**Comatec Group Customer Magazine 2/2016** 





## **COMATEC** Table of Contents news











2 ComatecNews

Editorial	5
Comatec news	4
Process industry machinery and plant design to meet client needs	6
Production maintenance planning for process industry clients	8
Introducing Pasi Rantanen	10
Comatec Group project model	<b>12</b>
Introducing Sven Vogt	14

## **Editorial**

# Slight positive breezes in the economy

or the first time in a long while there is a feeling that things may be getting better. The pace is not very fast, but even so something is happening. The order books for clients in all our business segments are together showing a positive trend. Businesses are expecting a better autumn than they have had for many years. There is less cyclical fluctuation, which improves utilisation rates and profit.

Companies are able and dare to make slightly longer term business plans, partly at least because it looks as if the Competitiveness pact, which has been the object of heated negotiations between the parties involved, will cover almost all of the labour market. It looks as if industrial peace will be maintained and the laws that form part of the pact will be implemented, and the collective labour agreements in the different business sectors will support the achievement of competitiveness targets. The agreed measures are a useful first step towards improving Finland's international competitiveness.

One way to clearly improve competitiveness and boost employment would be to eliminate the differences in the treatment of companies who are members of employers' organizations or individuals belonging to trade unions and those who are not. Another undesirable trend is a subsidy policy that distorts open competition. Taxpayers' money should not be used to subsidize unsound business.

The period since the financial crisis, eight years, for almost all companies has been a time of trimming business operations, of getting rid of non-essentials and focusing on their profit-making core business. In the past few years businesses have made a profit mainly by cutting costs. They have paid off their debts, and improved their balance sheets and profit-making ability significantly as the result of tight cost control.

Now we are moving into a phase of profitable growth. Growth creates more opportunities to act and expand business than

is possible when demand is falling. In our sector growth also means responding to the challenge of globalisation. The current trend in our business is

consolidation. Projects are becoming larger in size and that means the company has to obtain additional personnel and high quality sub-contractor partners in Finland and abroad.

Our international expansion programme 2016 -2018 has begun. During the coming years we will establish a presence in selected new markets, either through acquisitions or by setting up local offices. It is the goal and desire of the company's owners and executive management to grow profitably abroad as well as in Finland. International growth also brings an additional challenge to risk management and international contracts.

It is possible and in fact likely that in future the company will add one more business segment to the existing four segments. Developments in our sector during the period after the financial crisis are leading us to develop automation design and turn it into a separate business segment, to enable us to respond better to the needs of our clients.

The forecast is that the current year is turning out as planned. No major surprises that could weaken our forecast performance are anticipated in the business environment during the autumn.

Wishing you all the best for the autumn!

Aulis Asikainen Comatec Group CEO

**Publisher** 

Comatec Group Kalevantie 7 C FI-33100 Tampere tel. +358 29 000 2000 www.comatec.fi **Editing and implementation** 

Comatec Group Taina Syrjänen tel. +358 40 5931 259 taina.syrjanen@comatec.fi Feedback, subscriptions, cancellations

Taina Syrjänen tel. +358 40 5931 259 taina.syrjanen@comatec.fi

## **Comatec news**

### Positive tone at SMM 2016 Maritime Trade Fair

We participated in the SMM 2016 international maritime trade fair in Hamburg between 6-9.9.2016. The atmosphere at the fair was generally encouraging and positive, considering the difficult times that the maritime industry has recently been experiencing. The huge number of visitors, 50 000 in total, is a good indicator of this.

Although shipbuilding is globally in a time of recession, the market for cruise ships is warming up. During the fair orders for a number of new cruise ships were unveiled – three ships have been ordered from Meyer, two from Turku and one from Papenburg. The markets for passenger ferries and arctic cruise ships are also experiencing growth. So the European market outlook is good for passenger ships.

From Comatec Group's perspective the fair was very busy and yielded more than expected. Comatec's service offering attracted considerable attention, and we had many interesting conversations. We met many potential clients and partners, from Finland and many other countries; in that respect we achieved our goals for attendance at the fair. We believe that the fair will have a positive impact on the development of our maritime engineering design business.



