

2017
SUPPLY CHAIN
WORLDWIDE
SURVEY



GEODIS

SUMMARY



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2017 SUPPLY CHAIN WORLDWIDE SURVEY



As a partner in business growth of nearly 150,000 clients, from local SME companies to multinational corporations, GEODIS is fully aware that building an efficient supply chain management structure is a daily challenge, particularly in the current environment of geopolitical and economic uncertainty.

After our first successful global survey on Supply Chain, which we carried out in 2015 and the findings of which we used internally, it has been decided to publish for general public consumption the results of this second edition.

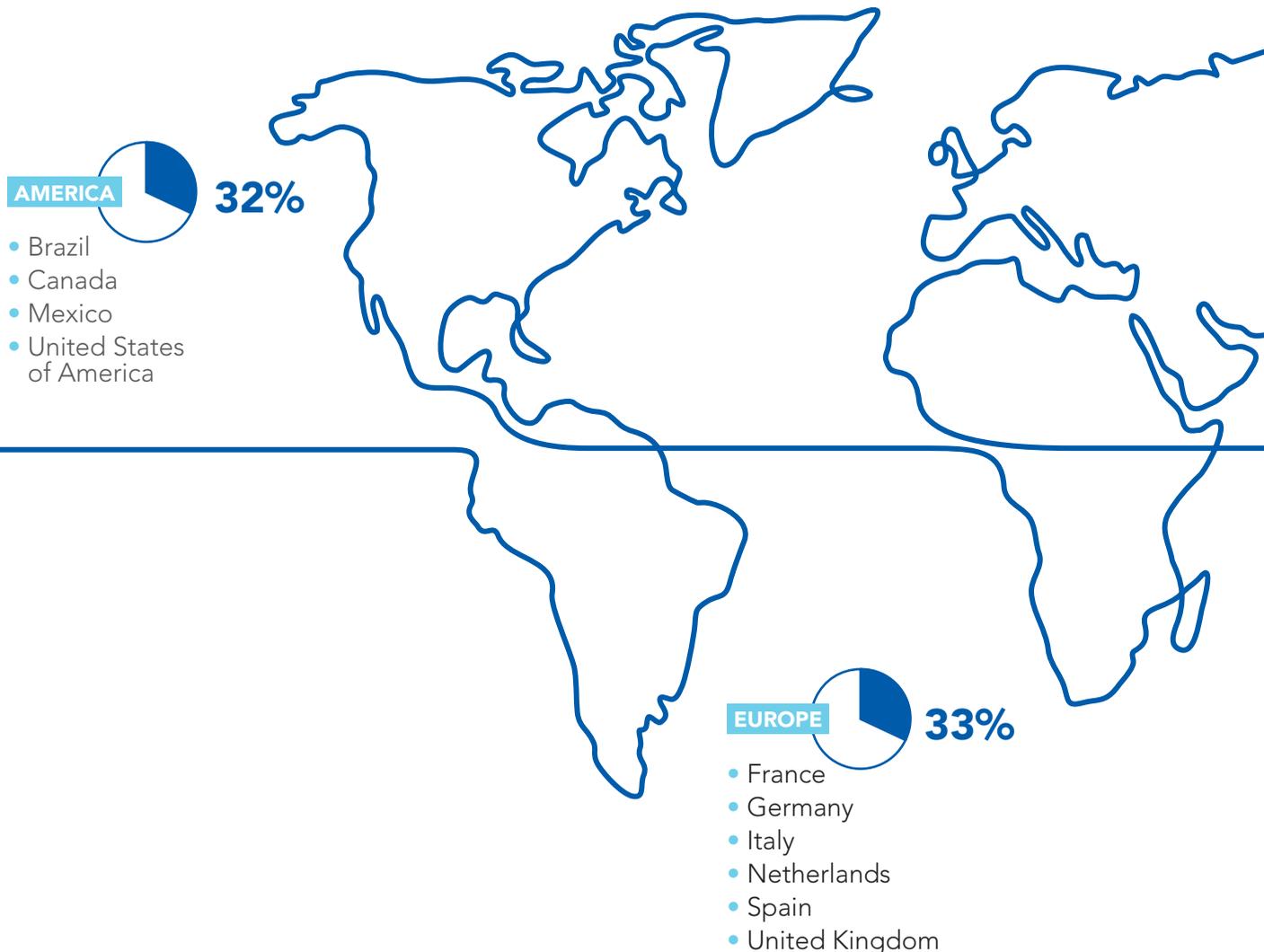
Through this initiative, we wish to share the latest insight about Supply Chain challenges that face market stakeholders and to show where they feel the potential for improvement could be found.

We sincerely thank all the respondents to this survey for their valuable input, an analysis of which we now present in this white paper.

SURVEY METHODOLOGY

GENERAL OVERVIEW

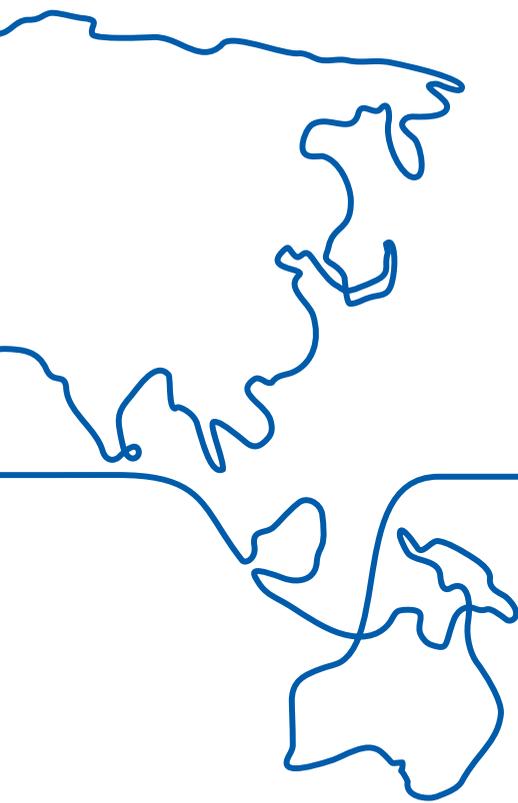
The 2017 Supply Chain Worldwide Survey has been led from **October to December 2016** by an independent research institute, collecting **623 professional** feedbacks from **17 countries**, split in 3 geographical areas:



