



WHAT ARE DIGITAL SERVICES MANUFACTURERS CAN OFFER?

Manufacturers need a more comprehensive range of digital services to grow and thrive in disruptive times. Only predictive maintenance and remote support are not enough.

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<https://moremomentum.eu/blog/digital-services-by-manufactures/what-digital-services-manufacturers-can-offer>

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Manufacturing companies have a tremendous opportunity to grow and thrive through digital services if they escape from business-as-usual. For most manufacturers, the growth will come from other digital services than predictive maintenance or remote services. There are many different types of digital services.

In this article, I describe the 8 different types of digital services which can help you and your teams grow your service business and thrive.

INTRODUCTION

Digital transformation and digital services have been a hot topic for a while in most manufacturing industries. Besides the various technologies, like AI, smart glasses and digital twin, most dominant topics today still seem to be predictive maintenance, remote diagnostics and remote resolution.

There are many more types of digital services that solve other customer problems, which have more potential to grow your business and help you thrive in these disruptive times.

Manufacturers run the risk of being stuck in business-as-usual, falling behind the competition and new entrants and ultimately miss out on today's opportunities. That is why the moreMomentum Services Community captures, shares and applies new best practices of digital services and radical business innovation. This article is part of a series of articles about [Digital Services by Manufacturers](#).

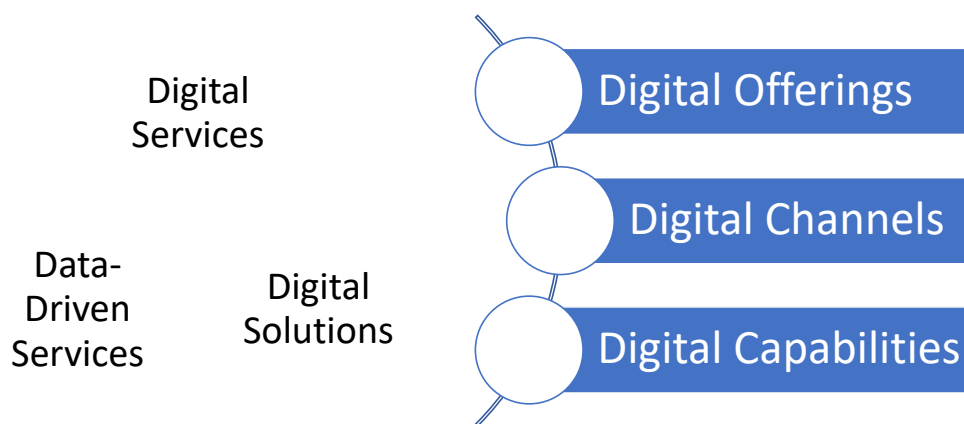
Article: What are digital services manufacturers can offer?

WHAT ARE DIGITAL SERVICES?

Digital services in manufacturing are solutions to your clients' problems which involve one or more of the following elements:

- Digital technologies and capabilities to deliver the service, like automation, data and algorithms.
- Digital channels to deliver the service, like software (on-premise or hosted in the cloud), through connected devices or online interaction with users.
- Digital offerings, where the solution itself is digital or related to digital challenges of clients.

What are digital services in manufacturing?



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In this article, I will focus on 8 different types of digital offerings.

8 types of digital solutions and services



Digital enhanced equipment



Digital enhanced maintenance



Data-driven asset management



Digital education



Data-driven process optimisation



Platform solutions



Consultancy services



Product-as-a-Service

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DIGITAL ENHANCED EQUIPMENT



Equipment is often enhanced by software for additional functionality, automation and control to improve the way it functions and performs. The result could be fewer incidents, higher efficiency, reduction of energy usage, lower consumption of consumables etcetera.

These functions can run on board of the equipment or in the cloud.

Examples

- Onboard software which improves the performance and reduces failures of components.
- Tesla's self-driving semi-truck.
- [Driverless underground mining vehicles](#)

Potential impact

Most often, these innovations address the expected next step improvement in an industry, which are being pursued by most manufacturers in that industry. It's all part of the dominant logic in the industry. Hence, these are sustaining innovations which often may be required to defend your market position and your "license to operate".

