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Personalized Content | Circular Economy | R&D Processes
Customer Satisfaction | Digital Innovation |

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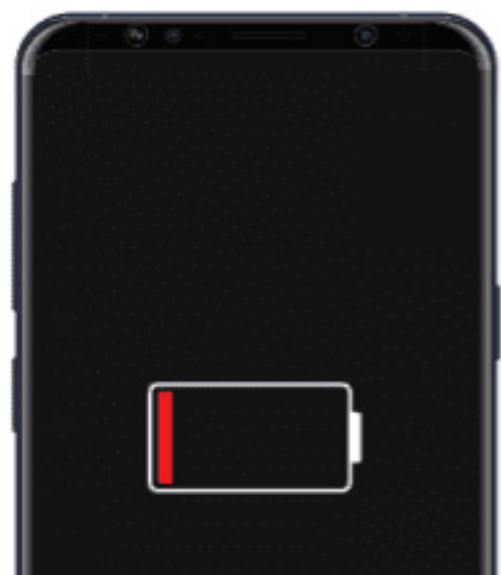
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Deliver Highly Personalised Content *From Content Silos to Case-Based Workflows*

Information is the most important ingredient of modern business. Whatever role you play, in whatever place you are located, you will need information to perform your tasks. Today companies are collecting and maintaining such vast amounts of data that you would get overwhelmed if they provide you with all information available at once. Instead they must, at any time, provide only the relevant information based on who you are, how skilled you are, what task you have at hand, and where you are. Only then you will be as efficient as possible and get the most out of the investments in your equipment.

Most people will recognize the irritation when the battery of your mobile phone is dead, half an hour after it was fully loaded. When you search the internet, you will find dozens of websites with excellent information to help you replace the battery.





This information is gathered from multiple sources and supports the complete experience from identifying the problem, buying the tools and spare parts, up to step-by-step instructions for replacing the battery. However good the service is, you remain with some questions: Can I trust this information source? Can I trust the information? Is the information relevant for exactly my mobile phone? Do I have the right model, production data, etcetera?

When the risk is low, like fixing a €250 mobile phone you will not be bothered too much by these questions. But what if you are working at a service organisation and your customer tells you that their €400K forestry machine has broken down? And you hear that two of their

are now sitting idle in the forest? Will you still broken machine and the problem that you try to solve. Let us look at each of these elements one by one go out on the internet and randomly search for help? No, you will demand relevant information from a reliable source, which in this case would be the manufacturer of the forestry machine. This gives the manufacturer the chance to provide you with an excellent service experience by delivering exactly the information that you need, at that moment. To empower you as much as possible this information needs to be relevant for you, your organisation, your customer, the broken machine and the problem that you try to solve. Let us look at each of these elements one by one.



You : You want information that is relevant for your role, preferred language, skill level and preferences. If you are a service technician, you will want more technical details than when you are a call centre employee. You want the information in your preferred language, and adapted to your skill level. If you have been replacing timing belts for the last twelve years, there is probably a lot of basic information you want to be hidden in the step-by-step instructions.

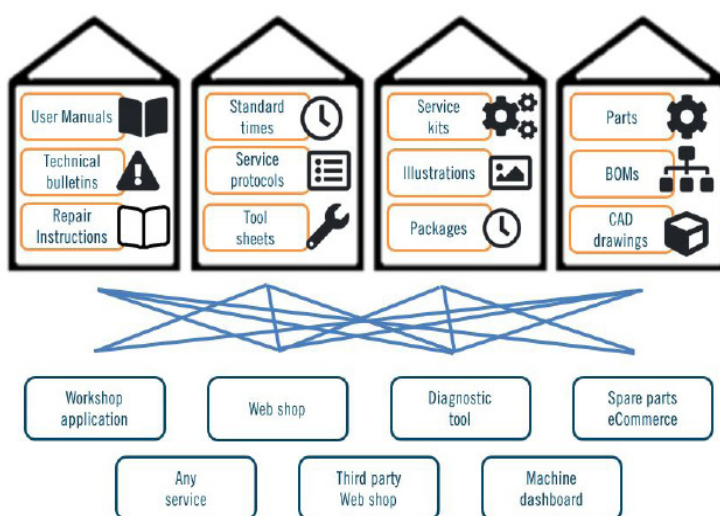
Your Organisation: You want information that is adapted to the type of partnership, the agreements and the subscriptions that exist between your organisation and the manufacturer. Information can differ based on if your organisation is fully owned, authorised or an independent service provider. Based on region and sales volume you will have different currencies and discount levels.

