

# The State of the Hi-Tech Supply Chain Industry Report



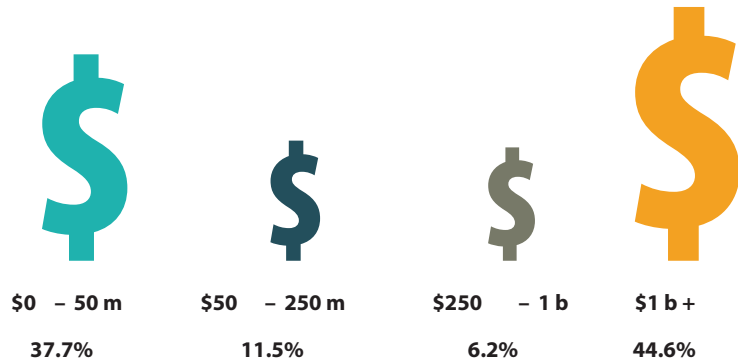
# Introduction

The hi-tech industry has gone through some significant changes over the last 5 years driven primarily by shifts in consumer demand. This era is hitting a state of maturity as global demand wavers and hi-tech supply chains are left keeping on top of fluctuating demand. Areas of clear revenue for hi-tech companies are still abound. Aftermarket sales is starting to show real ROI while risk mitigation is becoming more and more advanced. That being said, the year ahead is going to be a challenge. How are hi-tech companies going to adapt to mixed global demand?

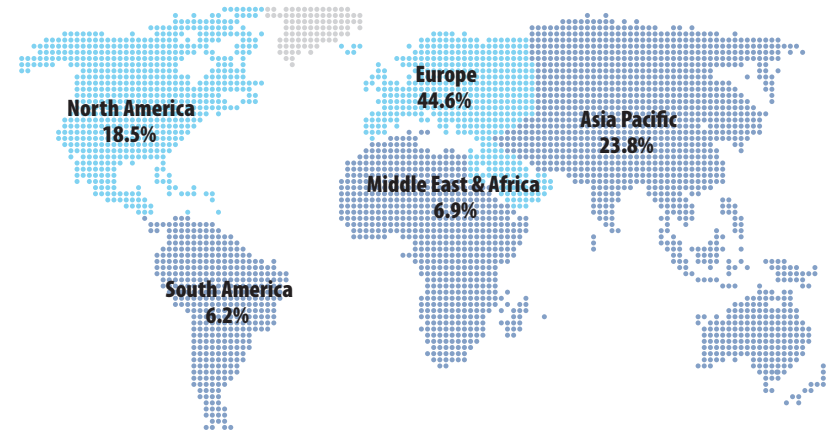
**Enablers:** Solution providers, logistics service providers and other providers of services to hi-tech and electronics manufacturers and retailers.

**Shippers:** Manufacturers and retailers in the hi-tech industry that ship products

## Respondents: 180. What is your company's annual revenue?



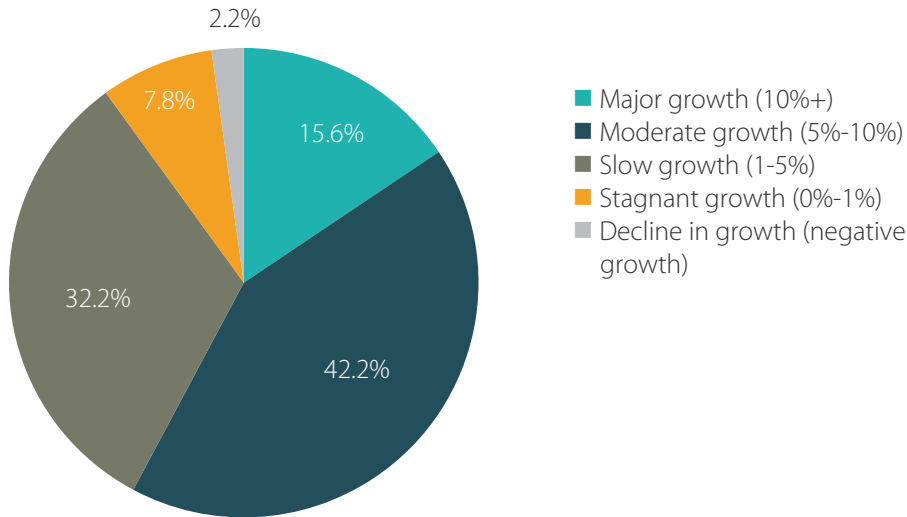
## What region are you based in?



## What best describes your business type?

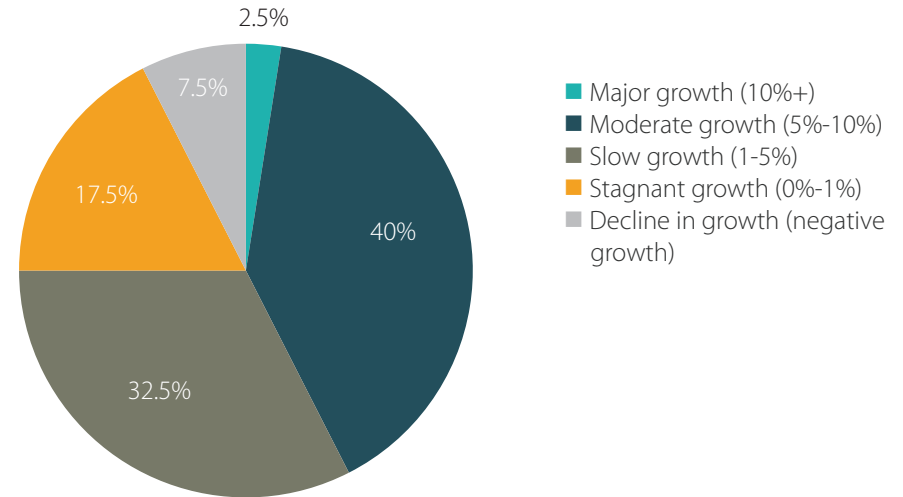


## ENABLERS: What rate of growth are you expecting in the hi-tech industry this year?



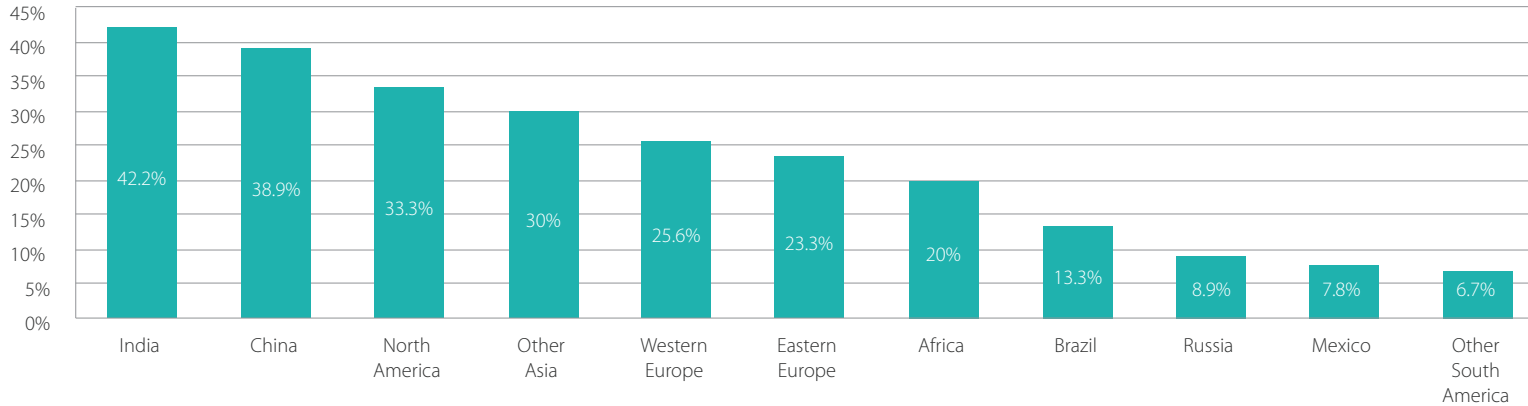
There are some distinct differences in the ways and their shipper counterparts are predicting growth in hi-tech this year. Overall, enablers are more positive on their industry outlook with 58% seeing moderate to major growth (between 5%-10%).

