

# UPCAST

## Review

*UPCAST OY is the leading supplier of upward continuous casting technology for a wide range of non-ferrous applications.*



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## Communication on its long and winding road

Having been involved in the business life for more than 36 years I have experienced the change in the speed of data transfers and their volume, which has been simply amazing and incredible. Naturally the communication device and tools for data handling have changed as well to accommodate the explosive growth, the development of which has also amazed. When we think about today's sales and marketing tools and the possible channels, including social media, the number is just so vast that it is simply impossible to comprehend or manage. It is easy to get a bit lost in this information jungle that surrounds us in real time.

The individuals, however, who are working with the data – evaluating, modifying, rewriting, calculating, wanting to find the essential etc. – we have not changed the way in which our environment has. We have implemented new methods, have been able to adapt the new tools and programs to keep up with the speed, but still there are the same human beings with the same brain capacity and the same needs as in the past, working in their various work places around the world and trying to accomplish the given tasks and targets.

It must be very difficult for the younger generation to even imagine how 36 years ago the sales managers received a request for a quotation in an envelope via normal post. The customer expected to receive the quotation within 2-4 weeks, and in case some layout drawings were needed, the designers drew the lines manually on design boards. Seems slow and impossible doesn't it? And still, that was the most efficient and quickest way back then and we were all very busy at work and worked overtime when necessary. We travelled to meet the customers abroad or invited them to visit us, we discussed over the (landline) phones and we participated in exhibitions to have face to face time. Just like nowadays. And businesses developed and grew.

“ A good business relationship has always been, and is still built on trust and good relationships between people.

Marketing was mainly advertising in magazines and showing new products and company videos at shows. It was revolutionary when the fax machine replaced the telex and soon this little miracle was in every office sending and receiving information in writing, and even drawings and pictures within minutes from the other side of the world! And... you no longer had the 3-4 weeks of time to prepare the quotation or revise your drawings. The customers wanted them the same day or the following day! But this was just the beginning as we know now...

Today we have so many different ways to deliver the data we want, including text, still and moving pictures, any sizes, in all kinds of

formats, just name it. It is out in the world within seconds. In practice we can follow almost anything and anywhere in real time. This huge leap in the communication has completely changed our lives and environment, both the private and the work, and we have more information available than ever before, more methods and ways to utilize it and send out our messages... We sometimes wonder whether it is even too easy.

All of this has made many things more effective, but due to the amount of information and keeping in mind the fact that we are still the same human people working around these messages, is it simpler in reality? For most areas, when all the data and systems are well working and being used correctly, it certainly is, but we, people at work, still weigh up what is the best way for our companies, we battle with our time, tasks and targets and try to balance our lives. The same feelings with stress and busyness as 36 years ago regardless of this fast communication development around us. And that, I think, is a good thing. It is human behavior.

Hopefully we will remain human individuals along with all the magnificent new developments yet to come, even faster than in the past. Hopefully we will continue to communicate with each other, with our customers and partners across the borders with dignity, with respect and with the time it takes, not forgetting the importance of meeting in person every now and then to discuss matters face to face – at the meetings, over a meal or just spending some leisure time together. A good business relationship has always been, and is still built on trust and good relationships between people. That has not changed over the years. Let's not allow the communication to get lost in the information flow and the latest technology. ●



**HANNA-LEENA MÄKITALO** is responsible for the tasks of Marketing Manager and those of Deputy MD at Upcast Oy. She has been at the company since March 2013.



IWCC President Dr. Mark Loveitt

# Green energy and copper are united

Copper is at the heart of renewable energy. It's needed for virtually every future communications and transport technology, even robotics and artificial intelligence. We wanted to know how the industry can stay ahead of the game.

I have a strong belief in copper and I know that it will have an essential part to play in the future.

IWCC President Dr. Mark Loveitt knows his field. He and The International Wrought Copper Council go way back. In 2008 the relationship deepened when Loveitt took over the responsibility for the organization. A wind of change began to blow.

– Since its foundation in 1953, the IWCC has been a global organization. Still, in the past it was often perceived as being European, perhaps because the founding members comprised the European semis industry, Loveitt explains.

– I wanted to correct that perception and to strengthen the IWCC's links with all of the organization's members. I also wanted to make the copper industry aware of the essential role and functions of both the organization and the sector of industry that the IWCC represents.

IWCC has many roles. The global organization for the copper and copper alloy semis manufacturing industry takes care of a diverse range of tasks ranging from providing new insights and collecting data to building cooperation across the industry and creating human relations around the world. Along with approximately 150 other companies, Upcast Oy is an active member of the organization.

– Usually we work with our members through committee meetings. Also, we like to hold one-on-one meetings with members to learn their requirements directly.

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I see continual growth, improvement, technological changes and happier customers.

## The raw material for 21st century technologies

Let's talk energy. Lucky for all of us, the interest in developing renewable energy forms is growing. Due to its excellent conductivity, copper has a crucial role in green energy production.