Although these digital solutions are not a service, they can have an impact on the expected services like:

- An increasing need for software and networking support.
- An increasing demand for performance-based service contracts, reducing disruption of your clients' operations.
- An increasing need to connect or integrate with other IT and networking service providers to offer a complete and remarkable solution to your clients.

DIGITAL ENHANCED MAINTENANCE SERVICES



By using more automation, data, connected assets and remote support, you can increase the effectiveness and efficiency of maintenance:

- Less planned and unplanned downtime, less disruption of the operations of clients.
- Better and more stable condition of assets, leading to better performance of the equipment.
- More options for distributing the roles and activities between the asset-owner, user and service provider.
- More efficient maintenance operations.

Examples

This is the type of digital services many manufacturers are working on and have the dominant focus on when it comes to digital services.

- One of the most common examples is how Rolls Royce's aeroplane engines send an ongoing stream of data during flights to have the next maintenance prepared before touchdown. They do all maintenance during the off-loading and on-loading and are ready before the plane has to leave for the next flight.
- ThyssenKrupp predicts any issues with their elevators before they occur and plans the necessary maintenance and replacement of components in a well-planned manner before failure. This minimises unplanned downtime and makes the service delivery operations more predictable and efficient.
- Remote resolution of software issues.
- Remote assistance for self-service, where your clients' employees perform interventions on the equipment with support via simple communication channels like a video call or more advanced techniques with smart glasses.

Potential impact

In essence, there are two major driving forces in play here:

- Reducing the disruption of your clients' operations by reducing mean-time-to-maintain, mean-time-to-repair, mean-time-between-maintenance, unplanned downtime, increasing uptime and the like.
- Reducing the cost of the maintenance for the client and you as a service provider.

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The name of the game is simplifying maintenance through smarter maintenance and enhanced serviceability of the equipment.

In most industries, this will be a sustaining innovation, following the expected journey of continuously improving uptime and reducing cost. The service-fees will most likely decrease in time – not increase.

DATA-DRIVEN ASSET MANAGEMENT



With sensors, location trackers, software and networking, you can provide useful data and actionable information to the asset-owners or users about:

- Condition.
- Location (which can be valuable when owners/users have a high volume of mobile equipment).
- Performance.
- Utilisation.
- History.
- Upcoming interventions for maintenance.
- Suggestions to improve performance or utilisation.

This can be offered through a hosted dashboard which sends actionable notifications. It could also be a data-stream into your clients' ERP-system, where further processing and algorithms take place, together with many other data from other equipment and data sources.

Examples

- Hilti offers [Fleet Management Services](#) for construction companies to manage their total assortment of power-tools. Their platform provides useful insights into:
 - All the tools they lease from Hilti.
 - With which employee each item is.
 - The condition, age and history of each tool.
 - Insight in utilisation rate so project managers easily can see when they (temporary) need additional tools.

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- Caterpillar offers [Construction Equipment Fleet Management](#) services, including experts to help clients analyse the data for valuable and actionable insights.

Potential impact

More than the first 2 types of digital services above, the value proposition is significantly expanding from only providing good equipment in good condition towards helping customers to improve productivity, efficiency, utilisation and risk-reduction. These services solve other customer problems, which have different owners in your clients' organisations. It will also involve a closer collaboration with clients, integration of operations of clients and service providers.

This will have a significant impact on your:

- Value proposition to clients.
- Customer loyalty and lock-in.
- Revenue potential.
- Required capabilities and mindset.

DIGITAL EDUCATION



Most manufacturers already have some sort of customer training for operators, users and maintenance departments. You can expand the scope of your education services to address your clients' challenges like:

- Scarcity of well trained and educated staff.
- Increasing pressure on performance is putting pressure on the competencies of their staff.
- Ongoing digitalisation changes your clients' operations and requires more digital capabilities.

Education in general is going through a major shift at the moment. People have been changing the way they learn and solve problems using all kind of sources and media at their fingertips.

This is a vast domain in itself. A few important trends are:

- Blended learning (mix of channels and formats).

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- Anytime, anywhere, 24/7.
- On the job, related to the job.
- On-demand, just-in-time.
- Customisation based on data and smart algorithms.
- Bite-sized, micro-learning.
- Online, mobile.
- Social learning.