## SHIPPERS: What rate of growth are you expecting in the hi-tech industry this year?



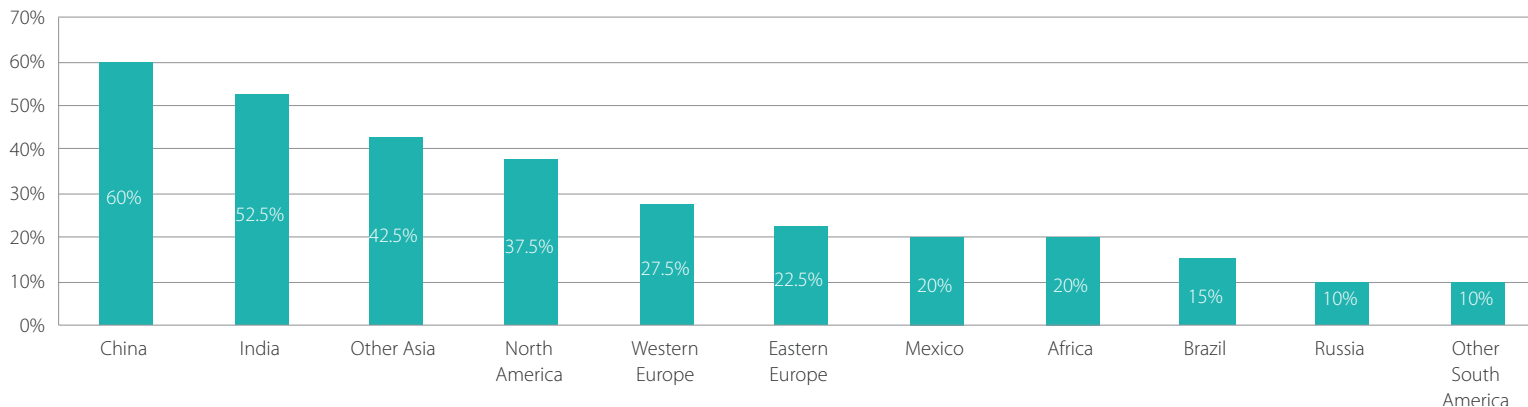
Shippers aren't nearly as positive about 2016 though. 50% of respondents predict slow or stagnant growth (0-5%) while a further 8% predict a decline in growth. Shipper growth trepidation isn't surprising given the current economic environment. The industry is currently seeing slowing growth even amongst some of its biggest players as recent smart phone/tablet market has matured. Slow growth in major consumer markets are also contributing to this stagnant growth. Global economic recovery is likely to have the strongest impact on changing shipper pessimism.

## ENABLERS: Where are you seeing the greatest market opportunities?



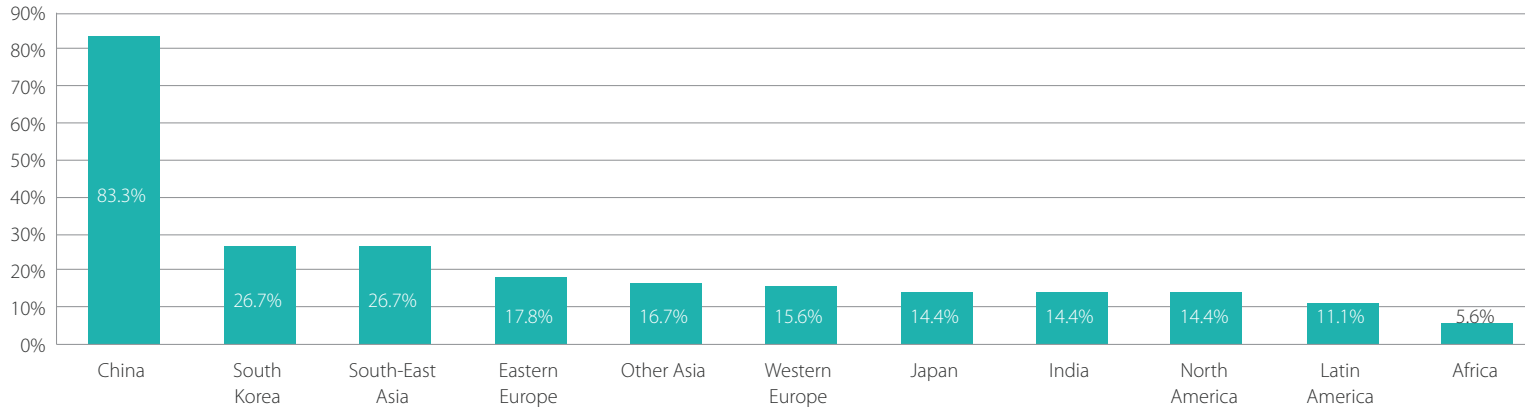
India has received a lot of press coverage over its recent growth. A number of companies – namely logistics providers – are looking to break into this market to take advantage of the growth and the infrastructure short-falls. However, India has some significant barriers to entry for foreign companies meaning it is less likely to rank highly on the shipper front.

## SHIPPERS: Where are you seeing the greatest market opportunities?



In fact, shippers are seeing most opportunities in China still, despite the country's recent economic hardships. Asia as a whole still represents a significant opportunity for shippers in hi-tech.

## ENABLERS: Where are your customers currently sourcing the bulk of their components/materials?

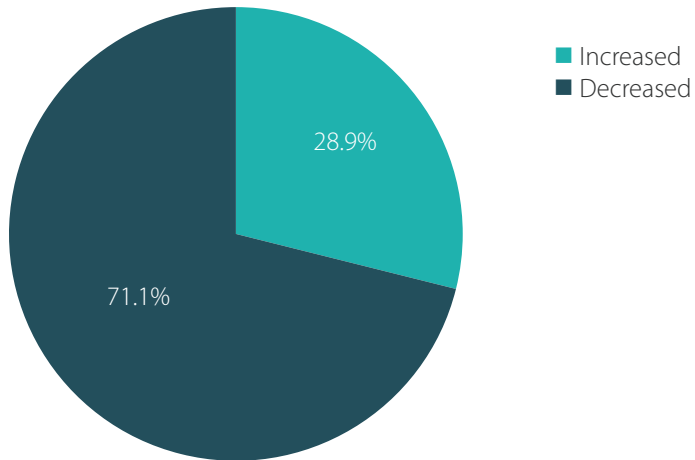


## SHIPPERS: Where are you currently sourcing the bulk of your components/materials?



China is the consensus sourcing region of choice for shippers and their enabler counterparts. South-east Asia also ranks highly by both shippers and enablers. Things then differ though between shippers and enablers. Shippers see Western Europe and Japan as top sourcing locations with enablers preferring Eastern Europe. One of the reasons that might explain this discrepancy in responses is that enablers are working more with emerging markets currently. Additionally, the shipper respondents to the report are predominantly from large, established hi-tech firms who have a much longer sourcing history in areas like Japan and Western Europe.