– In many ways copper is the ideal material for the renewable energy sector. Its use in energy generation and energy transmission puts copper at the heart of renewable energy technologies. Copper is adaptable for so many uses in the renewable energy sector; for example, in wind farms and in solar energy. Also, copper is recyclable without any loss of functionality. Recyclability is the embodiment of the green ethos. What more can you ask for, Loveitt enthuses.

Who wouldn't agree. These attributes will absolutely make a difference in our future energy production – and any kind of manufacturing for that matter.

– Copper is being used as the material of choice in 21st century technologies, such as robotics, electronics, e-vehicles and artificial intelligence. This tells me that copper is a metal for both the present and the future. ●



### An essential e-vehicle ingredient

Though copper is rarely seen in the modern world, the layman may not be aware that it's virtually everywhere: in smart phones, wireless hubs, cabling, heating and lighting equipment, air conditioning, coins, buttons and zippers. You can find copper in all forms of transport and telecommunications. The list is almost endless.

– Connectivity is key to a better performing and more efficient way of living, Loveitt states the simple fact.

In addition to its uses in energy generation and distribution, copper is of the essence in the e-vehicle industry through its use in wiring harnesses, motors, connectors, batteries, charging stations and associated infrastructure.

– Forecasts for e-vehicle demand vary widely, but all forecasts for this type of vehicle indicate significant growth in the years to come. This, together with the underlying growth for the more traditional uses of copper, supports growth in copper demand.



### With alloys, practically anything is doable

Dr. Loveitt says that alloys are the hidden gems in the copper portfolio. Hidden in a good way.

– Even small adjustments to alloy compositions can result in different physical properties of the alloy. This is one reason why copper alloys are so versatile and adaptable; allowing for their use in a myriad of applications. The semis industry is customer driven and new alloys are being developed in response to market needs.

Mark Loveitt notes that the alloy semis industry is continually investing in the manufacturing process, for example, upgrading production equipment, removing bottle-necks in production and reducing energy consumption.

– The IWCC assists this by holding an annual Technical Seminar which looks at specific stages in the manufacturing process. To these seminars we are able to attract equipment manufacturers who explain to the industry the latest developments in their equipment.



Recyclability is the embodiment of the green ethos. What more can you ask for?

In IWCC's seminars, the industry and the academic world join forces. The fabricators share their experiences and academic speakers introduce the industry to ideas that may come into the market in the near future.

– As an organization, we can prepare the ground for the industry to move forward.

### Truly global and close to fully recyclable

Mark Loveitt asserts that there is more than enough copper available to supply future demand, either from virgin metal, or through recycling used products. The copper industry has a good track-record in recycling.

– Could the recycling rate increase? Of course it could – and the industry is prepared for that.

The positive effects of the thriving copper industry are not limited to the operating results of individual companies and a healthier environment.

– A natural consequence of a thriving industry is that it provides security for those that are employed in the industry. And of course, both regional and national governments benefit from having these industries.

Equally good news is that the copper industry is genuinely global. The benefits are seen on different continents.

– Copper is often mined in countries that don't have a high demand for the end product. The raw materials are converted into semi-finished products, such as wire rods, wires, extruded products, rolled products and tubes. They are sold to original equipment manufacturers (OEM) and finally put into products that are exported all over the world, Loveitt goes through the cornerstones of the industry.

### A steady growth towards bigger and better

By all accounts, the outlook for copper is positive. Does this mean that the industry should prepare for a buying rush?

– I don't believe that growth in copper demand will be rapid, but rather steady and sustainable. In the medium-term, we are expecting a steady growth, Loveitt reassures.



Connectivity is key to a more efficient way of living.



Times and regulations change, and the copper industry moves along, trying to stay ahead of the curve.

– These days, the copper industry is more proactive than in the distant past. Regulators often have no perception of how an industrial sector operates. Regulators frequently introduce environmental regulations with a too short time frame for implementation. By being proactive we can anticipate change and prepare for it.

Change. In this world, nothing is more

certain. How does Dr. Loveitt see the copper industry in the near future?

– Bigger and better. I see continual growth, continual improvement, continual technological changes and happier customers.

– I could envisage a world with truly global companies – but given the nature of the semis products, there will always be room for niche producers. In the end, we are all part of the copper family and all working for a better future with copper as key to that future. ●

# Zambian copper rod valued all over Africa

– Upcast Oy is part of our success. The service is good and the technical support outstanding. They are always willing to support us in terms of technical service and parts supply.

Zamefa's plant manager **Gabriel Bracho** seems to be pleased. The Zambian metal manufacturer supplies the fast-growing African market with first class cable, wire and copper rod with decades of experience. Upcast Oy has accompanied Zamefa for over 30 years. How did it all begin?

– At the beginning of the 1980's, Zamefa took the decision to invest in the first UPCAST® machine. Our aim was to continue adding value to copper, which is the main export resource of Zambia.

Over the years Zamefa expanded its copper rod production capacity with no less than three additional UPCAST® casting lines. No other supplier was considered.



Zamefa's Plant Manager **Gabriel Bracho**.

