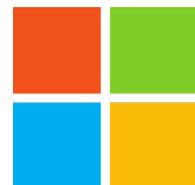




Research conducted by
Noventum, HSO and Microsoft

Drivers for Growth in Service

“How manufacturers prosper in an increasingly digital services led world”



Contents

1. Introduction	3
2. Background to the research	4
3. Executive Summary	6
4. Research findings	
a. The primary change drivers that are powering the transition towards a services-led company	12
b. How the business strategy is changing and how companies are responding	14
c. Growth drivers for companies who are just starting, or who have yet to start, the transition from product-centric to service-centric	17
d. How customer service demands are changing	19
e. The impact of the change on people and company culture	22
f. How companies are reacting to socio-political & market trends	23
5. Conclusion	27



Many of the companies who participated in this research have been at the front line of the coronavirus battle. Medical device companies, food production companies, logistics companies, communication companies, utility providers and of course the field service technicians and support services teams who are helping all of these industries to remain operational and productive by resolving their technology issues.

We would like to acknowledge the huge efforts that the service community is making to keep their critical customers operational.

There has never been a time where helping customers to achieve their business goals has been more important.

This research identifies the **drivers for digital services business growth** in the high technology marketplace and discovers how product manufacturers and technical services companies prosper in an ever-increasing “services-led” world.

We wanted to discover which are the most successful business drivers, what strategies are being adopted to support these drivers, and how companies are organising themselves to take advantage of the new opportunities.

Through our research you can learn how companies have tackled these challenges and what the results have been so far.

The research participants came from a wide range of industries including Healthcare, Industrial Automation, Instruments & Robotics, IT, Electronics, High Tech Engineering, Oil & Gas, Food Processing and Shipping.

The research methodology had two parts, personal interviews with representatives from major companies and an online electronic survey sent to a broad range of high technology solution providers.

Whether you are a product designer, a manufacturer or a service provider, the technology world has seen many market changes over the past 10 years and the rate of change is accelerating.

In the past, product manufacturers maintained strong business growth by developing ever more innovative products, with new features and benefits, that customers were keen to consume. Basic warranty and maintenance services would often add a useful additional revenue stream to the company's financial success, and at the same time allow them to further improve their products based upon the acquired performance data from the installed base.

As products in the global economy have become more commoditized, third party maintainers and "pure play" services organizations have seized the opportunity to deliver value-added services to customer end-users.

It is well documented that since around 2012/13 the relative contribution to revenue growth and profitability growth, among technology companies, has been shifting from product derived revenues to services derived revenues. At the same time, customers (often facing business challenges within their own markets) are looking for suppliers to provide much more than clever products and wrap-around services.

Customers expect solutions that will help them to develop their business, to give them competitive advantage, and for the supplier to understand the market that the customer operates in. What's more, customers don't want to pay for the solution in the traditional manner! The standard of upfront capital investment and operational expense, is giving way to subscription or pay-per-use models, with services expectations and incentives tied to business outcomes.



So where does this leave the technology manufacturer and what are the growth drivers that will ensure business success and sustainability? Well, one megatrend that has swung the advantage back towards the product manufacturer is that of the IoT (Internet of Things), also referred to as Industry 4.0, smart machines, connected products.

Product manufacturers now have a distinct advantage with their ability to design the product, build in the sensors, enhance the software application and

generally incorporate the capabilities that are needed to enable the truly advanced customer business related services of the future!

But how to get there? **Our research interviewed many leading technology businesses to find out where they are on the journey**, what new business models they have developed and what challenges they have encountered in their quest to deliver market leading business growth.

Business model – Transformation Journey	Traditional Manufacturing paradigm	New Digital Services Manufacturing model
Differentiation strategy	Tangible product features	Brand driven – intangible values
Financial model	Project-oriented, often low margin and high risk	Recurring revenue, multiple contracts, high margin
Innovation strategy	New features and functionality in the products	Address customers’ business challenges with innovative new business models
Performance measurement	Cost, quality, delivery	Customer experience and customer retention
People strategy	Technical excellence, analytical	Customer-focused, consultancy sales
Organizational structure	Product-focused	Customer and market focused
Information Technology	ERP to improve productivity	Customer-centric IT architecture to add value for customers
Supply Chain	Forward manufacturing Supply Chain	Global parts management Supply Chain
Partnerships	Dealers and partners to sell your products	Partners sell and deliver services

Our research clearly showed that technology companies recognize that their **customers are demanding much more than just “keep my systems/machines/plants operational”**.

These customers are increasingly expecting solution providers to be fully engaged in helping them to achieve their business goals to increase production, to meet their energy efficiency targets, to increase patient throughput, to improve manufacturing operations, to enhance their brand!

This Executive Summary is the result of a research initiative from **Noventum, HSO and Microsoft**. In 2020, several companies were interviewed and others participated in electronic surveys to explore how manufacturers and technical service companies prosper in an increasingly services led world. We would like to thank all participants for their contribution.





Drivers for change *towards a service-led company*

Recognizing the need to change and enacting the change are two different things of course. The research identified four primary change drivers:

1. The market demand for customer business-related services was strong in many sectors.

3. The vision of a new CEO or executive team was engaging the collective competence of the whole organization to create a new customer-centric focus.

2. The flat or declining revenue coming from the product business was presenting a financial risk to the company.

4. Companies already successful in delivering “customer value” services see the opportunity to accelerate their growth through the expansion of their services portfolio.



Business Challenges

Your response



When asked “What are the biggest challenges being faced by your company today”, it was the need for new business models, **to be able to deliver outcome-based, data driven, pay-per-use type services that came out on top.**

Critical Success Factors

Take advantage of this growth opportunity

We learned that a critical success factor, to be able to take advantage of this services growth opportunity, is that ALL company functions must be fully engaged in driving the new strategy. This is not about increased collaboration across functions... but about true departmental integration and understanding, where the lines between R&D, sales, product management, service, manufacturing..... deliberately overlap, allowing multi-disciplined teams to work cross-functionally on business development opportunities.

Changing the type of conversation that is held with the customer, i.e. focusing on their service needs and business outcomes often brings unexpected benefits. Our research respondents spoke about increased product pull through for replacement products, but also about how this conversation unlocked new business opportunities in areas previously inaccessible to them.