Your Customer: Before you go out to the customer, you will need to know which machines they have, what their service level is, if they prefer genuine, original or aftermarket spare parts. You may want to collect information about the other machines in the fleet to see if any machine needs preventive maintenance while you are on site.

Your Customers' Machine: You will need information that is exactly right for the machine that has broken down. All information shall be filtered based on model, variant, serial number, production site and/or machine characteristics. It shall not be up to the reader to filter out irrelevant information.

Your Task: Information shall be provided aligned with your workflow. Before you start the assignment, you will want to know what tools and spare parts you need to bring with you. When you start the assignment, instructions shall be provided step by step and information about tools and spare parts shall be delivered at the appropriate points in time. Detailed information from tool sheets and spare part catalogues shall be available, but only for extra reference. It shall not be necessary to browse through multiple catalogues to find the information you need.

Content Silos and Consumption Headaches



Providing information personalised for the user and situation sounds like a straightforward enterprise, but it is one of the most complex challenges in business. Information is created and stored in many tools, each specialized in a certain type of information. These tools have been bought and maintained over the years using different technologies, structures, terminology and reference values. Applications are required to connect to multiple "content silos".



Filtering the information for e.g. serial numbers is often pushed down to the applications, which means it is implemented in several places. This separation of data in silos makes it hard to aggregate information in a workflow fashion and it also makes it hard to add more consuming applications or services.

Signifikant's Three Step Solution

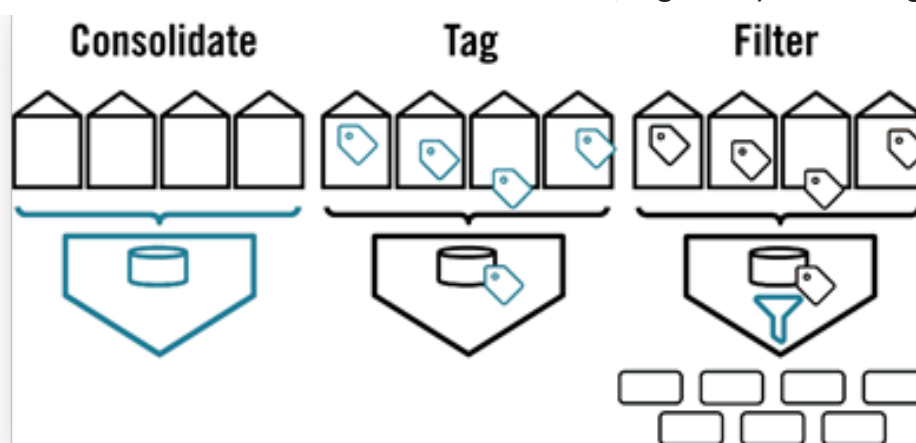
Signifikant's services and solutions have helped companies to overcome the barriers of content silos to deliver highly personalised information using a three-step approach: Consolidate, Tag, and Filter.

Consolidation : The tools for information creation are often specialized and quite customized for the processes of the manufacturer. To preserve the investments made in these tools and the specific features these tools offer, we keep the tools intact but consolidate the data in one unified consistent aftermarket database. This

requires processes to ensure that the information from each tool is imported, mapped and synchronised regularly to ensure a consistent and up-to-date data set.

Tag: All information, from the smallest text fragment to a complete catalogue or information type shall be tagged for multiple purposes. Tags shall determine for which machines information is valid (tag with serial numbers, production dates or sites, machine characteristics), for which users information is relevant (tag with roles, permissions, expertise level, certifications) and which organisations are allowed to see certain information (tag with organisation types, regions).

Filter: To ensure that the same information is provided to each user or consumer, regardless which application or service they are using, the filtering logic shall be centralized in one place and used by each consuming system. This will also save a lot of work when changes are made in the information model, tag library or filtering logic.



Contact us at [Signifikant](https://www.signifikant.com) and we will help you find your path to delivering highly personalised information from your content silos



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Circular Economy Adoption

A Boon or Bane for the Aftermarket?