In essence, training and education are shifting to online, remote and becomes more data-driven to increase effectiveness and efficiency.

Examples

Based on data coming from the truck's sensors, other data like weather, historical data from the truck and the truck driver, [MAN Trucks offers live training in the truck cab](#) in order to:

- Provide immediate feedback and tips to the truck driver on how to improve the way he drives.
- Assess proficiency levels of the truck driver.
- Provide individual and tailored training.

The value for fleet owners is fuel savings, reduction of CO₂ emissions, lower maintenance cost, fewer accidents, no downtime of drivers due to training.

Potential impact

The effort and investment in developing advanced training content and methods and in staying up to date will increase.

There is a serious opportunity for growth of revenue streams, customer experience and loyalty as many clients need new competencies and capabilities for their new ways of working.

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Learn from your like-minded peers - Cross Industry

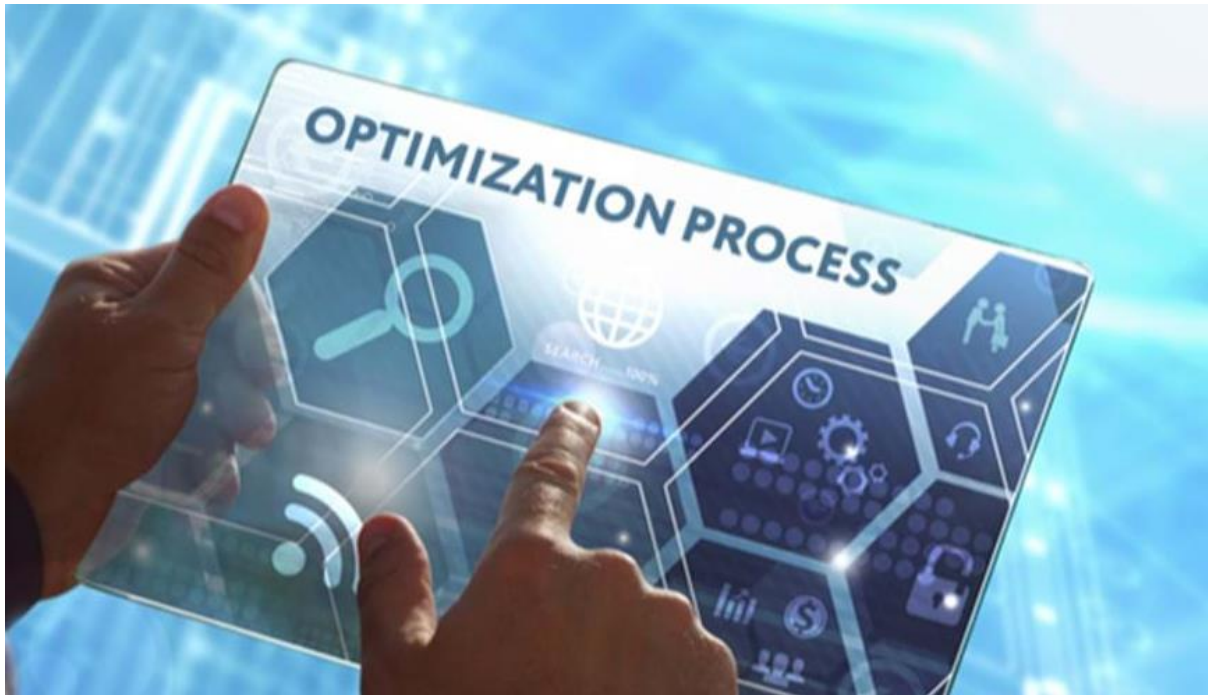
Join one of the upcoming discussion sessions with 4-5 peers to exchange and develop the best practices for

- Digital services in manufacturing
- Radical business innovation



Yes, invite me for a discussion sessions!

DATA-DRIVEN PROCESS OPTIMISATION



One of the significant impacts of digitalisation is that your clients are going through a transformation. Their operational, tactical and strategic decisions are becoming more data-driven. This affects any business function, like supply chain, marketing, sales, asset management, maintenance, service delivery, manufacturing, R&D and finance. Your clients will be building the necessary capabilities and will be looking for new solutions and services to build these capabilities or outsource part of the capabilities.