Product sales companies who derive the majority of their revenue from hardware sales, reported revenue growth was stable, or in some cases declining, but that software development was becoming a potential growth driver for them and delivering increased customer value around their solution. They acknowledged however that they sometimes used services sales as a way of maintaining revenues between product launches.

But while customers may be clear about **what** their solution provider should do for them (i.e. address their business challenges), they are not so clear on **how** this should be delivered. In the past, customers saw improved service levels as a way to help them to increase performance, and demands for faster response

times, shorter resolution times and increased system availability became the standard metrics of service agreements. These elements, however, were also the standard attributes of a service organization and essentially the customer was “driving” the service supplier.

The dilemma that both the customer and the service company are now facing is that the customer is saying **“show me how your solution will improve my business!”**

One medical device manufacturer echoed the general message from many respondents that “... customers are putting operational efficiency above product functionality. **Customers are looking for partners who can help them to improve their operational outcomes”.**

In this new world, it is the service provider’s job to make the customer aware of the improvement opportunities they have and how the provider is uniquely positioned to help the customer.

When asked “what service do you believe customers will request most often in the future” with a choice of basic services, advanced product related services, or customer business related services, 60% responded with the latter.

In responding to this need for customer business related services, 81% of companies stated that they are either currently delivering these services (32%) or that they were planning to develop customer business related services (49%).

IT infrastructure

Support new business models

The next question however, about whether their company's IT infrastructure is designed to support product and services sales and delivery, found that only 28% of respondents stated that their ERP, CRM and service management systems were fully integrated and aligned to the new business models.

IT resources are not the only challenge in this new services world as one Industrial Automation executive told us ... "resource acquisition is one of the biggest challenges because we are looking for "consultants" who have vision and knowledge in the technology but can also have the conversations with the senior execs of the customers. In general, competencies need to be people-oriented first and engineering-based second"

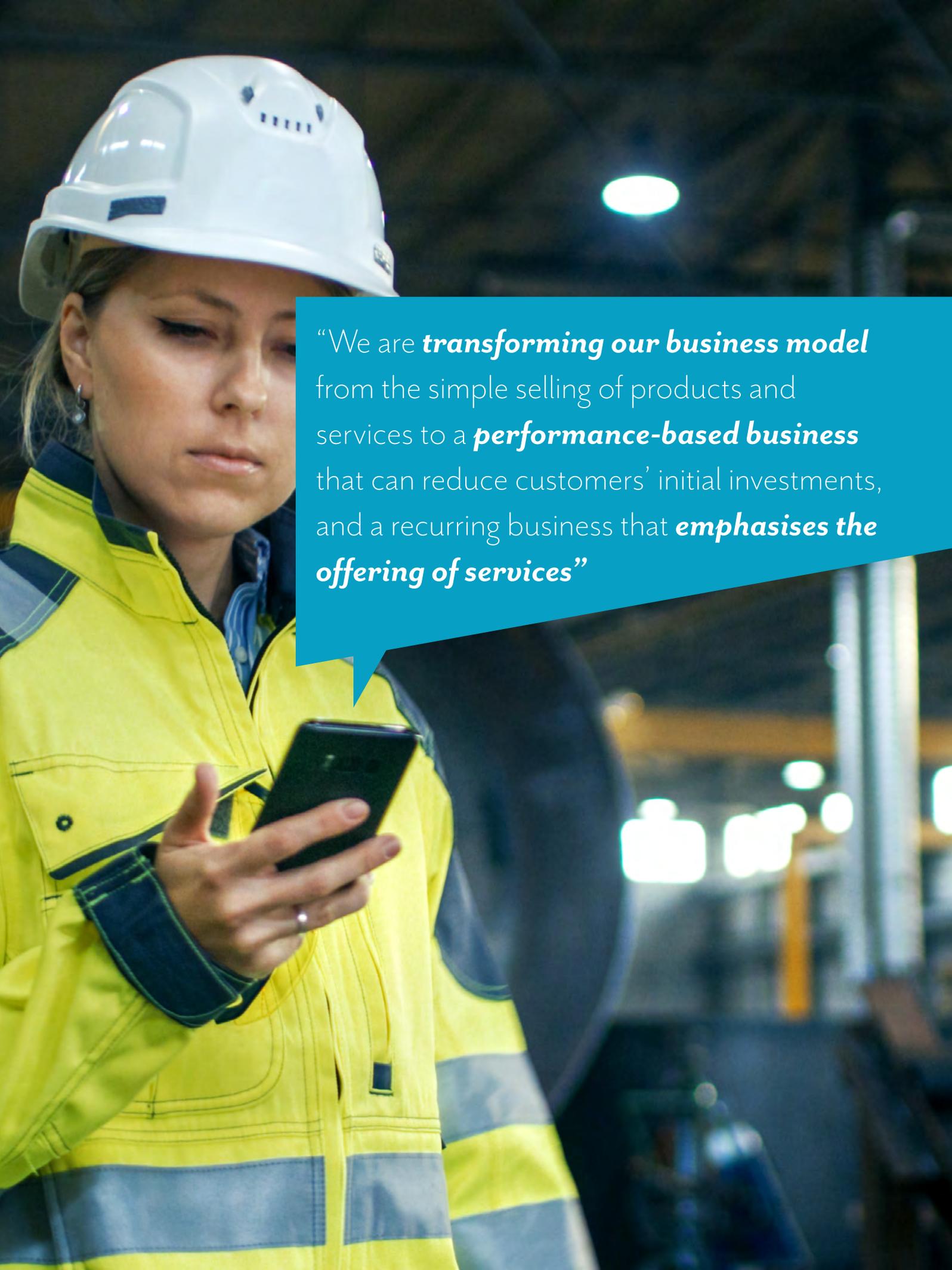
So, what about digitalization and the product-related advantage of using IoT, machine data, artificial intelligence? All companies saw the advantage that product manufacturers now have, to leverage product design as a way to develop remote services, advanced customer services, create added value for the customer and to facilitate new business models.

Digitalization is certainly viewed as a strong growth driver, particularly in mature markets such as the US and parts of Europe where the customer demand for business and outcome-based services is strong. It can even be a "qualifier", as one respondent reported being locked out of a tender because the proposed product solution was not a "smart connected" product!