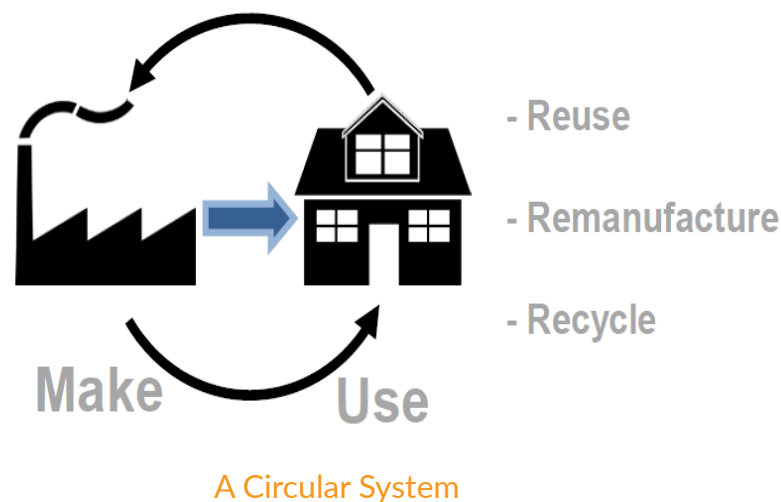
Since the Circular Economy (CE) is being presented as the way forward for the manufacturing industry, many questions are being raised. Particularly, the CE relies on service-oriented business models where the ownership of a product remains with Original Equipment Manufacturer (OEM) and in many cases maintenance as well as repair including spare parts are included in the value propositions. This means the aftermarket business of an organization may become an internal function in the CE rather than an independent business unit that generates additional revenues for the organization in the conventional linear system. So, the impact of the CE on the aftermarket business is a reasonable concern especially when this business earns as high as 45% of the gross profits.

On one hand, people directly involved with aftermarket business can experience this as a direct threat of losing their jobs. While on the other hand, some see service-oriented business models as a way to generate new streams of revenue by selling pre-owned parts and products as well as extending the aftermarket services. This is also seen as a way to increase the availability of spare parts during and after the guarantee period. Especially, in the cases when OEMs are obliged to make spare parts available for a substantially long period to facilitate maintenance and repair. However, mining spare parts from used products and selling them at a lower price is seen as a risk to cannibalise the sales of new spare parts. This concern, nevertheless, is unjustified as in the automotive sector the sales of new spare parts and remanufactured parts coexisted for almost a century without cannibalising each other.



The reason is simple, the remanufactured spare parts target a different market segment that prefers OEMs remanufactured low-cost alternative than the new spare parts (offered by offshore companies often at same price level as OEM remanufactured spare parts) manufactured by independent manufacturers. Similarly, in the service-oriented business models, OEMs can use spare parts mined from the used products to maintain the products that are under a service contract to avoid cannibalisation.

Besides, the main motivation for adopting the CE is to achieve long-term sustainability through resource conservation and environmental protection. It is almost well-established that the service-oriented business models that integrate value recovery operations (such as reuse, remanufacturing and recycling activities) are both economically and environmentally more sustainable.



A few interesting examples where CE is being adopted:

- PSA Group: Promote re-used parts, remanufactured part sales through a joint venture. The group along with their partner, have launched a platform for their dealer network in France to be able to order re-used spare parts as well as view traceability of parts.
- Valtra Reman: Remanufactured tractor gearboxes: They send a previously used and refurbished gearbox instead of refurbishing the original one.
- Gorenje gospodinjski aparati: As part of the ReCiPSS (www.recipss.eu) project, Gorenje is developing an innovative circular pay-per-wash scheme for washing machines focused on remanufacturing to capture the circular value and a pay per use model to investigate viability, consumer traction and environmental impact improvement

