

ensto **today**

STAKEHOLDER MAGAZINE 2/2014

Ensto Goes
Explosive!

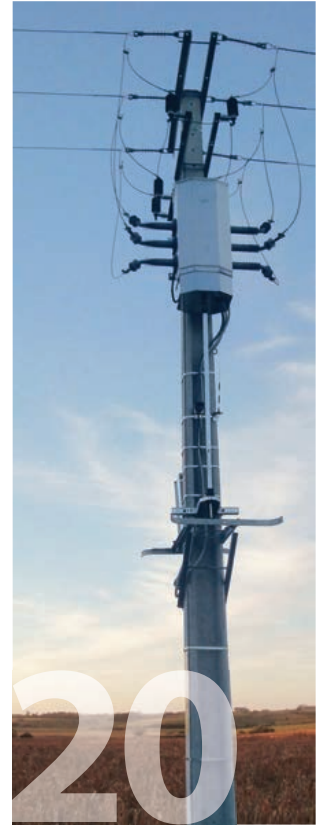
Petu Kummala's
Chain Chandelier:
**Bringing a
Vision to Life**

**IoT: The Modern
Revolution**

The Balancing Act
of Creativity

EcoDesign and
Environment

**Lighting
Special
Issue!**



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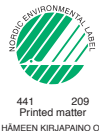
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Cover: ship designer Petu Kummala
Photo by Petri Juntunen



From the Editor

Holistic Light

The lighting war is won, and the victor is LED. It seems we rarely ever hear the word “incandescent” any more.

LED lighting technology advances so fast that, at the laboratory level, a huge leap forward is made every six months. Information moves so quickly, too, that modern light fixtures are not so different from one another – meaning there is a relatively level playing field among competitors.

At Ensto, we understand that for our lighting products to be the choice of the customer we must offer much more than just the latest technology. A great product begins on the drawing board, and is a cooperative effort between designer, manufacturer, and all those in the supply chain.

For us, the creation of great lighting is a holistic process. In this issue we explore the many facets of light, lighting, and the way we work to create it.

Living and working in a land so far north, we Finns are especially sensitive to light. In fact, as we assemble this issue of the magazine it is completely dark outside. Wherever you are, whatever climate you’re enjoying, whether your light source is natural or artificial, I hope your environment is both well lit and productive.

Pia Hänninen
Director
Brand and Communications

What Can You Do with a Kilowatt Hour?

 Kaupo Kikkas

Over a lunch in late August, US Ambassador to Finland **Bruce Oreck** and I discussed energy and how people rarely try to quantify it. When you think about energy, it really is less than obvious for most people to have an exact idea how much a given quantity of energy really is. For some people one kilowatt hour is represented by the amount of euro cents that you have to pay for it, which of course gives you an indication of its market price at a given time. For others it can represent a fraction of the energy consumed annually, when you look at your electricity bills which indicate your consumption, sometimes in tens of

In order to illustrate the amount of energy let's take an electrical vehicle. To drive 50 kilometers at an even speed of some 80 kilometers per hour, you need roughly about 10 kilowatt hours of energy from your batteries. Make the calculation and we'll see that with one kilowatt hour you can drive about five kilometers at a decent speed. So leaving the 60 watt light on for 16 hours has consumed as much energy as you would need to push a full-sized motor car for five kilometers at 80 kilometers per hour. That's how much energy one kilowatt hour is - in fact quite a lot!

The possibility to save energy without the need to make compromises is one of the leading reasons why LED technology is becoming so popular. With LED luminaires you can choose the right colour temperature, the colour rendering index can be outstanding, you can dim the lights, LEDs light up instantly, and they can be very energy efficient and outperform others in longevity. On top of that they are easier to recycle than most other light sources.

In the best LED luminaires you get over a hundred lumens per watt, whilst in luminaires with long-life incandescent light sources you may get only six lumens per watt. So let's revisit our energy calculation - with the same amount of light as in our first example of leaving a luminaire on for 16 hours, we would have used 0.05 kilowatt hours instead of one kilowatt

hour. It still would be sufficient to power the electrical vehicle for 250 meters' ride, and hence we prefer motion detection to manually switching on luminaires when light is needed and off when there's no need for light.

In this century, when the true currencies maybe energy and water, avoiding waste can be the most efficient way of gaining more money.

Timo Luukkainen
CEO and President, Ensto Group



A 20-square-meter solar panel charges Luukkainen's electric vehicle both at home and office.

thousands of kilowatt hours. To get a more precise idea, for many of us, it may be better to think about what you can do with, for example, one kilowatt hour of energy.

Imagine that you have a 60 watt incandescent light bulb at home and that you turn it on early in the morning. If you forget it and leave it on for the entire day, finally turning it off when you go to sleep, you have had it on for 16 hours. During that time you have consumed about one kilowatt hour, i.e. 16 hours times 60 watts. Now looking at how much it will cost you, depending on your country of residence and tariff, the cost is between 10 and 25 euro cents. But the cost does not answer the question of how much energy one kilowatt hour is.



A Holistic Approach to **Lighting**

Scott Diel Dreamstime

*How can you be competitive in lighting
when everyone is using LEDs?*

A Holistic Approach to Lighting

The light source is no longer king. With the spread of LED technology, most modern light fixtures on the market are both cost- and energy efficient. Any LED fixture you buy at your neighborhood store could be efficient, but it may not necessarily be right for the job.

“Good lighting is not only electronics and efficacy,” says **Jarmo Tomperi**, Marketing Director at the Ensto-owned Alppilux. “Professional lighting design is the basis for an appropriate lighting solution. A professionally designed lighting solution means lighting quality- and energy efficiency requirements are met over the lifespan of the solution.”

Location, location, location

The old retail slogan, “location, location, location,” can also be applied to lighting. Proper lighting solutions are designed for a specific purpose and location.

It’s an extreme example, but an LED luminaire created for a potentially explosive environment inside the hull of a cargo ship is not the one you want in your office for working on your computer. When it comes to LED luminaires, one size does not fit all.

Control systems and design

Lighting controls and control systems play an important role when designing energy efficient and user-oriented lighting.

A huge contributor to carbon emissions is the lighting and heating of large buildings. That beautiful nighttime cityscape costs money and harms the environment. Lighting controls and control systems enable a significant reduction in a building’s carbon footprint.