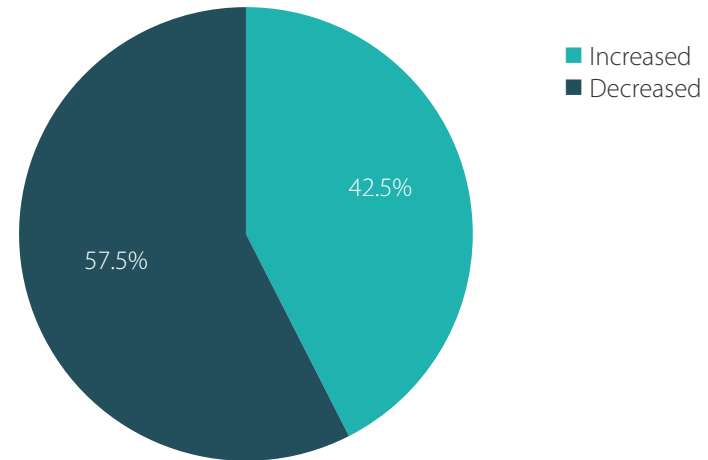
**ENABLERS: Over the last year, how has your customers' product lead-time changed?**



There's a sense that product lead-times have been decreasing over the years due to a combination of improved technologies, efficiencies and prevalence of data. However, is that necessarily the case?

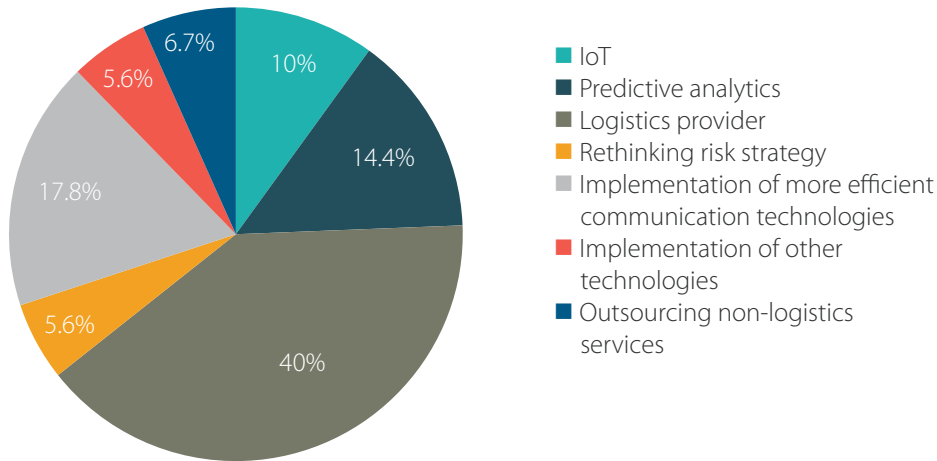
Enablers certainly think lead-times are decreasing with 71% indicating that this is what they're seeing with their customers. Shippers on the other hand aren't seeing quite this decrease. While 57% have seen a decrease, 42% have actually seen increases in lead-times. The hi-tech industry continues to become more complex. As such, lead-times aren't about to disappear – they are likely to continue to fluctuate as markets shift, sourcing shifts and new products continue to underpin hi-tech growth.

**SHIPPERS: Over the last year, how has your product lead-time changed?**



Another angle we've heard some executives mention in interviews is the idea that short lead-times are not necessarily beneficial in stagnant growth. The competitive nature of hi-tech means the onus is on getting the product right rather than releasing multiple iterations in quick timeframes. As such, increasing lead-time isn't necessarily indicative of an inefficiency, but of a tactic.

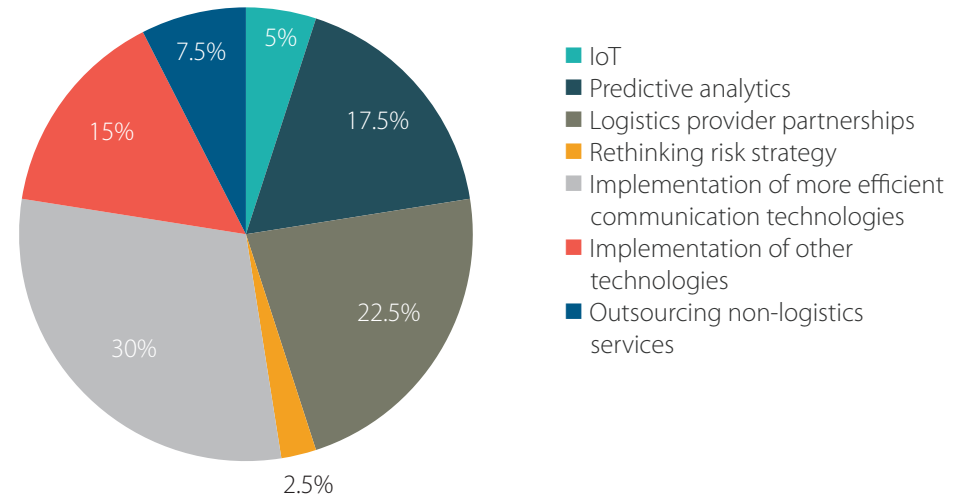
## ENABLERS: What has been the most effective mechanism for a shipper in hi-tech to increase the agility of their supply chain?



Supply chains are increasing in complexity. This is being driven by increased competition, the availability of technology, prevalence of data and speed of the supply chain. The key here is that companies operating in supply chain are going to have to ensure agility in order to respond to any shifts or changes in their industry.

For enablers, leveraging logistics provider partnerships was seen as the best way for hi-tech shippers to increase their agility. 18% of respondents felt that implementing more efficient communication technologies was key for increasing agility.