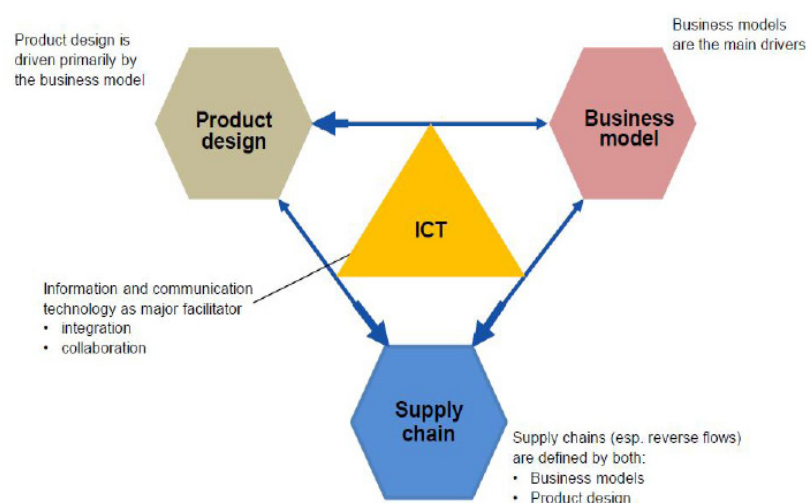


As it can be seen from the above discussion, whether adopting the CE is praise or a curse for the aftermarket business is inconclusive. Furthermore, industrial examples mentioned above show that the shift towards the CE has already begun and there are both challenges and opportunities in adopting the CE. For any organization willing to adopt the CE, a system perspective should be considered when weighing the pros and the cons of becoming circular in respect to the economic and environmental feasibility.

One of the major challenges in adopting the CE is the asset management for the service-oriented business models, as new stakeholders, activities and roles are introduced to the value chain in these new business models. Therefore, it is crucial that a close and well-functioning relationship between suppliers, producers, and customers

is established. Such a stable collaboration needs to be set up within and beyond the stakeholders' immediate boundaries and it implies an increased diversity as well as complexity in terms of required information exchange among the involved stakeholders to make decisions and act proactively. An Information and Communication Technology (ICT) infrastructure for asset management enables

building this interactive environment and supporting its activities by collecting data, analysing it, transforming the data into knowledge, and disseminating this knowledge among the relevant stakeholders throughout the whole product lifecycle. Moreover, when the products are designed for multiple lifecycles (i.e. used products are returning multiple times for value recovery operations) gathering lifecycle information will become indispensable to take proactive actions on value recovery operations. Furthermore, to provide a high degree of services to customers, real-time tracking of the products including predictive and preventive maintenance will become a common value proposition in the service-oriented business models.



A systemic and systematic approach -
Amir et al. 2020



Since the process of value recovery relies on the return flows of products, it is crucial that the level of control over the return flows is enhanced. Therefore, tracing and tracking the products across the value chain is one of the key roles of the asset management systems in this area. As the CE becomes a common practice, the manufacturing industry needs to maintain product and material passports that can gather and present both qualitative and quantitative information regarding the products fetched from different information management systems across the value chain.

To conclude, adopting the CE in the manufacturing industry will influence the aftermarket business and the business may look completely different than what is seen today.

Whether we embrace this transition or not, the manufacturing industry needs to prepare for it. The ICT infrastructures for asset management will become a necessary enabling tool for the manufacturing industry to cope with this transition.

ReCiPSS is an ongoing EU's Horizon 2020 funded project, which among other things aim to explore different aspects of service-oriented business approach in the white goods sector and circular aftermarket business in the automotive sector. The ReCiPSS project is developing necessary ICT infrastructures to enable implementation of a service-oriented business approach in the white goods sector and efficient core (used automotive parts) management and sorting in the automotive sector. Curious readers can get more information about the project and its outcomes at

www.recipss.eu

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Speed-up the Process Between R&D and Aftermarket

The whole world is currently in a challenging situation, where people and companies must balance between staying safe, but keep the economy running. During these special times, many companies are looking into different sources of income.

As in many crisis's before, this time is no different. Many companies tend to postpone large investments on new shop floor equipment or new vehicles, however spare parts and services are still required, and many companies are getting more and more of their current turnover from aftermarket revenue streams.

PDSVISION has worked for many years with the primary offering of R&D products and services. Signifikant has brought a completely new angle and added value to our offerings. As a company we are more and more talking about the actual business requirements of our customers. Having the product data managed and structured, enables our customers to implement structured aftermarket platforms. The value of this approach typically lies with the master data storage. By having a PLM system that supports all data management and connectivity between Aftermarket portal, companies save up-to 60% of manual updates required.



As now we are in special times, many customers have reached out to us and searched for a solution that supports aftermarket requirements. Together with Signifikant, PDSVISION has brought value to several customers and enabled customers to have single source of truth for the complete product structure and documentation. Signifikant has enabled our customers to share this data in an intellectual manor and increase aftermarket revenue. Together with our customers, such as Edilog we have helped to speed up the process between R&D and aftermarket.