SAMPLE PRESENTATION



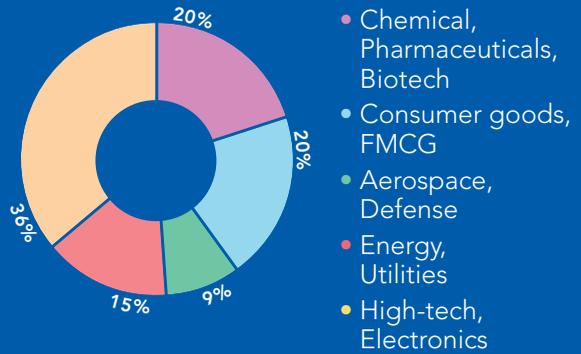
- Australia
- China
- India
- Indonesia
- Japan
- Singapore
- South Korea



Respondents have been selected from the research institute database for their knowledge of Supply Chain challenges and their level of responsibilities.

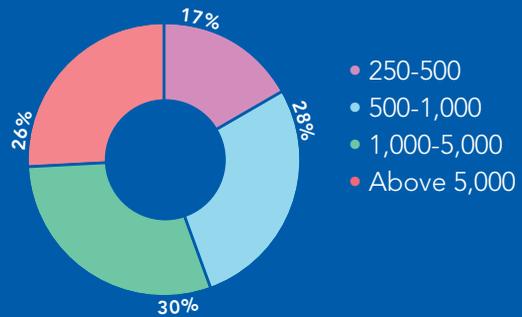
INDUSTRIES

Number of firms/sector



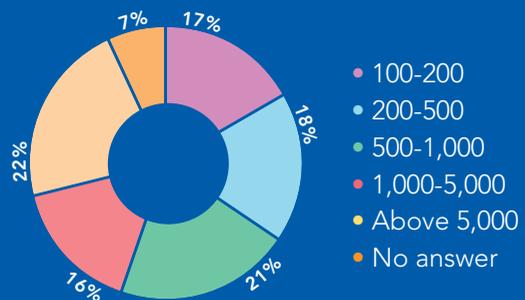
COMPANIES SIZE

Number of employees



COMPANIES SIZE

Turnover in millions \$



2017 SUPPLY CHAIN PORTRAIT

A STRATEGIC FIELD...

Not long ago, Supply Chain was mostly about delivering products on-time and in-full. Today, it covers a larger range of objectives, dedicated to enhancing firms' growth and competitiveness.

Thus, the Supply Chain function has started its mutation to position itself as a crucial lever for business performance.

67%

of Supply Chain leaders are positioned either at **Top-Management** or **Corporate** level

57%

of firms consider their **Supply Chain as a competitive advantage**, enabling the development of their company

66%

of firms dedicate between **5% and 15% of their turnover** to Supply Chain spends

All of the **Top 5 technology priorities** for Supply Chain are related to **data management** (data analysis, Internet of Things, cloud computing, info security, predictive analytics).

... BUT A COMPLEX ONE

70%

of firms consider their Supply Chain as **very or extremely complex**

Full visibility over Supply Chain (from suppliers of suppliers to clients of clients) has progressed **from the 6th SC strategic priority in 2015 to the 3rd position in 2017**, but only **6%** of firms **have reached this target**.

74%

of firms use **4 or 5 different transportation modes** among their Supply Chain. The top two are **Road Full Truckload** and **Air Freight**

81%

of firms are using **1 to 3 KPIs** to assess their Supply Chain performance

The Supply Chain is mostly organized at a **regional (46%)** level or **decentralized to Business Units (27%)**, multiplying the number of stakeholders and intermediaries.



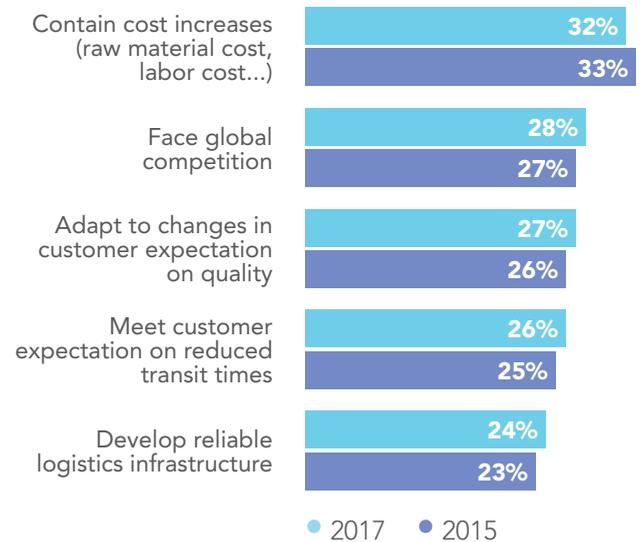
SUPPLY CHAIN TRENDS & CHALLENGES

STAY COMPETITIVE AND ON TOP OF CUSTOMERS' DEMAND: TWO MAJOR CONSTRAINTS THAT SUPPLY CHAIN NEEDS TO TACKLE

Over the last few years, developments such as volatile market conditions, globalization of exchanges or radical transformation in demand patterns and consumption behaviors have gained influence.