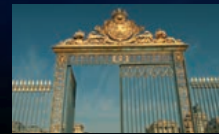
In large buildings (industrial or office), lighting should be designed to enable the lowest possible consumption of electricity. When daylight is pouring through the windows, why should bulbs be burning as bright as on a dark day? A control system ensures they don’t - and not at the cost of lighting quality.

Also critical is to turn on as few luminaires as possible. There’s no reason

A Short History of Light

70,000 BCE

Hollow rocks or shell filled with moss and soaked with animal fat. In times of famine candles could be eaten. Those who burned these candles smelled like meat.



1682

Court of Versailles used mirrors to multiply light. Versailles’ hall of mirrors is, some claim, the first room in history to be illuminated to (almost) modern light levels.

4 billion BCE

Our atomic furnace, the sun, was born. Scientists believe the sun will burn for another 10 to 30 billion years.



1300

Candlemaking among foremost trades of London.

1666

Colors of the spectrum. Newton named a 7th color located between blue and violet, as indigo.



to light every floor of a staircase when someone is only on the first floor. Proper design ensures light where it's needed, when it's needed.

Maintenance

The cost of a technician with a ladder far exceeds the cost of the light bulb he's going to replace, and with LEDs the need for maintenance is almost zero.

But just as individual bulbs may need replacement, so do entire systems. It's critical that this is considered as early as the planning stage. "Every system has its own technical lifespan," says Tomperi. "When the lifespan is over, you just have to decide whether you'll renew the whole

system, or replace the light sources with new ones. You can't avoid maintenance. But if you plan for it, you'll save money and energy."

Psychology and physiology

With so much lighting talk about savings, it's important to point out that the primary task of lighting is not to save energy. Lighting's job is to produce enough good quality light to enable the completion of tasks that a particular space was designed for.

"Keep the application in mind and select quality criteria accordingly," suggests Tomperi.

continued ▶

A Lighting Primer



In understanding the bigger issues behind lighting, a handful of quality-influencing factors must be understood. These are also great for impressing your friends at cocktail parties.

Lux means the density of light that falls on an object. It can range from little (an overcast night at 0.0001 lux) to a lot (bright daylight at 10,000 lux, and direct sunlight at 100,000 lux), but there's a minimum lux level set in lighting standards for every task you do (500 lux for working on your laptop, 1,500 lux for manual watch making).

Color temperature is the temperature of an ideal black-body radiator (incandescent lamp) that radiates light. Confusing? It's enough to know that high color temperatures (over 5,300 Kelvin) are termed "cool" and are bluish white. Lower temperatures (2,700-3,300 K) are called "warm" and are yellowish white through red.

The **color rendering index** and **use of color**. The color rendering index (CRI) is a measure of the accuracy of color reproduction. The highest possible CRI is 100 for a black body (incandescent lamp). For some environments this is a critical feature. At a museum, for instance, we want to see true colors in a painting. In use of color, LEDs give us amazing possibilities to use colors in lighting, and they enable the creation and support of brands and atmospheres. Think fashion, where clothing is portrayed in its best light and color.

The **lumen** (lm) is the unit of luminous flux, a measure of the total "amount" of visible light emitted by a source. A 23 watt compact fluorescent lamp emits about 1,500-1,600 lm.



1792

The advent of gas. First baked coal gas, and then natural. Natural gas didn't smell, and so no longer did the people.



1898

Neon, from neos, was discovered in 1898 and is the best known of the inert gases.

1700+

In the eighteenth century oil lamps replaced candles, and interiors were made dark to hide the soot produced by oil. The oil stunk. People stunk.



1880

Electricity arrives. A light bulb cost as much as an average person's full day's wage. And there was no grid, so you needed a home generator.



1907

Electroluminescence (the technology behind LEDs) discovered.

A Holistic Approach to Lighting

“These can be, among others, high color rendering, uniformity, and color temperature. Always avoid glare and any waste of light.”

Light’s physiological effect is also a relevant topic. “There is proof that color temperatures affect alertness,” says Tomperi. “Technology helps us to simulate the spectrum of natural light indoors. The daylight quality contributes to well-being and increased productivity for people who spend long periods in artificial light. Imagine trying to get your kids to wake up in the morning. Try a high-color temperature above the kitchen table and, *voilà*, off they go!”

It’s a people thing

Know your customer, as the saying goes. And Ensto’s job is to know its customers and the places and environments they’ll use the luminaires we make.

“If you know your customers, know the technical features they require, know how they want the luminaire assembled, then you will know what kind of luminaire to design,” says Tomperi. “Good lighting is about tight cooperation.”

Ensto’s LEDs

- Tenfold energy efficiency and better luminous efficacy versus conventional lighting technologies
- Multiple lives! (They last at least five times longer than fluorescent lighting)
- Nearly maintenance free
- An expanding product range for a variety of end uses
- Made from largely recyclable materials
- Less energy wastage i.e. less energy is lost in the form of heat
- Horizontal LED light source mounted close to surface gives the light out efficiently
- With good design light spreads evenly instead of causing annoying glare

“The game’s not worth the candle,” goes the English expression, which once meant that an activity was literally not worth the cost of candle.

1962

First visible spectrum light created. It was red, and not bright enough to be seen in daylight.



1990s

LEDs began to become standard for applications like HiFi equipment, telephones, and traffic signals.

2010

Phase-out of incandescent light bulbs begins.



1976

First Ensto luminaires are introduced.



1980

Super bright LEDs were created.



2009

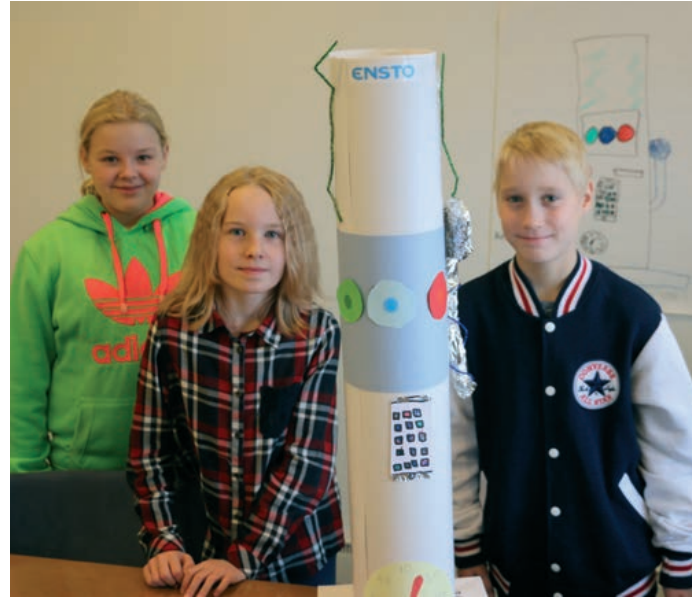
LED light fixtures/luminaires supplemented Ensto's luminaire assortment.