## **Comatec Group at Northern Industry**



Comatec Group took part in the Northern Industry ("Pohjoinen Teollisuus") event in Oulu, Finland on 25.-26.5.2016. The event attracted 3500 visitors and 370 exhibitors. The Northern Industry event is now the only industrial trade fair in the northern area. In addition to today's solutions, the event showcased current northern region projects, competitiveness and the mining industry. Success requires new solutions, new thinking and new contacts. Comatec's stand provided the opportunity to come and discuss with our experts engineering design and partnership needs, in which we can play a role in helping our clients succeed.

## **Comatec news**

# Contract with Aker Arctic Technology Oy for Electrical Design for Icebreaking Gas Condensate Tanker

In June 2016 Insinööritoimisto Comatec Oy signed a contract with Aker Arctic Technology Oy to supply the electrical design for a new gas condensate tanker with icebreaking capability. Comatec will handle part of the project's initial design phase. The ship will be built in China by Guangzhou Shipyard International Co. Ltd. and will operate in the Arctic Ocean off Russia.

The contract agreement for electrical design includes the design of the ship's lighting, data and aerial networks, and the handling of electrical design material relating to supplied equipment. The project is being carried out in the summer and autumn of 2016.

## Comatec participated in design of new Myllykoski Fire Station

The new Myllykoski fire station opened in August 2016. The new fire station fills the gap that was left when the Myllykosken Tehdaspalokunta industrial fire brigade ceased to function. The new premises and central location of the new fire station are important for the fire brigade. The new premises give the fire department facilities for training, staff areas and space for equipment. The fire department currently has 27 firemen. The fire station is also a base for the Kymenlaakso first aid response unit.

At the Kenraalintie end of the main part of the building is a two-storey section housing staff social facilities, training rooms and gym. At the other end is an unheated storage shelter. The total floor space of the steel-framed building is 873 m2, and its capacity 4 540 m3.

Comatec Group designed the fire station's electrical systems, which included lighting, power, safety, camera, loudspeaker and IT systems. "A fire station is a particularly complicated building in respect of these systems," says head of department **Mikko Ala-Jääski**, who is responsible for Marine and Land EIA projects.

# Comatec Group took part in Microsoft Polku Job Fair in Espoo 23 August 2016

The event gave us the opportunity to meet skilled Microsoft employees who are becoming available on the job market. Comatec's department heads **Petri Ollikainen** and **Mikko Parikka** were present, hoping to find suitable candidates to apply for positions in our engineering office. Petri Ollikainen is responsible for mechanical design in Comatec's Electromechanical Systems and Components department, Mikko Parikka is responsible for Automation Design and System Verification.



# Process industry machinery and plant design to meet client needs

A wide range of services, multi-faceted expertise and flexible working methods mean Comatec Group's Processing Machinery and Plant Engineering business unit is able to help clients in all engineering design matters. Experience and knowledge of customers and products has helped Comatec form a clear understanding of customer business environments and needs. The result is clear cost savings – for the product's entire life cycle.

AUTHOR: TAINA SYRJÄNEN

Comatec Group's Processing Machinery and Plant Engineering business unit offers wide-ranging expertise to meet the needs of equipment manufacturers and production facilities.

"We carry out engineering design work in different ways according to each client's needs. In practice this means we can work with clients in many different industries, such as cellulose, paper and mechanical forestry, the food industry and mineral processing," says Business Unit Manager **Pasi Rantanen**.

"We have a long history and much experience of working with clients in these fields. Our expertise in these areas is very advanced. Knowing our clients and products so well also gives us a good understanding of the client's business environment and needs."

"We have a wealth of experience in machine building. We know our clients' working methods well, because we work so closely together with them," Pasi continues. "Our technological expertise helps make the production process smoother, resulting in clear savings throughout the product life cycle."

### Wide range of services

The Processing Machinery and Plant Engineering business unit's services include project management, mechanical, electrical and automation design, and production maintenance planning. The unit's range of expertise also extends to strength calculations and hydraulic, pneumatic and equipment application design.

