White Paper

Unlocking growth: How data-driven performance guarantees increase the value of OEM digital services

MÜCKE ROTH | HSB | Munich RE

Summary

The worldwide machinery and equipment industry is undergoing major changes. As services in traditional original equipment manufacturers (OEMs) become increasingly digitalized, the focus will shift to the value proposition for the customer and the end result. Premium OEMs, in particular, are well placed to take advantage of the opportunities presented by this change.

This white paper aims to shed light on the challenges faced by OEMs as well as the opportunities that can arise from a higher level of value creation in digital service models.

The following key findings are explained further in this white paper:

1 The market for performance guarantees (e.g., insurance) in the service-based value chain will become increasingly important over the next few years. OEMs are currently struggling with rising costs and a difficult global market environment, which is leading to a drop in sales and narrower margins. In an effort to overcome these trends, more companies will bring customers new digital services beyond their hardware offering.

2 The service business generally has better margins and offers other advantages, such as closer customer relationships and greater customer loyalty. At the same time, customers expect OEMs to take more responsibility for the outcomes and final results. Many machine and plant manufacturers already offer a variety of digital services in addition to physical products.

3 To understand the service-based degree of value creation, it is helpful to envision one's digital service portfolio in five levels — from standardized service agreements (lowest level) to holistic "as-a-service" solutions (highest level). Despite a good starting position, the majority of OEMs are still in the lower levels. There are two major challenges (internal changes to operating model and financial challenges) to overcome for unlocking growth and realizing a higher value creation stage.

4 To achieve improved value creation through new services, internal changes must be initiated, such as the adaptation of core capabilities, cost structures, and the implementation of new technologies. This will lead companies to focus more on their core competencies and transferring the rest of the value chain to partners who take responsibility and risk for performance.

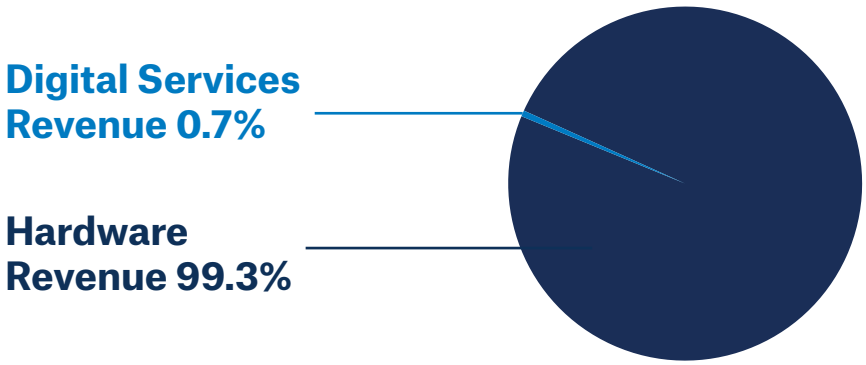
5 One example of an innovative service solution are performance guarantees. It is crucial to set clear, realistic performance metrics and communicate the guarantee transparently. Munich Re has developed a data platform that enables a reduction in complexity through data-based risk transfer solutions for end customers.

OEM margins come under increasing pressure

Rising interest rates, material price increases, recession, and declining budgets as a result of the pandemic are currently having a major impact on the growth of companies, which is reflected in a loss of market share, falling sales, and narrower margins. In response, companies are increasingly focusing on restructuring and further cost savings. However, many also see targeted innovation (from product and process to business model innovation) as a way forward, which can have a positive impact on value creation both internally and externally. An important building block is the expansion and development of service-based value creation.

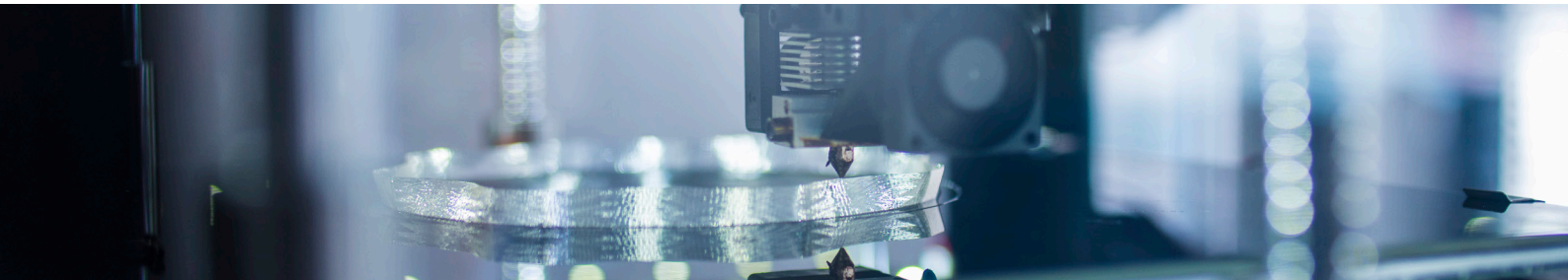
After the digitalization of machines, the focus is now shifting to the digitalization of services

Since the industry has reached a more mature level of connected equipment, the focus is on digital value-added services. A study by VDMA shows that the revenue share for digital platforms and value-added services in mechanical and plant engineering is still low (an estimated 0.7% according to survey results) but holds great potential. The digitalization of services is an important step for OEMs to become less dependent on purely hardware-oriented sales and to tap into future growth areas.