But only 15% of companies reported that they have a digitalization strategy and business model that "engages the whole organization", with 51% currently working on developing their strategy. There was however some strong advice from our research respondents that, even if the digitalization journey seems daunting just start!

You probably have more capability in areas such as remote services, with data points available from your current product solution, than you think!





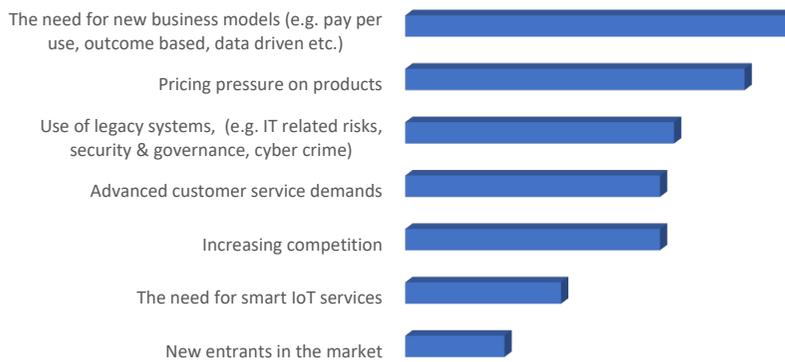
“We are **transforming our business model** from the simple selling of products and services to a **performance-based business** that can reduce customers’ initial investments, and a recurring business that **emphasises the offering of services**”

The primary change drivers that are powering the transition towards a services-led company

The research identified four primary change drivers;

- 1. Market demand from customers looking for business related services that help them to be successful**
“Customers demand that they deal with specialists who understand their business needs and offer solutions to reduce total cost of ownership and to enhance compliance” Business Development Manager, Industrial Automation
- 2. Recognizing the risk to the business of declining revenues and profitability from product sales only**
“during the financial crisis in the 00’s, service has proven to be the stable revenue factor” Owner, Industrial Cooling company
- 3. The belief or vision of the executives that services (particularly, “close to the customer” services) is the way to maintain loyalty of existing customers and to acquire new customers** *“Since our new CEO arrived, we see that the emphasis on service has been improved as he knows that it is THE way to maintain relationships with customers and to be valuable to them throughout the customer lifecycle”*
- 4. Already successful services companies see the opportunity to accelerate their growth through expansion of their portfolio to more advanced customer business related services** *“We are transforming our business model from the simple selling of products and services to a performance-based business that can reduce customers’ initial investments, and a recurring business that emphasises the offering of services”*

What are the biggest challenges being faced by your company today?



Our research showed that if companies are seeing customer demand for customer business-related services as one of the primary change drivers within their organization, they also recognize the need to develop new business models to be able to service that demand. Hence the top business challenge being faced today, according to our research, is the need to implement new business models.

A common theme related to “recognizing the risk” was the commoditization of the product business and the inevitable price erosion and lower margins that ensued.

So how were the changes initiated? In some cases, individual departments or business units recognized their changing markets and customer needs, and started developing advanced services and customer business-related services around the product.

As this trend expanded across different business units, the company started to develop global offerings that would meet these needs. In this situation however, development is slow, without clear direction and often competing with rival firms.

The speed of change is certainly much faster when the services strategy is being driven at the executive level, and even more so when this is the business strategy development and not perceived as a separate, perhaps disconnected services strategy. An industrial automation company executive stated :

“the value for the customer is in the services, and certainly the profit for the company is in the services, *some products are even sold at a loss*”

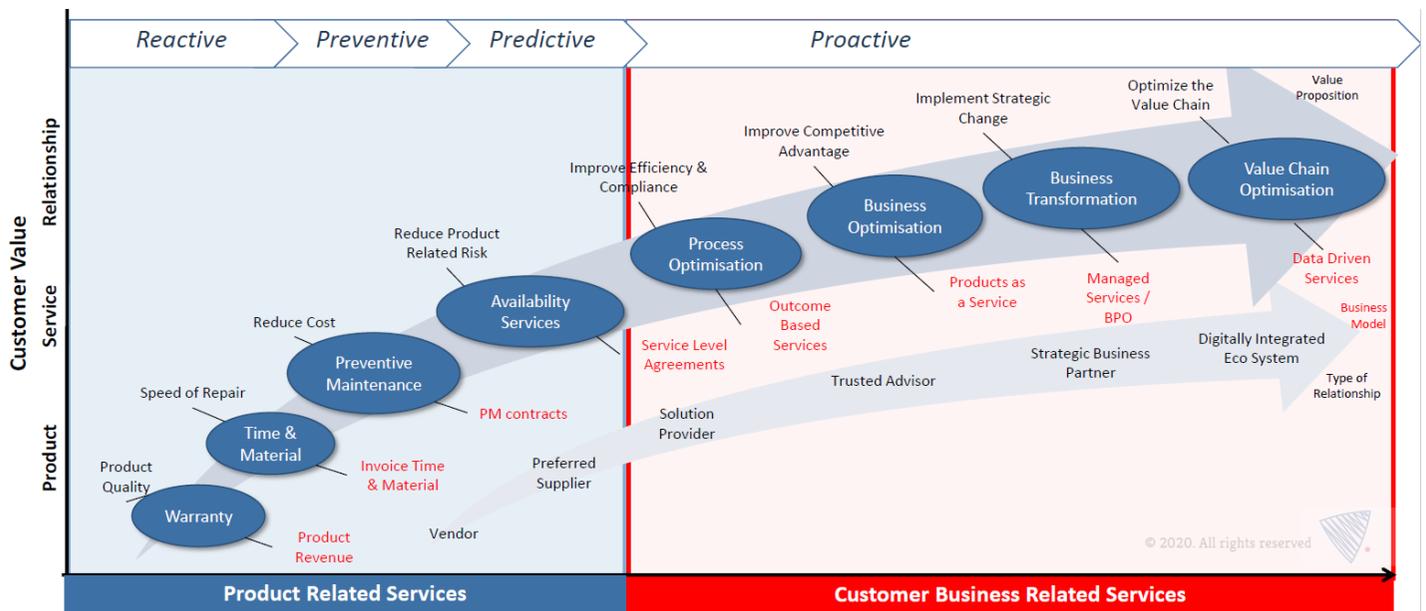
How the business strategy is changing, and how companies are responding

Of the companies who reported an increasing services revenue trend, 95% stated that there was a clearly defined services strategy in their company, and 62% of companies stated that service was recognized as a growth engine rather than a department or function.