- In this context, survey respondents emphasize their need to stay competitive. Their concern is primarily **the containment of their costs (32%)**, which is a necessary requirement as they are increasingly called upon to **face global competition (28%)**.
- On the other hand, they must cope with the challenges of a **dynamic market environment**: adapt to **changeable customer expectations on quality (27%)** and improve their capability to **reduce delivery times to customers (26%)**.
- As a consequence, respondents also position the need to **develop a reliable logistics infrastructure (24%)** as a major business requirement.
- Supply Chain is directly impacted by these restrictions, which highlights the necessity to investigate Supply Chain optimization levers and/or opportunities.
- Companies want to implement a **reliable Supply Chain** where **quality and compliance** are guaranteed.
- In addition to this solid organization, they also strive for **flexibility and cost efficiency**, both items directly related to specific market constraints.

TOP 5 MOST IMPORTANT MARKET CONSTRAINTS



TOP 5 BIGGEST FUTURE CHALLENGES OF SUPPLY CHAIN



DUE TO INCREASING CONSTRAINTS, SUPPLY CHAIN HAS BEEN MOVING FROM COST-ORIENTED TO DEMAND AND VALUE-ORIENTED OBJECTIVES

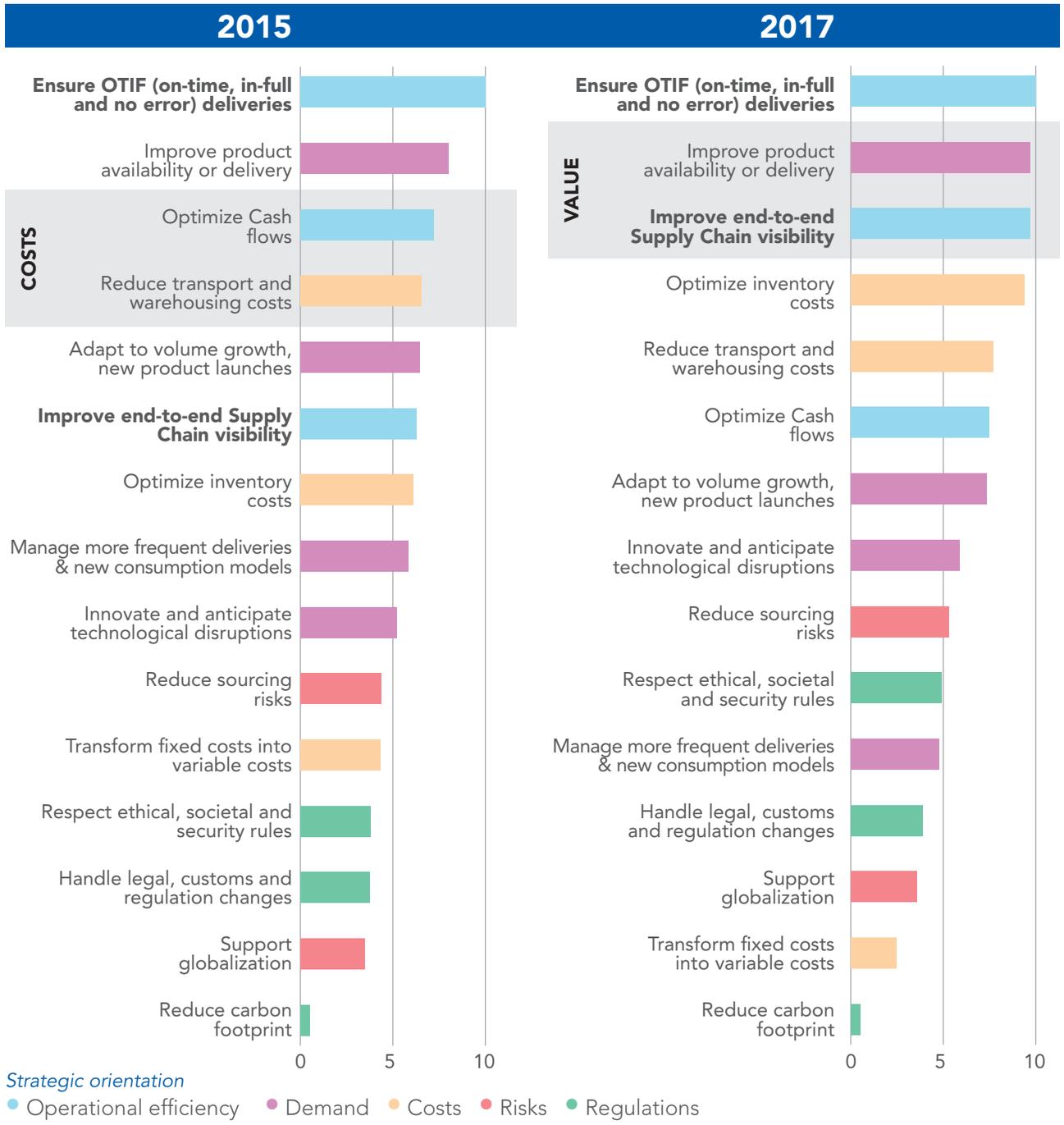
- The historical Supply Chain standard goal, **OTIF (On-Time, In-Full)** remains the first choice of respondents. Similarly, **cost reduction** has been a traditional Supply Chain ambition.
- However, with the multiplication of challenges, the primary goals are becoming more diversified and are progressively moving towards to a full menu of items contributing to **operational efficiency** and a capability to respond effectively to **customer demand**.
- To a lesser extent, respondents pointed out the need for **technological innovation** as a significant target of their Supply Chain.
- The wider range of objectives now asked of Supply Chain explains the desire of companies to **develop extended visibility**.