A recent survey by VDMA

VDMA in Germany estimates that the share of revenue among OEMs for digital services and platforms in Western Europe is currently below 1%, which indicates the potential for growth in this area is substantial.



Changing customer expectations: Responsibility for results is increasingly being shifted to the provider

In addition, customers expect not only high system performance and safety but also increasingly integrated digital services for all aspects of the machine, which go far beyond system monitoring and support. The issue of responsibility for results is coming to the fore; customers expect to be guaranteed a certain level of both machine availability and performance in order to minimize risk and enhance core business.

The monetization of digital services brings recurring revenue to the pure hardware business

This "hands-off" service, in which the service provider assumes responsibility for performance and also covers the costs in the event of damage, offers new potential for many premium providers to not only introduce innovative digital services but also to monetize them. Typically, this service business — especially with digital components (IoT, AI, etc.) — has significantly better margins and, for example, recurring revenue.

Many OEMs of machines and systems already offer various services in addition to their core business. These are often extensions of existing hardware business, such as condition monitoring, predictive maintenance, service and maintenance contracts, or even initial digital products separate from the actual core product, such as the automated reordering of consumables or spare parts. However, the service component of value creation is still low in this sector.

In addition to direct monetization, digital service offerings provide further benefits — closer customer relationships, greater customer loyalty, better customer insights, and greater scalability compared to the traditional hardware business.

How can OEMs better assess the value of their current service portfolio — also in comparison to the competition — and take the necessary measures to develop it further?

Classification of the intrinsic value of services according to proximity to the core business and promised value

Based on years of experience, it makes sense to divide an OEM's current service portfolio into value-added stages to determine both the initial situation and future potential. The value creation stages of a service model distinguishes between five characteristics, which depend on the proximity to the core business and the degree of machine performance promised in the provider's value proposition. Proximity to the core business refers to the relationship of the services offered to a specific machine or system, for example, whether the service offering only works in combination with the manufacturer's machine. The degree of promised value, on the other hand, is a measure of how much risk the provider assumes from its customer.

The five value creation stages of services

Performance Promise Risk Transfer Margin

5 Holistic business solutions (end-to-end):
Committing to holistic business outcomes.

Example: Guaranteed production of 10,000 units, otherwise costs are covered.

4 Performance guarantees:
Guarantees regarding specific performance or availability of product.

Example: IT service provider guarantees 99.9% server availability.

3 Stand-alone digital services:
Services as regular revenue streams that are offered independently of the physical hardware, based on data and software.

Example: Cloud-based data analysis for machine data for optimization suggestions.

2 Hardware — service improvements:
Integrating technology to predict maintenance needs to extend machine life and prevent costly downtime.

Example: Sensor-based predictive maintenance for elevators.

1 Standardized service agreements:
Basic services such as maintenance and support that ensure products and systems function properly.

Example: Regular maintenance contracts for industrial machines.

OEMs are not yet taking advantage of connected service opportunities

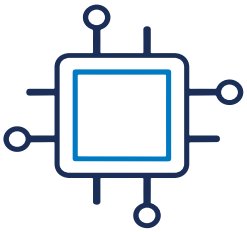
"In the traditional mechanical and plant engineering industry (OEMs) in particular, around 80% of companies are in the first or second stage of expansion, even though they are in a very good starting position," says Michael Mücke, managing partner and head of industrial goods & services at the consultancy Mücke Roth & Company. This is because a deep understanding of machines, a high degree of process excellence, and established service structures are usually already in place.

Reaching an upper tier can be an opportunity for OEMs to tap into recurring revenue with higher margins and differentiate themselves from competitors.

External partners can help with internal challenges

Why are many well-positioned OEMs not taking the opportunity to expand their service offering? Companies often fear profound internal changes to the operating model, including the adaptation of core capabilities, cost structures, and the implementation of new technologies. These changes include:

Organizational and cultural changes that lead to employee development requirements.



Sales and go-to-market processes need to evolve from one-off hardware sales to recurring subscriptions.

More complex customer relationships that require continuous interaction and improved customer service.

This requires not only an adaptation of financial practices but also a greater reliance on technologies such as digital platforms and data analysis. Implementing such changes alongside day-to-day business seems difficult or even impossible.

One possible solution is to work with external partners to significantly reduce internal costs and benefit from new service potential. Our many years of experience show that this reduces the costs of implementation by a factor of five and significantly shortens the time to market. Choosing the right partner is crucial.

