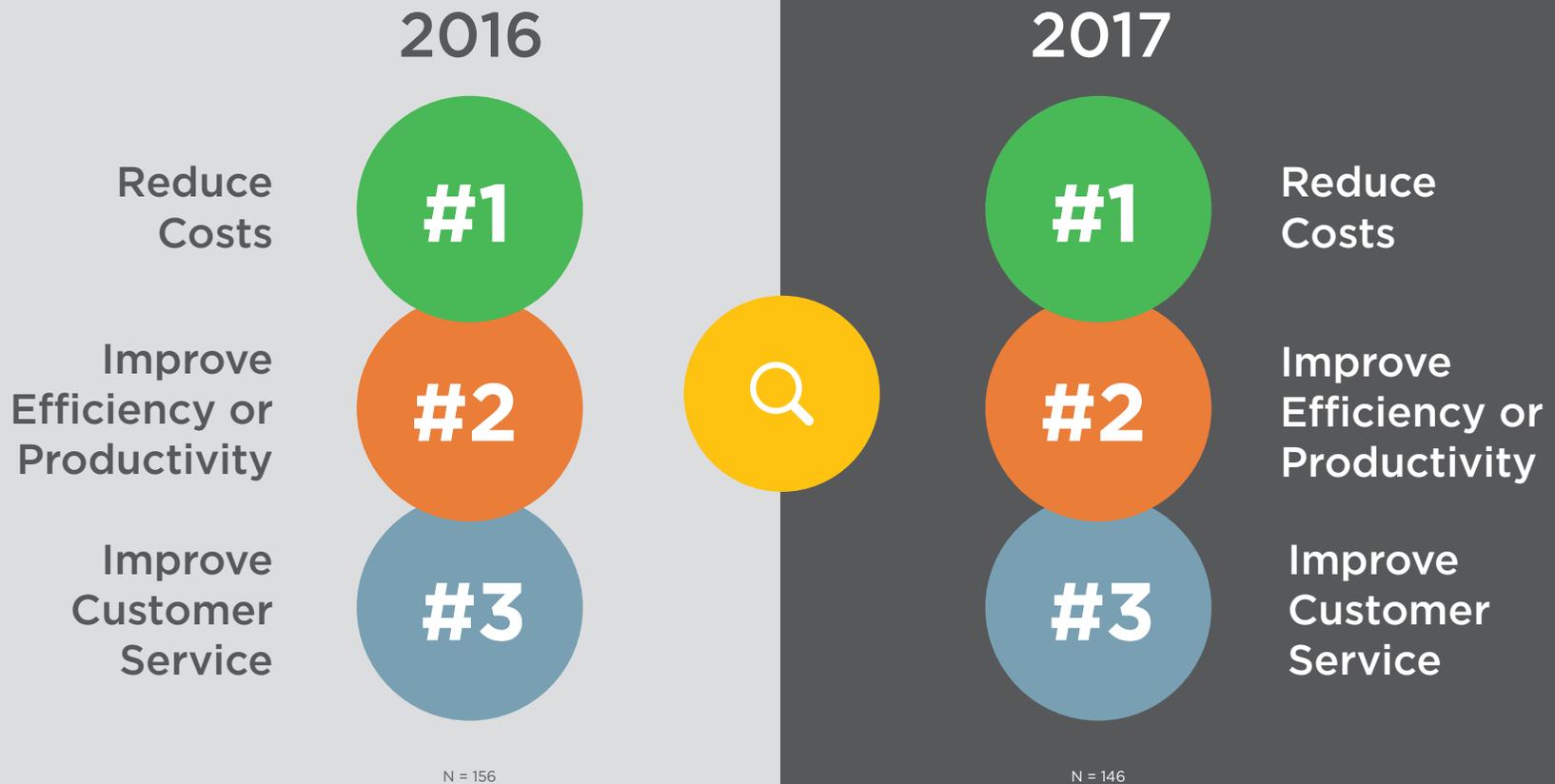
## LOOKING BACK

LONGITUDINAL & OVERALL  
SUPPLY CHAIN DATA

# BUSINESS GOALS

Supply chain organizations had the exact same business goals as last year

What are your supply chain organization's top 3 business goals? (Select up to 3)