Women in Tech

Children Color Women in Tech Day

Finland celebrated national Women in Tech day on October 14. Ensto participated in the theme day, coordinated by the Federation of Finnish Technology Industries, by inviting local school children aged 10-12 to explore career opportunities the tech industry has to offer. During their visit, children were introduced to Ensto product development, industrial design, recycling in factory environment, and emission-free electric traffic. According to feedback, the children liked the “genius of electric vehicles” and that “they had a lab.” The kids described a good female leader to be fair, nice, and “someone who doesn’t yell.” It is worth considering whether this definition is also accurate concerning male top executives.

In the picture, girls and boys from Keskuskoulu Elementary School learn about the working phases of industrial design by sketching an electric vehicle charging pole. Perhaps some of these children will be future designers of Ensto's charging products?



Energy Saving Tips



In October, Ensto personnel participated in an energy saving fast diet during the National Energy Efficiency Week organized by Motiva (a Finnish government-owned company promoting the efficient and sustainable use of energy and materials). Results show that there is room for improvement even for energy efficiency professionals:

- 70%** planned their daily meals as to minimize the amount of compost waste
- 37%** walked or biked to work instead of driving a car (Ensto offered the bikers a healthy porridge breakfast during the campaign week)
- 62%** turned off the tap while lathering up in the shower

Sustainability Report

“There’s nothing to stop it now.” This was the stark message from NASA when summing up their recent findings on the disappearing West Antarctica ice sheet, the continued melting of which could lead to a rise in sea levels of three meters or more. In the face of this evidence, the need for increased investment in renewable and other CO₂-neutral energy sources, as well as energy-efficient technologies, is greater than ever.” says Ensto CEO Timo Luukkainen in the foreword of Ensto’s second Sustainability Report.



Bringing a Vision to Life

✍ Scott Diel 📷 Petri Juntunen

It's a rare moment in product design when a mockup exactly matches a designer's vision in the first phase. Cruise ship designer Petu Kummala explains how it happened with Ensto and the Chain Chandelier.

Growing up in Turku, Finland, **Petu Kummala** never imagined he'd wind up as a cruise ship designer in Miami, Florida.

As a child he was fascinated by the sea. In addition to sailing and windsurfing, he sailed aboard the Turku-Stockholm ferry several times a year with his grandparents. "We rarely got off the boat in port," he says. "We just liked the trip."

There were three things he couldn't get out of his head: "The boats had peel-your-own shrimp (it's about all I ate!); they had a racing arcade game (I'm now a Porsche Club instructor); and I couldn't stop watching the sea." So it was perhaps fate that he studied naval architecture in university.

Fate and Joseph Farcus

In 1999, Kummala was working in a Finnish engineering company leading projects of ship interior construction design. His role was to take an architect's sketches and bring the vision to life in the

form of technical drawings that a ship-builder could use.

Through an international project, Kummala met the renowned American cruise ship interior designer architect, **Joseph Farcus**. The two had met each other several times over a few years, when after one architectural meeting Farcus offered Kummala a job in Miami.

"It took me about ten seconds to say yes," laughs Kummala, though he admits he did check with his wife before making a final commitment.

"I think Joe gravitated toward me because we had some kind of intuitive connection. I was the guy with the fewest questions. I just kind of knew how to bring his visions to life."

Farcus promised Kummala enough work to keep him in Miami for three years. Now, 15 years later, the two are finishing their latest project together, the *Costa Diadema*, to be completed in October. The *Costa Diadema* ("diadema" is Italian for "tiara") will be the biggest, most modern ship in the Costa fleet with over 1,800 cabins, seven restaurants, 15 bars, and of course a shopping center.

The shopping center

One of Kummala's assignments was to design a shopping center where a feature is a corridor, which permits passenger movement through the ship whether the shops are open or not. Having designed a number of different display windows for the area, the idea came to Kummala to repeat the theme in 35 light fixtures: he would take four display frames and link them together.

"I envisioned crashed-together picture frames. It had to give off light so I put LED lights in four recesses, one in each side of the extruded aluminum frame. Each frame was done in a different finish – glossy red, glossy black, chrome, and gold leaf."

Kummala sketched the design (he mostly works by hand), prepared a few pages of descriptive notes, and sent it away for the mockup. For interiors, a sample of almost every part of the ship is built to actual scale in order to help foresee problems and be certain of designs.

When Kummala saw the mockup he was astounded: it matched his vision exactly.

"Rarely is anything exactly the way you want it," explains Kummala. "Builders want to make it more economical.

continued ►



Q *'Chain Chandelier',
it's a great name.'*

PETU KUMMALA, CRUISE SHIP DESIGNER



Petu Kummala: Bringing the Vision to Life

Often they ask to change dimensions, or to use an existing material that's slightly different. But in this case they had really nailed it!"

Ensto behind the scenes

Ensto Italia had built the mockup for the ship's general contractor who had hired them to produce luminaires. But Kummala himself had no idea. "Of course, I knew Ensto. But I didn't know they built it until the contractor told me."

It was Ensto Project Manager **Fabio Tarlao** who gave the fixture its name, the Chain Chandelier. "It's a great name," agrees Kummala, who says ship designers have so many projects going on that they generally refer to objects, even ships themselves, only by number.

How did Ensto get it so right? Was it an intuitive connection between creative entities, something akin to what Kummala and Farcus had shared? According to Ensto Italia's Director of Marketing and Sales, **Guglielmo Rutigliano**, it was just business as usual. "Ensto is expert at this kind of solution. Schedules are extremely tight in shipbuilding, and so we are trained to understand the architect's language."

Not only to understand, but to improve. Kummala's original drawings

called for a mounting system of eight thin stainless steel rods. Ensto found away to connect the frames to each other as a single unit, allowing only four vertical hanging points. "Everything our team does," notes Rutigliano, "is in the name of improved efficiency."