Our respondents stated that a clear strategic direction alone was not enough and that in order to drive the cultural change throughout the organization, this needed to be backed-up by strong business governance, related to the associated financial and operational goals.

- Product sales targets should become solution sales targets
- Sales calls / meetings should become revenue generation meetings
- Basic services revenue tracking becomes lifecycle services annuity revenue tracking

Essentially, the strategic change is a journey undertaken by the whole organization and involving all functions. It changes the business model, the customer relationships and the value propositions, as represented in the service business evolution model shown below.





One very successful organization has developed what they call “co-innovation”.

It is a methodology where the company and the customer work together to develop a solution based upon customer outcomes before the product or the services have been specified. This approach has demonstrated to the customer the value that the product manufacturer can bring, even in a world where product reliability is actually quite high.

Also known as “co-creation” in technology development worlds, there are many examples where manufacturer and customer engineers have collaborated in new product design. The healthcare and defense industries are often cited as examples, however this **collaborative engineering approach** is now becoming part of the sales cycle with the focus moving from product functionality to end-user outcome. This increased collaboration between supplier and customer is changing the type

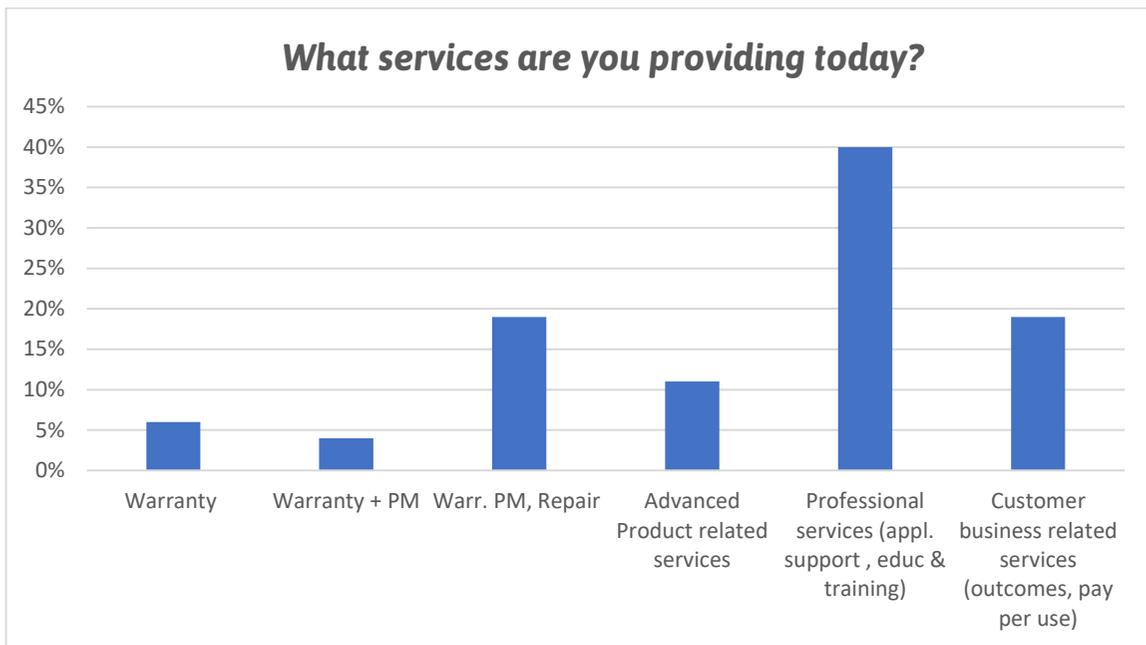
of conversation that is held with the customer at each step of the customer journey. Focusing on their service needs and business outcomes often brings unexpected benefits. Our research respondents spoke about increased product pull through for replacement products, but also about how this conversation unlocked new markets in fields like environmental services, cyber security, operational efficiency, safety and risk assessments. Every organization is looking to improve customer loyalty and to retain long-term annuity business.

Referring to the change of conversation with the customer, one senior service management professional from a global engineering company stated that, *“The influence of the client is much stronger on the service side. There is often an urgent need to act fast. **Selling service is about selling trust and initiates long-term relationships”.***

We asked our respondents what type of services they were providing today:

- **Warranty** services only
- Warranty services plus **preventive maintenance** visits
- Warranty, PM and **repair** services
- Above services plus **advanced product** services (e.g. implementation services, availability services, predictive service)
- Above services plus **professional** services (e.g. application support, education & training, consulting services)
- Above services plus **customer business related** services (e.g. process outsourcing, outcome services, pay-per-use services)

The chart below shows that while basic services (warranty, preventive maintenance and repair services) are still needed, the majority of companies are delivering much more advanced services with professional services (application support, education & training) leading the way, and customer business-related services now equalling the number of companies delivering basic services.



Growth drivers for companies who are just starting, or who have yet to start, the transition from product-centric to service-centric

Product oriented companies reported that software development is one of the current growth drivers in the technology market and new software products are delivering increased customer value around their solution.

They also reported however that they are using services sales as a way of surviving between product launches. The challenge for a strong product (capex oriented) company is the financial impact of the transition to an annuity-based business model, even if the annuity-based model provides for improved financial strength and sustainability in the long-term.

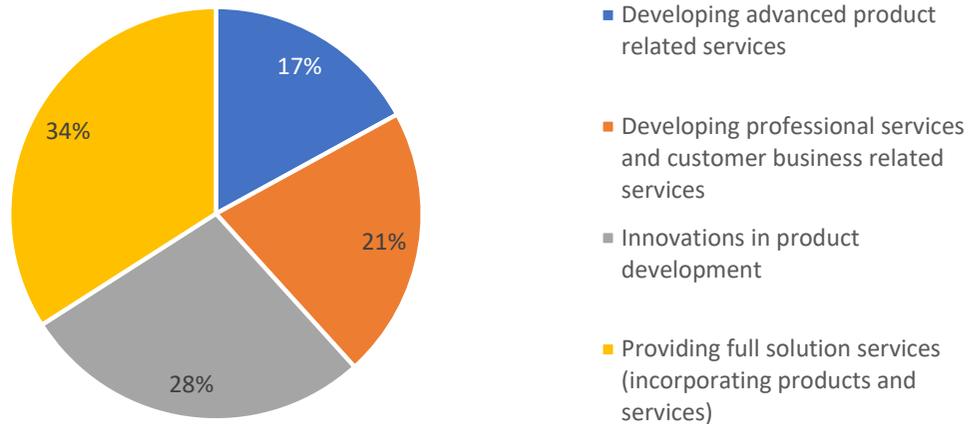
A medical device manufacturer commented that new entrants into the market are bringing in enhanced functionality, which leads to increased competition and the inevitable price erosion. In these situations, service is sometimes being used as a defence mechanism to maintain differentiation.