"A wide range of services, multifaceted expertise and flexible working methods mean we can help clients in all engineering design matters."

### **Mechanical design**

Our business unit has many years of experience in the mechanical design of industrial machines and equipment. We design machines, equipment, pipes, hydraulics and pneumatics. We also carry out





planning and design work for our customers to support their sales, and project design from preliminary design all the way through to installation and site planning.

"We have long-term relationships with our customers, based on mutual trust. Our expertise is wideranging. We have young design engineers as well as extremely experienced older design engineers, whose technological expertise has developed over the span of a long career. Their know-how is very advanced, both in terms of the customers' products and their business. Through our expertise we can bring added value to our customers' equipment, products and even their business methods," says Pasi.

# **Production maintenance** planning

The Processing Machinery and Plant Engineering business unit's production maintenance planning is handled mostly by Insinööritoimisto Metso, which has decades of experience in the planning of production maintenance and installation supervision. The business unit's planning services

help customers ensure the optimum functioning of their production equipment, increase productivity and lengthen the life of their equipment.

Our experts carry out fault diagnostics and planning repairs, as well as sourcing new, better components to replace old components. Our maintenance planning also includes planning and scheduling pre-emptive maintenance work on machines and lines. Electrical, mechanical and automation design combine to form our production maintenance services.

## Comatec Group expertise is available

"The Processing Machinery and Plant Engineering business unit has in-house electrical and automation know-how, which can be augmented by incorporating expertise from across the entire Comatec Group. We can also make use of other expert services, such as calculation and machine safety services; all the services within the Comatec Group are available to us," says Pasi.

"Customer projects are carried out

in Finland and internationally. A large number of our projects go to end customers in other countries. We offer technical services delivered according to agreed timeframes, providing our clients with cost-effectively implemented, meticulously planned, long-lasting design solutions that best serve their own product and manufacturing processes," Pasi summarises.

## Processing Machinery and Plant engineering services:

- Production maintenance planning
- Mechanical design
- Industrial and property automation design
- Industrial electrical design and installation planning
- Machine safety

# Production maintenance planning for process industry clients

Comatec Group subsidiary Insinööritoimisto Metso Oy, which is part of Comatec Group's Processing Machinery and Plant Engineering business unit, offers production maintenance planning for the process industry locally around the Imatra and Lappeenranta area. Using a partner who specialises in production maintenance planning can yield significant benefits to the customer. Insinööritoimisto Metso represents long-term knowledge and expertise in production maintenance planning.

AUTHOR: TAINA SYRJÄNEN

"In practice all machines, equipment, systems and processes have a life cycle, which will unavoidably reach its end at some point. Put simply, it could be said that production maintenance planning supports and extends this life cycle, and makes preparations to replace equipment as it nears the end of its life cycle," explains team leader **Antti Lautamies.** 

"Our method of working is to deal with each commission as a whole, which incorporates everything that is important for production maintenance planning. We plan the changes, invite tenders from subcontractors and select the most suitable ones, and carry out installation supervision. Our areas of expertise include automation, electrical and mechanical design. Everything that happens inside the gates of a factory is covered by our services," says electrical

and automation design manager **Jari Leinonen.** 

### **Benefits**

"Here in the Processing Machinery and Plant Engineering unit we have many years' wide-ranging experience of working in our selected client industries. Our know-how is very advanced. We have the ability and the know-how to increase production performance and capacity," says Business Unit Manager Pasi Rantanen.

"Using a partner who specialises in production maintenance planning can yield significant benefits to the customer," he continues. "The expertise accumulates and our knowledge and understanding of client systems, products and business environments deepens. When we understand our

clients' needs we are able to offer them just the right kind of expert services."

"Sourcing maintenance planning as a service from us is effective and predictable. The customer knows the costs in advance, and the work does not put a burden on the customer's own resources," Jari Leinonen explains.