Futures

After fifteen years, the employee-employer relationship between Petu Kummala and Joseph Farcus will come to an end, though Kummala says it's likely they'll work together on projects. Kummala will continue designing through his Miami company, 358 Design, its name taken from Finland's international dialing code.

And what about future projects for Ensto and Kummala? Both parties would like to see that happen. Ensto's Guglielmo Rutigliano says the goal is to strengthen cooperation with Kummala outside shipbuilding, such as in hotels, restaurants, and lounges.

And for Kummala, who once brought the visions of his mentor Joseph Farcus to life, it's an ideal situation to have a partner like Ensto, who can bring his visions to life exactly as he imagines them. ■

Flamboyant

Why ship interiors are unlike your everyday world.

"If you go on vacation you go away!" stresses Petu Kummala, which accounts for cruise ship interiors that are often characterized as "flamboyant" or "otherworldly."

Kummala and his mentor, renowned American cruise ship designer Joseph Farcus, share a philosophy about design which has been part of the secret of success of cruise lines like Carnival and Costa.

"If you take a seven day vacation," says Kummala, "you don't want to go to a place that is like your normal environment. Every day you're aboard the ship you should discover new things and, of course, be aware that you're on the sea."



Ensto True Blood

Blood donation in a group is a great way to give back. Donated blood is a lifeline for many people in emergencies or needing long-term treatments. Ensto's blood donation campaign is called True Blood, and through it we've already helped hundreds of people.

This autumn local True Blood donation events have been organized in Finland, in Poland and in Estonia. Several first-time donators have been inspired and encouraged to join. What about you, won't you join us? Ask your local blood donation organizer for information about when and where to donate.

Womento

Womento is a Finnish national mentoring network for educated immigrant women. Its objective is to support women and create networks for them - and to provide them deeper insight into Finland's culture and working environment as well as to improve language skills. When the first mentoring group was established in Porvoo, four women from Ensto volunteered as mentors.



The Customer's Pulse

Ensto studies customer satisfaction regularly by conducting brief customer surveys. The last international Customer Pulse survey was conducted in October. The traditional recommendation index is still strong among our customers: over 95 percent of respondents said they will most likely recommend Ensto. The feeling is mutual: Ensto also enjoys cooperation with its customers.

97% How satisfied are you with the purchases you've made of Ensto products and solutions?

94% How satisfied are you with the service you have received?

95% How satisfied are you with Ensto overall?



International Trainee

Agathe Léostic is studying to become a Management Assistant in Angers in Western France. Last summer, she did an internship at Ensto in Finland.

"Some of the electricity language was hard, to say the least," says Agathe. "But learning new vocabulary has been useful, and now at least I know the terms by heart."

Doing so many different things has all been a good experience. It has given me a good, all-encompassing image of what real jobs are like!"



Tailored Light

Riina Silvennoinen Sokos, Riina Silvennoinen

How do you fit new luminaires to old structures?

The Sokos department store in Pori, Finland, went through extensive renovation in 2013. Lighting design came with some challenges: the old structures had to be kept intact and the department store could not be closed during the renovation.

"Ensto owned Alppilux" accepted these challenges. The old fluorescent lamps dismantled from the U-profile rails were to be replaced with a simple and energy efficient

solution suitable for the modern decor of the renewed building. The answer was the Alppilux Diana modular light that was tailored according to the client's wishes.

Well planned is half done

Alppilux lighting design is comprehensive and customer-oriented by nature. They have accumulated vast experience in customization over the years. The idea is not to make fancy architectural lighting, but to take products from their basic range and cost-effectively modify them to fit the customer's needs. "We negotiate with designers and the production crew how much it makes sense to tailor the product in order to keep the price and delivery time on a reasonable level," says Alppilux Project Sales Manager **Aki Saine**. "One starting point is that the luminaires come from the factory as ready as possible, so

that the installation is easy and fast."

The design process was thorough as always in Alppilux: Sokos department store employees and management, the architects in charge of the overall project, and Sokos lighting designers, were all heard during the process. Saine visited the site four times before the model luminaire was ready.

The end result was exactly as desired: during installation the installers mounted the luminaires directly into place without having to open them on site. "Ninety percent of the lamps were attached to the old rails and wires were neatly hidden in the troughs," says the electrical contractor **Unto Rantala** from Sähköinsinööri-toimisto Unto Rantala. "In the end the old structures were not a problem."

Due to good logistics planning, the installers were able to receive the precise

Aki Saine, Sales Manager from Alppilux, Department Store Director Erja Skinnarla, and Electrical Contractor Unto Rantala in the renewed Pori Sokos department store. The modular ceiling light Diana is visible on the ceiling above them.



Sokos Pori



- Established in 1973
- Gross area of 10,000m², shop area 6,500m² over three floors
- Lighting: basic lighting of 400 lux plus spotlighting of 400 lux
- Basic lighting: luminaires Alppilux 932 units, including 531 units of Diana project luminaires

Alppilux Diana - project luminaire

- 600 x 600mm module luminaires with quick coupling
- Light source: energy saving fluorescent bulbs
- Light output of 4 x 14W
- Illuminance of 400 lux

number of luminaires to be installed each day from the wholesaler's local warehouse. That way there was no need for storage space for the luminaires in the department store, and store operations could continue without interruption throughout the renovation.

Light optimization

Lighting design is based on the combination of light requirements of a space, desired level of energy efficiency, and the selected luminaire type and style. Based on these, an optimal light source is chosen. In Sokos Pori, the chosen solution has a life span of 12 to 15 years with a use time of 4,500 hours per year.

The designers also took into account what areas of the store needed lighting at what time of the day. After installation, illuminance was measured area by area,

and the amount of light was leveled to ensure ideal light for each space. This kind of light optimization produces energy savings, especially in the long run.

The invisible importance of light

In retail, the visual style and the overall feeling of a space mold the customer experience on both the conscious and subconscious levels. Lighting has a very important role in this: it affects the general look and feel of the store, the attractiveness of the departments, and the desirability of the products. Dim lighting can also create security issues.

