Comatec Group, Customer Magazine 1/2013

COMATEC news

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Editorial

Year of rapid growth for Comatec Group

For Comatec Group, 2012 was a year of rapid expansion, as it grew 23 % from the previous year. In the prevailing conditions in 2012, this achievement can be considered very satisfactory. The number of personnel saw a net increase of 75. Almost half of this growth came from corporate acquisitions, the remainder from organic growth.

The volume of business also developed positively at the Group. Net sales for the year rose to almost EUR 26 million. Direct exports increased to seven per cent of net sales. The figures show that last year went virtually to plan, although the result failed to match expectations in all respects.

The Group has offices in three new locations. In 2012 the Group opened offices in Järvenpää and Oulu and in 2013 it set up an office in Hyvinkää.

Growth in the order books of our clients slowed down, and new orders were clearly smaller in size as the end of the year approached. Extreme caution about starting new investments is a distinctive feature of 2013. Because of this, the Group is not expecting significant growth this year. It would seem that simpler engineering design is increasingly following in the steps of production and moving away from Finland. One reason for this is the price of Finnish work in relation to productivity.

It is strange that Finland's competitive edge is being weakened by increasing the amount of paid leave, not only through the framework pay agreement but also through actual legislation in parliament. In practice, workers in very many sectors have as much as three months of paid leave a year, regulated by legislation and collective bargaining agreements. The work from which companies obtain their net sales and pay wages and salaries for the whole year is done in the remainder of the working year (nine months). This is not a sustainable trend and will lead to problems.

In its recent budget framework negotiations, the Government took some correct decisions on taxation, and some of these will ease employment. They will be implemented at the earliest in one year's time, and will not start to have a visible impact until then. However, the benefits for employment may easily be erased in the negotiations for collective bargaining agreements starting in the autumn. Time will tell if it is possible in Finland to reach agreement on matters that will safeguard our wellbeing or if they are wiped out even before they get underway.

Aulis Asikainen
Comatec Group CEO

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Cover: Foster Wheeler Energia Oy Group, Samcheok

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Circulating fluidized bed boilers are the future – major delivery from Foster Wheeler to South Korea

Foster Wheeler Finland is currently delivering a new boiler system based on CFB (circulating fluidized bed) technology to KOSPO, Korean Southern Power Co., Ltd. CFB plants are in themselves well-established technology but Foster Wheeler has developed the process by using the latest supercritical once-through technology in the boilers. These supercritical CFB boilers are designed at the Foster Wheeler Energia Oy research centre in Varkaus. The delivery in progress is the third. The two previous supercritical CFBs were supplied to Poland and Russia. In the new plant for Korea, as in dozens of earlier power plant projects, Foster Wheeler has worked in close partnership with Rantotek Oy, part of Comatec Group.

TEXT: HEIKKI HARRI

The first phase in the power plant project in Samcheok on the Korean east coast comprises four CFB boilers, each of which will generate 550 MW of electricity. This makes these the largest boilers of this type in the world. The fuel will be mainly coal, but 5 % of the total power can be produced with biofuel.

The first phase of the Samcheok plant is planned to be ready for commercial production towards the end of 2015. KOSPO, the end client, has the option of building another unit of the same size beside this one, which would raise the total output to 4400 MWe. Wind, solar and wave power plants are also being built on the site, so with good reason this can be called a green power plant.

”The project got underway with our client Hyundai in May 2011. The plant is being commissioned in 2015, so we can say that we have made very good progress in the design and in implementing the whole project,” says **Jarmo Puumalainen**, Director, Discipline Engineering at Foster Wheeler.

”The new CFB technology we have developed is based on high steam pressure and a low combustion temperature, which results in high system efficiency, low emissions and low service costs. Overall, this plant is considerably more efficient and eco-friendly than conventional plants, ” stresses Puumalainen.

Eco-friendliness is the sum of many factors

“One advantage of modern CFB technology is that it can use many other fuels in addition to coal, such as biofuels, agrofuels, and recycling and refuse derived fuel, while keeping emissions at a low level. Foster Wheeler CFB boilers can make flexible use of parallel combustion. The Samcheok power plant uses coal and five per cent biofuel, so biofuel will generate altogether 110 MW of

electricity, which is much more than many small biofuel power plants," explains Jarmo Puumalainen.

"The new technology is considerably more eco-friendly. One factor in this, in addition to the flexibility with fuels, is the supercritical once-through technology, which gives the plant higher system efficiency than a conventional boiler plant. Injecting limestone into the boiler binds sulphur dioxide, and the lower combustion temperature keeps nitrogen oxides at a low level. In an ideal situation, a large power boiler plant like this can in practice be made emission-free by building a carbon dioxide recovery plant beside it and using the latest flue gas scrubbing technology," stresses Puumalainen.

"Having a reference like this is of course extremely important for us. Since our goal is to further develop the technologies used with the boilers for even bigger plants, getting a new phase in the technology into production is always a great achievement," states Jarmo Puumalainen.

Jarmo Puumalainen has reason to be proud of the expertise of the Varkaus office.

"All Foster Wheeler CFB boilers are designed at the Varkaus research centre, and the same team is of course also responsible for developing this latest CFB technology and designing the plant. Finland and Varkaus are deservedly held in high esteem throughout the whole Group," he says.