– The first line from Upcast Oy was decided due to the quality, versatility, production volume and required installation area. After proving itself to be reliable, the other machines came as part of expansion processes. Also, we decided on having only one technology supplier for our copper rod production. Even our sister company in South Africa has an UPCAST® machine, Mr. Bracho summarizes the long-standing collaboration.

## Setting strategies to reach a wider market

Zambia produces copper rod for its own consumption and to export to regional countries, such as South Africa, Botswana, Kenya and Tanzania. In the region, Zamefa is a key player

in supplying 8 mm, 12,5 mm and 16 mm copper rod.

Despite copper being a crucial export, the copper rod business in Zambia is limited. The cable industry is the sole Zambian industry that requires copper rod. Only one other new cable manufacturer is operating in the country, with their own rod casting machine.

– Unfortunately, the market has been depressed due to economic issues. Our rod production capacity is 32 000 metric tons per year, but at this moment we are producing only 18 000 metric tons per year. Strategies are being set to increase our market participation in the region, Mr. Bracho maps out.

Zamefa takes environmental issues seriously. The ISO 9001 certified company puts itself out

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Over the years Zamefa expanded its copper rod production capacity with no less than three additional UPCAST® casting lines. No other supplier was considered.



to exceed local environmental legislation.

– We do not only recycle primary metals, such as copper and aluminum used in the manufacturing of wire and cables. We also recycle PCV, steel and timber.

## Problem solved in hours

The plant manager is very happy with Upcast's customer support and visits to Zamefa.

– This is not seen very often among other machinery suppliers in the wire and cable industry. It shows commitment to their customers. The users meeting is also a great opportunity to see where the UPCAST® technology is going and for supporting companies in their equipment developments.

Operating on different continents is no excuse for a service delay – at least for Upcast.

Problems are dealt with immediately.

– In a recent machine upgrade, we had some process issues after an installation and commissioning. The issue was solved within hours through merely a phone call and an internet connection. This showed us that Upcast Oy is committed to serving us in a fast and reliable way.

Any ideas on how to do things even better, Mr. Bracho?

– Maybe something to explore would be how to develop components at a lower cost and how to pass these cost reductions onto the customers.

## Copper is going strong

Through more than 50 years in the copper industry, Zamefa's name has become synony-

mous with quality products. In Zambia and in the region, the brand is highly recognized.

– Our production capacity was built with thoughts of being an export manufacturer. This gave us the capability to go beyond the Zambian market, Mr. Bracho explains.

A firm foundation is key when planning future strategies and goals. For Zamefa, prospects for the African copper market are looking bright.

– Copper is and will be the preferred material in our product range. Some projects have switched to aluminum, but they are still a small portion of the market. We do not foresee a major change in the years to come. There is enough market for copper rod products in the region, considering that copper mining is a major interest in Africa, Mr. Bracho concludes. ●



## Metal Fabricators Of Zambia PLC

- A metal manufacturer operating in Zambia
- Parent company South-Africa Reunert Ltd
- Member of the CBI-electric Group
- Manufactures power cable, wire, copper shapes and copper rod
- Incorporated in 1969
- Roughly 300 employees
- 21 trading countries
- 2017 sales 2 898 metric tons to Zambia, 16 184 for export





# Work trip into summer

Two months in Brazil will be remembered for its warm weather, peaceful village roads and excellent food.

– I can say the same about Ari. We have no hierarchy between us, but we work seamlessly together and the other one can always oversee that the work has been carried out as it should, Jaakola adds.

### Independent work is motivating

According to the men no two work trips have ever been identical, but there are always new challenges. The work requires both problem solving and social skills.

– The best aspect in these travel jobs is that you are able to see and experience different places and cultures and can carry out your work fully independently in your own space, within the agreed upon schedule of course, they say.

The trips to Brazil will always be remembered for the good food and this trip was no exception. Every evening the customer took them out for dinner.

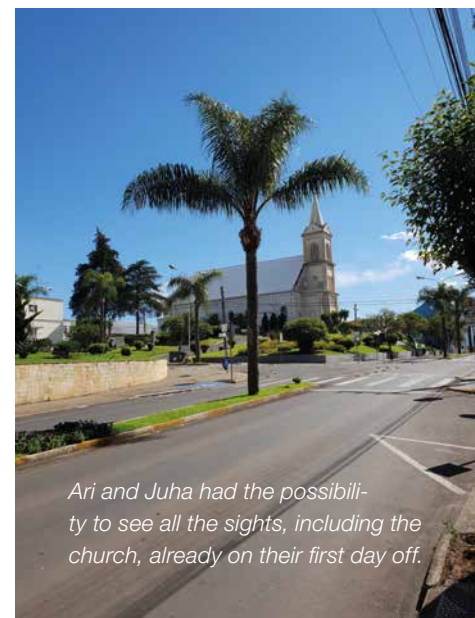
– The food was too good, the best ever. The meat was excellent and there was plenty of it on the table, the men extend their gratitude. ●



*The men walked around the city streets and wondered where all the people were. Over the course of the weeks they learnt that the local people spend all their Sundays very close with their families.*

**O**ur work place on this job was located in a beautiful city in the Southern part of Brazil, on a riverside surrounded by a verdant countryside and woods. The area is famous for its tomato plants.