TOP 5 OBJECTIVES ASSIGNED TO SUPPLY CHAIN (INDEX 2017 VS 2015)

	2017 RANK	2015 RANK	SHARE OF RESPONDENTS EVOLUTION
Ensure OTIF (On-Time, In-Full) deliveries	#1	#1	==
Improve product availability or delivery	#2	#2	➔
Improve end-to-end Supply Chain visibility	#3	#6	➔
Optimize inventory costs	#4	#7	➔
Reduce transport and warehousing costs	#5	#4	➔

Among these propositions, which ones are the main objectives of your Supply Chain?

TOP OBJECTIVES ASSIGNED TO THE SUPPLY CHAIN (INDEX)



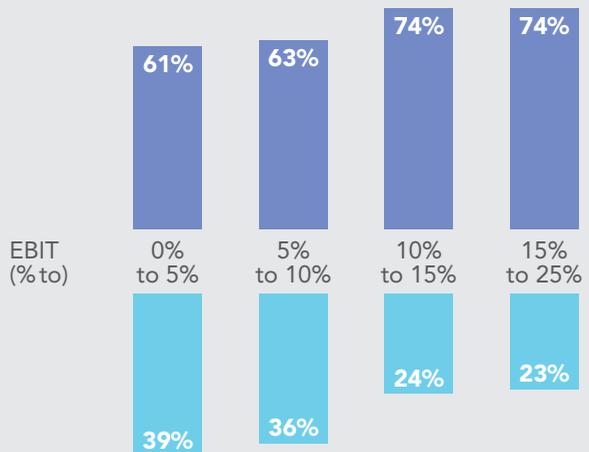
TO HANDLE THE WIDE RANGE OF CHALLENGES FACED BY SUPPLY CHAIN, BEST PERFORMING COMPANIES HAVE POSITIONED ITS MANAGEMENT AT A STRATEGIC LEVEL

As its perimeter broadens, Supply Chain has naturally become a key component of companies' activities. And the most profitable companies have not ignored this fact.

- 77% of companies dedicate **more than 5% of turnover** to Supply Chain (43%, more than 10%).
- From a management perspective, **67% of Supply Chain leadership positions** are held by **Top Management** or at **C-Level**. Having a senior sponsor makes it easier to align companies' strategic objectives with those assigned to Supply Chain.
- This choice seems to correlate with the profitability of companies. Those that have chosen to appoint a **Supply Chain leader as board member** are **more likely to see their EBIT level rise** (see top adjacent chart).
- Meanwhile, companies with a head of Supply Chain as a middle manager seem less profitable.
- **57% of firms perceive Supply Chain as a competitive advantage**, enabling the development of the company and not only as an opportunity to optimize cost.
- This positive mindset surrounding the value creation role of Supply Chain appears beneficial to firms' profitability (see bottom adjacent chart).

POSITION OF THE HEAD OF SUPPLY CHAIN ACCORDING TO EBIT

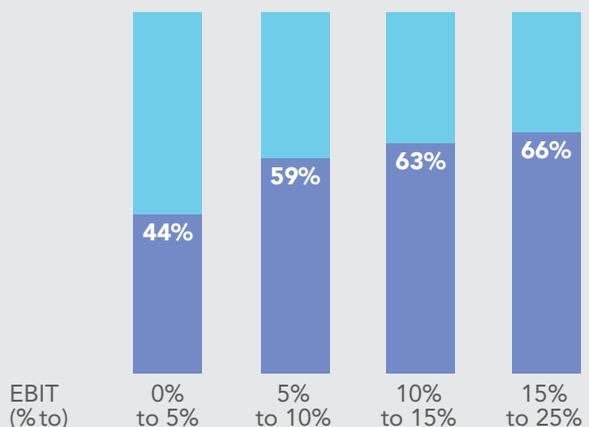
- C-Level or Top Management
- Middle Management



LEVEL OF EBIT ACCORDING TO SUPPLY CHAIN PERCEPTION

Share of firms which perceive Supply Chain as a...

- Cost to optimize
- Competitive advantage



THE MULTIPLICATION OF ROLES AND OBJECTIVES TO BE ACHIEVED HAS LED TO THE GROWING COMPLEXITY OF SUPPLY CHAIN

- **70% of respondents** have assessed their Supply Chain as **very or extremely complex**.
- This complexity occurs at all levels of Supply Chain as a result of various factors, such as:
 - **Global exchanges** (see bottom adjacent chart)
 - **Multiplication of flows:** 74% of firms use more than 4 transportation modes within their Supply Chain
 - **Decentralized organizations; devolving control** to Regions or Business Units
 - **Multiplication of inbound/outbound partners**
 - **Extensive use of external logistics service providers:** on average, 79% of firms work with one or several external suppliers along their Supply Chain. Outsourcing to multiple players is an increasing trend
 - Diversity of national **regulations**
 - **E-commerce** & same day delivery demands
 - Emergence of **reverse logistics** and **circular economy**
 - **Merger & Acquisition activity**
- The **Aerospace industry** is an **illustrative example of this growing complexity:** with an average of **3 million** parts by plane and four levels of suppliers ranging from raw materials to aircraft manufacturers. This complexity is due to multi-sourcing policies; 24/7 spare parts availability; the proliferation of regulations; cabin customization and frequent M&A activity. The pressure on each player's Supply Chain is intense in a market that doubles in size every 15 years.