Close partnership with Rantotek

"The Samcheok major power plant project naturally also provides plenty of employment. In addition to the normal design work, for this power plant in Korea we also had to make provisions for earthquakes, so there was more work than normally. All in all, the work by engineers and other experts amounted to 250 man-years, and on top of this comes the manufacturing of the boilers at our engineering workshops in Poland and China. We also use some subcontractors in manufacturing," explains Puumalainen.

Rantotek has designed boilers since 1992, first with A. Ahlström Corporation, and then with Foster Wheeler after it took over Ahlström in 1995. The partnership has developed and grown, for over a period of some 20 years Rantotek has assisted Foster Wheeler in designing more than 50 CFB boilers. The partners have also together designed 50 other boilers.

"The large scale of the Samcheok plant also resulted in a certain amount of unforeseen work, since a surprisingly large number of little details came to light during the project. What was most important for Foster Wheeler, however, was that working with Rantotek we were able to show the client that we had the situation under control all the time," states **Juhani Burke**, Project Manager at Foster Wheeler.

"From many years' experience of working with them, I can say that Rantotek is a reliable and competent partner. The quality of the design comes to light most clearly at the manufacturing workshops, and the workshop in Poland has been very satisfied with the quality of Rantotek's design work. It is easy to produce the structural parts when working with high quality plans."

Many parts and components are needed, for each boiler weighs 4000-5000 tonnes and contains more than 600 kilometres of piping. The boiler is 85 metres high, which in itself is a further demonstration of the benefits of the new CFB technology.

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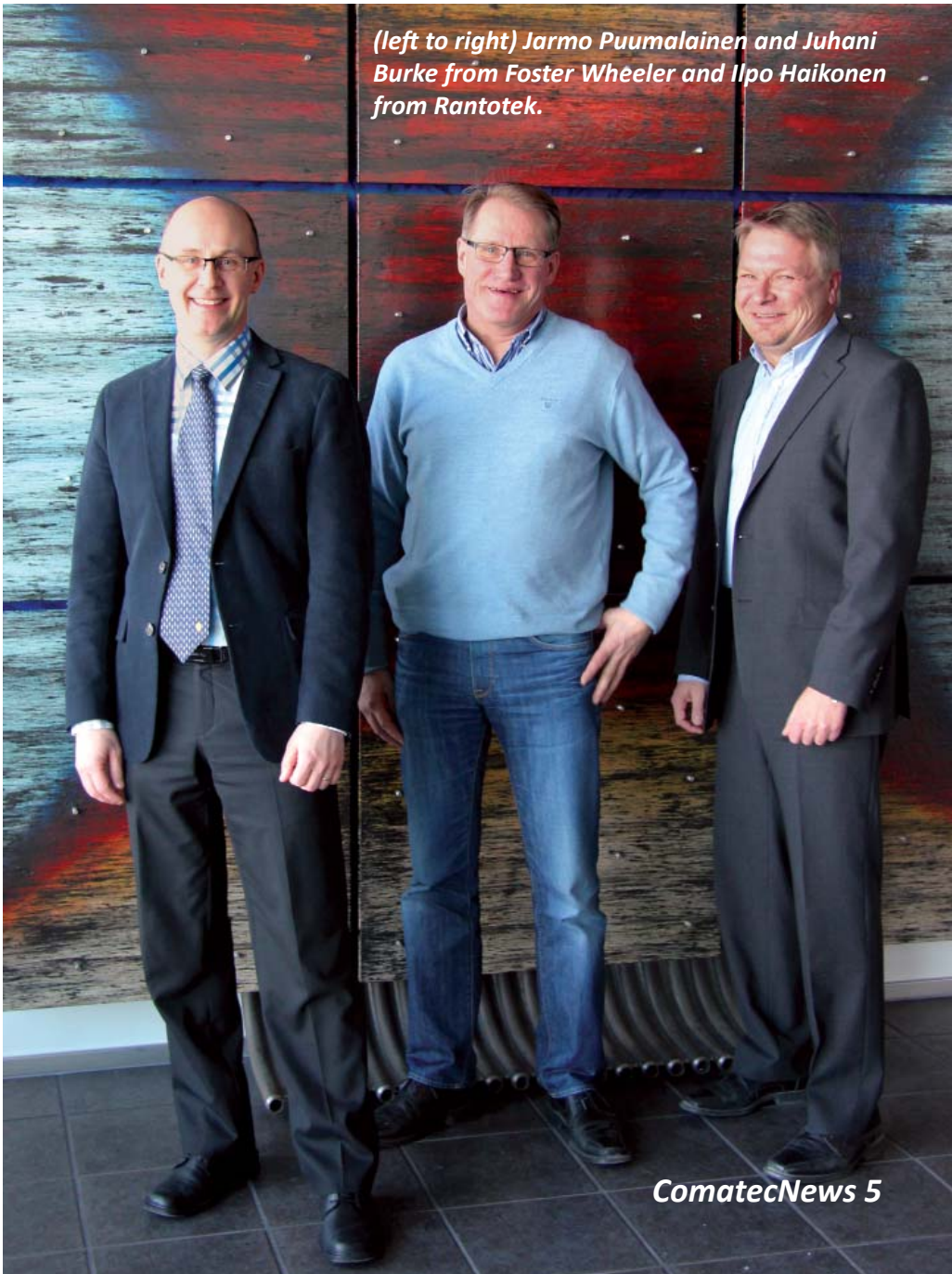


(left to right) Jarmo Puumalainen and Juhani Burke from Foster Wheeler and Ilpo Haikonen from Rantotek.