As a manufacturer, you can play a role for your clients in their endeavours to optimise operations, reduce waste and more.



DEFECTS

Waste from a product or service failure to meet customer expectations



OVERPRODUCTION

Waste from making more product than customers demand



WAITING

Waste from time spent waiting for the next process step to occur



UNUSED TALENT

Wastes due to underutilization of people's talents, skills, and knowledge



TRANSPORTATION

Wasted time, resources, and costs when unnecessarily moving products and materials



INVENTORY

Wastes resulting from excess products and materials that aren't processed



MOTION

Wasted time and effort related to unnecessary movements by people



EXTRA-PROCESSING

Wastes related to more work or higher quality than is required

Examples

- [Claas' Smart Farming & Agriculture](#), where farming equipment manufacturers offer integrated solutions to help farmers more specific, differentiated and precise in managing their land, fertilisation etcetera to improve yield, productivity and ecological footprint.
- [Grundfos offers intelligent water management systems](#) to help water utility companies to manage water flow, water quality and identify origins of water contamination.

Potential impact

As these kinds of service emerge, the impact is significant:

- Manufacturers need to advance their value proposition, brand, mindset and capabilities. They will need to engage other stakeholders in their clients' organisations with pretty different content.
- Clients will be looking for new solutions and services, which will be offered by system integrators and data-native service providers as well. These new players can push manufacturers down in the "food-chain" and take over the customer relationship.

This is a unique opportunity to enrich your value proposition, expand your customer value and generate new value streams to thrive in the future.

PLATFORM SOLUTIONS



The last decade we have seen quite a few market disruptions coming from new digital platform-offerings which provide easy and high-volume access to - and interaction with - the market, solution providers and peers. This involves connectivity of things, software, data, people and businesses.

Examples

- We all know the usual suspects like Apple, Netflix, Airbnb, Uber and the like.
- [Siemens' industrial IoT-as-a-service \(Mindsphere\)](#) that connects a multitude of different devices, instruments and machines on which multiple equipment providers, software providers and service providers connect their offering and hence provide complete and integrated solutions.

Potential impact

For most manufacturers and service providers, the solutions they provide are not complete solutions for a more significant customer problem. Alone, these offerings do not solve the problem and hence do not add value. For example:

- A paint manufacturer will only be able to optimise its production process when combining the data and algorithms from all equipment from all vendors. One vendor cannot make much difference.
- Also, when all these equipment manufacturers need a connection and pull out data from their clients' systems, the paint manufacturer will have a new – unsolved – problem, which is an uncontrolled myriad of connections, security vulnerabilities and complexity to manage.

A few of the opportunities could be to:

- Partner for connected solutions.
- Connect to emerging platforms.
- Offer such a platform, potentially in partnership with other technology and service providers.

CONSULTANCY SERVICES



The digital transformation is a significant challenge for any business. Also for your clients. It does not only involve rapidly changing digital technology and industry-specific proprietary technology. It also affects their processes, people, operating model, business model, strategy etcetera.

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For discussion purpose

This is a unique opportunity for existing consultancies a new niche-consultancies. Also, manufacturers have the opportunity to offer their internal development and consultancy capabilities to their clients.

Examples

- [Philips Innovation Services](#) positions itself as the R&D and engineering partner in bringing innovations of their clients to the market. They ensure a smooth end-to-end development process which is required for complex medical or high-tech innovation.
- [Seco Consultancy](#) is a business unit of Seco Tools, a manufacturer of tools for metalworkers. They support their clients in particular challenges around Industrial Internet of Things to maximise production performance in the digital age, High Mix, Low Volume ([HMLV](#)) manufacturing and other production methods.

Potential impact

The opportunity is to become a trusted advisor and build deep customer relationships with multiple stakeholders in your client's organisations. Also, it will help to position your company as a thought leader, making your brand more attractive and improving your position to partner with other (new) players in a rapidly changing industry. When well-managed, these activities can be at least financially self-supporting, if not profitable.

PRODUCT-AS-A-SERVICE



Product-as-a-service offerings are often seen as the holy grail of any servitisation-journey. These are services offering your clients the value from a product without them having to own and operate the product themselves. They outsource (part of) the operations around the product.

This is much more than financing the product combined with smart maintenance services, supporting your client to shift from CAPEX to OPEX.