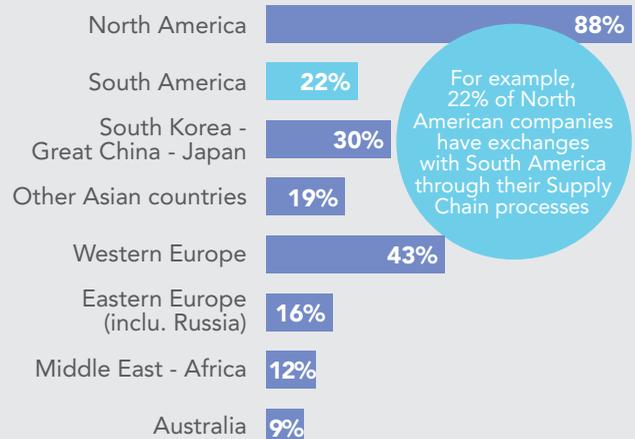
SUPPLY CHAIN HAS A WIDE DIVERSITY OF INTERLOCUTORS WITHIN COMPANIES' ORGANIZATION

Teams in relation with Supply Chain decision makers

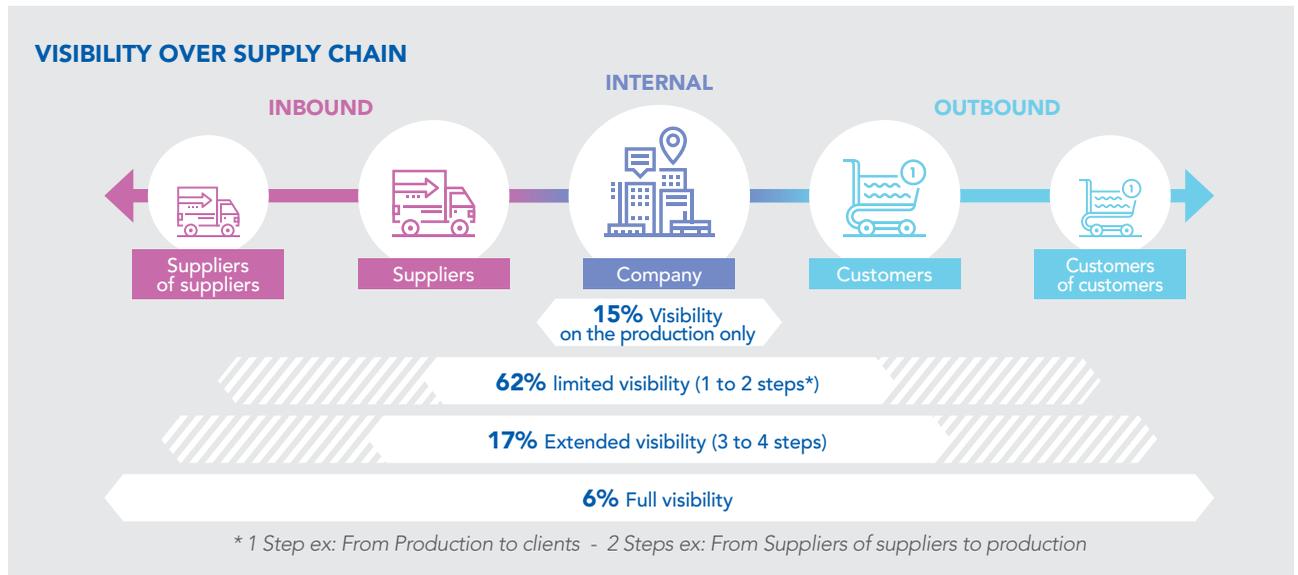


SUPPLY CHAIN COMPLEXITY IS INCREASED BY ITS WORLDWIDE ORGANIZATION

Example: Shipping locations of North American Supply Chains (Supply, manufacturing or distribution)



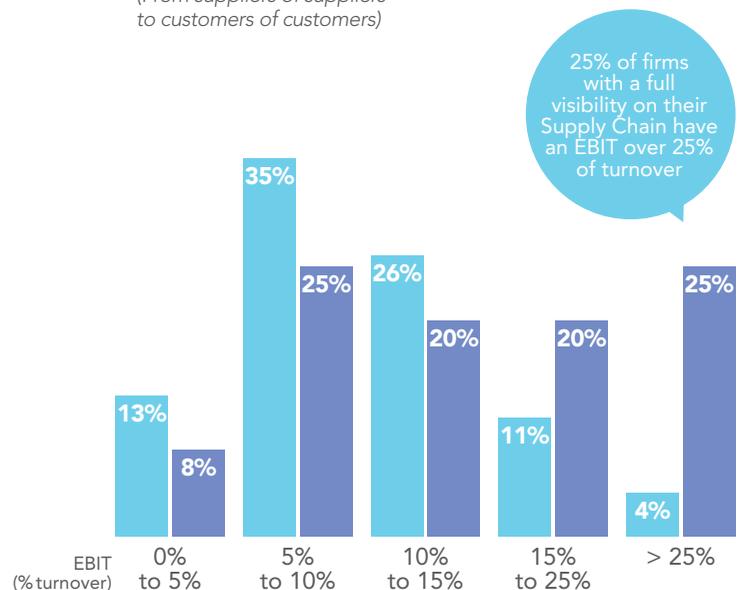
TO COPE WITH THE COMPLEXITY OF THEIR SUPPLY CHAIN, COMPANIES SHARE AN AMBITION TO INCREASE END-TO-END VISIBILITY



- 77% of the firms asked have either **no** visibility or a **restricted** view. Only **6%** have **complete** visibility.
- In the experience of GEODIS, full visibility of a Supply Chain incorporates a **wide range of flows (physical, logical, financial)** throughout both the entire supply and value chains. In addition, **real-time monitoring** has also become a crucial asset in achieving this visibility.
- Overall, improving end-to-end visibility enables complexity in Supply Chain to be tackled as it leads to:
 - A closer collaboration with partners and a reduction in disputes
 - Better risk anticipation
 - Enhanced flexibility
 - An extended degree of control over processes
 - Elevated customer satisfaction
 - **Higher profitability**

IMPACT OF VISIBILITY ON EBIT RESULTS

- No or restricted visibility (On production to 2 steps visibility)
- Full visibility (From suppliers of suppliers to customers of customers)





Extended visibility in Supply Chain is for respondents a **growing ambition** (from 6th on the list of primary objectives in 2015 to 3rd in 2017). To achieve this end-to-end visibility, respondents' **main focus remains on the inbound process**.