Partnering with insurance companies helps OEMs relieve their balance sheet and strengthen customer trust

In addition to the internal challenges mentioned above, it is precisely at the higher service value-added levels that OEMs sometimes struggle to overcome financial challenges. The risk associated with a higher service level usually ends up on the company's own balance sheet. Practically speaking, such a move needs to be a conscious corporate decision that doesn't represent a barrier to scaling — especially when success is within reach. This is why successful OEMs enter into cooperation agreements with financial services providers so that they do not carry the risks on their own balance sheet, but instead shift that responsibility to banks and insurance companies. This means that the OEM only bears a small part of the risk itself and transfers the majority of the risk to a partner who, in addition to bearing the risk, can also provide support with technical implementation, design, and marketing.

Collaboration with financial services providers, such as banks and insurance companies, can also help to develop new digital services with higher added value. One example of this is performance guarantees.

What is a data-driven performance guarantee?

Covered perils: A performance guarantee may address mechanical and electrical failures, design flaws, and material defects, offering protection against various issues that may impact the intended performance of the insured product, and financially offsetting outcome-based failures. Examples of these outcomes include unexpected breakdowns, uptime, and the energy efficiency of equipment.

A data-driven performance guarantee detects pre-defined underperformance scenarios automatically based on the real-time data and triggers claims and payouts directly through the data platform.

Performance guarantees build trust and customer loyalty

Performance guarantees (e.g., insurance), including specific, automatic, unconditional guarantees, are an important feature of many service offerings, as end customers perceive a higher risk when purchasing outcomes than when purchasing machinery and equipment. Accordingly, they offer several advantages for both companies and their customers. For companies, these guarantees can help build trust and credibility, differentiate themselves from the competition, and attract new customers. By providing a guarantee, companies underline their ability to deliver high-quality products or services and take responsibility for any defects. This reassurance can inspire confidence in the customer and encourage them to make a purchase or enter into a business relationship.

The more specific and automated a performance guarantee, the greater the added value

Simply offering a performance guarantee does not necessarily lead to greater added value. According to an internal study by Munich Re, the value depends heavily on the scope of the service and the process the customer has to go through to claim the guarantee. In particular, specific performance guarantees or automatically invoked guarantees lead to significantly higher added value than unconditional guarantees or those that require more effort on the part of the customer.

As a result, the following three factors are decisive for increased customer value:

1. **Clearly define performance metrics:** It is important to define specific and measurable performance metrics that are guaranteed. This clarity allows both the OEM and its customer to gain a common understanding of the expected results.

2. **Offer realistic guarantees:** Setting realistic guarantees is critical to avoid overpromising. OEMs need to assess their capabilities and resources to ensure that the guaranteed performance standards can be consistently met.

3. **Communicate the guarantee transparently:** Clear and understandable guarantee terms ensure that customers understand what is covered and what is not.

Fast and uncomplicated processing thanks to Munich Re's data platform

As the needs of OEMs and their end customers can vary greatly, Munich Re as a reinsurer has developed an innovative, holistic solution to reduce this complexity. With the help of a standardized data platform, data-based risk transfer solutions can be made available quickly and easily, tailored specifically to the end customer.

Example: Battery storage performance guarantee

For a global provider of battery storage solutions, a failure attributable to battery performance would have to be covered by the manufacturer and reimbursed directly to the customer at the time of failure. Enter Munich Re with new and innovative forms of insurance, such as automated detection of the occurrence of damage using a sensor or data point and an automated payout or replacement benefit in a predefined amount. This saves everyone involved from a traditional claims reporting and appraisal process, and increases transparency and customer loyalty.

Contact us to unlock the grown opportunity of data-driven performance guarantees

In the future, digital solutions such as Munich Re's data platform will play a crucial role in developing data-driven performance guarantees for service-based value creation. The growth opportunity for OEMs lies ultimately in leveraging their strong position to offer customers comprehensive services, including risk transfers, thereby guaranteeing the performance and availability of their products. While this is theoretically possible today, it is rarely implemented in practice. Data-driven performance guarantees offer a way to differentiate oneself in the service business and enhance one's performance promise with seamlessly integrated and invisible insurance for the end customer.

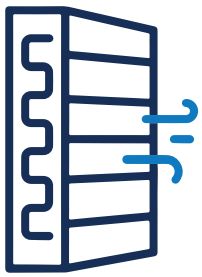
Example: AI-based condition monitoring

A leading provider of AI-based condition monitoring solutions for machinery and equipment is partnering with industrial specialist insurer Hartford Steam Boiler (HSB) to offer a performance guarantee for their diagnostic capability, combining their platform with a repair/replacement guarantee that indemnifies customers in the unlikely event of an incorrect diagnosis leading to equipment failure.

Data-driven performance guarantees are an efficient path to customer satisfaction and loyalty by focusing on the result they want, not the service itself.

Example: Global HVAC manufacturer

A global HVAC equipment manufacturer partnered with Munich Re to augment its digital service offering and deliver an end-to-end hardware and service solution performance guarantee. This provided our partner with a measurable competitive advantage in an increasingly crowded market space.



Success story: Electric component manufacturer

In a partnership with HSB, a global electric component manufacturer was able to offer customers with critical service requirements a guarantee of performance with immediate payout in case of failure, which improved customer peace of mind while moving risk and service delivery expenses off their balance sheet.

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