"Thinking of our current clients, proximity and local knowledge are factors our customers appreciate. We can be with the client in moments. We know our local clients and their staff, and we know our way around their facilities. We don't need to be directed," says Jari. "In today's world delivery time is an important criterion for a customer when choosing a partner. It is crucial that we can respond quickly to our customers' needs."

### **Planning changes**

In industry, production and financial goals are tight. Maintenance works are usually planned ahead and scheduled to be carried out during planned maintenance downtime.

"There are actually two sides to production maintenance planning. Planning prevents breakdowns, and on the other hand breakdowns can be prepared for through planning. If there is a breakdown in a large, complicated process line it can be very expensive. Stopping the process is expensive in itself, and the time the line is out of action costs too," says Jari.

"Through maintenance planning we know the equipment and the components that are nearing the end of their service life. We can replace them



during planned downtime with new ones, preventing or at least lessening unfortunate, unforeseen and expensive breakdowns. If unforeseen breakdowns occur, it is important to be able to react to the situation quickly."

"We also plan for refurbishment or modernisation. These are also usually scheduled for planned downtime."

"Various technical solutions allow us to improve overall operating efficiency, which is the sum of effective operations, time, usability and quality. These give us measurable data which can be presented to show the client the clear business benefits achieved through the planned works," says Antti.

Jari Leinonen is responsible for electrical and automation design. He gives an example of planning a scheduled change of frequency converters.

"It is normal to arrange for frequency converters to be changed before they break down, with their change scheduled for a normal period of downtime. We create a plan for changing the frequency converters and instructions for the maintenance fitter, so they are ready before the planned downtime. We determine how many frequency converters are to be changed and their exact specifications. We find electrical diagrams from the time they were fitted. We check the functioning and condition of the entire motor circuit. We select new frequency converters according to the specifications required. Then we add the planned changes to the electrical diagrams," Jari explains.

"We create a comprehensive package for the maintenance engineer, based on which he can remove the old frequency converters and replace them with new ones, without needing to ask questions. As a result of our work the client's maintenance work is carried out quickly and efficiently. Good planning can save much installation time," Jari continues. "Of course we also make sure that performance and quality are up to standard after the change."

## **Installation supervision**

"Installation supervision is required when a project as a whole is complicated or multi-faceted. We could be speaking



of a project where there are tens of frequency converters to be changed, and dozens of electrical fitters at work. In cases like this we have someone present, literally supervising the installation," Jari explains.

"The installation supervisor makes sure that installation work is carried out according to standards. And of course he answers any questions the installation engineers may have and assists in solving any issues that arise during the work," says Jari.

"For example, we supplied installation supervision services for Efora Oy in 2014 and 2015 during their autumn downtimes. The project involved renewing the electrical drives on board machine number one (KA 1). We made the plans for the work outside the delivery of the main equipment, meaning we made sure parts and equipment from different suppliers worked together. We also provided installation supervision for the project, working in two shifts for a week."

## **Sourcing**

"Production maintenance planning also includes sourcing the most suitable suppliers and inviting tenders. For this we prepare questionnaire material regarding the contract, invite tenders and then compare the tenders received. We present the customer with pre-screened summaries of the choices available, from

which it is easy for the client to choose. The client can then rank the tenders received according to criteria such as price, quality and supply time, then make the order themselves directly with the supplier they select. This means the customer doesn't have to use their own resources for competitive tendering," explains Jari.

# Comatec Group's expertise is available

"We prepared a large-scale plan for change for Corenso relating to their automation design when their factory moved in 2012. The factory's automation system was designed and commissioned by us. A programmer from our Lahti office carried out the logic and panel programming for it," states Jari.

"Here at Insinööritoimisto Metso our service product offering is vast. We offer every kind of engineering design for process industry. If the project requires some kind of design for which we don't have a local expert we will find one from somewhere else within the Comatec Group. So we are able to offer all the expertise and services across the whole of Comatec to our local clients."

More information: <a href="https://www.comatec.fi/en/metso-services/">https://www.comatec.fi/en/metso-services/</a>

# Introducing Pasi Rantanen

Since early 2014 Pasi Rantanen has been the head of Comatec Group's Industrial Production Systems Processing Machinery and Plant Engineering business unit. He has over 25 years' experience of project work from both sides of the table. His know-how stretches from sales to on-site activities across many fields and in the very same areas of product and industry that the unit he manages represents.