- Most companies (44%) have **transversal visibility between suppliers and clients**.
- Top areas of improvement in visibility are before and after the production stage
 - Suppliers: 39% of firms considered these areas a priority in 2015 and 41% in 2017
 - Clients: 18% of firms considered them as a priority in 2015 and 22% in 2017
- Regarding strategic focus related to each specific stage, respondents have underlined a will to **establish more fluidity** along the value chain:
 - For Supplier-focused (inbound), priority is given to the availability and quality of products
 - For Production-focused, the main objective is to improve distribution within production facilities
 - Customer-oriented respondents (outbound) mostly value reactivity and agility as well as OTIF delivery
- In addition to simplifying processes, there is a strategic challenge for the Supply Chain function to have **complete transparency in the product lifecycle**, a clear view at all stages from the suppliers of suppliers to the final consumer. Achieving this is a decisive advantage to reach operational and cost efficiency.

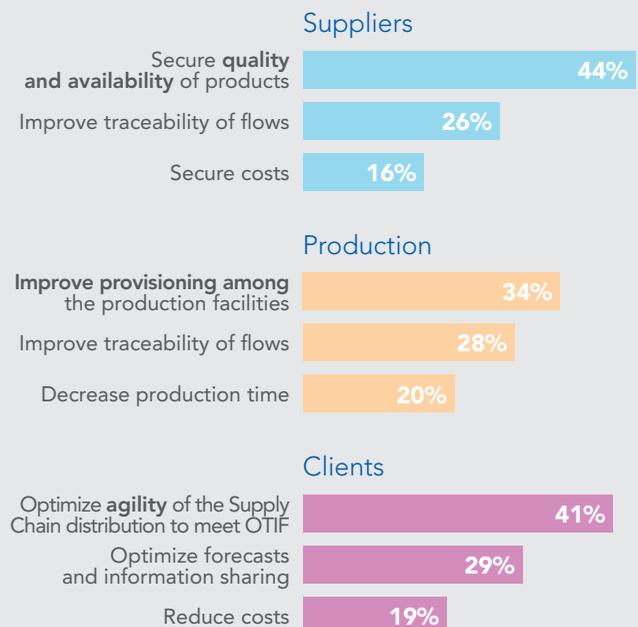


PRIORITY FOR THE VISIBILITY IMPROVEMENT

Given the opportunity to improve visibility for one stream of your Supply Chain (inbound, outbound, production), which would be your top priority?



STRATEGIC VISIBILITY FOCUSES

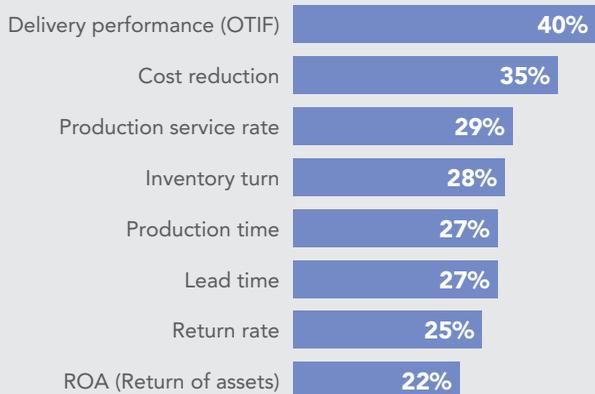


A LOW EFFICIENCY OF SUPPLY CHAIN MONITORING SEEMS TO HINDER THE EXTENDED VISIBILITY AMBITION

The diversity of KPIs used to monitor Supply Chain is associated with its increasing number of strategic objectives to be reached. Supply Chain can no longer be monitored from a single perspective.

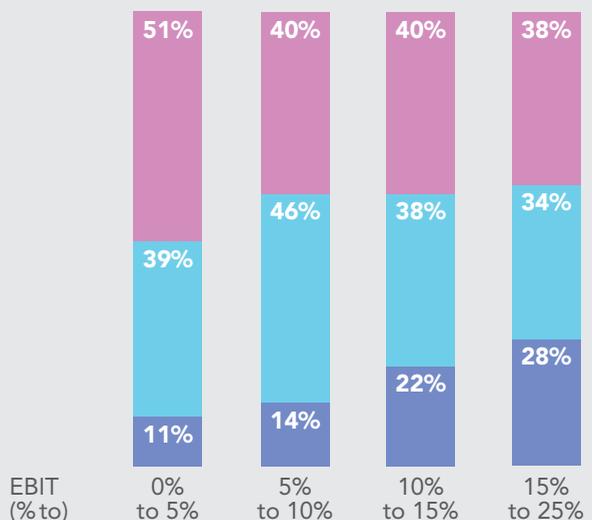
- Therefore, a wide range of indicators is now used to track **operational efficiency** (OTIF, lead time), **financial performance** (return on investment, cost reduction) or **customer satisfaction** (return rate) in accordance with individual companies' strategic priorities.
- Meanwhile, firms still seem to have a **restricted perception** of their Supply Chain performance, as only **1 to 3 KPIs are usually tracked** (41% of respondents even use 1 single KPI). This is obviously **not enough to produce a reliable assessment** of their performance and then make the **appropriate decisions**.
- The **lack of homogeneity** in Supply Chain measurement methodologies can also generate **operational complexity and issues**. For instance, different measurement methodologies could be applied in distinct regions or Business Units within a single firm, making corporate management inefficient.
- According to the survey, **the use of numerous KPIs correlates directly with profitability** in a **positive** way (see adjacent chart). Thus, 28% of companies with an EBIT level over 15% use at least 4 KPIs.
- This observed lack of monitoring leads to a **misperception in Supply Chains' self-evaluation**. Firms are indeed systematically positioning themselves **at or above** the market level for each KPI.