Product companies also reported that attach rates (service contracts sold at time of main purchase) are typically very low. In some cases, service management or service sales staff are tasked with trying to increase service contract penetration after the product installation, or after the warranty period.

Employing an after-market sales team to sell service agreements following the warranty period is obviously a more costly solution than if the service agreement was sold at “point of sale”. In these IoT, digitalization times however there is an additional disadvantage with not selling a service agreement at the start of the engagement. The installation and implementation phase of a customer engagement is clearly a critical time for both the customer and the solution provider. However, without a signed service agreement in place, it often means that there can be no remote monitoring established, and so initial performance data and advanced services opportunities are lost during this time. So, what are the current growth areas in the high technology marketplace?



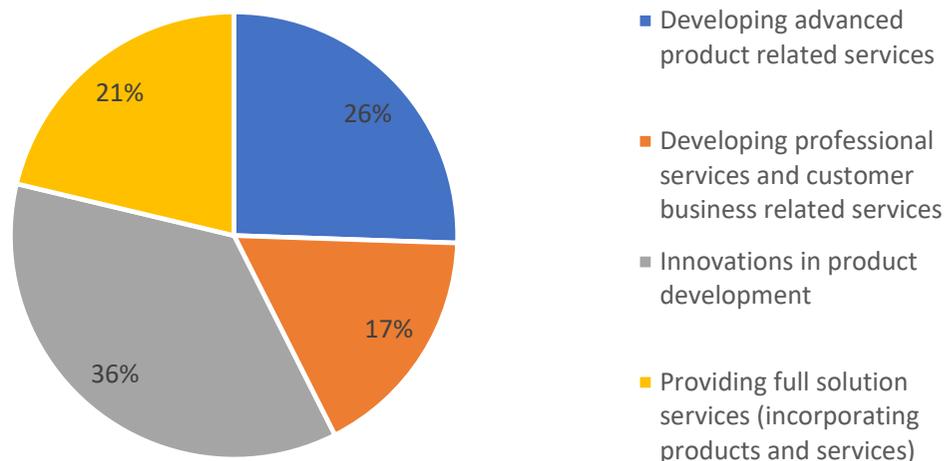
Growth drivers in established markets



Here the research showed that there is a clear distinction between established markets and emerging markets. In established markets, **34% of respondents stated that providing “full solution services” (incorporating products and services) was their most successful growth strategy.**

“Innovations in product development” was also a strong growth driver (28% of companies), while “developing professional/customer business-related services” was leading the growth effort for 21% of companies.

Growth drivers in emerging markets



In emerging markets, the picture was different with **“Innovations in Product development” still being the most successful growth driver** for 36% of companies and the associated “Advanced product-related services” taking second place with 26% of companies.



04d

How customer service demands are changing

One medical device manufacturer echoed the general message from many respondents that “Customers are putting operational efficiency above product functionality. Customers are looking for partners who can help them to improve their operational outcomes”.

Having said that, customers are not so clear on how their demands should be met. In the past, customers saw improved service levels as a way to help them to increase performance and demand a faster response times. Shorter resolution times and increased system availability became the standard metrics of service agreements. These elements however were also the standard attributes of a service organization and essentially the customer was “driving” the service supplier.

The dilemma that both the customer and the service company are now facing is that the customer is saying **“show me how your solution will improve my business!”**

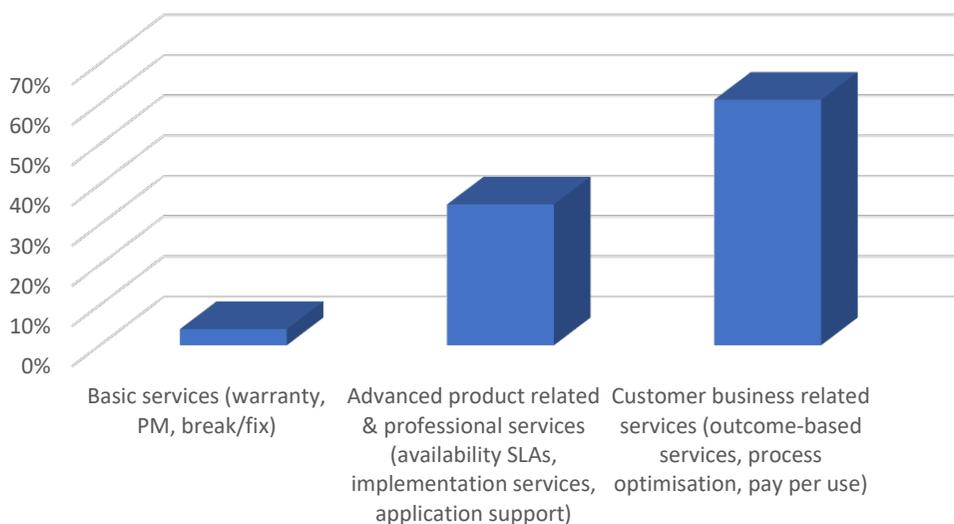
In this scenario the product/service supplier needs to, (a) truly understand the customer’s market and (b) to come up with an innovative solution based on a comprehensive knowledge of how the customer’s technology is being used in that market.



