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## The seeds of success

***The most important task facing any company is to produce and provide the products and services that customers want. Not only that, but a company needs to ensure that its products and services are continually being developed, because the expectations and needs of customers change and develop all the time. Only the company that keeps up with the times and develops its business can adapt successfully to the changes in its operating environment, while at the same time ensuring its ability to compete in the market.***

These are thoughts articulated some fifty years ago by perhaps one of the world's most famous business management trainers and leadership experts, Peter F. Drucker. Drucker himself has since passed away, but his ideas live on and remain relevant. It must be remembered, of course, that the practical responses to Drucker's challenging observations are quite different from what they would have been 50, or even ten, years ago.

To ensure a company's competitiveness and to create competitive advantages over its competitors, the fundamentals of business need to be kept in order at all times. These foundations are growth, profitability and cash flow; all three must be carefully tended to. But even that is not enough: a company must also continually improve its productivity, efficiency and economic standards, as well as maintaining the skills levels of its staff. Only by doing all this can a company ensure absolute customer satisfaction with the products and services, and a positive customer experience all the way from design through to project implementation.

And what does all this mean for Comatec? It's clear that one of the pillars of our success is information management and processing – making our own expertise visible and keeping it within reach of customers for their benefit. It has been well said that after the invention of the steam engine, the exploitation of electricity and oil, and the application of information technology, knowledge management and processing are at the core of all successful endeavours. Another key requirement is close cooperation with our customers and partners, since value is created only through joint effort. The third requirement is that business operations are organised and implemented as smoothly and swiftly as possible.

On the practical side of things, among the most significant activities at present are automation, robotics, design of intelligent machines and appliances, and management of data transfer between humans and machines. Both projects and consistent internationalisation are important to increasing value for our customers. There is still much to be done, and many new insights and business opportunities are there to be discovered.

I wish all our clients, partners and all our skilled staff a wonderful Christmas and a happy and prosperous new year 2018.

**Lasse Mitronen**  
**Doctor of Economic Sciences, professor**  
**Member of the Board**  
**Comatec Group**

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## Comatec becomes the majority shareholder in A&D Automation

On 16 October 2017, Comatec Group's parent company, Insinööritoimisto Comatec Oy, signed a contract to acquire the majority of A&D Automation Oy's shares.

This acquisition further strengthens Comatec's expertise in industrial automation engineering in particular. A&D Automation's integration into the Group is an important part of implementing Comatec Group's strategy, which is to focus heavily on projects and expertise in technology and automation.

The range of services that Comatec offers is expanding to cover automation systems in the process industry. This enables the Group to offer an even broader range of services to its customers.

A&D Automation designs and implements demanding automation applications for industrial companies. The company provides solutions for management of manufacturing information and manufacturing processes for industrial companies in order to make working environments safer and more pleasant. A&D Automation's automation services help customers improve the quality of their products, enhance their usage of materials and uphold sustainable development principles to protect the environment.

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## Comatec Group at Technology 17 trade fair

Comatec Group participated in the Technology 17 trade fair, which was held in the Messukeskus Expo and Convention Centre in Helsinki on 10–12 October 2017. The fair is the largest industrial event in the Nordic countries, and showcases the latest technologies, machines, equipment, products and services. The Technology 17 fair brought together an impressive range of leading technology companies, and drew a staggering 14,430 visitors.

We were at the fair in the Elkom section. Of the Comatec Group services presented, the particular focus was development solutions and software solutions for electronic products.

"As a technology enthusiast, it's inspiring for me to see how the current megatrend in IT, the Internet of Things, is being put to use in creating innovative new solutions. Many new data-driven business models have been created. And industry is still just in the early phases of massive digitalisation," notes Microteam sales manager **Janne Virta**.

"We're currently creating solutions for improving corporate productivity and maintenance processes, and amongst other things we are creating decentralised products that enable creative processes based on new values. But as valuable as these solutions are today, are we still only laying the foundations for future applications?"