During October-December time we were



*Ari and Juha had the possibility to see all the sights, including the church, already on their first day off.*

able to enjoy the sun and warmth, at the same time as the daylight in Finland was becoming shorter and the winter darkness was pushing onto the people. This work trip did not feel bad at all in the minds of Upcast's commissioning engineers.

– The customer was familiar from a few years earlier when we commissioned another casting line for them, Ari Mätäsaho and Juha Jaakola tell.

### Good cooperation

This line was an old line that was moved to a new location and the customer also wanted to upgrade it for more capacity. The job of Mätäsaho and Jaakola was to extend the line from a single furnace into a double furnace line. They worked closely together with the foreman and two engineers, of which one was an old acquaintance from the previous job.

– There was a great deal of benefit for our work having this engineer tell about the line and its operations as well as give instructions to the factory people in their own language, the men emphasized.

### You can always rely on your workmate

The commissioning work itself was very much the same as if they were working with a new line. The only exception was that there were parts and components which needed to be checked and maintained before their reinstallation. The division of work between the men is very clear: Mätäsaho takes care of the electrics and Jaakola of everything else. Those two have travelled a lot together over the years and have learnt to know each other's ways of working.

– At least so far, we have not encountered any troubles in our work trips together, the men laugh.

There is a great advantage in the long cooperation and knowing the skills of one another, especially if something unexpected happens.

– Juha knows exactly what he is doing and can support me in my tasks. He has a good memory and such a long experience that it really helps, Mätäsaho praises.



There is a great advantage in the long cooperation and knowing the skills of one another, especially if something unexpected happens.



Upcast is continuously thinking about the ways in which to improve and develop, not only new products, but also the existing working solutions in its casting process. One important part of the process involves bricklaying, which normally takes 2–4 weeks depending on the line capacity. Therefore, it is important to weigh up alternatives in its realization, too. Precast lining is clearly a good alternative, writes Ismo Rossi, Customer Service Manager.



# Saving time with precast

After already evaluating and monitoring the quality of precast lining at the company's own Pilot plant for several years, where no wearing nor penetrations of melt were detected, a decision has been made to use precast lining for all the new single furnace lines and also to offer the solution to the customers when it is time to renew the lining of their existing lines.

The delivery time for the precast materials is about one month shorter than that of bricks and its installation time is about one week in comparison to the 2–3 weeks required for bricklaying.

After the installation there is no need for any drying or preheating measures, but it is immediately ready for the installation and start-up of the inductor, whereas bricks require about 10 days of drying and preheating. In other words, the down time when using precast lining may even be 3 weeks shorter than when using bricklaying. That is a great saving in time!

Also, when we look at the actual delivery of the precast it is certainly more compact and includes less parts and components. All the special tools required for the bricklaying process,

such as special brick saws, can be excluded.

The customers are, of course, interested in the overall costs and the possible savings. The greatest savings come from the time saved because the price of the precast, including the labor, is about the same as the price of the brick-



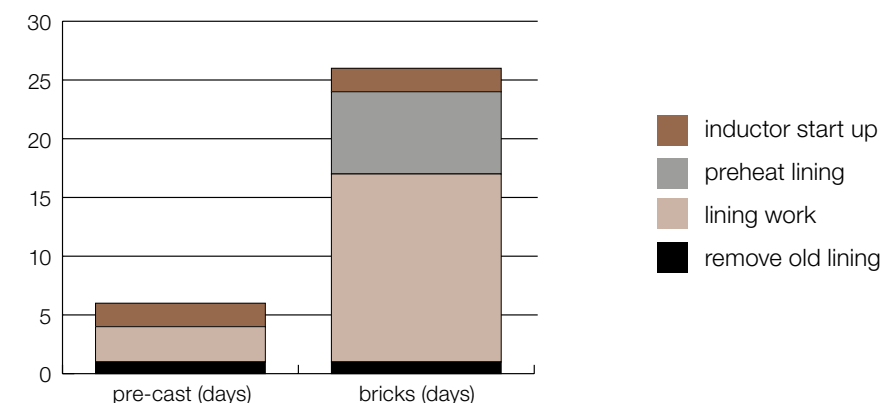
laying. The installation can be carried out by Upcast workers on site. The requirement for the customer is to have a good and strong enough crane in the hall – it can be a fixed or a mobile one. The expected life time for the precast lining is about the same as for the brick lining.



One big benefit for the customers preparing their production for the future is that the critical, non-aging components, such as the precast blocks and insulations, can be stored, and when the time for relining gets closer, only the

short-delivery-time mass and plaster need to be ordered. Naturally the same process works for the bricks. However, there are much less parts and components in the precast set, which makes the inventory management easier. ●

## S/V12T



## Customer experience

Mr. Tomislav Hren, COO of Eurocable Group explains how they came to the decision to use precast.

“During the winter of 2018, the time of the inductor change was getting closer.

Since the furnace has been in operation for 6.5 years, and for some time the cathode quality was not the best, we began to think about changing the furnace lining.