As I stated earlier, we are living in a special time and situation. This has speeded the process from manual catalogues, face to face facing activities to more and more interactive and web-based technologies.

As this is the Christmas edition of the column, I would like to also share some views about the future of aftermarket needs. Of course, companies are sourcing for aftermarket platforms, but personally I have also noticed the need to offer virtual interactive services. PDSVISION of course offers Vuforia platform, to enable service delivery in a digital world. [Have a look, how our engineers fixed the issue of making Christmas stars using this technology.](#)

Enable your aftermarket sales, by enabling both structured spare parts sales, and offer services by utilizing augmented reality. Even though we are living in a new world, with challenges ahead, don't hesitate to reach out and ask more from us at PDSVISION.

I would like to wish everyone a merry Christmas and a great year 2021!

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Happy And Satisfied Returning Customers

The Investment Needed

Imagine a typical user scenario : A machine breaks down, and after you have discovered the problem and finding the right spare part for fixing the issue, you pick up the phone. The type-number is given and then searched for in a some system and/or spare parts catalog. Reversing numbers or letters when mentioning the number by telephone can lead to errors between the communicating parties. Even without mistakes and/or for simple maintenance parts, why use costly inside sales for 'these simply inbound orders.'

Ask yourself the following questions:

- What is the optimum time needed by customers to search for suitable spare parts?
- How many minutes or even hours are spent during a service employee's working day?
- How essential is continuity for your customer?

- Will an integrated eCommerce Platform help and make these processes more manageable?

The solution: An eCommerce Platform designated for spare parts

The research, and placement of an order, are provided by the company to the customer through the eCommerce Platform. Thanks to the detailed information on the price, additional services, et cetera, the customer can inform himself at the platform, and the advice is even stored for future purposes. The latter makes it very easy and fast to purchase the exact same order as, for example, the last time. This outsourcing to the spare parts platform relieves the employees, and they can devote themselves to additional, probably more educated tasks and implement these more efficiently.

The company can derive future purchases through customers' behavior in the eCommerce Platform through the spare parts bought and the services booked. Forecasts about replacing suitable wear parts and services can be provided and personalized by, for example, direct mail and also in the platform itself. Customers will return by having the right customer information and using targeted advice

The benefit for employees

An eCommerce Platform can take tasks such as tracking deliveries and administering processes such as handling repairs. The automatic transfer to and from the, for example, ERP- and other internal systems saves employees much time. They can use this time for customer advice via live chat and or discussion in the online shop or any additional sale of services.

A service employee's task is made more efficient by outsourcing the research for any spare parts. Detailed information about prices et cetera is given to the customer; tedious phone calls are no longer necessary.

The advantage for customers

An easy and intuitive search set up for customers in the eCommerce Platform makes it easy for them to find the right spare part using the item number or type identifier. Certainly, filters and categories are available for refining the individual search. Product filters can also be added to search for products based on their function or requirement.

Thanks to the products' images and animations, the customer can immediately see whether the product is identical to his own. The spare parts that match the product are displayed immediately. Most of the customers use a product filter and actively use it.

To offer customers the best possible information, input about the product and the spare parts, instructional videos and -manuals for how-to repair services are available. All information and price information is visible to the customer at a glance in a simple, problem-solving, and quick manner. Through the customer's credentials, all purchases made and individually negotiated prices and any quantity depending on pricing are available using the customer verification. In a particular customer experience, since every customer does have their own design in their own environment.





The potential for keeping a customer happy and have them return is enormous. The cost savings and time for employees and customers are promoted by using a spare parts eCommerce Platform. Having connected and integrated systems in place, the customer, can trace their purchases back from the past and see his individual conditions in one overview.

The freedom of customers being the designer of their purchasing process enables the company to gain valuable information about their customers and their purchasing behavior. By implementing such, a company can refine its sales strategies - online and, if necessary, also offline.

|Survey Report|

**Intershop Communications
and Copperberg**



The State of Digital Innovation within Manufacturing^(C) *Survey Report*

Digitally transforming the manufacturing industry has been a topic of discussion by C-level executives, evident in the rise of Chief Digital Officers for years now. Many companies have already begun the journey, to varying degrees. However, as technology grows exponentially, customer expectations rise and (global) competition grows fiercer. Naturally, the digital innovation capability of manufacturers must accelerate, too.