"In Gartner's forecasts of technology trends, artificial intelligence is the number-one trend that is shaping the future of industry. Software applications are expected to proliferate more rapidly and comprehensively than we can even imagine. Machine vision applications and robotics have been important trends for a long time now. Once we notice how fast technology is progressing, then it should be clear to everybody how much the world will be transformed. It's extremely interesting to see how far technology will go in the next few years, and what kinds of innovations we can create in cooperation with our customers."



## Electric supercar Angelica introduced



The electric supercar Angelica, developed in cooperation between Metropolia and the Chinese vehicle manufacturer AET Corporation was introduced on Friday 29 September 2017 in Helsinki, at the Arabia Campus of Metropolia University of Applied Sciences, along with the Eurosina electric car technology export project and technology centre.

Microteam had the honour of supplying the electric car project with control electronics and an automation software development environment. Metropolia's project team built the distributed automation system independently using Microteam's VECU (Vehicle Electronic Control Unit) electronics and LUCID software. We are proud to have been part of the development of this dazzlingly beautiful sports car!

## Comatec Group at Alihankinta Subcontracting Trade Fair

Captains of international industry convened in Tampere from 26–28 September 2017 for the twenty-seventh annual Alihankinta Subcontracting Trade Fair. The theme of this year's fair was partner networks, which are becoming more popular all the time. All five halls of the Tampere Exhibition and Sports Centre were filled by the fair, which drew a total of 1,000 exhibitors from over twenty countries. In all, the fair drew nearly 18,000 visitors. According to estimates, as much as 90 percent of industrial companies in Finland attend the Alihankinta Subcontracting Trade Fair. This makes it the largest and most comprehensive trade fair for Finnish industry.

"Exhibitors and visitors were in good spirits, which gave us confidence in the future of industry. The interest of international guests in the fair is an indication that the Finnish market and Finnish industry are interesting far beyond our borders," said Tampere Trade Fairs sales group manager **Jani Maja**.

Comatec's department attracted a lot of visitors, many of whom were especially curious about Microteam's demonstration car. The purpose of the car was to demonstrate how the Lucid concept works in practice. Lucid is used in producing vehicle and work machine automation software that is guaranteed to be fully functional without testing. The benefit of this is that software components that are produced in one unified process will work without requiring changes, even in later generations of machines.

We also held a seminar at the fair, where we gave a presentation on the theme of machine safety and machine modernisation. This attracted great interest. Comatec Group's Senior Specialist in Safety and Standardization, **Juha Hakanen**, explained what must be done in practical terms in order to design and manufacture a machine that meets the requirements set for it. **Ari Kaukovirta**, the Engineering Manager in Industrial Automation at Microteam, explained at the seminar how machine modernisation can help in developing manufacturing and making it more reliable.

The general atmosphere at the fair and in our section was very positive, and we made many new contacts. Our thanks to all the fair visitors!



## Comatec participates in Industry Summit 2017

We have made it a tradition to be part of the Industry Summit 2017, which this year took place on 5–6 October 2017 in Oulu City Theatre. The event is a high-calibre yet unconventional corporate and business event with a distinctive Oulu touch, and provides great opportunities for networking. The main event, on the Arctic industry and cleantech sector, once again shone a spotlight on topical themes such as digitalisation, the IoT, the bio-economy and circular economy, distribution and shipbuilding, comprehensive industrial brand-building and management, the practical requirements companies must meet to become part of major projects, and the special expertise needed for operating in Arctic conditions.

## Comatec Group recruiting events in 2018

Next year will get off to a strong start with recruiting events. To further strengthen our business operations as we continue to grow, we are constantly on the lookout for top-class experts of the future from different professional backgrounds. To make contact with promising new talent, each year we participate in various recruitment fairs and other events organised by universities and universities of applied sciences. We want to make Comatec as well-known as possible among technology students, and to raise interest in career opportunities with us.