AUTHOR: TAINA SYRJÄNEN

"I have over 25 years' experience of project work, as a consultant, as a client and as an equipment supplier. This has given me good insight and understanding of companies' various activities across many business sectors. These activities include sales, design, procurement, manufacturing and production, and logistics and site activities," says Pasi Rantanen.

"I can see things from the perspective of the buyer and the client placing the order. I understand that as a buyer I'm not just buying a product and service, but that the service needs to have value for the buyer. It is important to understand why a customer buys our product or service. Activities and services must be developed with this perspective in mind, so that the client gets genuine value from the work we do," Pasi points out.

"Deciding what to buy and from whom is affected by different things for different buyers. For one it is simply price, for another perhaps familiarity of suppliers; one places high value on diversity, another on something else," Pasi explains.

"I myself and everyone else in our business unit have a wide range of knowledge and a wealth of experience. Managing bigger projects is one of our strengths," Pasi continues. "In addition to this, predictability and risk management are good reasons for working with us."

Comatec's Processing Machinery and Plant Engineering business unit, which is headed up by Pasi Rantanen, works in many client business sectors such as the cellulose, paper and mechanical forestry industries, the food industry and mineral processing. Pasi's range of experience and know-how represents these very same sectors of production and industry.

Pasi's career has seen him working in machinery and plant design, with the longest single period as design manager for coating stations and sizers at Metso Paper Oy in Järvenpää. There he was responsible for project design development, including product management. He made sure that targets set for technology, costs and supply times were met.

Pasi has managed and co-ordinated design work on over fifty paper and board machine projects both in Finland and internationally.

Pasi has developed his project management expertise at Metso Paper as well as at Pöyry, where global expediting was among his duties. "Service development and productisation were also part of my responsibilities





back then. I have taken part in numerous development projects for different services and activities," says Pasi.

"All equipment and contract procurements were also my responsibility at Neste Jacobs, as well as supervising supplies in certain client projects. I have made numerous visits for supply supervision, inspection and audits to the machine workshops of different suppliers."

"During my career I have managed and co-ordinated all procurements in a number of projects simultaneously. This has included all material sourcing, supervising shipments, inspections and quality control, procuring design planning, contracting and warehousing activities."

"I have the ability to find solutions and strategies to meet targets that have been set. I am quick to see the big picture. I am analytical and critical. Decisions are always based on facts," Pasi states.

"My work is meeting people and working together with them, even though as an engineer I am good at playing with numbers. Interacting with people at work is the thing I enjoy most, and most natural to me," says Pasi.

"When I was younger I played team sports, even taking it quite seriously. That probably helped develop my personality into a team player. Playing was fun, but doing all the other stuff together around the actual game was also fun. I never became a skier or marathon runner. The fact is that we also play together, both in-house and with clients and other stakeholders."

"It's great when we can solve technical problems, but we always have to remember to think about how to make them work together with different people. It is important not to forget the human aspect amongst all this technology."

### **More information:**

https://www.comatec.fi/en/segments/process-industry/

### **Contacts:**

Processing Machinery and Plant Engineering
Pasi Rantanen
Business Unit Manager
+358 50 585 0748
pasi.rantanen@comatec.fi

## Comatec Group project model

In today's world projects take place in a fast-changing environment. Projects are becoming more complex, more demanding and more liable to change. Business activity that seeks to achieve growth internationally places high demand on the quality and management of projects. The more complex the project, the larger the risk attached to it. Comatec's project services bring solutions to the challenges faced by our clients in their business activities.

AUTHOR: TAINA SYRJÄNEN

Our clients face challenges in their business activities that can be recognised, and which our project expertise seeks to answer. The business environment is changing all the time, not least because of increasing digitalisation. The growing complexity of projects and multiple-supply projects demand a wide range of expertise and knowledge in different fields.