Examples

- Data storage in the cloud.
- Print-on-demand services.
- [Siemens offers Public-Private Partnership](#) models, in which the operation of a project is taken on by a company that brings together expertise, personnel and capital from both Siemens and the local authority or the public sector in general.
- Fresenius, a kidney dialyses instrument manufacturers, runs [complete dialysis departments for hospitals](#). The nurse helping the patients is an employee of Fresenius, not the hospital.
- [Signify's Lighting Services](#) offer managed services where they design, build, manage and operate the lighting infrastructure of their professional clients.

Impact

In some industries, the market is increasingly asking for these kinds of managed services. It radically changes the overall value proposition, business model, operating model and financial model of a manufacturer.

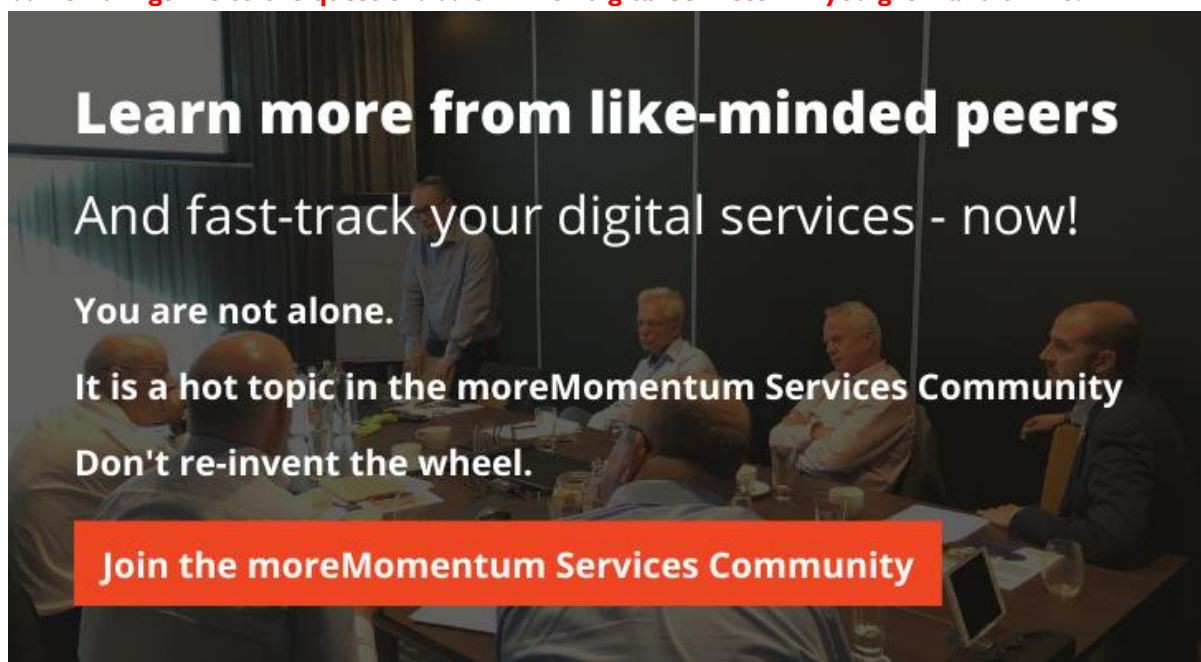
CONCLUSIONS

Digital services in manufacturing are much more than predictive maintenance and remote support. There are many opportunities to extend the types of customer problems you solve and to enhance your value proposition and business model. The big opportunity to grow your business and thrive during the digital and disruptive transformation is beyond the predictive maintenance and remote support offerings.

However, launching new smart maintenance and support offerings probably is critical to maintaining your position in the market and your license to operate.

In today's digital disruption and economic downturn, the leading manufacturers that thrive will be adopting a broader range of digital services, enrich value proposition and business model. Leaving those stuck in a transactional product-centred approach behind, wondering how the leaders did it.

Which brings me to the question: With which digital services will you grow and thrive?



Learn more from like-minded peers
And fast-track your digital services - now!
You are not alone.
It is a hot topic in the moreMomentum Services Community
Don't re-invent the wheel.

Join the moreMomentum Services Community

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