17 January 2018 Contact Forum, Messukeskus Expo and Convention Centre, Helsinki

23–24 January 2018 Gateway to Work, Tampere University of Applied Sciences, Tampere

25 January 2018 PESTI Career Day, University of Oulu, Oulu

8 February 2018 Yrityspäivät Job Fair, Tampere University of Technology, Tampere

6–7 March 2018 Key to The Future, Tallinn, Estonia

**See you at the recruiting fairs!**

## New talent in Comatec Group

*The following competent professionals have joined the Comatec Group:*

### Mobile Machinery and Commercial Vehicles

**Esko Pietarinen** has started as a Project Manager, **Timo Ahjosaari** as a Chief Design Engineer and **Matti Lipponen** as a Senior Design Engineer; all three joined the Mechanical Engineering unit. **Johanna Harjula** and **Henri Pylkkänen** have started as Design Engineers and **Ville Järvensivu** as a Junior Design Engineer ja **Mari Tanttari** as a Trainee in the Mechanical Engineering unit.

**Juha Pihtilä** and **Pasi Mustajärvi** have started as Senior Design Engineers and **Jere Aho** as a Junior Design Engineer in the Electricity and Automation unit.

**Tomi Salmivuori** has started as a Project Manager, **Maarit Keskiniva** as a Structural Analyst and **Johanna Santapere** as a Junior Design Engineer; all three joined the Expert Services unit.

### Material Handling Solutions

**Jouni Laiho**, **Timo Lipponen** and **Jouko Tuokko** have started as Senior Design Engineers and **Janika Järvinen** as a Documentation Specialist in the Bulk Material Handling unit in Oucons Oy's Pori office.

### Industrial Production Systems

**Jouko Kauppi** has started as a Chief Design Engineer, **Veli-Matti Järn** and **Mika Karhe** as Design Engineers. **Aki Marttila** has started as a Test Engineer, **Jari Kekki** as a Junior Test Engineer and **Jani Thusberg** as a Junior Design Engineer. All six joined the Electromechanical Systems and Components unit. **Dmitri Makarov** has started as a Design Engineer in Comatec Estonia OÜ's Tallinn office.

**Niko Mattila** has started as a Junior Design Engineer in the Electricity and Automation unit.

**Juha Vanttola** has started as a Junior Design Engineer in the Processing Machinery and Plant Engineering unit.

### Boilers and Power Plants

**Laura Hulkko** has started as a Design Engineer in the Mechanical Engineering unit.

### Group Administration

**Toni Pynttäre** has started as a IT Specialist and **Maija Koskinen** has started as a Financial Controller in the Group Administration.



# Trams on the way to Tampere

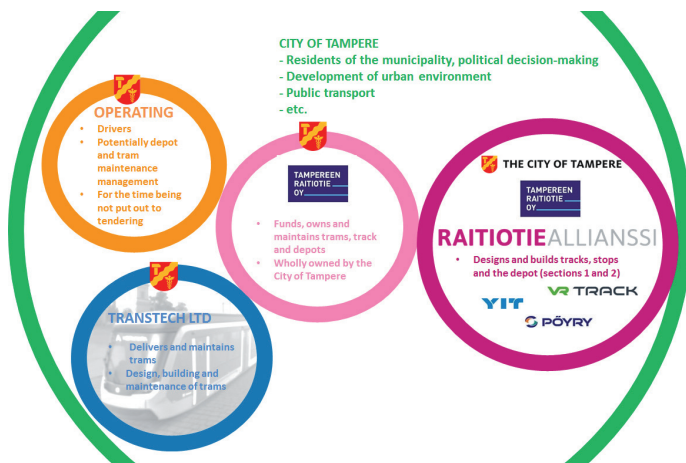
*The Tampere tramway will be built over the next few years, in accordance with the alliance model. Construction began right after the go-ahead for the project was given at the end of 2016. The first year of construction of the Tampere tramway has gone as planned, both in terms of the work and the costs. About one kilometre of the double track was completed in 2017, and about half of the bridges have also been built.*

TEXT: TAINA SYRJÄNEN

Tampere city council reached a decision on 7 November 2016 on the construction of the first phase of the Tampere tramway. In the first phase, between 2017 and 2021, a two-lane tramway will be built from Pyyrikintori square to the Hervanta district of the city. The first implementation phase involves the building of a tram lane to Hervanta and the necessary stops.