Changes in business operations are continuous, placing increased demand

on all activities. Project organisations have grown and it is difficult to manage them profitably. Streamlining organisational structures and a redistribution of resources may be required.

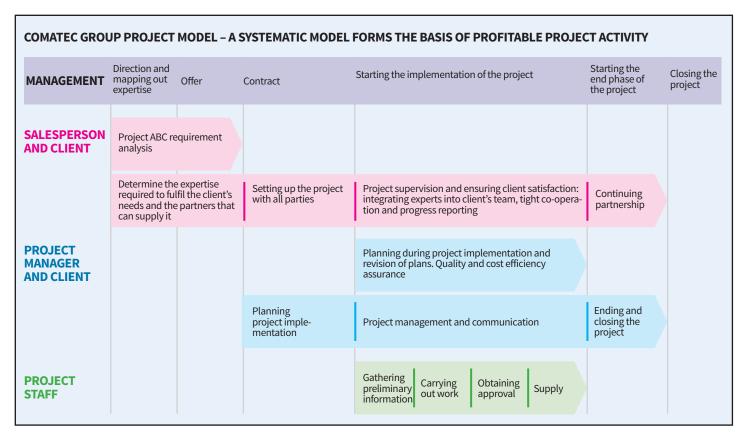
Project supplies and their budgets are larger than ever, increasing cost burdens. For this reason it is necessary to constantly improve the profitability of projects. We operate in a global environment, so project supplies are also increasingly international, and they

are affected by legislation governing project supplies, as well as contractual issues and the risks associated with them

# Managing a complex project together with a partner

The most common projects for our clients are product development projects, large-scale supply projects, parts of these, and different kinds of change situations. A project can be a single project or it can be formed of several larger project entities that are combined.

We tailor project management services specifically according to each client's needs. This ensures that the project is competitive and carried out to a high standard. Comatec's project manager in charge of the project brings together the required experts from various fields to use in the project.



The systematic project model used by Comatec acts as the foundation for profitable project activity. We select the most appropriate management methods for the project. Small projects and projects in familiar surroundings can be carried out with a lighter steering model than larger and more complex projects. All the services we offer are produced following a certified procedure system that fulfils the requirements of the SFS-EN ISO 9001:2008 standard. This certified system covers all Comatec Group's activities.

Comatec brings wide-ranging expertise to a project from a number of different business sectors. We can also bring viewpoints from outside the client's own area of business to a project.

When working on product development projects we offer our clients technical expertise that has accumulated over many years, even decades. Our know-how is primarily in the areas of mechanical, hydraulic and electrical engineering, automation, programming and project management.

The wealth of experience we have accumulated over the years means we know our clients' business environments, product development processes and operating conditions. We understand the strategic needs of our customers' business, and the role of products and solutions within their strategies. We are able to recognise the skills needed in a project and combine our own knowhow, people and solutions to form a whole that presents real value to our clients.

We work where our customers are. Our services are available locally, near the customer, as is all the expertise found across the whole Comatec Group. We carry out client projects in Finland and internationally.

## Alternative working models

We offer clients operating in different sectors project management services that are individually tailored to their needs. Alternative working models are found by combining our established project know-how, our team of experts and our business understanding.

EPCM (Engineering, Procurement and Construction Management) projects are the most comprehensive project management option Comatec offers. In such projects a project coordinator has overall responsibility for the entire project, including basic planning, tenders, contract negotiations, technical fulfilment and monitoring. Start-up

## Partnering with Comatec improves project performance and increases profitability.



### **BETTER PROFITABILITY**

We carry the overall responsibility for the project if necessary and share the risks involved together.



### A MORE NIMBLE WAY TO WORK

The required expertise in the right place, tailored according to real-time needs. Ability to use the best practices of different sectors across other areas.



### **BETTER QUALITY PROJECTS**

Comatec's own technology and product development expertise and innovations combine with the customer's know-how, helping achieve a better quality end result.



### **CUSTOMER-CENTREDNESS**

The client's requirements are taken into account from the outset, and throughout the entire design process. Our own quality system steers our project activities.

commissioning and training are also often included in the project.