Erja Skinnarla, Department Store Director at Sokos Pori, was dissatisfied with the old fluorescent lamps, since they created a cold and outdated storage hall atmosphere. For her, the new light fixtures are a success. "Now the luminaires



Diana, a modular ceiling light originally designed for cleanrooms, with tailored surface frame, external quick fastening and electrical installation quick mounting solution.

are simple but elegant, and the design language fits well with the new white floor tiles," says Skinnarla. "Even the customers have noticed the change, and the premises feel luxurious, bright and inviting." ■

Ensto Goes EXPLOSIVE

✍ Scott Diel 📷 Kaupo Kikkas

Ensto's lighting success in the marine industry has paved the way for an entire host of new Ex offshore marine products.

Ex means “explosive safe” and denotes products made for potentially explosive environments. But it might also refer to growth, since the explosive protection market segment is growing 10 to 12 percent each year.

What’s the source of this growth? “The world needs not only petrol and chemicals, but we’re seeing new LNG infrastructure being built, plus more automation in control stations,” explains **Tuomas Mäkelä**, Product Manager, Explosion Protection Solutions at Ensto. “We’re working hard to fill those market needs with new product introductions.”

A marine pedigree

Based on Ensto’s history of supplying luminaires and LED lighting to cruise ships, the same customers – small service providers, OEMs, technical distributors – began requesting Ensto supply them with Ex products.

“These customers want to offer everything,” says Mäkelä, “and the fewer suppliers they use, the higher they can keep their quality level.”

Luminaires

Ensto soon will launch its first models of fluorescent technology Ex luminaires. They are non-sparking, heat-limited fixtures, which are both air- and water-tight. “The marine and offshore market often favors older technologies,” says Mäkelä of fluorescent, “but the next generation will be LED.”

The Ex luminaires will find their way to any potentially explosive areas on ships, such as the battery room, the engine room, and cargo area, if the ship carries dangerous cargo.

The luminaires will also target FPSOs (Floating Production Storage and Offloading) offshore areas, floating vessels used by the offshore oil and gas industry for the processing of hydrocarbons and for the storage of oil.

For onshore markets the luminaire is ideal for non-corrosive areas. While marine production calls for stainless grade 316L, onshore applications may utilize less expensive materials like zinc-coated mild steel.

Polyester Ex junction boxes

Glass reinforced polyester (GRP) and aluminum junction boxes will be introduced for the Ex market. “GRP is a stock product which can be quickly customized and delivered,” says Mäkelä, noting that the lead time for Ex steel is three to four weeks, but a polyester box has a lead time of only one week.

“It’s a great option for when you need a lightweight, quickly customized option for relatively dry areas inside a ship, rig or in FPSO.”

Online savings

In addition to the new products comes a new way to order those products. The Ensto Ex Solution Configurator now can, in some instances, take the place of a product manager, designer, and factory work planner.

“You don’t have to be an engineer,” says Mäkelä. “Any qualified non-tech person can use it in two to three minutes. Choose and click.”

The configurator will first be used by Ensto sales representatives and project managers, but soon panel builders and technical distributors will also have

access to it. “A customer chooses stainless steel or GRP, then chooses the size of the enclosure, hole quantity, what controls he wants in the holes. The software makes it ready in IFS [a data management system] and quotes a price,” says Mäkelä.

“Traditionally, three to four hours are used on a single project,” says Mäkelä. “Now all that time is saved, and savings passed on to the customer.”

The biggest savings for customers, however, comes through faster turnaround which translates to lower risk of penalties. “A 20 million euro project being built for an oil company can cost the builder up to 200,000 euros a week in late penalties,” says Mäkelä. “In the marine industry, products need to be replaced under a clear timetable when a ship is in port. Doing work after that is extremely expensive.”

The software will be applicable for local control stations made of stainless steel and polyester.

Beyond marine, beyond Europe

There are even bigger markets for the new Ensto Ex products: manufacturing plants and process facilities, chemical, petrochemical, refineries, pharmaceutical, gas treatment and transport, the list is exhaustive.

Couple that with new hazardous location approvals for Ex steel enclosures in the USA and Canada, and the potential is significant. “There are only a few manufacturers in Europe with these approvals,” says Mäkelä.

A growing market. A growing portfolio of products. An explosive combination. ■



Q *The marine and offshore market often favors older technologies, but the next generation will be LED.”*

TUOMAS MÄKELÄ, PRODUCT MANAGER FOR EXPLOSION PROTECTION SOLUTIONS

Common Values

✍ Scott Diel 📷 Kaupo Kikkas

What do a world-class athlete and Ensto have in common?

Rise at seven a.m., bicycle 15 kilometers to a metro stop, ride the metro another 15 to conserve energy, sail several hours, bike 30 kilometers home, eat lunch, then hit the gym for a workout. It's a day in the life of **Niki Blässar**, world-class sailor.

Niki sails the Olympic class Laser Radial, a 4.2-meter singlehanded dinghy, favored as a standard boat for women's competitive sailing. Laser is a highly prestigious class of boats, because nothing can be changed or modified, all competitors using an identical boat. "The Laser makes it all about the sailor, your tactics, and how well you think," says Niki. "A lot of top sailors are chosen from this class for the Volvo Ocean Race and America's Cup teams."

At the age of 20, she is one of Finland's top sailors. She was the 2010 World Champion in the Youth Olympic class in Cannes, France. In 2013, she finished second in the Laser Radial U21 World Championships in Hungary.

Niki's eventual goal is to represent Finland at the 2020 Olympics in Tokyo. Shorter term, she's looking at Rio in 2016. "In sailing you never have the same wave

and same wind twice, so experience really counts," she says, noting that only one woman can represent Finland in the Laser class at the Olympics. In the qualifier, she'll have to beat not only her own countrymen, but finish in the top ten among other nations.

Given the upper body strength and stamina required for Laser class sailing, competitors generally stop sailing or move to another boat class around the age of 30. Since she can't compete forever, and since one can never predict the future, Niki also has a Plan B, to study economics at university.

Niki says managing her sailing career is already much like running a small business. In addition to training and competing, she plans and organizes the logistics of being on the road close to 125 days per year. She manages an annual budget to fund her travel, food, and entry fees, not to mention the task of raising as large a portion of that as possible from sponsors.

"Ensto is pleased to sponsor Niki," says Ensto CEO **Timo Luukkainen**. "Sailing is positive, clean, and environmentally friendly – values which are

shared by Ensto and which contribute to our success."