“Construction of the tramway is planned to continue westward from Pyyrikintori square to the Lentävänniemi district in the 2021–2024 period. As for the construction of second stage of this part of the project, the city council will decide in December whether design of it can begin”, explains **Marja Merta** from the communications office of the Tampere Tramway Alliance.

## The parties to the tramway project



Implementation of the Tampere tramway project as a whole is being coordinated by the tramway development programme, which operates the urban environment service area and reports to the city council. The decisions on construction of tramway extension lines in the city will be made by the city council.

The tramway will be part of Tampere's overall public transport system. The public transport unit of Tampere city council and Tampereen Raitiotie Oy will jointly invite bids for tender for the company that will actually run the tram service.

Tampereen Raitiotie will own and maintain the tracks, the depot and the trams themselves. The city council reached a decision on 3 October 2016 for procurement of the trams. However, an appeal on the procurement was lodged at Tampere Market Court. The appeal was dismissed on 6 October 2017. The City of Tampere has since signed an agreement with Transtech Ltd for procurement of the trams.

The Tramway Alliance consists of the City of Tampere, Tampereen Raitiotie Oy, VR Track Ltd, YIT Construction Ltd,

and Pöyry Finland Oy. The Tramway Alliance is responsible for implementing construction of the first phase of the tramway infrastructure. This phase consists of the design and construction of the tracks, the stops, and the depot. VR Track and Pöyry are responsible for design, and construction is being handled by VR Track and YIT Construction. The Tramway Alliance has an option for implementation of phase 2 of the project, from Tampere city centre to the Lentävänniemi district, and for design, construction and maintenance of the track infrastructure built by the Alliance.

## The alliance model

The Tampere tramway is being built on the alliance model, based on a partnership in which all parties take decisions together. The model also involves sharing the benefits and potential risks between the parties. The most recent major project in Tampere, the Rantaväylä tunnel, was built successfully according to a similar model.

The tramway track infrastructure and depot will also be implemented on the alliance model, since it provides a reliable cost estimate even at the design phase. According to the alliance model, the contractors were involved in the design all through the development phase. This made it possible to determine the actual overall cost of implementation before the decision to build the tramway was made. Contractors undertake a jointly defined target cost in the alliance agreement. The alliance model encourages implementation below the target costs, as any overrun would reduce the profits of contractors. In terms of quality, this is also a good model, as the service providers contribute to covering overruns in costs if the agreed quality is not delivered at the agreed price.

“Cooperation with the companies that make up the Tampere Tramway Alliance is a good demonstration of how all the parties can work in an open office side by side. Information flow is very good, decisions are made, and all parties are free to contribute to the work. All decisions are made in the best interests of the project”, says **Ali Huttunen**, head of rolling stock at Tampere Raitiotie.

## Zero accidents

According to Marja Merta, “the project involves especially careful attention to work safety. Even workers who are to carry out only a single task are given an induction on the work and on work safety. Safety is continuously monitored, and so far these efforts have led to zero work accidents on the project.”

# Ali Huttunen becomes Tampere Raitiotie's Head of Rolling stock

*A completely new rail transport system is being built in Tampere, and almost from the beginning, Ali Huttunen has been involved in implementing it. Huttunen's new position gives him a unique opportunity to be involved in bringing infrastructure and equipment together to create the best outcome for all concerned.*

TEXT: TAINA SYRJÄNEN

**Ali Huttunen** took up the post of head of rolling stock at Tampere Raitiotie on 1 November 2017. Huttunen is a pioneer when it comes to both trams and railway carriages. He has previously held positions with VR-Group Ltd on tram and rolling stock projects and equipment, and leadership positions related to rolling stock maintenance. He has also been managing director of Oy Karelian Trains Ltd, which owns the Allegro trains. Ali Huttunen comes to Tampere Raitiotie from expert positions in rail transport equipment and systems.