In using our project management services our clients gain access to project management professionals who take responsibility for designing the required machinery and equipment, ensure that procurement and installation work together, and take overall responsibility for managing the project as a whole. Comatec's professionals take care of the practicalities of installation and supervise installation methods, schedule, quality and costs in accordance with the customer's requirements.

Comatec's project management model frees the customer's resources to concentrate on developing their own core business while our professionals ensure the project is effective and carried out to a high standard.

Our expert services are available in a clearly defined, packaged project for

our customers to use in their design / planning projects. A named project manager takes responsibility for combining services and implementing them. A design or planning project could be, for example, a product development project, tailoring a product or production technology for a specific application, localisation or detail planning.

Leading a project as a whole means managing risks relating to the project schedule and budget, shortening the time needed for testing and achieving better quality results.

Check out some of the reference cases on our website: www.comatec.fi/en/references/.



# Introducing Sven Vogt

German Sven Vogt works at Comatec and is pleased he ended up living in Finland. He particularly appreciates Finnish nature and enjoys exploring it in his free time. At Comatec he is a project engineer and has also developed calculation and simulation methods to improve and speed up product development projects.

AUTHOR: TAINA SYRJÄNEN

Hailing from Cologne, **Sven Vogt** has been working for over a year as a project engineer based at Comatec Group's Tampere office. He graduated from Hochschule Esslingen University of Applied Science in Germany, equivalent to a Finnish university of applied sciences and a partner university of Tampere University of Applied Sciences. Sven studied mechanical design.

Sven currently works in the mobile machinery unit at Comatec, where he specialises in strength calculations, material stretching measurements and simulation.

# Simulation and modelling

Simulation and modelling saves time and costs by using virtual

prototypes. Virtual prototypes allow testing to take place right from the concept stage.

By reducing the need for expensive physical prototypes and testing, this makes a product development project more cost-effective and saves time for the client. Virtual prototypes also help generate information to support decision making throughout the entire project, right from the first idea.

Comatec Group can offer expertise in this area through the likes of Sven. "I have carried out simulations for many customers. I mostly work from the office, but I have also gone to customer premises when the project demands this," Sven explains.

"In the most recent job we solved a multi-faceted problem the client had through simulation. It was a complex problem, combining factors related to mechanical, electrical, control system and fast physical phenomena.

"The results meant the client was able to make their decision based on facts and move the project on in a direction that may not have been apparent without simulation," Sven explains.

"We have developed calculation and simulation methods particularly to serve multibody system modelling. The methods can be used in all industrial sectors – for mobile machinery, vehicles, or marine applications, for example. The idea is to combine mechanics, actuators and controls in a single, total package," Sven states.

"What is being simulated is not so significant, because we approach



a problem from the physics perspective. The problems to be solved often relate to machines that combine mechanics, electrical actuators, hydraulics and controls. When needed we have also produced models in areas such as electromagnetics."

"Our expertise covers a wide range, since co-operation between Comatec's EEMC, automation and expert service teams is close and seamless in our projects.

"With our concept we can create a virtual model of a piece of equipment, which can also be used to generate code for control systems. We have good experiences with this; in using this method we have had situations where, during the start-up of a piece of equipment, working on the control system code has been largely a matter of just tweaking parameters, as the actual code was ready and error-free," says Sven.

Sven's superior, business unit manager **Arto Timperi** of the Mobile Machinery business unit, is pleased with Sven's work. "Sven has a good educational foundation and experience that means he is prepared for all kinds of work. He is also quick to learn new things, to do with both modelling and design.

Sven's solution-orientated attitude also receives praise from Mobile Machinery, Motion Control Engineering Manager **Jukka-Pekka Uusitalo**. "Sven gets to work and things happen fast," he says.

### **Sven is studying Finnish**

"For me, the working language at Comatec is English. But I am studying the Finnish language seriously, because I have moved here to stay. My girlfriend is Finnish and I ended up here for exactly the same reason as many others," Sven laughs.