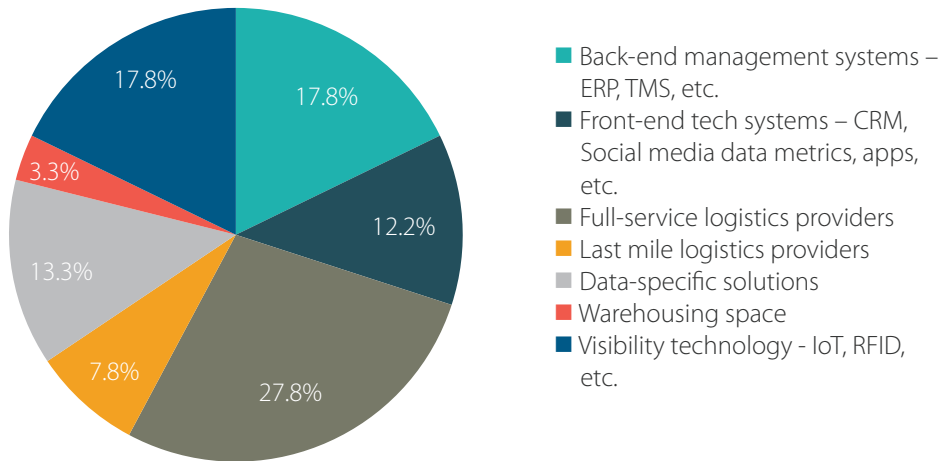
## SHIPPERS: What has been the most effective mechanism for increasing the agility of your supply chain?



For shippers, more efficient communication was the most important mechanism for maintaining agility. Though 22.5% of shippers also felt logistics partnerships were a key aspect of achieving agility as well.

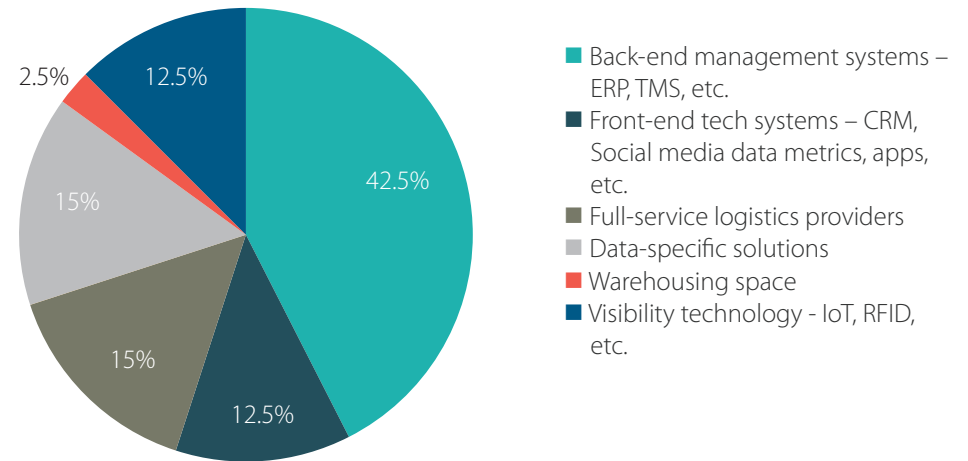
Partnerships as well as communication are clearly important factors for supply chain agility. In fact they go hand in hand – a constructive logistics partnership requires efficient communication – especially as far as data sharing is concerned. Despite shippers ranking communication ahead of partnerships, it seems like shippers and enablers are on the same page when it comes to achieving agility.

## ENABLERS: Where are your customers investing most to increase their supply chain agility?



Full service logistics providers are benefitting from supply chains looking to increase their agility. Enablers in fact have highlighted this as the top investment they see shippers benefitting when it comes to creating a more agile supply chain. Visibility, which has clear ties to both communication and partnerships as highlighted above, also ranks highly for enablers.

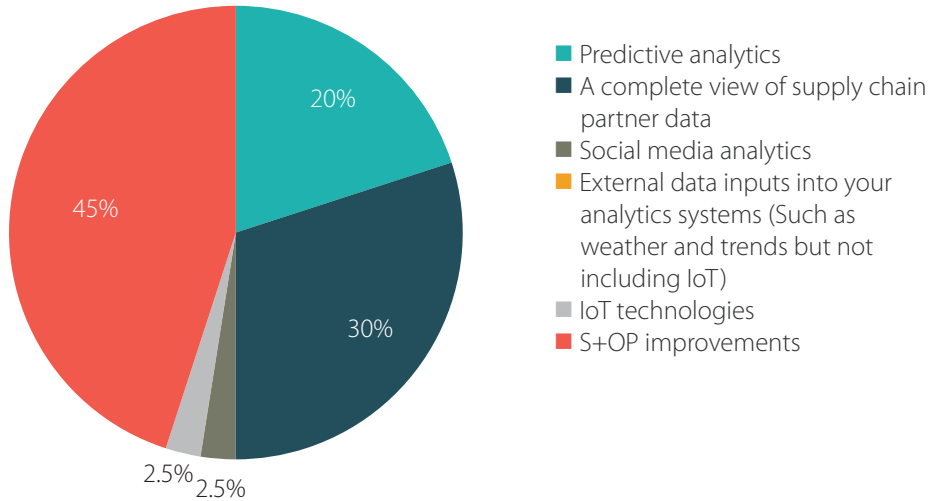
## SHIPPERS: Where are you investing in most to increase your supply chain agility?



Shippers see things differently though. Back-end systems dominate shipper investments, a reflection of their need for more efficient communication. With data being one of the key things underpinning communication, it's no surprise seeing data-specific solutions come second in investments. Shippers also rank full-service logistics providers at a similar level, further emphasizing the shift from specialist LSPs to full service ones.



## SHIPPERS: What tool has helped you the most in improving your demand planning?

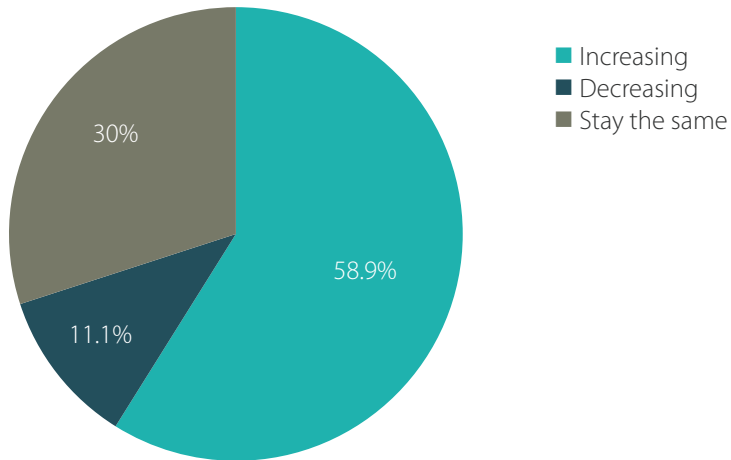


Demand planning improvements have been due to three primary drivers: Sales and Operations Planning improvements, visibility into supply chain partner data and predictive analytics. We're likely to see predictive analytics play a much more significant role in demand planning as the ability to make predictions off of historical sales and marketing data increases. In addition, S&OP is going to have to reshape to deal with these new predictive realities.

While S&OP and predictive analytics are pushing demand planning further, supply chain partner data has been an area of contention in recent executive interviews eft has conducted. The digital supply chain has led to the increase in value of supply chain data. Before, communication between supply chain partners was one of the greatest difficulties for sharing data. Now, data is seen by many organizations as proprietary and a differentiator. As such, while the amount of data is increasing in the supply chain, the amount shared might not necessarily increase at the same rate.