## Procuring the rolling stock

Because this is an entirely new tramway system, the technical solutions related to the interfaces between the trams and track system can be freely selected from the available range and standards of commercial products and technologies. Trams have been purchased in parallel during Tramway Alliance's tender process and the development phase. Before the trams could be procured, certain interface solutions had to be outlined and partially determined before the rail lines were designed.

Some of the interface solutions are such that their details will become clear only as the tramway project proceeds to detailed tram design, which will happen once the procurement contract has been concluded. At this point, Ali Huttunen joined the project as head of rolling stock.

"My responsibilities include supervising the tram design, which is part and parcel of rolling stock delivery. I participate in the design work in multi-phase reviews,

where the rolling stock supplier seeks approval for their design solutions before they go into production," says Tampere Raitiotie's Head of Rolling stock, Ali Huttunen.

Ali was already familiar with the Alliance.

"When the Alliance was inviting tenders about two years ago, at that time too I was involved at VR to some extent with matters related to the interface between rolling stock and infrastructure. Tampere Raitiotie has just begun its operations proper. We have clearly defined tasks that overlap to some extent, and as such require close cooperation. I'm in charge of the equipment, and my colleagues are in charge of the track infrastructure and the depot, as well as safety and systems", Huttunen says.

"Rolling stock supplier Transtech Ltd was able to begin designing the rolling stock as soon as the contract for the rolling stock was concluded. The design phase takes about a year and a half. Manufacturing starts in April 2019, and at the end of 2020, the first tram will arrive in Tampere. By then, the depot will already have the facilities needed for receiving trams. By that time, the tracks and related systems will also be at the stage where the tram can be test-driven. About a year has been reserved for testing the trams and track infrastructure. The transport system is scheduled for completion in 2021.

"The planning for taking the system into use is now getting started, and the deployment will be done in phases.



First, there will be very many phases of test-driving the trams, first empty, and later with passengers. For the latter test drives, there will be a bus service running alongside for backup. The tests with passengers begin only when the system has already been proven to work reliably. In other words, the system will not be taken into use when it's only half-ready. When passenger transportation begins, the backup options will be disabled and the system must then be fully operational", Huttunen says.

## What kind of trams are coming to Tampere?

The trams being purchased for Tampere are two-way, low-floor articulated trams with freely rotatable bogies, and wheel and axle sets with rigid axles. The trams have been ordered to a length of 37 metres, with a capacity of 240 passengers.

"The first order is for 19 trams, with an option for up to 21 additional trams. This option was added in preparation for construction of the second phase of the project, and possible extension lines. Over the next few decades, the tramway could be extended to Pirkkala and the Tampere Airport," Ali explains.

"The tram model that has been ordered is



very largely based on the trams supplied by Transtech in Helsinki, and also on the Raide-jokeri light rail system that is now under construction. Actually the Raide-jokeri trams are even more similar to the Tampere trams. The trams to be used in Tampere have a cabin at each end, because the tramway will have dead-end tracks. Just like with the Helsinki metro system, at the final stop, the driver goes to the cabin at the other end to drive the return route.

“The Tampere project is taking place at an interesting point in tram development. In Helsinki, the Artic model (Transtech’s articulated low-floor tram) has been in development for almost a decade. The tram in question has already been tested, and the various technical solutions in it can still be improved even further. From the passengers’ point of view, the basic condition is that the Tampere trams will be in no way inferior to trams in Helsinki”, Huttunen says reassuringly.

“The basic idea is that the Tampere trams will have all the features that make travel comfortable. The trams have air conditioning and pleasant lighting, and will have more smart technology than the trams in Helsinki. The tram itself moves softly and quietly.