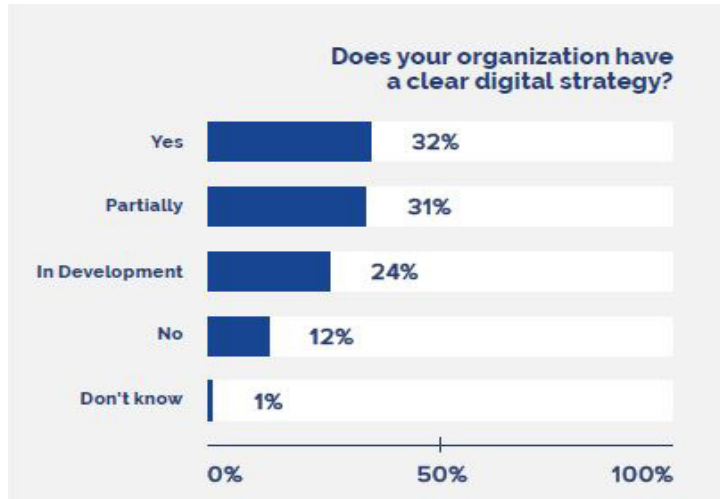
When you zoom in more specifically at the after-sales business, it is surprising to see how protective manufacturers seem to act. The three key strategic objectives for digitizing after-sales businesses are all defensive in nature; boosting customer satisfaction (77%), increasing sales to the installed base (72%), and reducing cost per transaction (52%).

The report aims to give its readers expert insights to determine where they stand and provide practical tips and tools to overcome their digitization challenges and move up the maturity levels

Download your copy for free here: [DOWNLOAD](#)



Some Snippets from the Survey Report:



Challenges to overcome — step-by-step

Moving up the digital maturity levels is challenging. The survey found that the two biggest internal obstacles in the digital journey were the integration of systems in digital commerce infrastruc-

ture (56%) and developing new value-added services for the customers (47%). These are essential challenges to overcome in order to move up the maturity level.

5 tips to enhance UX for your B2B customers:

1

Content is king

User experience is not only about design or coding. The content you provide your customers is critical, especially when it comes to product information.

2

Know your customer

Speak to your customers, study their online behavior, engage your sales reps.

3

Test continuously

Conduct small tests with key customers, and perform A/B tests with a broader audience based on those results.

4

Don't neglect security

Make sure your platform is secure enough for your customers as you collect much sensitive information.

5

Improve, don't revolutionize

Customers like familiarity, so make sure you improve based on feedback and don't scare away customers with radical changes.

News and Events

Upcoming Webinar



Live Webinar: How to improve profitability over the full customer lifetime?

03 February, 2021 - 3pm CET

[Click Here to Register](#)

We will dive into two typical customer journeys where the customers can purchase services and spare parts from a personalized catalog, with configuration and drawings of their existing installed base, aligned in real-time with after-sales and engineering departments and field data collected via IoT.

Team Signifikant wishes you a safe, healthy and prosperous 2021. We look forward to continued interactions when you are back in the office.



Season's Greetings

*Wishing you health, strength,
happiness, and success in 2021*



From Team Signifikant



ABOUT SIGNIFIKANT

Signifikant (www.signifikant.se), is a Swedish independent software and consultancy company specialized in solutions for the Aftermarket and the support for the manufacturing industry with solutions for Product and Services information (PIM). Backed by industry expertise and process know-how.

Our mission is to provide a complete solution, for the aftermarket, that serves as one of the levers of an organization's digital transformation. With our flagship solution, the Signifikant Aftermarket Business Platform, a state-of-the-art ecommerce platform, we enable companies to improve their profitability by supporting their aftermarket digital strategy.

Signifikant, The Aftermarket Company:

- 20+ years of experience in the aftermarket solutions industry with in-depth process know how through huge reference projects
- With our strong process support, sell the right part for the right machine at the right price, every time

Single Platform for all your aftermarket needs:

- Usability and design: An easy-to-use and well-designed web viewer, with powerful and fast search functionality.
- Modern Technology: Flexible architecture consisting of a base platform with an extensive set of functions and custom modules to add or modify according to business needs

Signifikant Aftersales PIM platform has successfully been implemented at Atlas Copco Tools, Komatsu Forrest, Dometic, Ålö Group, Väderstad, NVR, Trapaze Group, Voltas, Baoli and many others.

Visit www.signifikant.se for more information and/or to schedule a free demo.
You can also get in touch with us at info@signifikant.se