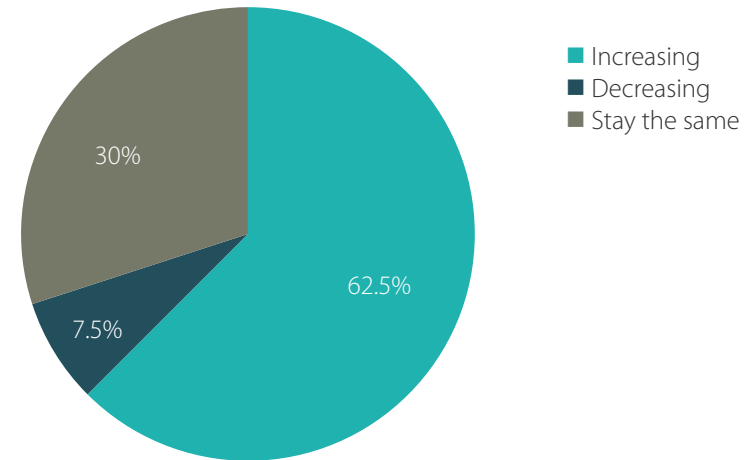
## Services offered alongside products

**ENABLERS:** Are you increasing or decreasing the number of services you offer with your products? (maintenance, repairs, upgrades, financing, etc.)



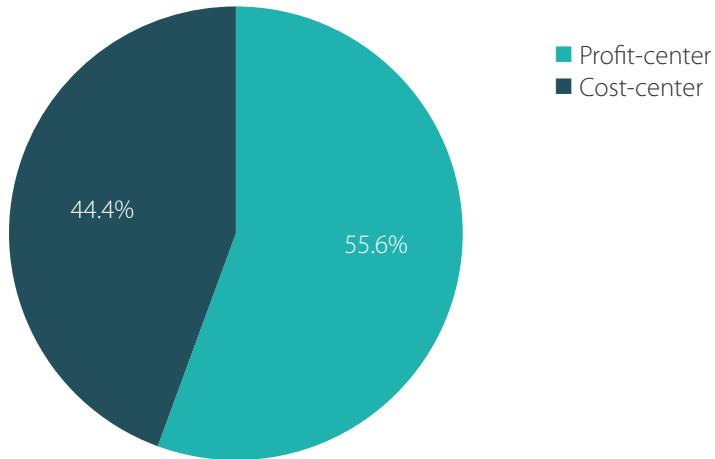
59% of enabler respondents say their customers are increasing the number of services they're offering with their products. It is interesting that solution providers have under-estimated this movement with their hi-tech customers given the shift from cost-center to profit center that is occurring in the aftermarket sales services realm.

**SHIPPERS:** Are you increasing or decreasing the number of services you offer with your products? (maintenance, repairs, upgrades, financing, etc.)



63% of shippers are increasing the number of services they offer with their products – especially from an aftersales perspective. This perhaps underpins how hi-tech companies are turning aftermarket sales into profit – by a concerted effort to provide services related to a product.

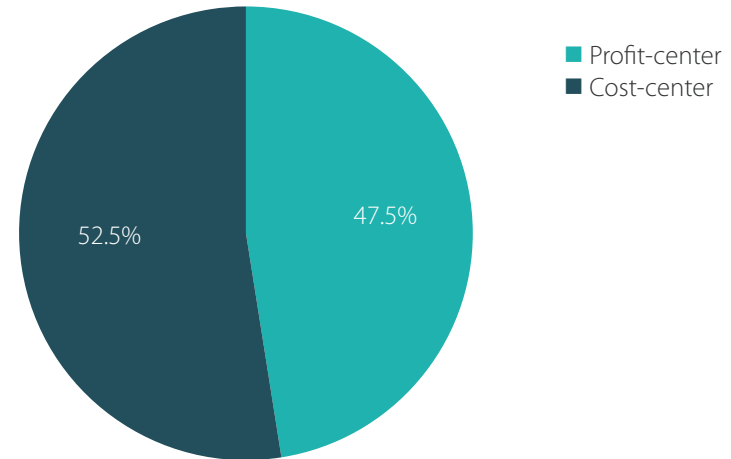
**ENABLERS: Are aftersales services a profit center or a cost center for your customers?**



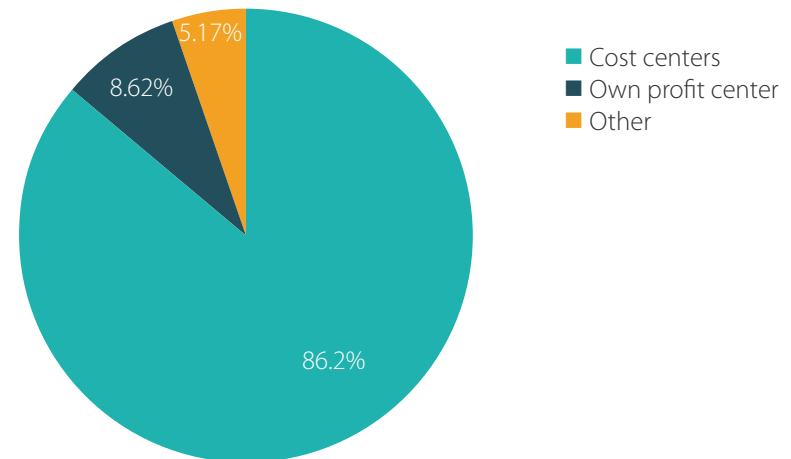
Only 55% of enabler respondents see aftermarket services as a profit center. While this isn't insignificant, it means that even from the solution provider standpoint, many aren't seeing aftersales services as a profit center.

Shippers aren't seeing aftermarket services in a much more profitable light than their enabler counterparts with 52% of them seeing it as a cost-center rather than a profit-center. With increasing numbers of shippers extending aftersales services, it will be interesting to see how this number evolves over the years. We're already seeing a shift in aftersales services revenue. In our aftersales services survey in 2012, 86% of respondents felt that after sales services was a cost center. If 30% more hi-tech companies are seeing profits 4 years later, we can expect to see this increase some more.

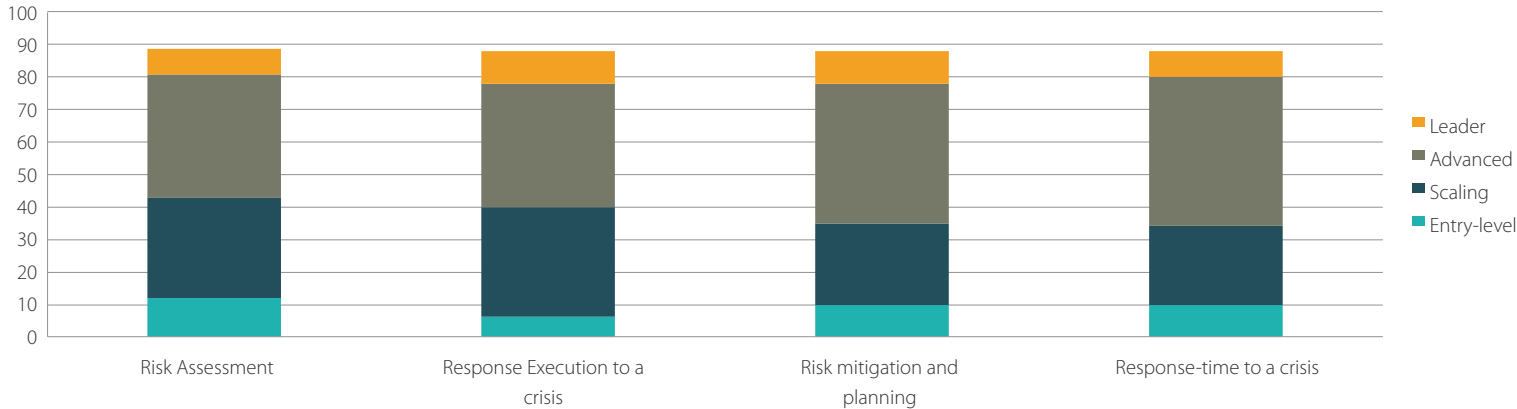
**SHIPPERS: Are aftersales services a profit center or a cost center for your supply chain?**