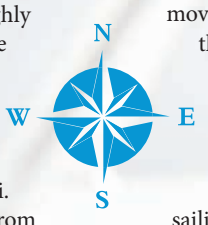
"Success to me means proving I can do something. I work hard for a goal, and if I get a medal then that's nice," Niki says, noting that sometimes the greatest satisfaction may go completely unrewarded. "In the European Under-21s this summer, I came from last place to fourth in a race, finishing with the same point total as the Bronze medal winner. After a couple of bad days I really pushed myself. I had great speed downwind and was very smart moving upwind."

Ensto's logo will be on Niki's sail as she continues to push herself on a daily basis. And not a bad reminder that we all might do the same. ■

Follow Niki at www.ikin.fi

Postscript:

After this interview was made it was announced that Niki will join Finland's Mikaela Wulff, 24, to compete in the two-person 470 dinghy class, with their sights set on Rio 2016.





Q *In sailing you never have the same wave and same wind twice, so experience really counts."*

NIKI BLÄSSAR

Algeria's national electricity provider has ordered over 2,600 medium voltage load break switches from Ensto Novexia.

Who's Auguste?

✍️ Scott Diel 📷 Reda, Ensto

Auguste is the name of Ensto Novexia's SF6 insulated overhead load break switch used to protect and operate the medium voltage electrical networks. Getting technical, SF6, or Sulfur hexafluoride, is an isolated gas used to reduce isolation distance and extinguish an electric arc. Its switch is inside a tank that allows operation in all environmental conditions.

In layman's language, Auguste is all about efficiency in the distribution network, reducing outages and ensuring continuity of service.

Algeria

Auguste makes great sense for Algeria, a country with the desire to continuously improve the reliability of its electrical network.

This is why the purchasing company CAMEG, from Algeria's national power utility SONELGAZ, ordered 2,621 Auguste medium voltage load break switches from Ensto Novexia: Because Auguste perfectly meets the Algeria's requirements.

Ensto's Win

To win this contract, Ensto competed in a two-stage tender.

"Technical approval was the first stage," says **Yves Tadec**, Managing Director of Ensto Novexia. "Only companies whose products could pass difficult technical tests were considered, and Ensto went head to head against some very tough competitors."

After the technical vetting, CAMEG then turned to price, and Ensto Novexia proved the most competitive. This deal, valued at over 12 million euros, represents Ensto Novexia's biggest contract to date.

Just as the product itself meets tough requirements, Ensto Novexia must also. The switches are to be delivered within 12 months, and will require an increase in production capacity, plus the addition of approximately 28 temporary employees at Ensto Novexia's Bagneres-de-Bigorre plant.

continued ▶



Who's Auguste?

On the service side, Tadec points out that Ensto worked over two years on this project, all the time focusing on the client's needs. "We know our customer very well. We've worked hard to build a solid, trusting relationship, and we've gathered all our resources and brought our best abilities to this project."

Tadec says what the client most appreciates is Ensto Novexia's quick reaction time. Dedicated teams manage separate issues, meaning the client receives support as soon as it's needed.

Another contributing factor to winning the contract was Ensto Pro. CAMEG electricians will be trained by Ensto professionals in order to maximize efficiency in product installation and use.

Reliability and Challenges

A network is only as reliable as its parts, which are only as reliable as the company building them. Auguste and Ensto Novexia strive every day toward that goal, to ensure its customers save energy.

"We are all very proud to get this contract within Ensto Group," says Yves Tadec. "We are fully prepared to challenge for transforming this contract in a real success story." 🇩🇪

CAMEG in Brief



- **The acronym:** Comptoir Algérien du Matériel Electrique et Gazier
- **Headquartered:** Algiers
- **Ownership:** CAMEG is a joint stock company owned in full by the parent company SONELGAZ.
- **Employs:** SONELGAZ employs 20,000 people
- **CAMEG's primary mission:** The marketing of electricity and gas through a distribution network covering Algeria.

Algeria in Brief



- **Capital:** Algiers
- **Official language:** Literary Arabic
- **Size:** 2.3 million square kilometers
- **Population:** 38.7 million
- **GDP** (adjusted for purchasing power parity): 238 billion euros





FAIR PLAY *and* FELLOWSHIP

Scott Diel | Eportleague

The Ensto Cup brings together Ensto customers from across Italy, promoting fellowship, competition, and the values of fair play.

Last summer, as millions cheered for their favorite teams in the World Cup, the Ensto Cup took place in Milan, Italy.

What are the differences between these two great football competitions? The level of play differs slightly, of course, but also one may be certain that any biting at the Ensto Cup has only to do with a very good meal. The Ensto Cup, which brings together customers throughout Italy, is all about fellowship and sportsmanship.

“We created this event five years ago,” says **Guglielmo Rutigliano**, Director of Marketing and Sales at Ensto in Italy. “The idea was to join business and fun and build closer relationships with our customers. Also, the tournament is a good representation of Ensto style and core values: fair play on the football field and also in business.”

The tournament is designed for 12 teams of seven on a side. Ensto fields one team, and the remaining eleven are made up of Ensto customers, mainly installers and electrical designers. Games are played on Fridays for a month and a half, culminating in a celebratory dinner and party attended by 300 customer-guests.

The Ensto Cup itself is a large silver trophy awarded (this year to Elettromeccanica Galli) in a ceremony that would not be foreign to those who have watched the UEFA Champions League. Rutigliano says Ensto pays particular attention to creating a fun environment. “Everyone likes to dream. Our customers love this!”



Ensto's Guglielmo Rutigliano appreciates the way the Ensto Cup joins fun and business.



The victorious Elettromeccanica Galli team celebrates their victory.



Participants in the Ensto Cup 2014:

A2A – ALPIQ ARIATTA – DEERNS – ELETTROMECCANICA GALLI – ELPHI – ENSTO TEAM – ING DIRECT – JACOBS – LOMBARDINI22 – TEKNEMA – TEKSER

– In a Natural – Environment

✍️ Scott Diel 📷 Kaupo Kikkas

Ensto's outdoor showroom shows products in their actual environment – and how they contribute to the reliability of the grid.

Most people wouldn't buy a car based only on seeing it in an indoor showroom, and customers who buy distribution network accessories are no different. Given a choice, they prefer to see a product in its natural environment.

Ensto's new outdoor showroom enables just this experience for customers.

"Seeing products in real life is far superior to seeing them in a heated indoor showroom," says **Petteri Pulkkinen**, Ensto Product Manager and a member of the team that created the showroom.