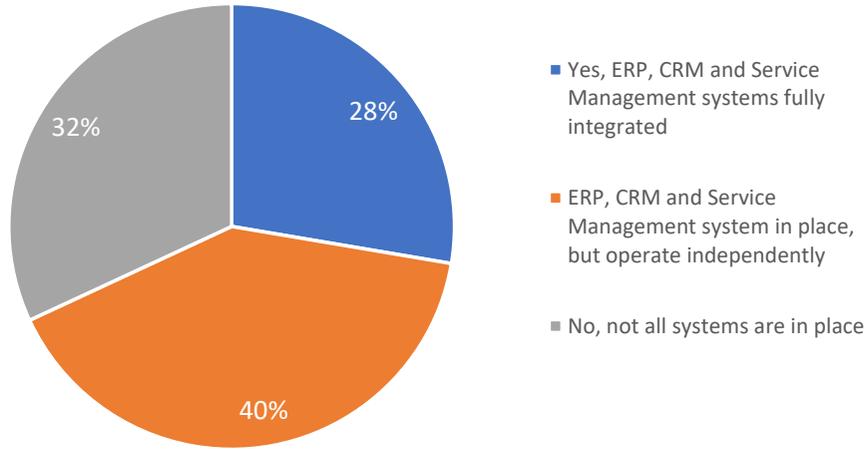
At the same time customers are pressuring suppliers to ensure that end-user data is safe and secure. If the efficiency improvement solution relies on connected products and the analysis of system data, product manufacturers must develop effective digitalization strategies and cyber security policies, not to mention the strengthening of their staff's skills and resources in these areas.

Despite recognizing that customer business-related services are very important for future business growth, **many organizations are not yet ready** or able to provide this. This is particularly true when considering the IT infrastructure.

What service do you believe customers will request most often in future?

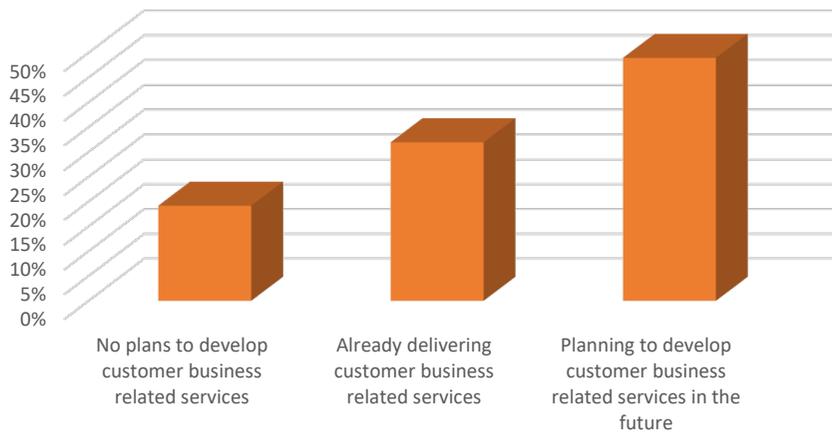


Is your company IT infrastructure designed to support product and service sales and delivery?



Several respondents commented that they have embarked on a digitalization strategy focused on transforming systems and processes to support the new and emerging business models. No longer the sole remit of the IT department; **the “business” and IT are working hand in hand to deliver the IT platform of the future.**

Customer business related services



Despite the IT related challenges, 81% of companies said that they were either **already delivering** customer business-related services (32%), or they were **planning** to develop these services (49%).



04e

The impact of the change on people and company culture

Dependent upon where an organization is on the “product to services evolution journey” there may be a requirement for a whole raft of new skills and competencies in many fields, from sales, to customer relationship management, to marketing, to IT specialists and data scientists.

Sales is clearly impacted. Services selling (sometimes consultancy selling) is quite different from product selling. An Industrial Automation respondent said that *“Resource acquisition is one of the biggest challenges because we are looking for “consultants” who have vision and knowledge in the technology but who can also have conversations with the senior executives of the customers. In general, competencies need to be people-oriented first and engineering-based second”!*

Similarly, with marketing, it is now the customers’ perception of the service-providers brand value that becomes a differentiator in the sales cycle, and

relationships are all important. Developing expertise in brand experience design, measurement and management will be a requirement for the marketing function.

The challenge of trying to solve a customer problem or business need can be used as a catalyst to bring a new dimension to company culture. One such company brings together a multi-functional group to come up with ideas of how to resolve a particular customer issue. The group (assembled from engineering, service, sales, manufacturing) are given dedicated time to work together and develop potential solutions. This way of working helped to develop a forward-thinking and customer-focused culture across the organization.

In essence, the company culture is gradually being transformed from product-based thinking to a customer-centric way of working.



04f

How companies are reacting to socio-political and market trends

Solution Services – customers’ expectations to provide “solution support”?

Our research showed that there were significant differences between services-oriented manufacturers and product-oriented manufacturers. Product manufacturers reported that **“traditional” silos within the company continued to be an issue** e.g. manufacturing, supply chain, sales, service, R&D, all had their own business goals which took priority and day-to-day focus.

Services-led organizations, on the other hand, reported that trying to develop customer business-related solutions, particularly those of a highly complex nature, fostered increased collaboration across the functions and brought a broader skill set to bear on a customer challenge.

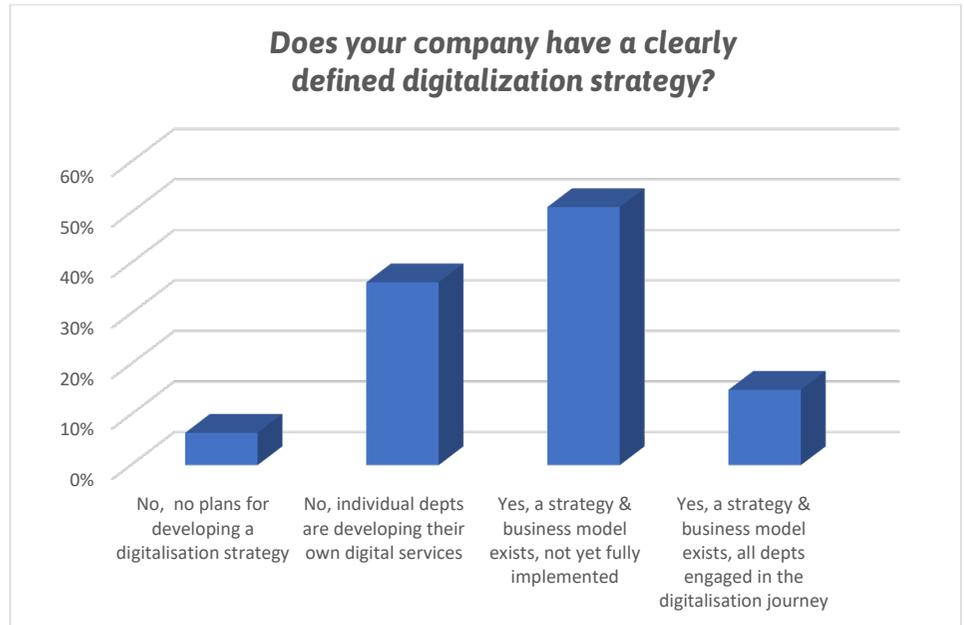
Application support versus hardware support