“Accessibility is one important aspect. Both the trams themselves and the tram stops have accommodations for people of impaired mobility. The floor height of the tram is 35 cm, which is the same height as the platforms at the tram stops. This means that people will have no difficulty in getting in and out of the trams on their own, for instance in an electric

wheelchair. The trams are easy to enter and to exit for everybody, and moving around within the trams is also easy.

## Smart trams

“The Smart Tampere project is underway in Tampere. As part of it, efforts are being made to ensure that rail transport can also be a pleasant experience, using smart technology to create greater convenience. The smart technology for the trams is still only being specified, of course”, says Huttunen.

“I recently participated in the Inno Event in Tampere, which showcased many interesting ideas that could be used here as well.

“For example, a smartphone application can be used to wake its user up based on a calendar entry. The application then uses the person’s calendar entry to suggest the best tram to take, what time to leave home in order to catch it, whether the tram is full, and whether it’s on time. The app then buys the ticket in advance. During the trip, the app suggests something fun to do, and alerts you when your stop is near.

“The tram technology uses calculations of passenger numbers to indicate the load. This will help in traffic planning, since it’ll be possible to track how passenger numbers develop and are distributed across different shifts.”

## Design and colour

“Invitations to tender for surface and interior design of the trams are now underway. The designer will of course

have the final say on the design, but Tampere residents will certainly be able to become involved in some way in influencing the choice of colours. The city council is very open to this, and inclusive events are being planned,” Ali says.

## Winter conditions

“When it comes to winter conditions, there have been some encouraging experiences from Helsinki. There have been no major winter problems there. The technical specification for the Tampere trams is that they must be able to operate in snow and ice”, Huttunen says.

“A usual problem with the tracks is the rail switches. In the Tampere tramway, they will be heated. They can also be kept functional by clearing the snow from them as part of the regular upkeep. The tracks are liable to become slippery in winter. This will be tackled by putting sand on them. And the risk of slippage will also be reduced by the fact that all eight axles of each tram – that is, all sixteen wheels – are traction wheels.

“One cause of concern that’s specific to Tampere involves the section of the track on Hämeensilta bridge, crossing the Tammerkoski rapids. Humidity is high there even in the winter, and ice will accumulate on the overhead wires. This has been taken into account with regard to delivery of current and electricity supply. The trams will have power even under the worst weather conditions”, Huttunen says.

*Conceptual drawing of a stop at Sampola.*





# New technical documentation business operations

*Technical documentation is an important part of product safety, and of the product's image. Comatec Group customers purchase large amounts of technical documentation services, and the field has good growth prospects. Comatec has for many years been producing technical documentation for a wide variety of customers, and directly for customers' own systems. Under the leadership of business unit manager Mikko Helminen, Comatec has further developed its technical documentation services. An integral part of this is structured documentation and the opportunities it brings.*

TEXT: TAINA SYRJÄNEN

**Mikko Helminen** is Business Unit Manager for Comatec's expert services. He is responsible for development of the unit and for sales, as well as for staff wellbeing and skills development.

An essential element of Comatec's expert services is documentation. Documentation is an important part of product quality. It is often statutory, and it enhances product safety and usability. The layout of its documentation is part of the company's image.

For a long time, Comatec has been producing technical documentation for various customers sporadically, and for the standard office programmes or customers' own systems. There has clearly been a need to make documentation more effective and efficient, and in particular to make it system-independent.

In the spring of 2017, Comatec began development work on documentation business operations. Junior Design Engineer **Minna Kettunen** is currently doing her master's thesis on this development work. This work has

already resulted in the introduction of a system-independent structured documentation system. This means Comatec is now able to offer sophisticated technical documentation services to all its

customers.