The showroom features over 100 Ensto products for utility networks. It

includes seven posts which allow the display of a low and medium voltage distribution network, all equipped with Ensto accessories for overhead lines and underground cables. A trained eye will recognize SLIW 50 connectors, cold and heat shrink underground cable terminations, cable distribution cabinets, a voltage booster, the Auguste load-break switch, and Ensto Smartcloser. The showroom is even partially electrified in order to demonstrate the functions of network automation products.

The approximately 40- by 20-meter area is located in an attractive, naturally forested area on the west side of Ensto's Porvoo headquarters.

While created primarily for product presentations during customer visits, it also serves as a general training facility for Ensto employees, plus a product development test ground.

"To install something in the comfort of a lab is easy," says Pulkkinen. "But doing it outside you get more accurate information."

How have customers reacted so far? "Lines are built a little bit differently in every country," Pulkkinen says, "so when someone visits from another country, they always leave with some new ideas." ■



Q *To install something in the comfort of a lab is easy, but doing it outside you get more accurate information.*

PETTERI PULKKINEN, PRODUCT MANAGER



A Modern REVOLUTION

 Scott Diel  Dreamstime

The Internet of Things and how it can change consumers' lives.

It began with the industrial revolution. Manual production was replaced by machines. Then came the internet revolution, a global system of interconnectivity. Connect the machines to the internet, and the world is given a third revolution: the Internet of Things.

The Internet of Things (IoT) is not only smart machines. It's smart machines that talk to one another, that amass vast amounts of data. The most talked about example might be self-driving cars – machines in motion to serve humans, all sharing data in real time.

How to use the vast amounts of data machines can share is where humans come in. "It's a vast area of opportunity," says **Matti Rae**, Ensto's Director of New Technologies. "We're now exploring ways to use that information to really enhance the customer experience."

Done in a few seconds

Ensto's medium voltage remote switches are one example of that enhanced customer experience. The internet protocol link enables a permanent link between devices and the control center.

"If a utility has a problem on the network they can send a message to open the switch and the work is done in a few seconds," says **Nicolas Hue**, Marketing Manager for Ensto's network automation products in France. "If they have to go there by car, throw a manual switch, it's two hours just to reach the bottom of the pole."

Utilities measure their performance with indices tied to service interruption duration and average interruption frequency (SAIDI and SAIFI). "Network automation helps to reduce values of these indices, because it helps to reduce time needed to reconfigure the network," says Hue.

From the other side of the world

Ensto also uses the IoT for its Enervent eAir control system for ventilation units. "A customer can control his home environment from the other side of the world," says **Tom Palmgren**, Technology Manager at Ensto Enervent.

Rushing to catch a flight, a family may forget to set their home's ventilation to "away" status. Enervent eAir control, working through HTML5, creates a user interface that works on laptops, tablets, or smart phones. "The customer gets both peace of mind and a way to save energy," says Palmgren.

A secondary benefit is maintenance savings. "With the customer's permission, our technicians can inspect his ventilation system via the internet," says Palmgren, "eliminating the need for a technician to drive several hundred kilometers." Also, when software updates are needed, this can be done via internet.

Web-based manufacturing

Ensto's own manufacturing operations are increasingly handled with web-based solutions which exploit the IoT.


The KanbanBOX system – software by Sintesia Srl – enables component

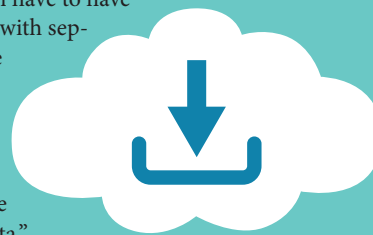
replenishment signals to be automatically generated on the factory floor and sent directly to the supplier. Since purchasers are not making the order – only a warehouse person and a bar code are required – this means the purchasing department may concentrate on suppliers themselves.

"The system eliminates misunderstandings with suppliers and allows the conversation to go to another level," says **Kaarel Suuk**, who is working as Project Manager in Ensto's Operational Excellence Pull Project. "If you're talking to a supplier then we both have to have the same view. Before, with separate ERP systems, one might say the order's open, the other that it's not. Now, since the orders are visible in KanbanBOX, we clearly see the same data."

The ultimate outcome

Ensto's basic ideology for exploiting the IoT is to detect suitable opportunities and use those to create benefits for its customers. "We have to open this channel of learning, open our eyes and ears, and learn through this technology," says Matti Rae.

"The Internet of Things at its best enables automatic and affordable services that complement our current solutions," says Rae. "Essentially, it means new ways of making customers happier. We need to find those areas where we can do that. That's the ultimate outcome." 





We're now exploring ways to use that information to really enhance the customer experience."

MATTI RAE
DIRECTOR, NEW TECHNOLOGIES, ENSTO

If a utility has a problem on the network they can send a message to open the switch and the work is done in a few seconds."

NICOLAS HUE
MARKETING MANAGER, ENSTO NOVEXIA

A customer can control his home environment from the other side of the world."

TOM PALMGREN
TECHNOLOGY MANAGER,
ENSTO ENERVENT

Now, since the orders are visible in KanbanBOX, we clearly see the same data."

KAAREL SUUK
PROJECT MANAGER, ENSTO OPERATIONAL
EXCELLENCE PULL PROJECT

Ecodesign and Compliance

✍ Scott Diel 📷 Kaupo Kikkas

*The regulation that doesn't kill you
makes you stronger.*





The European Union's new Ecodesign Directive consists of 26 pages devoted to improving the energy performance of products that consume energy.

The directive is called Ecodesign, because these EU-wide rules will intervene in the design stage of product development in order to reduce energy usage of an entire array of consumer items, including refrigerators, televisions, and fans, plus non-consumer items such as street- and office lighting.

"A full 80 percent of a product's environmental impact is determined in the design stage," says **Maria Penttilä**, Technology Development Engineer with Ensto whose responsibilities include Ecodesign.

Penttilä's role is twofold: First, to be Ensto's active voice in Finnish and EU bodies which influence Ecodesign regulations, and second, to help Ensto's product managers understand what must be done to comply with the rules that will eventually become law.

How's Ensto doing?

Although part of the final wording of the Ecodesign regulations is still being debated, the broad strokes are clear. Ensto heaters, thermostats, ventilation

units, and luminaires will all be somehow impacted.