A conventional pulverized coal tower boiler with a corresponding output would easily be half as high again.

Ilpo Haikonen, Director of Project management at Rantotek, is also very happy with the partnership.

"We were partly involved in this project already in the tender phase, which simplified our work later. Our specialist expertise in this project included the strength calculations for the boiler structures, and modelling, design and dimensioning of pressure vessels using ASME standards. The order also included strength analysis and design of high pressure piping and the design of complex ducting structures. More than half of the staff at our offices was involved in the project," states Haikonen.

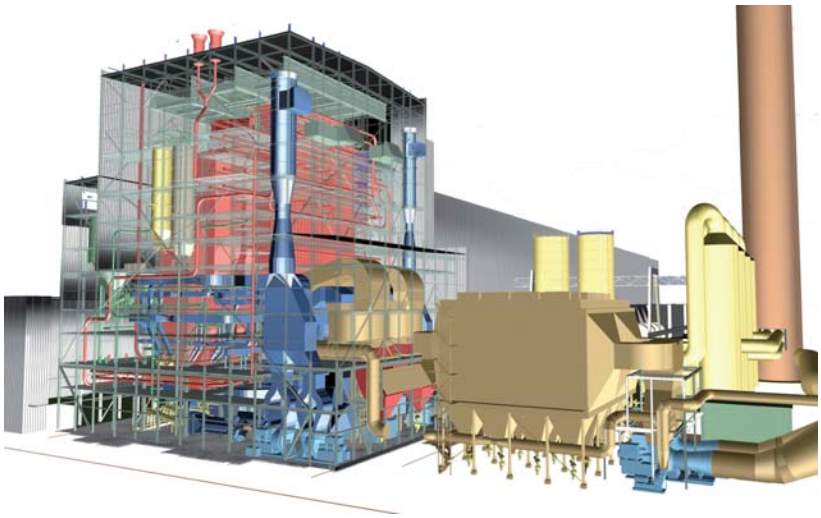
Foster Wheeler – leading supplier

Foster Wheeler is a company with global operations that has its head office in Switzerland. Foster Wheeler Energia Oy Group comprises Foster Wheeler Energia Oy in Finland and its subsidiaries Foster Wheeler Energi Ab in Sweden and Foster Wheeler Energie GmbH in Germany.

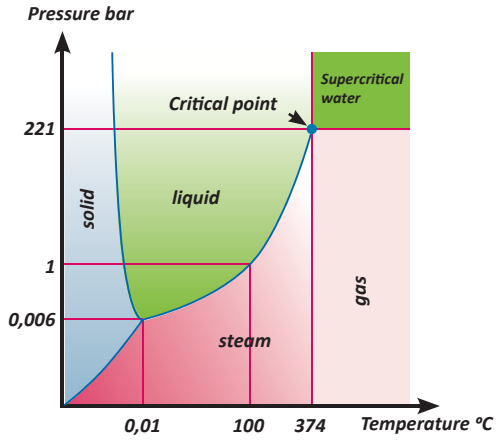
The head office of Foster Wheeler Energia Oy is located in Espoo. Most of the personnel, about 400 people, work in Varkaus, where the company's engineering, R & D and production operations are located. This is where Foster Wheeler has its cutting edge energy sector knowhow, strong project expertise and skilled personnel.

Foster Wheeler Energia Oy Group is part of the global Foster Wheeler AG Group. Foster Wheeler AG employs some 12,000 energy and technology sector professionals in its Global Engineering & Construction Group and Global Power Group.

With 40 per cent of the market, Foster Wheeler is the world's leading CFB boiler supplier and developer of supercritical CFB technology.



Supercritical water



Supercritical water – Foster Wheeler is at the forefront in developing supercritical CFB boilers

The three best known states of matter are solid, liquid and gas. However, there is a fourth, the supercritical state. Supercritical steam, or strictly speaking supercritical water, refers to water at a pressure and temperature above its critical point. At its critical point water has a pressure of 22.1 MPa and a temperature of 374 °C. Supercritical water is not normal steam or fluid water, but has properties that are closer to those of gas. It does not liquefy or solidify.

Supercritical water is attractive for energy production since it has a much higher specific heat capacity than steam in its sub-critical state. The power plant process then achieves a higher operating efficiency. When a steam power plant operates in the supercritical area, it can generate the same amount of power with less fuel than a normal steam power plant, so the emissions from the plant are also lower.

The use and design of power plant boilers operating in a supercritical state is challenging, especially concerning the choice of materials, because of the high pressures and temperatures they operate in. This has led to the use of ever higher temperature tolerant and more highly alloyed steels as the materials for power plant pressure vessels.

The basic technology for supercritical CFB boilers was developed specifically at Foster Wheeler in Finland, where development of CFB boilers has gone on for almost 40 years. In 2009 Foster Wheeler supplied the first circulating fluidized bed boiler operating with supercritical steam parameters in the world to the Lagisza 460 MWe power plant in Poland. The Novocherkasskaya OTU boiler project in Russia has a power output of 330 Mwe. The plant is physically of a similar size to Lagisza but uses poorer quality coal. Rantotek has been Foster Wheeler's partner in both projects.

World record for assembling Volkswagen beetle engine

A three-man team built a VW T-1 engine from basic components to start up in world record time last summer at the "Bug In Finn" annual get-together held by the Finnish Volkswagen Association. The team comprised main mechanic Petteri Valtonen with Henry Forsgren and Jani Miikkulainen, who works for Comatec and is now on assignment from the Järvenpää office at Metso Paper.