**Shippers 2012: Are aftersales services a profit center or a cost center for your supply chain?**



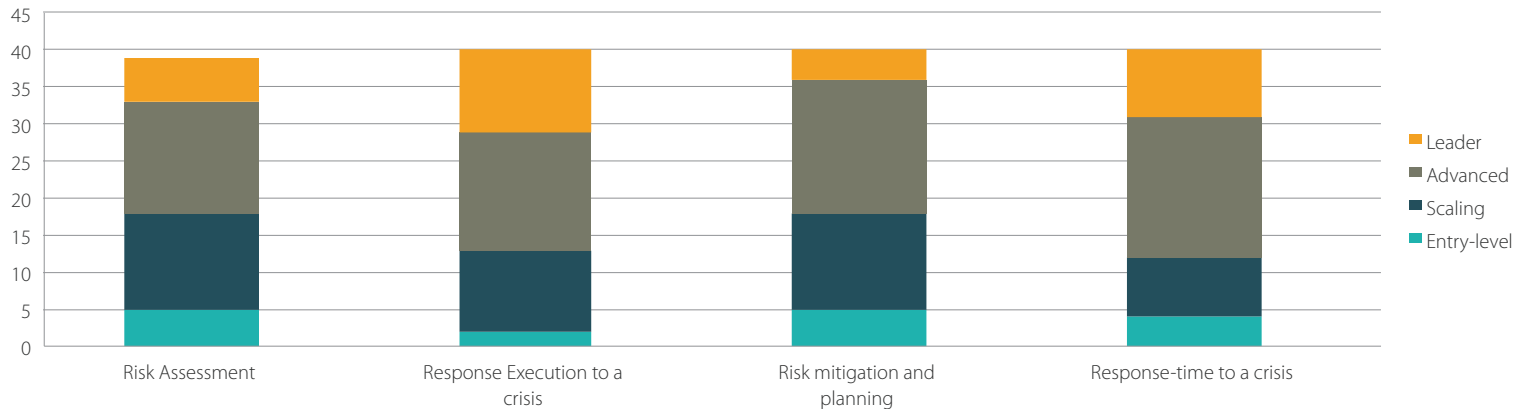
## ENABLERS: How would you classify your abilities in risk management specific to the hi-tech vertical?



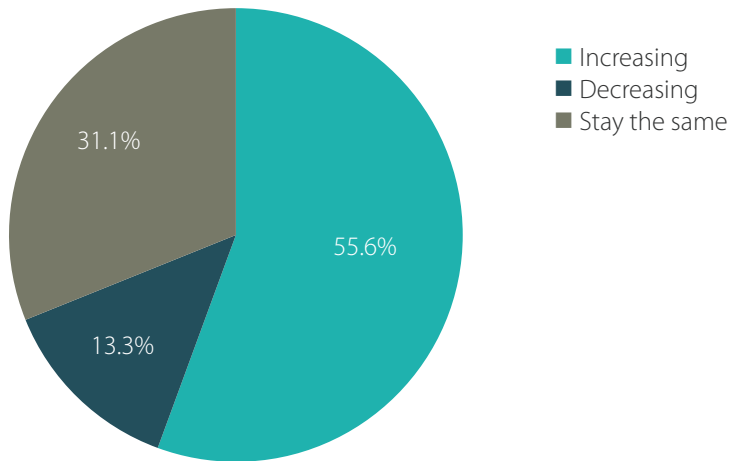
Despite the number of risks in today's supply chain – natural disasters, fluctuating demand, theft, etc. enablers generally classed themselves as having advanced abilities.

Shippers were even more confident on their abilities, classifying themselves as advanced/leaders in response execution and response-time to a crisis, scaling/advanced in risk mitigation planning and risk assessment. The Japanese tsunami and flooding in Thailand amongst other risks have cause the hi-tech industry to focus on this area significantly over the last several years. This has clearly had an effect on shippers and enablers in advancing their risk mitigation abilities. The digitization of supply chain and the implementation of predictive analytics is only going to give supply chains more tools to manage their risk.

## SHIPPERS: How would you classify your abilities in risk management?

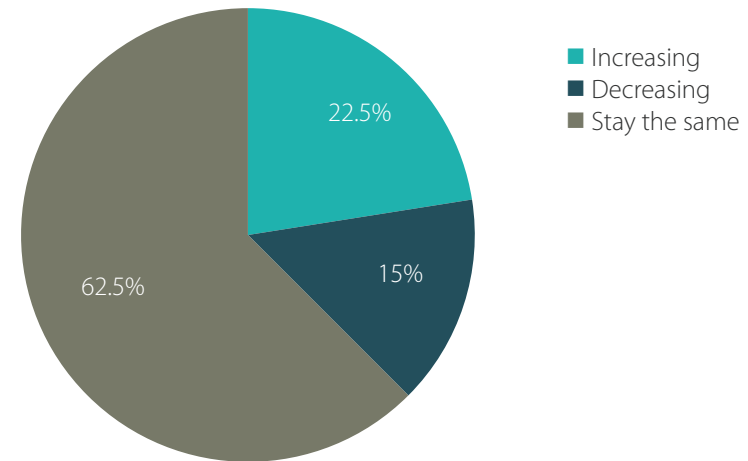


**ENABLERS: How would you classify the risk in your customers' supply chain over the last year?**

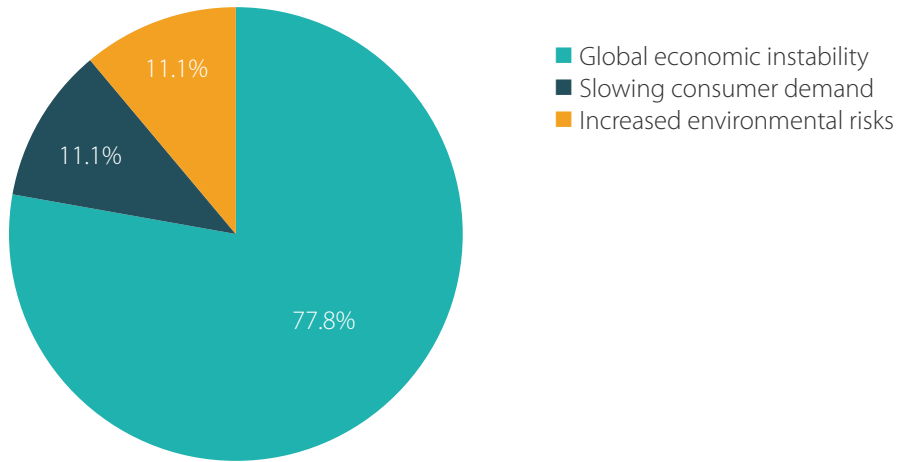


Another dimension that has helped supply chains catch-up with risk mitigation has been the relative stability of risk over the last few years. 63% of shippers have seen their risk stay the same, with only 23% seeing an increase. Enablers have seen their customers' supply chain risk increase over the last year, but some 30% also saw the risk stay the same.