"Comatec understands the importance of focusing on technical documentation, which is why we're developing new business operations

*Ensuring the safety of robot cells is also part of Comatec's expert services portfolio. In his earlier position as Project Manager at Cadrang Oy, Mikko led projects related to production equipment and robotics, for example.*





# tions under the leadership of Mikko Helminen

around this area. We strongly believe this will create significant added value for our customers”, says Mikko Helminen.

## Cloud-based structured documentation

“An integral part of our renewed service is the structured documentation system. As the supplier and system partner for it we chose Fenten Oy, a Finnish company”, says Helminen.

“The system operates as a cloud service, and it is also possible to give customers access to it for document distribution purposes. Documents can be distributed electronically in various formats through the system, for example operating and maintenance instructions, or training materials.

“The principle behind structured documentation is that text and formatting are managed modularly, as free-standing elements. For example, with this method, updating the layout of a company’s documents – which is something that strongly affects a company’s image – will now be easier without having to go through the entire document bit by bit.

“The Fenten DoX system is primarily used for generating operation, maintenance and other manuals, and we can also supply these to customers if necessary.

DoX CMS is a content management system that is modern and easy to use. It is supplied as a fully browser-based cloud computing service for creating technical documentation.

DoX covers all installation, operation, maintenance and service (IOMS) needs for easy, internet-based content creation and publishing. Content is structured as multi-use XML modules with distributed information technology architecture (DITA) support.

“The system helps in reusing existing texts, and amongst other things reduces the amount of translation work. This

saves on time and costs, and improves document quality”, Helminen says.

“It’s also easier to update instructions when structured text can be updated simultaneously to all the documents it was used in.”

## Independence

“Structural design can be imported into the DoX system from other similar systems, which makes it easier to change to this system”, Helminen says.

“The system and service are not mutually dependent – our customers are free to take either one or both from us. The advantage of this system is that the customer doesn’t have to depend on the service provider and the system”, he emphasises.

“A customer, for example a component supplier, can supply part of a manual to its own end customer within the system.

“The system does not require any investments by the customer. Comatec can use the system and produce the documents for the customer to access. However, customers can take the system into use themselves if they want, in which case the customer’s staff can themselves edit the documents.

“Any information that’s imported into the system, or created within the system, is the property of the customer.

“Our number one aim is to offer excellent service that the customer is happy with”, Helminen says.

## The benefits of modularity

Companies nowadays have a lot of content-rich documentation that needs to be copied to different departments, and for different purposes. With the tools of the DoX system, existing content can be reused from a single source, and content can be published in real time in many formats and for different devices. This saves time and effort at all stages of documentation processes.

“If a given section of text changes in one

instruction manual, you will immediately see which other manuals need updating and republishing on account of that change. The system also includes approval processes”, Helminen says.

“Different parts of the same materials can be used in different documents, such as operating, maintenance and installation instructions, spare parts list, or practice materials. With various kinds of documents, such as service instructions, you can add interactive content so that the installer acts precisely as instructed.”

## Spare parts catalogues and online store

“For creating spare parts catalogues, we can offer the LinkOne system. In addition to creating conventional spare parts lists, LinkOne also enables the production of electronic spare parts lists and modern online store functions in conjunction with a spare parts list. With the help of these, customers can receive spare parts orders directly through the LinkOne system.

“Conventional PDF catalogues can be imported into another electronic format, which supports the customer’s business operations and spare parts sales”, Helminen says.

## The documentation team

“At the same time as we have switched to using the structured documentation system, we have set up a special documentation team as part of our expert services”, says Helminen.

“The expert services unit’s experienced documentation team creates documents for projects with all our service models: solutions, projects and experts.

“We truly believe that this development work creates added value for our customers”, Helminen says. “Contact us and we’ll take care of things together.”

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*Wishing you a Merry  
Christmas and a very happy,  
prosperous New Year!*



*Rantotek's gingerbread power plant:  
Laura Hulkko, Tytti Soininen, Noora Vaininen and Piia Soili.*

**SOLUTIONS. PROJECTS. EXPERTS.**