The majority of companies reported a similar problem here as the growth and importance of software applications means that companies need new skills, or maybe a shift in workforce balance, towards more application knowledgeable support staff rather than technical hardware skills. This then has a direct correlation to the type of IT applications being used to run the service business and whether sufficient functionality exists to manage the full range of services being delivered.

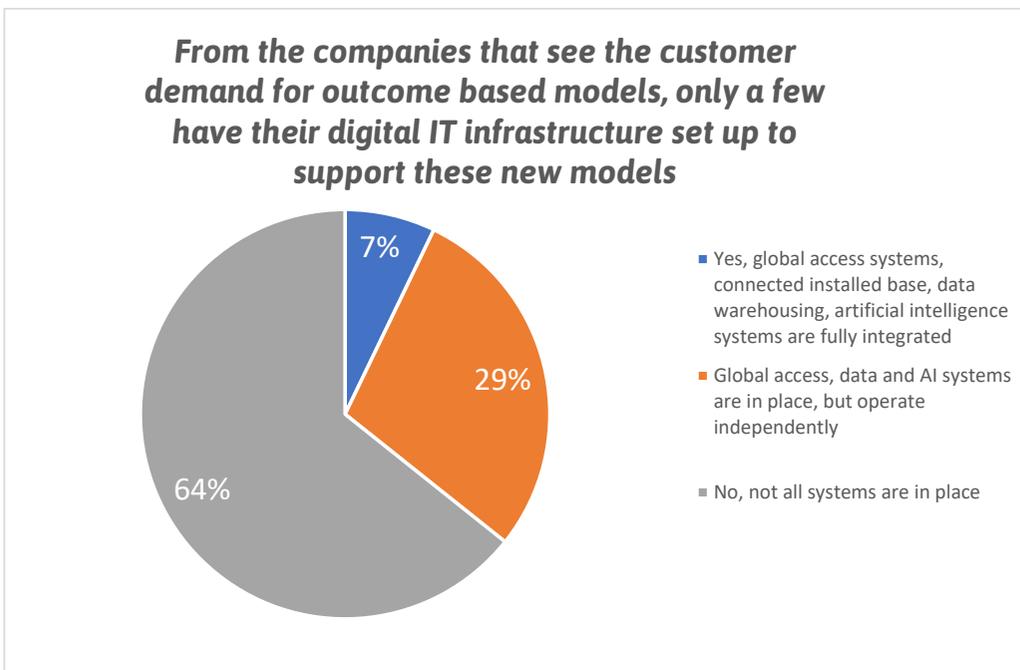
Some organizations had resorted to outsourcing as a way of acquiring software application support skills more quickly. However, developing customer workflow and process knowledge, in addition to application skills, was proving far more challenging for many of our respondents.

Digitalization and the product advantage – using IoT, machine data, AI

All companies saw the advantage that product manufacturers now have, to leverage product design as a way to develop remote services, advanced customer services, create added value for the customer and to facilitate new business models.



However, recognizing this opportunity and then aligning the whole organization to be able to commercialize the opportunity are two very different matters..... *“For the past two years our digital transformation has been focused on transforming systems and processes to identify the right technology to help support our strategy.”*



With regard to the digital IT and data systems needed to support the new services world, the **technology gap is even bigger** than we saw earlier with the ERP and CRM systems.



Here are the 8 key steps that one company has taken to develop proactive remote service delivery capability and to establish a platform for digital services.

1

Connect the installed base drive product connectivity to a common platform

2

Collect and analyze the machine/product data that is available today to understand machine status and change events (data points are often available, even if they weren't designed with serviceability in mind)

3

Correlate machine data to understand the relationship to product performance history

4

Identify key data points that can be used to alert field technicians to a potential issue

5

Determine key pain points for the customer and/or the service engineer when a problem occurs and whether it is possible to prevent this issue if the right trend data was available remotely

6

Work with R&D engineering and Product management to design serviceability requirements into the product development process (it may be possible to retrofit sensors to existing products)

7

Utilize predictive alerts to increase system availability and reduce service and lifecycle costs

8

Develop customer business-oriented services through analysis and insight as a result of data collection



Social/Political change

Political change, market change, social change is happening much faster than previously and requires organizations to be agile and to adapt quickly.

There is a need to attract employees who thrive in such environments, and to create the culture that will enable them to drive change initiatives across the business. The research also showed that Corporate Social Responsibility, which has long been a vital compliance

requirement, is now at the forefront of business development and in some markets, such as oil and gas, is actually a growth driver in its own right.

Reducing CO2 emissions, reducing energy use and minimising waste are key business targets and investors are shifting their focus to engage only with organisations who have strong credentials in these areas.

It is evident that differentiation in the technology services market is a far more challenging goal than in the past. **The need to truly understand your customers' business has never been so great.** To succeed in driving business growth, it is no longer sufficient to be more efficient, faster, more agile than your competitors it is about ensuring that your products, services and solutions are helping your customers' businesses to be more efficient, faster and more agile!

To enable this, organizations must **transform existing business models** and create new ones, to be able to take advantage of digitally-enabled services. While many companies are doing just that, even they acknowledged that their IT and digital infrastructure is not necessarily keeping pace with the speed of change required, and so technology assessments need to identify the gaps that are holding back development.

A similar situation exists with skills and competencies within the organization. A **growing demand for consultative sales skills**, for industry expertise, for application specialists and for data scientists will challenge the talent acquisition and recruitment teams.