A few years ago we had a number of small red spots on one side of the furnace due to the melt breakthrough, and although it has been successfully repaired, solidified copper was slightly increasing power dissipation, so it was one more reason to change the furnace lining.

We were not very happy about it, partly because the delivery deadline was extensive (around 10 weeks), but mainly because the bricklaying work was long (around 3 weeks).

We found out from Upcast that besides bricklaying, they also offered precast blocks for furnace relining at a very similar price.

At the last Upcast user meeting in Croatia, there was talk about a new lining design for single furnaces.

In this new design, the inductor cone is blocked to the casting zone and there are six small windows at the bottom of the furnace wall between the melting and casting side instead of one large opening.

This design helps to deal with problems related to bad cathodes.

Finally, because of all the benefits it offers, we chose precast lining with this new design.

This new design is Upcast current standard brick lining for single furnaces.

It is also important to pay attention to early planning of the overhaul, to have Upcast engineers at their disposal for the desired term.

The entire process was performed smoothly and efficiently, thanks to the devoted work of Upcast and Allied Mineral products engineers and technicians and with the support of the Eurocable Group team.” ●



The greatest savings come from the time saved because the price of the precast, including the labor, is about the same as the price of the bricklaying.



Eurocable Group d.d.  
Nova Ves 11, 10000 Zagreb, Croatia

- company founded in 1999
- a joint stock company privately owned by Croatian nationals
- a low voltage power cable manufacturer
- main markets: Germany, Austria, Croatia, the rest of the EU
- 130 employees
- 20 production lines, total capacity 30.000 t/year
- 1 UPCAST line, single furnace, capacity 12.000 t/year
- management: Mrs. Tihana Stupnišek, CEO; Mrs. Irena Križan CFO; Mr. Tomislav Hren, COO

# EVERYTHING STARTS WITH OPERATIONAL SECURITY

Satmatic Oy is one of the leading electric and automation engineering companies in Finland. Upcast's customers can enjoy the company's expertise every day.

**S**atmatic manufactures the control centers of UPCAST® product lines and acquires the necessary electronic and automation components. If necessary, Satmatic's team will travel with the product to finalize the line's commissioning and maintain or modernize the existing line.

The basic components of the equipment remain the same from project to project, but each project is still unique as the number

of equipment and their structure vary. Additionally, the company can review whether they can take the customers' own requirements and the standards of the target country into account in the work.

– Upcast's projects are challenging, which makes our work interesting. Our end customer sees our strong automation competence in the reliable, simple and disturbance-free operation of the UPCAST® production line, says Satmatic's CEO, **Rainer Nurkkala**.

## Product development together

In UPCAST® projects, Satmatic is often involved as early on as during the quotation phase, and the companies interact closely. The long-term cooperation has been fruitful, and even complex questions can usually be solved together.

– We know Upcast's process and technology well enough to be able to give tips for equipment and component selections. This way we can also maintain our competitiveness in the future and meet the end customer's needs together, says Satmatic's Sales Manager **Jarmo Salonen**.



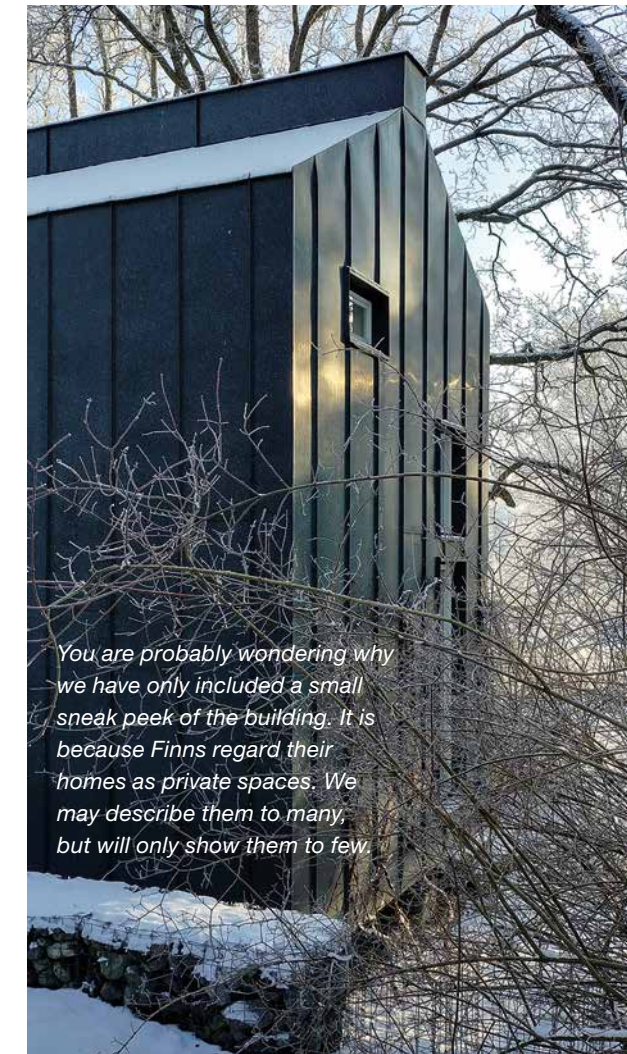
# A home sheltered by an everlasting material

We have been living next door to a nature reserve since the late 1990s. Our traditional Finnish wooden house, built in the 1950s, is located on a compact piece of land roughly a quarter of an acre in size, together with 19 fully grown wild oak trees. Yes, 19! Those who have read **Peter Wohlleben's** fantastic book *The Hidden Life of Trees* will know that our backyard has its own grove-like ecosystem.