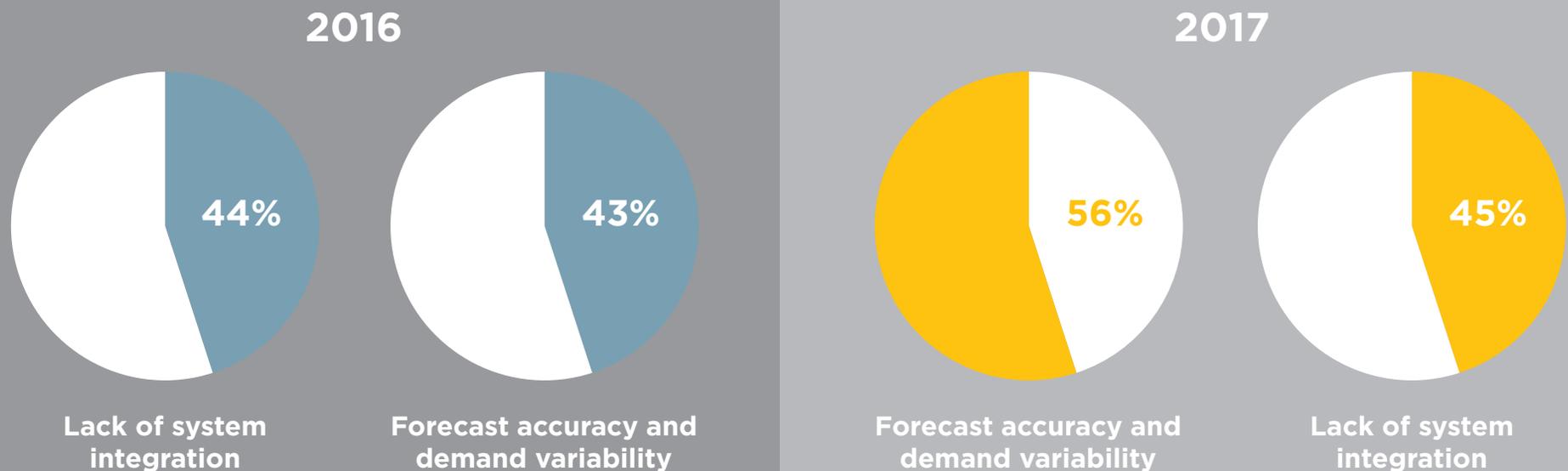


Reduce costs, improved efficiency and improved customer service are the same business goals that were at the top of Inspirage's 2016 study. In executive interviews, we found that these priorities corresponded to respondent's primary desires to affect revenue by either making money (through improved customer service) or save money (reduced costs and improved efficiency).

## OBSTACLES TO ACHIEVING SUPPLY CHAIN GOALS

In addition, supply chain organizations had the exact same top two obstacles to achieving those goals

What do you consider to be the top obstacles to your organization achieving its supply chain goals and objectives? (Select up to 3)



Top two obstacles are same, but the order has switched.

While these top two obstacles mirror last year's study, this year sees a larger focus on forecast accuracy and demand variability. This could be due to the more unpredictable nature of the global and political landscape this year as opposed to last year.

# LOOKING BACK

As a result of last year's study we developed, our **Measure | Migrate | Manage** ("M-Cubed") program

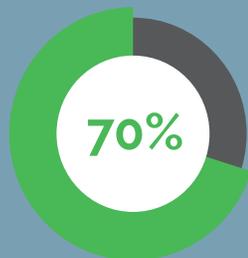


The program was designed to help our customers quickly respond to a changing marketplace and offers 3 core components to address our customers' top challenges related to the Cloud.

To learn more about this program visit [www.inspirage.com/M-Cubed](http://www.inspirage.com/M-Cubed)

"How do I know if my business improved after implementing this solution?"

## RAPID ROI



Most customers would move to Cloud if it helped **reduce costs**

INsights Benchmarking

"How can I integrate legacy and homegrown data sources into one system without spending a lot of time and effort?"

## INTEGRATION

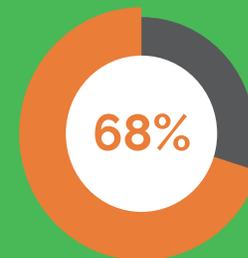
#1

Rank **Integration as #1 Obstacle** for reaching business objectives

iHub CS™

"How can I implement this solution fast, but without compromising the business value?"

## AGILITY



Consider **increasing agility** to be key factor for moving to Cloud

Rapid Value 90 | Managed Services

# WHAT'S NEXT

Our teams have already developed solutions to further address the system challenges identified in this study as well as solutions to help with sustainability and digital transformation objectives.

Here a few examples of how we are helping our customers develop integrated supply chains:



STAY TUNED FOR MORE

## Extended Enterprise

With our Collaborative Planning Forecasting and Replenishment solution we help customers reduce the need for coupling inventory and reduce variability in both demand and supply.

## Agility

Our Integrated Business Planning solution helps customers reduce planning cycle times and run their business with more agility and market readiness.

## Innovation

Our Product Lifecycle Management solutions and IP drive application optimization in four key areas - Process, Integration, Performance and Reporting.

## Sustainability

Inspirage has developed a Corporate Carbon Footprint Calculator to reduce cost and increase social corporate responsibility.

## Digital

Inspirage has developed a strategic blueprint to help our customers migrate to the digital economy through by leveraging the Internet of Things and other emerging technologies.

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**INSPIRAGE IS** the integrated supply chain specialist firm solving business critical challenges from design to delivery. The company delivers end-to-end consulting and implementation solutions that link Enterprise Resource Planning (ERP), Product Lifecycle Management, Supply Chain Management and Logistics Management. Inspirage partners with their customers to break down information silos and optimize performance to accelerate innovation, fuel growth and achieve operational excellence.