The top 10 key conclusions identified by the research can be summarized as follows:

Customer expectations are now firmly focused on those **providers who can help them to achieve their business goals**

To develop the innovation that customers are looking for requires the **competence and commitment of all company functions**

Moving from a product-centric focus to a services-centric focus requires a **cultural change** in the organization

Executive leadership has a strong role to play to effectively deploy the strategy and business governance necessary to drive the service transformation

Customer business-related services are expected to be the primary growth drivers in the technology marketplace, especially in established markets

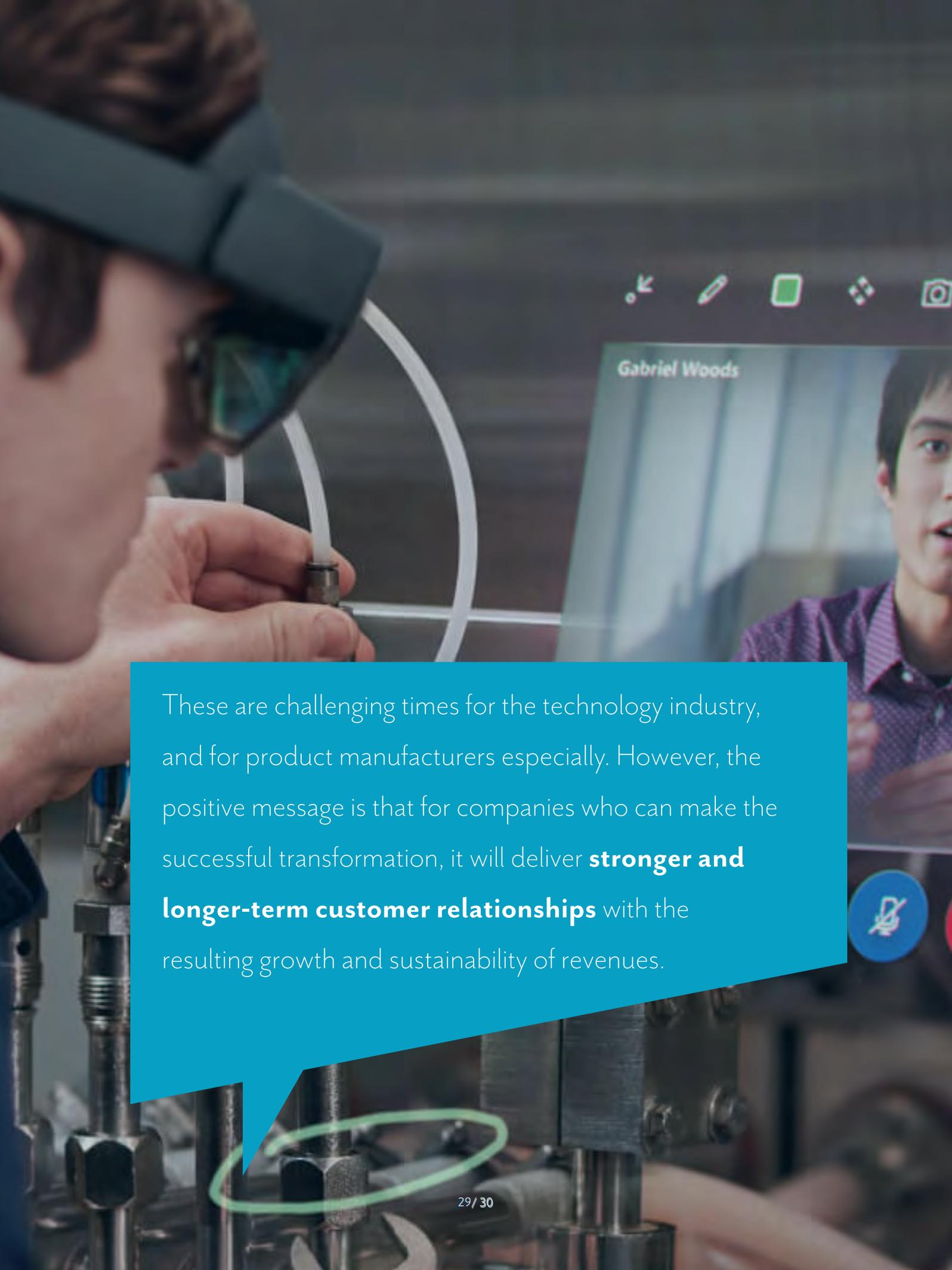
Changing the conversation with the customer from product sales to business outcomes opens up **new opportunities for services sales**

Less than a third of companies have an **IT infrastructure that fully supports the new business models** that they need to employ

The dominant growth drivers today are **different between established markets and emerging markets**

Product manufacturers have a strong opportunity to leverage digitalization services, to generate **valuable insight for their customers' businesses** and to increase profitability

Two thirds of companies are engaged in developing digitalization strategies, however less than **one fifth of companies have yet to fully operationalize the capability**

A person wearing a VR headset is working on a mechanical assembly. A virtual interface is overlaid on the scene, showing a video call with Gabriel Woods. The interface includes a toolbar with icons for navigation, editing, and a video call window. The text is displayed in a blue speech bubble.

These are challenging times for the technology industry, and for product manufacturers especially. However, the positive message is that for companies who can make the successful transformation, it will deliver **stronger and longer-term customer relationships** with the resulting growth and sustainability of revenues.



Research conducted by
Noventum, HSO and Microsoft

Authors



Martin Gilday - Senior Consultant

Since 2019 Martin is a Senior Consultant working for Noventum. Prior to joining Noventum, Martin was SVP Global Service for Elekta, a medical technology company specialising in radiation therapy solutions for the treatment of cancer. Previous positions include VP Global Service Delivery for Getronics responsible for delivering ICT services worldwide, and VP&GM Global Outsourcing and Infrastructure Services, EMEA for Unisys Corporation (IT Managed Services and outsourcing). Email: martin.gilday@noventum.eu



Annick Perry - Partner

Annick holds a bachelor's degree in Commerce, and a master's degree in Business Administration. Annick has joined Noventum in 2011 and hold several positions before she became a partner in 2018. Areas of Specialisation: Programme Management, Service Capability Performance, Service Operations Assessment, Service Delivery Models, People Development, Service Business Benchmarking, Service Business Standards and Best Practices, Capability Transfer and Change Management. Email: annick.perry@noventum.eu