15 years ago we decided to expand our home. We chose to go with a so-called "Danish-style addition," in which the newly constructed part clearly differs from the existing building. Gigantic oaks are beautiful, but they also attract hundreds of other species of flora and fauna. Such a massive ecosystem creates an immense amount of green waste. Our pink wooden walls and tile roof easily succumb to moss. The roof must be regularly washed and the walls repainted. That is why we wanted the new addition to be simple to maintain. Our architect suggested that we use antibacterial copper as the roofing material for the addition, as moss cannot grow on it. We loved the idea. And when we discovered that patinated material was also available, we decided to use copper for both the roof and the walls of our new house addition.

Originally, we intended to add sections of wooden grids made of larch, but when our architect saw the finished copper surface he exclaimed: "What a fantastic building, like a chapel! Let's forget about the larch!" And so we did. The end result was magnificent. The green building blends in seamlessly with the surrounding grove. The surface material is beautiful, requires no maintenance and will last forever. It is incredible to think that it will remain long after we are gone. Did you know that 80 per cent of the world's copper that has ever been refined is still in use? It was one of the first materials to point the way towards circular economy.

Our home is located above the 60<sup>th</sup> parallel north, and the oak grove that surrounds us is most likely one of the most northern ones in the world. As I am writing



*You are probably wondering why we have only included a small sneak peek of the building. It is because Finns regard their homes as private spaces. We may describe them to many, but will only show them to few.*

this, there is almost 16 inches of snow in the yard. I cannot say if it is because of the copper, but we have a vine that produces grapes growing next to one of the walls. These sensitive plants rarely thrive so far up in the north. Our house addition contains the main bedroom and a library. And the best thing about it is that its copper surface allows us to live in an unusual environment with no cell phone coverage. It is most likely because of the copper surface, that we have no access to the cellular network inside our house. In addition to being timeless and sustainable, copper also generates positive Feng Shui energy in our home. It is an extremely soulful material. ●

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I believe that the secret to our success is listening to our customers and meeting their demands.

## Long customer relationship

Most of Satmatic's customers are Finnish industrial companies that manufacture products for export. UPCAST® is a typical customer, and the cooperation began in the early years of Satmatic, nearly 30 years ago.

– We have many long-term customer relationships. I believe that the secret to our success is listening to our customers and meeting their demands. We understand the requirements of international projects, which facilitates the work of our customer companies, Nurkkala says.

## Robots are the future

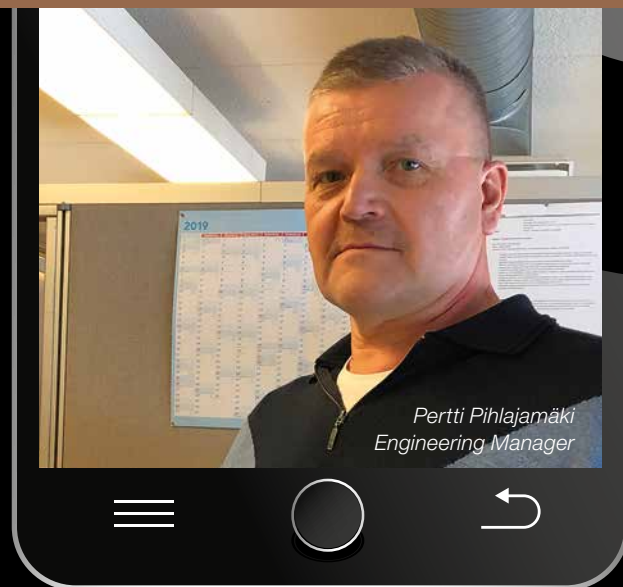
Since 2015, Satmatic's net sales and profit have rapidly grown – net sales even by up to 80% annually. The basis for this growth are distribution transformers, the main products of Harju-Elekter, Satmatic's owner. About half of the company's net sales come from transformers, and it seems that this great growth will continue into the next decade.

– We are the largest Finnish supplier of distribution transformers. What makes our product superior is the fact that we manufacture customized transformer models for large power grid companies.

Industrial electrical automation has also grown at a speed of about 20%, which corresponds to our goals. Satmatic plans to introduce software robots in the future, to e.g. speed up their own planning routines. Robots that perform routine duties can help automate entire production sectors.

– On our part, we ensure that the end customer is able to increase the reliability and competitiveness of their production, Nurkkala says. ●





Pertti Pihlajamäki  
Engineering Manager

## Hearing "Thank you" gives the feeling of success

"I began at Outokumpu company as a designer back in 1985, continued at Upcast Oy as Chief Designer and last year I was appointed to the position of Engineering Manager. The actual equipment design no longer forms the major part of my daily work, but I mainly concentrate on coordinating all the design tasks. We have a small and aligned working team and our co-operation is very seamless.