The time was taken for assembling the engine from start to finish, resulting in a new world record of 1 hour, 52 minutes and 4 seconds.

Three experienced mechanics used only hand tools to assemble the engine, working in a restricted area outdoors. Assembling the engine presented its own particular difficulties, since the engine was built from separate parts such as bearings, piston rods, screws, pistons, cylinders, hoists and camshaft. Only the rockers, cylinder head valves and springs were ready assembled, in the same way as they are available in a store. Certain problems came to light as the team was working, and assembling the engine did not go quite as smoothly as was planned. So there is still room for improvement in the record time.

"Next summer we're planning to improve the time. We'll prepare better for the assembly and mark the parts more precisely. We'll also book a bigger area. We might even assemble two engines on the same day," says Jani.

Volkswagens have been Jani's hobby since he was 18, when he bought his first replica Corvette built on a Volkswagen chassis and fitted with VW technology. Since then he has built for himself, his sister and even his friends, cars and machines with a common factor of Volkswagen.

"I started actually building engines around 2004, when some friends and I decide to take up endurance racing as a hobby. That involves driving round a track for six hours without a break. That is extremely hard on an air-cooled engine in the heat of summer," states Jani.

"That is when I really started to build engines. I built my first turbocharged engine with programmed fuel injection. The turbocharger was a mechanical belt-driven turbocharger from the new Mini Cooper. These turbocharged engines have been my main hobby recently and programmed turbochargers in particular. I have built these myself and installed them in cars in place of the accelerator," says Jani

"I agreed to help out on the world record attempt after Petteri asked me last summer."

Assembly team: left, main mechanic Petteri Valtonen. Right, assistants Henry Forsgren and Jani Miikkulainen.

Machine for installing bentonite buffer blocks for Posiva

Final disposal of the spent nuclear fuel from the nuclear power plants owned by Teollisuuden Voima and Fortum will be in copper canisters placed at a depth of some 400 metres in the bedrock at Olkiluoto. Posiva Oy is responsible for research into the final disposal of spent nuclear fuel and for the practical implementation. The tests relating to final disposal are carried out at ONKALO, the underground rock characterisation facility at the nuclear waste final disposal plant. Comatec Group has designed a prototype for installing the bentonite buffer blocks. It is planned to start testing the machine this year. Final disposal should start at the beginning of the 2020s and will continue for almost 100 years.

TEXT: TAINA SYRJÄNEN

'Teollisuuden Voima Oyj' and 'Fortum Power and Heat Oy' are Finnish energy companies that own Posiva Oy, which is responsible for research into and the actual implementation of the final disposal of the spent nuclear fuel of its owners. The disposal of spent nuclear fuel must be organized in such a way that it is not harmful to organic nature. Final disposal of the spent nuclear fuel from the nuclear power plants owned by Teollisuuden Voima and Fortum is in copper canisters at a depth of four hundred metres in the bedrock at Olkiluoto. The tests relating to final disposal are carried out at ONKALO, the underground rock characterisation facility at the nuclear waste final disposal plant.

The prototype for installing bentonite buffer blocks is currently being built at Konepaja Laaksonen in Turku. Standing beside the machine, left to right: Heikki Lindholm and Mikko Jalava from Konepaja Laaksonen, Jari Talka and Ari Haanperä from Comatec, and Kristian Jokinen from Konepaja Laaksonen.

The key issue in the final disposal of spent nuclear fuel is the long-term safety of the solution, meaning the safety of the repository after the final disposal plant has ceased its operations and the facilities in the bedrock have been closed. Long-term research is being conducted to examine the suitability of the conditions in the bedrock for final disposal and assess how they affect safety. R & D aims to ensure that the canisters, the bentonite and the back-fill material will last for the required period of time.

Long-term safety is based on the multi-barrier approach. The radioactive matter is placed within several barriers to release that together make each other more effective but are as far as possible independent of each other, so that if one barrier fails it will not put the effectiveness of isolation at risk. These barriers are the ceramic state of the fuel, the copper/cast iron canister, the bentonite buffer, the tunnel back-fill and the surrounding bedrock. The spent nuclear fuel is packed into the final disposal canisters at an encapsulation plant. After packaging the canisters are transported by lift to the underground repository. The canisters are placed into holes in which bentonite blocks have been installed.

The bentonite buffer blocks are therefore one part of the barriers. Bentonite clay is sensitive and reacts to moisture. This sets its own challenges for handling the material. Altogether 10 blocks will be placed in one final deposit hole. To achieve the target speed set in the project, the blocks should be installed in one hole in two hours. Extremely high precision is required for installing the blocks, to the millimetre, to make it possible to place the canister in the hole. The betonite blocks have a diameter of 1.65 metres, the highest block has a height of 96 cm, and the heaviest weighs four tonnes.

Posiva plans to test the installation of the betonite blocks in the holes in the repository during 2013. Comatec Group is designing the prototype of a special

installation machine for the tests that will be made in Finland. This will be the first of its kind in the world.

The prototype machine for installing buffer blocks will be 7.7 metres long, 3.7 metres high and 2.6 metres wide, and it will weigh some 20 tonnes.

“Comatec’s product development project began in spring 2011 with the concept design. Closely connected with the concept design for the machine was logistics planning, where we developed various methods for bringing the bentonite blocks to the installation machine,” says **Ari Haanperä,** who was in charge of the project at Comatec.