KEY PERFORMANCE INDICATORS (KPI) USED TO MONITOR SUPPLY CHAIN



NUMBER OF KPIS USED DEPENDING ON EBIT LEVEL

- Less than 2 KPIs
- Between 2 and 4 KPIs used
- 4 KPIs and above



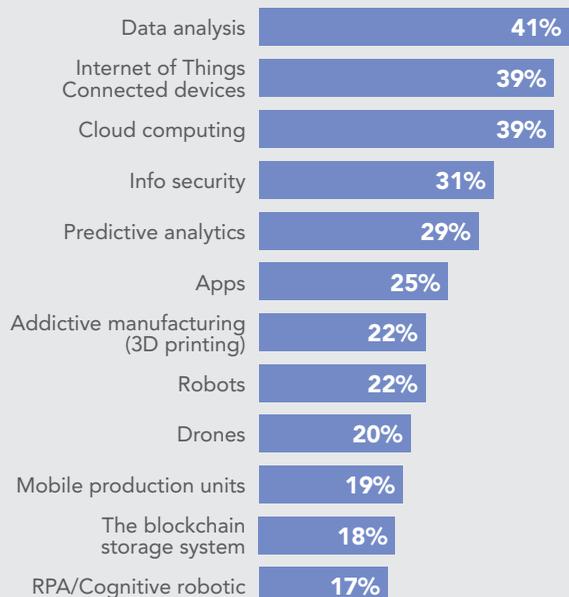
IN THIS DEMANDING ENVIRONMENT, DATA MANAGEMENT IS IDENTIFIED AS THE TECHNOLOGICAL PRIORITY BY SUPPLY CHAIN STAKEHOLDERS

Ensuring agility in an increasingly **more complex** Supply Chain may look like an unsolvable equation but to do so, **technology** could be a strong asset for Supply Chain stakeholders.

- When asked about the next technological “big thing”, respondents have emphasized their need to **manage data in a multitude of ways**.
- **Data analysis** (41%) and **Internet of Things** (39%) head the list. They allow both a live and broad picture of Supply Chain to be drawn through many features: from real-time flow management to parcels track & trace and financial control. In this transparent environment, via constant monitoring, **optimization as well as improvement** decisions are facilitated.
- To support their desire to master reliable and robust processes, respondents also highlight **Cloud Computing** (39%) and **Info security** (31%) as key technologies. As the scope of Supply Chain activity is becomes wider and more strategic, the nature of information to be managed is indeed more sensitive.
- Respondents have also expressed their wish to develop **Predictive analytics** (29%). This field aims at reducing uncertainties and helping companies to optimize inventory and allow more accurate forecasting of demand peaks.

- It is key to appreciate that the information created by data management will be only fully effective, if **shared efficiently with internal and external partners** throughout the Value Chain.
- **Moderate attention** has been paid to **other forms of innovation** (around 20% of respondents), such as additive manufacturing (22%), mobile production units (19%) or blockchain (18%). These are however still not considered as must-have for Supply Chain players.

GAINING GROUND TECHNOLOGIES IN THE COMING YEARS



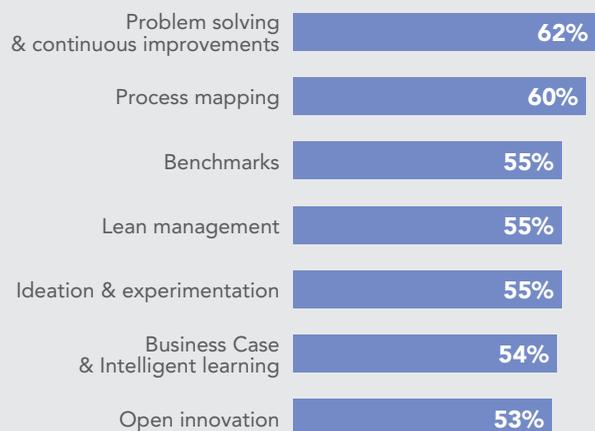
AGILITY AND ACTIVE INNOVATION STILL HAVE A MODERATE IMPACT ON SUPPLY CHAIN PROCESSES

Improving and optimizing processes are identified **positively as drivers of innovation and change**. But the path to the goal of widespread agility in Supply Chain is still seen as a long one.

- Only a small majority of respondents declared they were advanced in **innovative practices** within their Supply Chain. **Problem solving & continuous improvement warranted** a score of 62%. With the exception of **Process mapping** (60%), the other elements of process optimization obtained no more than 55% of positive responses.
- Surprisingly, even specific Supply Chain practices such as **Process mapping** (60%) or **Lean management** (55%) are far from being universal.
- These moderate results could be explained by the **fear of implementing uncertain practices, particularly while the current growing necessity of ensuring a reliable Supply Chain exists**.
- However, **first-in-class companies are agile** and ready to invest in order to implement optimization of their Supply Chain. Thus, firms with an **EBIT level above 10%** are in a systematic way, **more advanced** in these fields than firms with an EBIT level under 10% (average gap of 12 points).