When starting a new project, I prepare the design schedule including the distribution of work between the designers. As the project progresses, I make certain that we are on schedule and when the design drawings are done, I will go through them with the designer to assure that they are consistent with what has been sold to the customer. I personally consider it to be very important that our casting lines will meet all the agreed upon values when it comes to the quality and the capacity of the cast product.

We also prepare 2D drawings and 3D modelling for the various needs of sales, service and spare parts as well as the process development. We sometimes receive requests for updating some very old casting lines and equipment, for which we will dig through our archives looking for design drawings from centuries ago. In this way we can hopefully deliver the right components to the customers.

During the design/checking phase we do everything we can to minimize any possible mistakes, which could cause problems to our customers when installing and commissioning the line. We also train our customers here in Finland, and mostly they all seem to be very grateful and happy that they have taken the time to travel to learn the important details. When they say thank you, we know that we have succeeded in our part.

I spend most of my free time in the nature. I inherited my Father's home place with a little bit forest – and some wood work. During the summer we travel with the family camper (RV) and wander in the national parks. In the winter, it is perfect time to ski in Lapland. I plan to retire within two and a half years – and then just do some forest work, play badminton and travel a little bit." ●

• TEXT: HANNA-LEENA MÄKITALO | SARI LOMMERSE • PHOTOS: UPCAST OY

## A successful project is the result of teamwork

UPCAST OY directly employs about 30 persons who work in various tasks required to sell, design, supply and commission an UPCAST® continuous Cu (or some nonferrous metal alloy) rod/tube line and service the line in the best possible way after the customer has accepted it and the line is fully up and running 24/7. Not to forget the R&D team who continuously tests and develops based on the signals from the market.

The UPCAST® technology and process were invented and developed more than 50 years ago in Pori, Finland and the entire team is still fully dedicated to take care of the further development and continuous improvement of this unique technology. The know-how, long and strong experience are being used in daily operation for the customers' benefit. And that includes all the suppliers in the chain, both the local manufacturers and the suppliers further away.

When the sales people have concluded their discussions with the customer and the project is ready to be kicked off there will be a thorough and detailed description and specification of the content during the hand over to the project management who will then take care of it 100%, including the design, all purchases, checking and testing, customer training, operation manuals, packing, all the shipping documents and commissioning – until the line is accepted by the customer. Depending on the size of the project, the total time that this overall responsibility is in the project management's hands varies from 9 to 14 months.

Many individuals work hard in the project's areas they are trained and specialized for. And in this article, we interview Ms. Riitta Pohjola, Purchaser and Ms. Maarit Hämäläinen, Export Coordinator and find out more about their roles during the execution of the project.

## Maarit Hämäläinen, what is the role of the Export Coordinator in the project execution?

*Maarit Hämäläinen,  
Export coordinator*

For our company which exports nearly 100% of its sales, I am the person who oversees the shipping of the project from Finland to the customer and the invoicing of it. Already in the quotation phase I participate in the discussion regarding the transportation or in case there are some specific payment terms, such as documentary credits. The biggest part of my work, however, takes place at the end of the project. I collect all the information and details of the products from our suppliers, subcontractors and from our own inventory. I translate everything into English and combine required packing lists for the shipment.

I am also in contact with the forwarding agent / transportation company in good time beforehand to assure that the shipment goes well, and that we deliver on schedule.

All the export regulations and requirements are country specific and there can be very detailed and special things you need to consider. We need to be prepared for all kinds of demands and therefore we keep regular contact to the customer who, at the end, knows best the regulations in their own country. When I see the back light of the truck or know that the ship has left the port I take a deep breath and sigh.

The requirements for export documentation vary a great deal per country. At a minimum the necessary paperwork consists of only some documents, whereas there are shipments requiring 14 different documents such as the one we had at the beginning of the year. Having a letter of credit as payment terms adds a challenge to my work a little bit since I must make certain that every document that I send to the bank is exactly according to the requirements agreed on with the customer.

### For how long have you been in this job?

I have an anniversary this year: I will celebrate 25 years at the company next December! The most enjoyable part of my work is its variability – when you come to the office in the morning, you never know what the day will bring. And of course, I appreciate my colleagues. For example, Riitta has been my colleague for almost 30 years since we already worked together in our previous job. That is longer than a marriage for most people.

### How has your work changed over the course of time?

The work has become more hectic and the expectations to get answers and documents are very immediate. The technology has developed in Finland as well as in the countries where our customers are located. When I began, we used telefax and even telex for communication purposes. One major change was when Finland joined the European Union and you were able to ship goods with only a dispatch note or bill of lading and without any customs formalities inside the union. For an export person that was like winning the lottery! ●



## Riitta Pohjola, please tell us about your work

*Riitta Pohjola, Purchaser*

I am responsible for all the inventory purchases as well as for a certain part of project related and raw material procurements. There are also a lot of purchases I carry out for internal needs, such as office supplies, furniture and protective clothing. Regarding the raw materials and parts required in our R&D work at the Pilot hall, I also prepare the necessary orders. We are continuously on the lookout for new products and materials for testing.