**SHIPPERS: How would you classify your supply chain risk in the last year?**

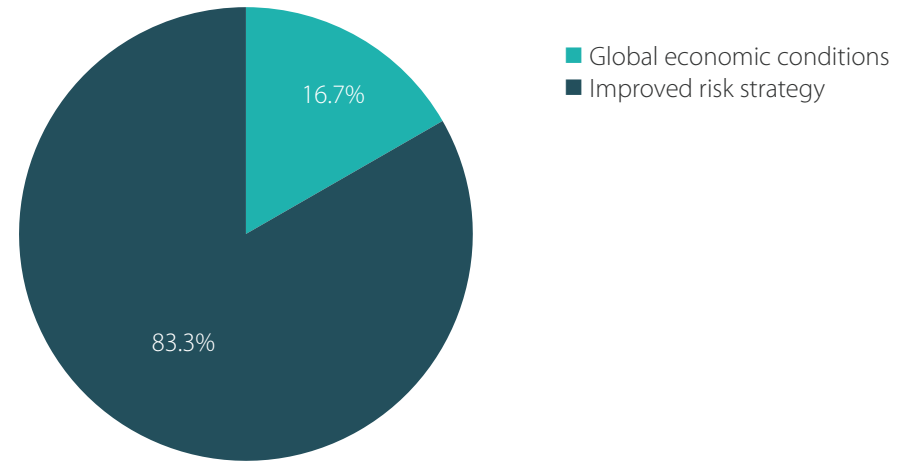


**SHIPPERS: Why has your risk increased?**

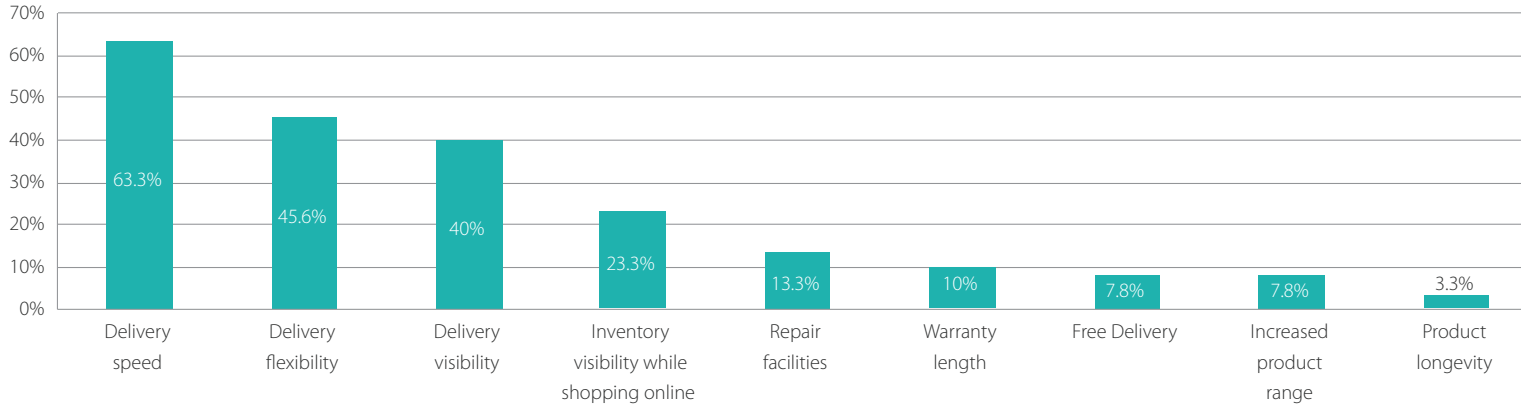


The predominant source of increased risk is the global economic instability, while those that saw a reduction in their risk attribute this to improved risk strategy. This is in-line with our expectations of the major forces affecting the hi-tech supply chain. If we relook at the beginning of the report, stagnant global growth is clearly weighing heavily on hi-tech shippers. However, if we look at where they are seeing growth opportunities, these aren't necessarily in traditionally risk-heavy emerging markets. As such, risk mitigation moving forward might be more about adapting to fluctuating global demand more than traditional areas of risk – theft, natural disasters, sourcing, etc.