“When we started designing, we knew what the installation machine had to achieve and the technical requirements for this. These formed the basis for the design.

“The first step was logistics planning, in other words deciding on the most effective concept for bringing the bentonite blocks to where they would be installed. Bentonite’s sensitivity to moisture was a major factor here,” says Haanperä.

“Detailed design of the prototype began once we had decided on one concept out of the several options available, and we then started to implement this. Simplicity of structure, reliability and installation safety have been of primary importance in the design of the prototype. The machine is remote controlled and contains no hydraulics. We’re using electrical equipment instead of hydraulics, and during the project we also examined other ways to perform the required movements,” states Haanperä.

Designing the prototype has been one of Comatec’s largest product development projects, and it is currently being built at the workshop of Konepaja Laaksonen in Turku.

“Altogether some 30 experts at Comatec have taken part in the design project. We have needed all areas of Comatec’s expertise in the design, such as mechanics, hydraulics, electrics and automation, as well as expert services including strength calculation and product safety design. Just to mention a few of our areas of expertise,” says Haanperä.

“We’re finishing off the documentation and reports at the moment and we still need to test the machine and the concept,” he adds.

Designing the prototype for installing the buffer blocks is part of the LUCOEX project financed by the EU, in which Posiva is working with other international organisations responsible for final disposal. The other organisations are SKB in Sweden, Andra in France and Nagra in Switzerland. The LUCOEX project is a four year project that began in 2011 and should finish in 2014. Posiva’s goal in the project is to develop equipment for final disposal.

“Each country is developing its own final disposal concept, but we exchange information and insights. At the same time we cooperate in studying and developing installation solutions,” says **Keijo Haapala**, development engineer at Posiva.

“In the EU project the installation of buffer blocks is divided into three parts: installing the buffer blocks, quality assurance for this, and handling any problems.

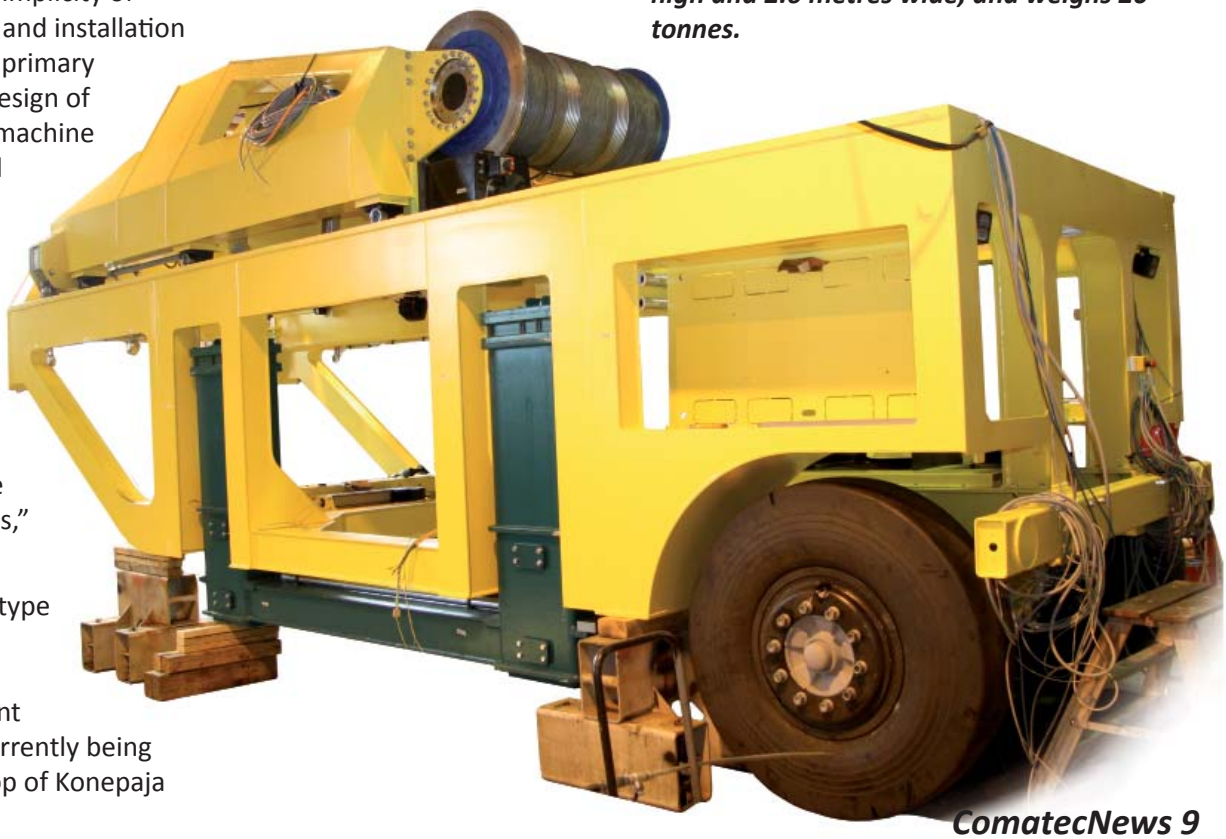
“Working underground it is easy to forget that there are very high precision requirements for installation,” stresses Haapala.

“Developing a completely new machine is extremely challenging. It is hard to foresee everything that needs to be taken into account,” says Haapala.