"The Finnish language is not particularly difficult in my opinion, as long as you learn certain rules such as those about the endings of words. On the other hand speaking your own language is probably one of those things you miss when living abroad. Particularly with another German, I mean," says Sven.

"I speak German differently with foreigners, because I try to speak as clearly as possible. It's probably the same when a Finn speaks Finnish with me."

## Finnish nature close to the heart

"I enjoy mountain biking and as I cycle I enjoy Finnish nature. It is interesting to explore. As I cycle I find more and more amazing scenery and places," says Sven. "For example, last Sunday I found a stunning lake. Finns might not understand what an

amazing experience that is."

"I like Finns and particularly how Finnish people relate to nature. I like the way people here appreciate and look after nature. I don't know any Finns who do not have some sort of connection with nature," Sven explains. "People pick berries and mushrooms, they fish or hunt. Even my grandmother who visited Finland said she would come again when the berries ripen."

"We went berry picking in Germany too when I was little, but you really had to look for the berries. If we found blueberries it would just be a cupful. Here there are loads of them. You can go into the forest, sit in one place and shovel them into your mouth," Sven continues.

"Fortunately things worked in out in such a way that I ended up living here."

## **Comatec Group:**

### **TAMPERE**

Insinööritoimisto Comatec Oy Kalevantie 7 C, FI-33100 TAMPERE Tel. +358 29 000 2000

### **Rantotek Oy**

Kalevantie 7 C, FI-33100 TAMPERE Tel. +358 29 000 2090

### **VANTAA**

Myyrmäentie 2B, FI-01600 VANTAA Tel. +358 29 000 2000

### HYVINKÄÄ

Kehäkuja 6, P.O. Box 26, FI-05831 HYVINKÄÄ Tel. +358 40 5563 299

#### IMATRA

### Insinööritoimisto Metso Oy

Vuoksenniskantie 97, FI-55800 IMATRA Tel. +358 29 000 2070

### **JOENSUU**

Hiiskoskentie 9, FI-80100 JOENSUU Tel. +358 29 000 2000

### **JYVÄSKYLÄ**

Laukaantie 4 B, FI-40320 JYVÄSKYLÄ Tel. +358 50 555 6688

### **JÄRVENPÄÄ**

Sibeliuksenkatu 18, FI-04400 JÄRVENPÄÄ Tel. +358 400 675 778

### KANKAANPÄÄ

Insinööritoimisto Kisto Oy

Keskuskatu 52 , FI-38700 KANKAANPÄÄ Tel. +358 2 5722 411

### **KOUVOLA**

Prikaatintie 9, FI-45100 KOUVOLA Tel. +358 20 765 9425

### **KUOPIO**

Microkatu 1, FI-70210 KUOPIO Tel. +358 44 7414 440

### LAHTI

Askonkatu 9 F, FI-15100 LAHTI Tel. +358 29 000 2000

### **LAPPEENRANTA**

### Insinööritoimisto Metso Oy

Fazerin kiinteistö

Valtakatu 2 G, 3. krs, 53600 LAPPEENRANTA Tel. +358 29 000 2070

### OULU

### **Oucons Oy**

Elektroniikkatie 10 D, 90590 OULU Tel. +358 400 542 547

### **TALLINNA**

### Comatec Estonia OÜ

Laki 16, 10621 TALLINN, ESTONIA Tel. +372 5685 0845

### **TURKU**

Pitkämäenkatu 11, FI-20250 TURKU Tel. +358 29 000 2000

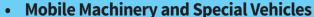
### **VARKAUS**

### **Rantotek Oy**

Wredenkatu 2, FI-78250 VARKAUS Tel. +358 29 000 2090

## Brain power for engineering

Mechanical, automation, electrical design and project management services is where Comatec's competence is at its best.



Rolling Stock

Material Handling

Cranes and Load Handling

 Electromechanical Systems and Components

Marine Industry

Process Industry

Energy

Building Services





We are taking part once again in the Subcontracting Trade Fair to be held in Tampere 27-29 September 2016. We will be in E hall on stand E 120.

SOLUTIONS. PROJECTS. EXPERTS.