**SHIPPERS: Why has your risk decreased?**

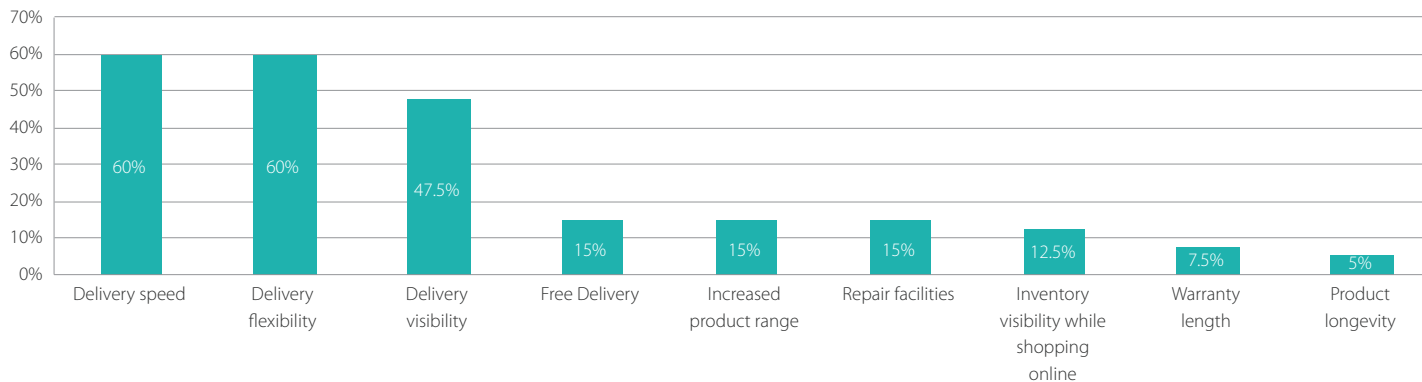


## ENABLERS: What are your customers' customers demanding most?



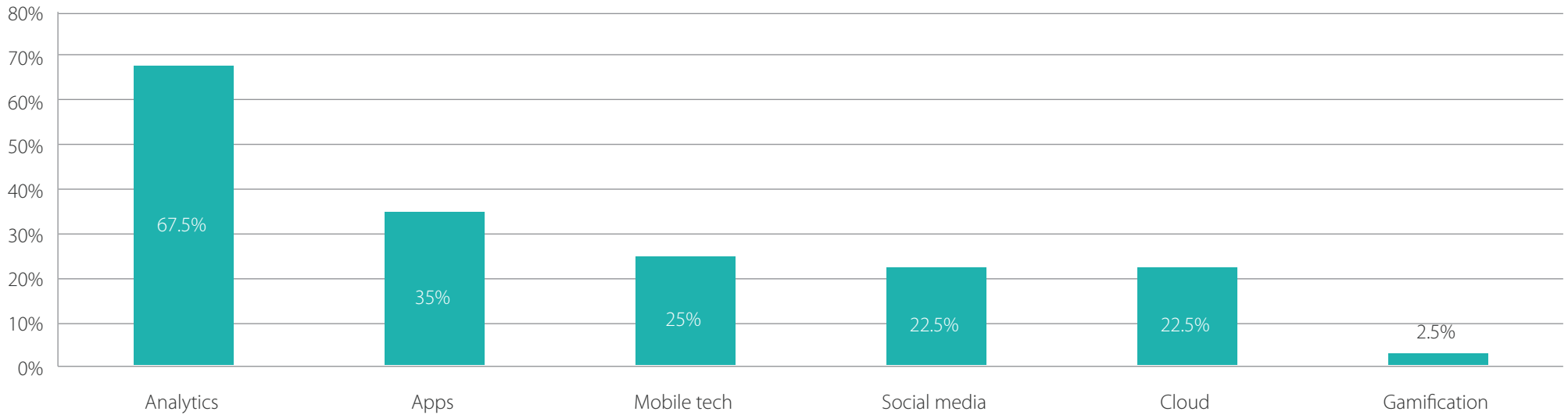
Enablers are seeing their customers demand delivery speed, flexibility and visibility most. Shippers are in alignment, seeking flexibility and speed the most, with visibility coming in third.

## SHIPPERS: What are your customers demanding most?



The fact that enablers and shippers are seeing most focus on delivery efficiencies highlights the central role the customer is now playing in the hi-tech supply chain.

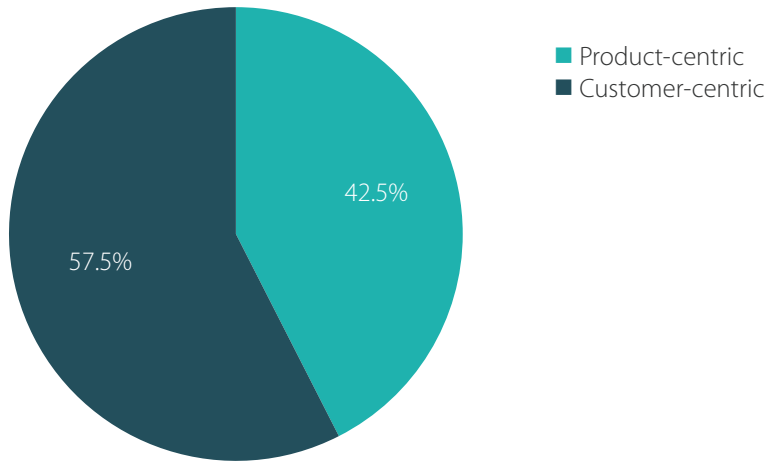
**SHIPPERS: Which of the following technologies are you using for plugging into your customers' supply chain experience?**



While most shippers were using analytics to better understand their customers' supply chain experience, a significant number of respondents have been using social media, apps and mobile tech to keep pace.

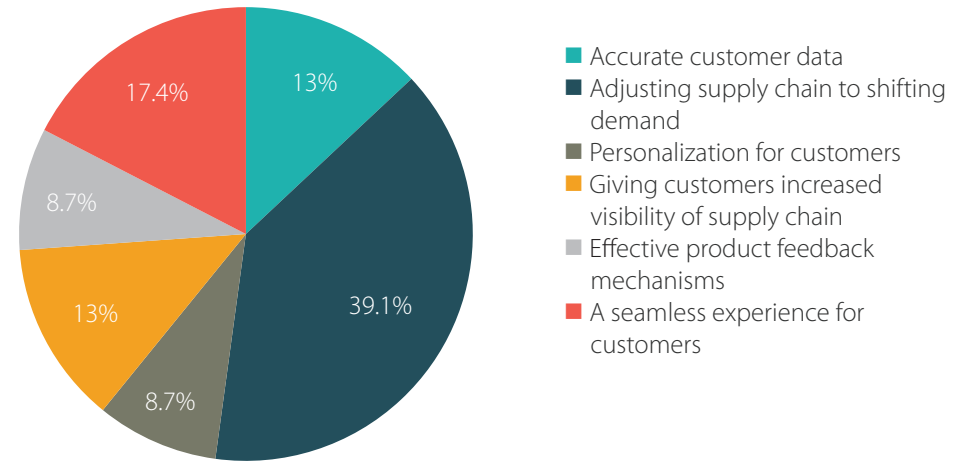


**SHIPPER:** What best describes your hi-tech supply chain?



58% of respondents have also indicated that their supply chains are customer-centric. This is a shift from a tradition of product-centrism that has permeated the industry.

**SHIPPER:** What is the biggest challenge you're facing when it comes to creating a customer-centric supply chain?



Yet this shift has its own share of difficulties. Shippers are facing challenges adjusting their supply chains to shifting demand. In addition, they're struggling providing a seamless experience for customers.

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## Conclusion

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The consumer is shaping the hi-tech supply chain. More than ever, the supply chain is being brought to the forefront of the consumer's interaction with an organization. Delivery speed, social media and general customer-centrism are now key aspects of a hi-tech supply chain. Just as hi-tech has started to get it right, the industry is facing a difficult economic climate. Stagnant global growth in hi-tech is set to weigh heavily on hi-tech companies. However the best tactic is likely going to be a continued focus on the customer to drive profits in 2016 with additional services along-side products featuring heavily as a possible additional revenue stream.

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## Want to learn more?

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The **Hi-Tech Supply Chain Summit (December 6-7, San Jose)** is exploring the impact of Industry 4.0 technology such as robotics, machine learning, VR/AR, and the IOT on the hi-tech manufacturing and retailer supply chain.

This event brings together renowned industry thought leaders from the worlds most advanced technology manufacturer and retailers to discuss the changing face of open innovation, and the long term impact of digital platforms such as mobile, social and cloud.

Key themes include:

- Industry 4.0 Is Coming: The IoT, machine learning, virtual reality, and augmented reality are driving us towards full automation, streamlining key processes, speeding up response times and ultimately increasing output
- Demand-Driven Manufacturing: The new manufacturing ecosystem is demand driven, built to order, and customer centric. Don't get left behind in the traditional supply chain model - be ready to adapt and deliver unique customization options
- Open Innovation Becomes Critical: Businesses are increasing shared visibility by leveraging mobile, social and cloud. Understand how the rise of working with partners in a 'federated ecosystem' model can foster greater value for the consumer

Join **IBM, Lenovo, Walmart, Lily Camera, Oracle, LinkedIn, Avnet, Juniper Networks, Microsoft, Kaiser Permanente, Gartner, PwC** and many more on December 6-7, 2016 in San Jose. Reserve your place here: <http://events.eft.com/hitechUSA/>

Join us at the 9th **Hi-Tech Supply Chain Summit** (December 6-7, The Tech Museum of Innovation, San Jose)

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