I also have the overall inventory control under my responsibility. I make certain that we have the sufficient inventory of parts and components, both for new line projects and for spare part deliveries – we have to have enough bulk materials and components, which are critical for keeping our customers' operations running. With a good and specific inventory plan we are able to shorten the delivery times of the materials and components to our customers, thus assuring their operations. However, all the customers should keep in mind that it is also essential to always have the most important parts and components with long delivery times in their own inventory. In conjunction with the commissioning of the production line, we prepare a list of these items.

In addition to the above tasks I also participate in the shipment and quality control processes, I take care of import transportations and customs contacts, I monitor the costs related to the inventory and, naturally, there are invoices and other documentation that pass through my hands into our bookkeeping.

### How do you estimate the required amount of inventory parts and components?

I have been doing this already for 26 years, so the experience brings a certain touch to the estimation of consumption and how to prepare ourselves for the coming situations and needs.

There are so many variables such as difficulties in the availability of some products, price variations and changes in the market.

### What do you find most rewarding in your work?

My job description is very diverse, and I work closely with all our departments. Also, I am in touch with our suppliers and subcontractors on a daily basis. As we know that the reliability of suppliers and subcontractors is based on trust and long relationship. And that, consequently, assures the best quality and working supply chain for our customers. The most rewarding moments are when you see successful projects and happy customers! ●



## Continuous improvement

UPCAST OY is happy to inform that **Kari Harju** started in his new position as DEVELOPMENT MANAGER / PRODUCT QUALITY at the beginning of the year. The company wanted to have more expertise, experience and knowledge of the unique UPCAST® technology in the quality assurance, and who could be better in that position than the man who has been with the company for 27 years, both in the customer service and sales departments, and knows the product and the process like his own pockets, as the Finnish saying goes. Good power for the continuous improvement! ●



Mr. Fatih Candan (left), Mr. İlter Oğuz, Mr. Muhsin Sözeri and Mr. Murat Kaçamaz, from Seval Kablo participated in the training at Upcast Oy in January.

## Training at UPCAST® plant

As we have written in another article in this magazine, Upcast Oy's project execution has many thoroughly planned phases before the casting line is in operation and accepted at the customer's plant.

One very important step is the TRAINING which normally takes place around the time when all the goods are at their finishing stage and being packed for the shipment. Upcast's **Project Manager, Mr. Sami Ollila**, makes certain that his team is available and prepared to go through the essential points, first of all regarding the installation of the equipment since this is normally carried out by the customer, as well as all the other important operational things.

We had the pleasure to have experts from our Turkish customer, Seval Kablo, participating in the training in January this year. The temperature outside was -8 Celsius and the ground was covered with white snow. Let us hear about their thoughts.

Seval Kablo's **Plant Manager, Mr. Murat Kacamaz**, told that he was in Finland a couple of years ago, so it wasn't his first time, but it was the first time for his three colleagues, **Mr. Fatih Candan, Mr. İlter Oguz and Mr. Mushin Sözeri**.

Mr. Kacamaz continued that the first

impression this time was how cold it was. Pori seems to be a small city with not too much traffic, and everything is close by. He thought that he could even live here, but definitely only in the summer time.

The group has enjoyed their short visit and experienced a smoke sauna, ice hockey game and some dinner specialties, such as reindeer and salmon.

Finland is very different from Turkey and one cannot understand a word of Finnish language! Mr. Kacamaz also paid attention to how rules were obeyed and how people were working more seriously.

The group was satisfied with the training they received and Mr. Kacamaz has already scheduled the installation of the production line in his mind so that the commissioning of the line could start at the end of May.

The Upcast team thanked the visitors for good and constructive meetings and wished the customer all the best with the project and reminded Mr. Kacamaz that they can always turn to us with any questions they might have in the process! It is always so much easier after you have met each other, isn't it? And the Upcast people will of course be on the site for the commissioning and the training will continue there – hands on this time. ●

UPCAST®

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10<sup>th</sup>

User Meeting  
September 3–6, 2019  
Leipzig, Germany

UPCAST®  
User Meetings  
– it is once again  
time to get together  
in September 2019

Since 2000 Upcast Oy has organized UPCAST® User Meetings to bring together their partners and existing customers running an UPCAST® line from all over the world.

This is an excellent platform to exchange ideas and experience about the upward continuous casting process, as well as to hear the latest developments. The UPCAST® process and technology is the key topic for the intensive discussions during the few days spent together. We continuously explain to the existing customers how rare and exceptional an event this is with so much expertise, experience and knowledge of continuous upwards casting gathered together in one room. What a great opportunity, which cannot be missed!

Check your mail for the invitation, which was sent out already in March. The final registration date was fixed to April 30<sup>th</sup>, but we can always check whether there is room for more participants.

This time we will meet in Leipzig, Germany. It is the 10<sup>th</sup> meeting already! ●





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