“Cooperation with Comatec has gone very well. For example we decided on a completely new solution, using a special transport container for transporting the bentonite buffer blocks to where they will be installed,” explains Haapala.

The LUCOEX project is a public project and information about progress in the project is made freely available. The LUCOEX project has its own website: www.lucoex.eu. Posiva also communicates openly about its activities on its website at www.posiva.fi.

The prototype is 7.7 metres long, 3.7 metres high and 2.6 metres wide, and weighs 20 tonnes.



Presenting the business line vice presidents – Petri Leino, Marko Pennanen ja Jouni Tuononen

At the beginning of 2013 Comatec Group carried out a major restructuring of its organisation. The changes aimed at enhancing customer-oriented development, developing competences, smoother control of resources, more profitable growth and faster international expansion. One of the more visible changes is the new business line structure, which is based on areas of competence. The business lines are mobile machinery and special vehicles, industrial production systems, and boilers and power plants. Petri Leino, Marko Pennanen and Jouni Tuononen head up the business lines.

TEXT: TAINA SYRJÄNEN

Mobile Machinery and Special Vehicles

"In the Mobile Machinery and Special Vehicles business line we develop machines that move on wheels and caterpillar tracks, and special vehicles such as trains and vehicles for the defence industry. The distinctive feature of the machinery is that it is mobile, in most cases moving with its own source of power," says **Petri Leino**.

"The Mobile Machinery and Special Vehicles business line has been growing strongly since the second half of the 1990s. Sales have performed well, series production runs have increased in size, and the level of technology in the products has increased through product development. At the same time we have made advances in the networking business model and our clients are outsourcing a considerable part of their product development and design activities.

"Comatec has been actively involved in expanding the cluster right from the start, and has obtained a strong market position by constantly developing and expanding its knowhow and service offering. We are, for example, working with our client in the FIMA[1] research consortium to develop the technology of the future," says Petri.

"Our strengths lie in our indepth knowhow in the business line and our broad service offering, so that we are able to develop the complete product, from concept through to commissioning. A good example of this is the project for Posiva reported in this magazine to build machinery used in the final disposal of nuclear waste."

Industrial Production Systems

The Industrial Production Systems business line headed up by **Marko Pennanen** offers and supplies a wide range of different expert design and project services relating to industrial production machinery and systems. It operates in four business sectors: material handling, electromechanical systems and components, processing machinery and industrial maintenance.

"My own role is to strengthen and support cooperation between key personnel in the business line in looking after sales and customer projects, and I make sure that we are developing sales and customer relations systematically and effectively," explains Marko Pennanen.

"Everything is based on having the right people in the right places, that they know what they have to do, and that everyone is using effective tools and clear business models. The new organisation has already helped clarify sales management, but we will be putting even more efforts into this."

Boilers and Power Plants

Rantotek Oy, part of Comatec Group, forms the Boiler and Power Plant business line. Rantotek is an energy sector expert with special competence in steam boiler plants, pressure vessels and high-pressure pipes for these, and other vessels.

"We operate in a somewhat narrower sector than the other business lines, but we may have more indepth technology knowhow due to our specialisation," states **Jouni Tuononen**, Managing Director of Rantotek.

"This comes out very clearly in our role in Foster Wheeler's power plant delivery in Korea.

"Our EPCM (Engineering, Procurement and Construction Management) project knowhow is our special competence in boiler plant projects. We are strong in this area," states Jouni.

"Rantotek is involved in boiler plant projects from the decision to build through to commissioning. The total project consists of many parts, so we take advantage of our competence in process planning, heating and thermal insulation analysis, strength analysis and dimensioning, equipment and plant design, and conformity assessment documentation," says Jouni.

Long-lasting, confidential customer relationships

All the heads of business lines emphasize that long-term customer relationships with leading companies in their fields form the cornerstone for business and make it possible to generate the highest added value.

"One of the most important strengths in my business line is long-term customer relationships based on trust. These have enabled us to acquire a high level of product and technology knowhow, in some cases over a period of several decades. I

[1]FIMA=Forum for Intelligent Machines

would like particularly to highlight our competence in technology for bulk material conveyors and other bulk material processing equipment, and also our indepth knowhow in electromechanical equipment and automation," says Marko.

"A good example of a long-term customer relationship is Outotec, with whom cooperation got underway back in the 1980s and has continued uninterrupted ever since.

"When we know our clients and their business models, products and personnel, we can concentrate on carrying out the job itself effectively," adds Petri.

Jouni Tuononen also has experience of long-term customer relationships. The situation and conditions can change. Jouni has experience of both sides, as buyer and supplier.

"I worked in engineering and management positions at Foster Wheeler Energia for 25 years, and during that time I purchased services from Rantotek. Now I am offering them our services. I know the buyers and sellers on both sides and have experience of both viewpoints. Our cooperation with Foster Wheeler is easy since we know each other so well," states Jouni.

"Flexible cooperation between our business units and our offices in different locations also helps us start up jobs for our customers quickly if needed," adds Marko.

Need to invest in knowhow and personnel wellbeing

"We cannot create and maintain long-term confidential customer relationships without a high level of knowhow. We put much effort into nurturing and increasing our intellectual capital, since only through this can we create new business and added value, which customers, personnel and Comatec as an employer all benefit from," stresses Marko.

"The recession in 2009 was a turning point, and we can no longer take continuous growth for granted. We need knowhow of an even higher level if we are to develop competitive, low cost products for our clients," comments Petri.