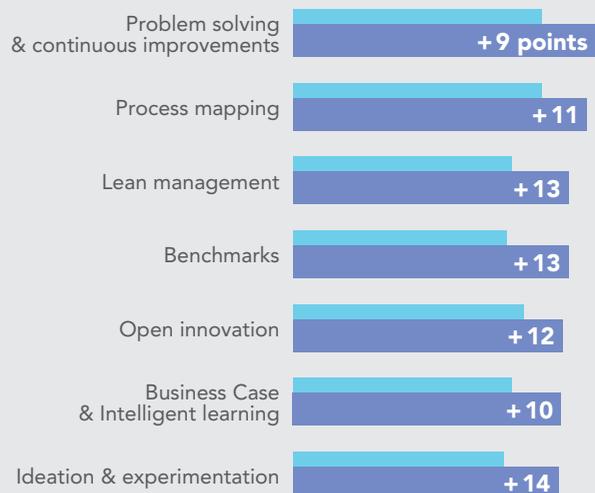
The potential for innovation however actually exists: **Bimodal** Supply Chains are currently gaining ground as they allow firms to innovate within specific strategic themes through **“small steps”** policies, **without endangering the operational robustness** of the whole organization.

IMPLEMENTATION OF PRACTICES WITHIN SUPPLY CHAIN



IMPLEMENTATION OF PRACTICES WITHIN SUPPLY CHAIN

by EBIT level



- Firms with EBIT < 10% TO
- Firms with EBIT > 10% TO

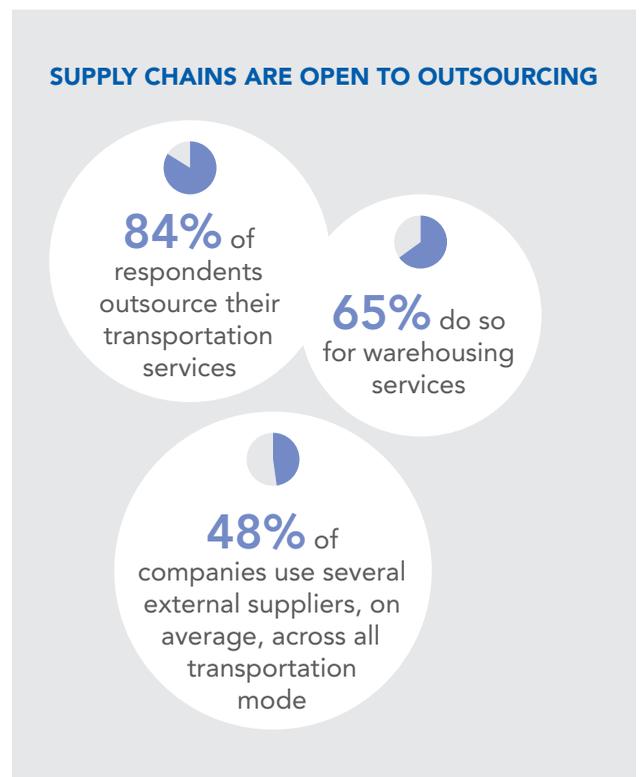
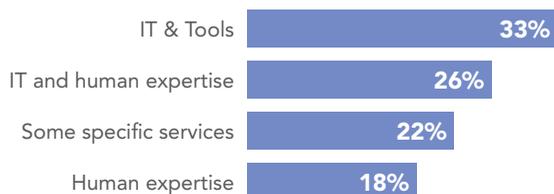
THE NECESSARY DEGREE OF SPECIFIC KNOWLEDGE REQUIRED TO TACKLE SUPPLY CHAIN ISSUES INDICATES **OUTSOURCING AS A SOLUTION**

This whole analysis highlights a **skill gap** between what firms are and what they want (and need) to be in order to perform better.

- The **large number of issues highlighted** and the necessary degree of **specific knowledge and competencies** required to tackle them, suggests **outsourcing as a possible solution** to balance a lack of specific operational expertise.
- Supply Chains are **open to outsourcing**
 - 84% of respondents outsource their transportation services, 65% do so for warehousing services
 - On average, across all transportation modes, 48% of companies use several external suppliers
- It is noted that 21% of respondents who do not currently rely on outsourcing **have tested the option** in the past **but failed to find the appropriate supplier**.

- These findings highlight the challenge for the Supply chain function **to attract and retain talented people** among their ranks.
- Above all, firms demand combined **IT & Tools management**, as well as an **operational, expertise**.

REQUIRED EXPERTISE FOR SUPPLY CHAIN OUTSOURCING



EXECUTIVE SUMMARY

STORY LINE

In the wake of globalization and rampant digitalization, commercial trade flows have evolved dramatically. Both the volume and the scope of services managed within Supply Chain have reached unprecedented levels.

Now almost universally considered as a source of competitive advantage enabling companies to grow, the best performers have positioned Supply Chain management at a **strategic level**.

At the crossroads of Strategy, Marketing, Sourcing, Manufacturing, Business Development and Customer services, Supply Chain has become the **key strategic "hub"** of companies' activities.

The **objectives and operational priorities** of Supply Chain are moving from a cost-oriented approach to a more **demand and value-oriented approach, in order to maintain the high level of service** increasingly demanded by customers.



Supply Chain **complexity** has been growing due to the multiplication of players, sourcing channels, transportation modes and the geographical areas involved. In addition, specific local regulations or the varying levels of maturity exhibited by suppliers result in increased operational difficulties.

It is undeniable that this **visibility is still blurred and incomplete** being focused as it is, mainly on **direct partners relationships**. A restricted **measurement of internal performance** also limits the overall outlook.

In the meantime, each player affects the chain's performance and is progressively more dependent on the performance of both its direct and indirect partners. To gain efficiency, flexibility and to be able to answer customers' needs in real-time, companies share the common ambition to achieve true **end-to-end visibility and transparency** along the entire Supply Chain.

Companies with agility and innovative approaches appear to be more profitable in this very volatile environment. The strategic and tactical imperatives highlight a **need for specific operational expertise**, that in some cases could be filled by **outsourcing**.

Overall, companies know where the **pain points** are and the **objectives** they wish to attain but the **ways in which to move forward** are still many and long.



Further information
about our Supply Chain
Optimization expertise on
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this white paper, contact us at
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