"Developing the skills of our personnel and their wellbeing is an important part of my work, for I am chairman of the Group's competence development work group," states Marko.

"The Group's management team pays careful attention to personnel wellbeing, with regular monitoring and a proactive approach. We hold personnel satisfaction surveys at regular intervals, and in general try to respond to feedback and personnel initiatives as needs arise."

The heads of business lines are agreed that, despite these efforts, the best basis for personnel wellbeing is a healthy work situation. Without a suitable work load, no other factor contributing to wellbeing will create satisfied personnel.

"We work with clients and personnel every day to build this foundation stone for wellbeing. And we've succeeded quite well, since during one year the number of people working at Comatec Group has risen from less than 350 to about 400," says Marko.

(left to right) The heads of business lines: Jouni Tuononen, Petri Leino ja Marko Pennanen.

Presenting Ari-Pekka Liedes

Ari-Pekka Liedes, M.Sc. (Tech.), became office manager of Comatec Group's Hyvinkää office when APK-Ohjelmointi Oy, an engineering office specialising in industrial automation, joined Comatec Group on 13 February 2013.

TEXT: TAINA SYRJÄNEN

Ari-Pekka Liedes has worked as an automation engineer at APK-Ohjelmointi Oy and been one of the two owners of the company since 1995. In February 2013 he gave up his holding in the company and took on the position of head of the Hyvinkää office in Comatec Group.

APK-Ohjelmointi Oy is an engineering office focusing on programming for industrial automation, so it fits in very well with Comatec Group's design and commissioning services for industrial automation software.

"APK-Ohjelmointi's services include the design and commissioning of industrial automation software and user training. We are flexible and are happy to supply small deliveries of part of a system as well as extensive full systems," explains Ari-Pekka Liedes.

"Customer needs dictate the scope of deliveries."

Ari-Pekka's strong points are his long-term experience, both in the sector and in running a business, which he obtained in his role as shareholder in the business.

"I hope I can make use in my new job of my strong experience in both areas, in engineering and the business side. It will be interesting to look at this sector now from the viewpoint of a slightly larger company," says Ari-Pekka.

"My first challenge is likely to be adjusting to my new role. It will certainly be a challenge finding new, good employees," he adds.

"I only started in this job in February, but judging from my short experience here it doesn't look to be an overwhelming challenge.

"APK-Ohjelmointi's customer base has mainly comprised large exporting industrial companies. We can be satisfied that many of our customers have stayed with us all the time since we started working with them. We wish to continue to manage our customer relations and services in the same way," states Ari-Pekka.

Ari-Pekka, who comes from Lohtaja in Central Ostrabothnia, and his wife Teija have lived for three years in the village of Vähikkälä in Janakkala.

"Teija and I moved into a small house that is more than 100 years old from Hyvinkää, where we lived for about 20 years. Both our children have already flown the nest," says Ari-Pekka.

"Teija and I spend an exceptional amount of time together, since she also works at APK-Ohjelmointi and is carrying on at Comatec Group. In the summer we will celebrate 30 years of marriage."

From researcher and product developer to quality manager

TEXT: TAINA SYRJÄNEN

Anne Lipponen took up her position of quality manager on 1 January 2013. Anne's appointment as quality manager at that time is part of the reorganisation carried out at Comatec Group. As the result of its strong development and growth, Comatec has realized that it also needs certification for its quality management system. And obtaining this certification for Comatec Group is Anne's goal.

Anne joined Comatec in January 2012, when Insinööritoimisto Comatec and Insinööritoimisto Keijo Kärki Oy agreed on a merger. Anne started working at Kärki in 2005, when she was in charge of customer trial runs for Metso Paper Oy and in product development. Anne started in product development projects at Metso Paper 10 years ago. Before that she was a researcher in the chemistry department of the University of Jyväskylä and at the Helsinki University of Technology.

"I am responsible for maintaining and updating Comatec's quality management system and for training in quality. I am also involved in developing project operations and in the initiative committee. A current project is updating the quality instructions, which have changed in part because of the reorganisation," says Anne Lipponen.

"Our goal is to certify the quality management system to the ISO 9001:2008 standard, which will enable us to demonstrate the company's ability to supply products that consistently meet customer requirements and the requirements concerning a product imposed by legislation and the authorities.

"Auditing is an integral part of quality management. We shall be carrying out audits for individual projects and for each process. Audits are a good opportunity to give comments on how practical instructions are and on any changes that are needed. This makes the instructions more practical and relevant to the work.

"Many years' experience working in a variety of jobs in the mechanical engineering industry and in extensive joint projects have given insight into the different phases of processes and have prepared her for working in a broad field," says Anne.

"Working in a research and development environment has given me an analytic approach to matters, and this is useful in my present job.

"I enjoy working at Comatec very much. With my job as quality manager I have gained a broader view of Comatec's knowhow. I have found the working atmosphere to be good here. Training and guidance in new areas have been readily available.

"The working atmosphere at Comatec is very open. It's easy to get answers to questions and I have found it easy to relate to people," Anne continues.

Anne lives with her family in Sibelius country in Järvenpää. Her one-and-a-half and three year-old sons make sure that she is kept busy at home as well. Her family also includes a husband and a golden retriever.

"I spend my free time doing things with my lively little boys and exercising the dog. Living in a detached house also means there's plenty to do, and I'm looking forward to when the snow melts and I can start doing things in the garden again."

Insinööritoimisto Comatec Oy acquires APK-Ohjelmointi Oy

Comatec Group parent company Insinööritoimisto Comatec Oy purchased the entire share stock of APK-Ohjelmointi Oy from the founders of the company on 13 February 2013. The acquisition supports the development of Comatec Group's expertise in lifting and moving equipment for use in design and commissioning services for industrial automation software, since APK-Ohjelmointi has focused on industrial automation programming. It has specialized in the design of programmable logic software and of control rooms and complex measurement and testing systems. Its personnel have built up their expertise in international projects in different parts of the world. The company has extensive experience in carrying out projects, everything from initial design to maintenance.

APK-Ohjelmointi Oy's areas of competence are PLC programming, user interface design, PC programming and measurement and testing systems. The company's services include the design and commissioning of industrial automation software and user training in this. The scope of its deliveries is flexible, just a small part of a system or extensive, complete systems, depending on the customer's needs.

APK-Ohjelmointi Oy was established in 1995 by Ari-Pekka Liedes and Kari Maaranen. It has operated since it was founded in Hyvinkää. Ari-Pekka Liedes continues at Comatec Group as office manager at the Hyvinkää office.

For further information about the acquisition and both parties in the transaction, contact Ari-Pekka Liedes (+358 (0)40 556 3299) or Comatec Group President and CEO Aulis Asikainen (+358 (0)400 504 021).

Left to right: Ari-Pekka Liedes, Aulis Asikainen and Kari Maaranen

Comatec Group strengthens its expert services

LINK design and development Oy has sold its Technical Analyses business to Insinööritoimisto Comatec Oy on 12 February 2013, when the companies signed the sale contract. LINK design continues its operations as an expert in user-oriented products and services.

"The sale of this business is part of LINK's process of clarifying and renewing its strategy. We will continue to operate as experts in user-oriented products and services, offering our clients management, innovation, user experience, design and planning services," states **Jaakko Anttila**, President and CEO of LINK design.

"Expanding our technical analysis services supports our rapidly growing expertise-based solutions business. Through this acquisition we can offer a wider range of knowhow to the customers who have transferred to us through the transaction, and it also strengthens our local services in the Helsinki metropolitan area," says **Arttu Laitinen,** business unit manager for Comatec's expert services.

"Comatec Group's expert services make it possible to apply a variety of problem solving methods in the project development projects of our clients," says Arttu Laitinen.

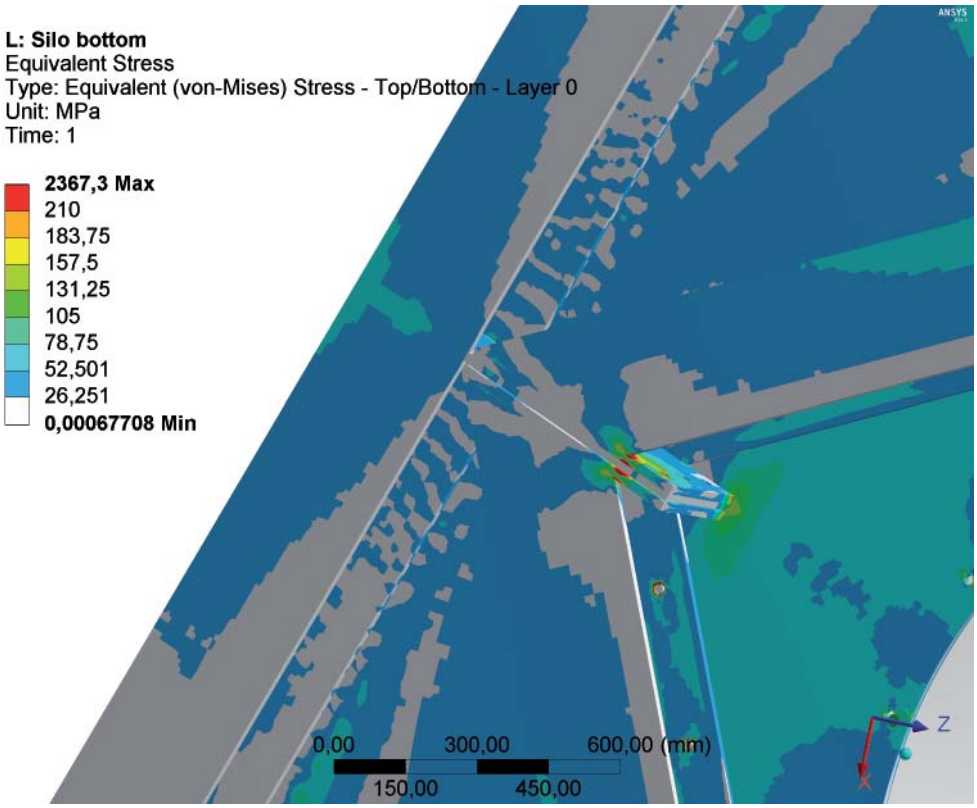
"Our expert services combine our engineering knowhow in different fields into a package that gives our clients a cost-effective total solution for developing a product throughout its entire life cycle," Laitinen sums up.

For questions concerning the purchase of the Technical Analyses business, contact Arttu Laitinen (+358 (0)40 578 9936), business unit manager, expert services at Comatec Group.

Appointments:

Ari-Pekka Liedes, M.Sc. (Tech.)

started on 13 February 2013 as office manager of the Hyvinkää office of APK-Ohjelmointi Oy, part of Comatec Group.



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