Penttilä says Ensto's smaller ventilation units are so efficient that no changes at all are required, though slight changes will be made in the design for bigger ventilation units intended for non-residential use.

Ecodesign regulations for electric heaters put Ensto in an interesting situation. The EU calculates efficiency of heaters in a complex fashion, which incorporates a variable called the energy factor, which has both energy- and political components. Since Finland produces energy far more efficiently than most countries – thanks to its combined heat and power plants – it has an actual energy factor of 1.7.

But unlike renewable energy directives, the Ecodesign Directive is not flexible, and Ensto is forced to use the EU standard energy factor of 2.5. This means Ensto panel heaters, which convert almost all electricity to heat, will be made even more efficient.

This efficiency will be gained by phasing out heaters with electronic thermostats by 2018 in the EU and making panel heaters smarter. "The heaters must for example know if the homeowners are away, or be programmable along a

timetable," says Penttilä. "We're in a redesign process right now and are making them more efficient as fast as we can."

More regulations, more sales?

Ecodesign is not just about reducing energy usage – it also seeks to remove obstacles to international trade. Theoretically, the regulations should benefit both businesses and consumers by enhancing product quality and environmental protection and by facilitating free movement of goods throughout the EU by elimination of disparate national legislation.

So how will the new regulations impact Ensto's business?

In a strict sense, Ensto's heaters are already some of the most efficient available anywhere. After redesign, they'll be even more competitive.

Concerning ventilation units, Penttilä believes Ensto's market position will be strengthened even more when competitors' inefficient units are no longer for sale. She is quick to add, however, that other factors more directly affect market share.

Still, the regulation that doesn't kill you makes you stronger, and Ecodesign regulations are only in keeping with Ensto's motto, *Saves Your Energy*. 🌱



Q *A full 80 percent of a product's environmental impact is determined in the design stage."*

MARIA PENTTILÄ, TECHNOLOGY DEVELOPMENT ENGINEER



Q Creativity is a human mystery.
We just don't know where it comes from."

TERO AUTIO, PROFESSOR OF CURRICULUM THEORY

It's a Balancing Act

✍️ Scott Diel 📷 Kaupo Kikkas

What are the characteristics of a creative workplace in our modern environment?

Tero Autio, PhD, is Professor of Curriculum Theory, and a thinker on education and creativity. He spoke to *Ensto Today* about creativity in the workplace.

Defining creativity might be compared to defining obscenity - US Supreme Court Justice Stewart's famous test: "I can't define it, but I know it when I see it". Is creativity like that?

I would be reluctant to give a straightforward definition of creativity. At best, we can describe it and we recognize it when it happens. The similar difficulty in definition is often the case with some other fundamental human phenomena. For example, we cannot exhaustively define love or time but we still "know" what they are.

Concerning people, are there "creative people" or just "people who have tapped into their creativity"?

Creativity is a human mystery. We just don't know where it comes from. Interestingly, the most creative people – regardless of whether in the arts, business, sciences – often have a troubled social or family background stunningly similar to that of criminals: The same fire that melts butter also hardens the steel. Many top performers have suffered some real difficulties in their lives. We can say that our school systems socialize us – removing the individualism that leads to creativity.

So creativity is literally beaten out of us by the system?

Yes. We have lots of data about Finland, for example. In our schools at least

equal emphasis is put on control as is placed on learning itself. School is one of the most successful institutions in human history, by which I mean as a device for transmitting values, knowledge, and skills which have proven successful. But there are still problems with the system. It's a tough balance to strike: how to socialize without suffocating creative talent.

Is it up to the employer then to re-inspire? To give back what school took away?

It's difficult to liberate people. Sociality is a coercive power or force, and there's always tension present between coercion and liberation. Some political scientists talk about "equiliberty" – the needed balance of egalitarianism and elitism. As far as the employer is concerned it's a balancing act.

Scandinavian countries have highly prioritized equality – the positive outcome from this is that a basic level of good is guaranteed. But there's a price for that.

In manufacturing situations how does an employer strike a healthy and productive balance?

The interplay between routines and novelty is critical. Communication is the key to keep an organization flexible and open. It's perhaps banal to say, but communication and community share a root.

For an employer, it's not enough to understand the manufacturing process. A manager's success is related to psychological and interpersonal intelligence. What kind of leaders does an organization have? How psychologically perceptive are they? Some organizations simply fail to appoint the right people to leadership positions. **Steve Jobs** was inventive

and insightful, but he wasn't the greatest leader.

In another conversation you called Jobs' products "perfect." Would you agree that his management style – what we might call "Jobsian tyranny" – produced results?

We all have to find our own paths to follow. Jobs' solution worked for him, but if you're a manager then be careful about imitation. Imitation leads to socialization. Be informed by Jobs, but don't imitate. You can hate your teachers but still love learning. Do what is necessary to maintain your curiosity and enthusiasm.

Are we in danger as a society of losing those?

It takes different forms, but in many environments having the right answers is more important than learning. "Teaching for the test" is very socializing not just for students but for teachers, as well.

Life is about transformation, but many want to get their lives stable, fixed, and finished in some sense. Leaders must understand and accept these basic dynamics of life, that we're constantly in the process of becoming, that things never stop changing. Great leaders accept this, and maintain curiosity.

Another good example is our schools. For all the problems they have, we may also find great examples. Good school rectors seem to have a gift for maintaining a child-like mentality and curiosity. It's managed chaos, really. ■



Solving **Unsolvable** Problems

 Scott Diel  Kaupo Kikkas

*How a team from Ensto Keila did just that and won
the Ensto Innovation Award in the process.*



In the beginning we didn't have a clue how to improve the effectiveness of this," says **Aivar Gutmann**, Production Manager at the Ensto plant in Keila, Estonia. "It seemed to be an unsolvable problem," adds **Riivo Kabur**, New Product Manager in the same plant.

Gutmann and Kabur are referring to Ensto's challenge of improving efficiency in a factory cell dedicated to the production of pole fuse switches for medium-voltage lines. Keila produces over a half-million of this fuse type each year.

So how did they solve the unsolvable? They turned to the workers.

Workers know best

The team sat down together and, much like a professional sports team, studied video of their performance.

Their goal was to isolate and eliminate any non-value added activity – defined in Lean manufacturing terms as anything the customer is not willing to pay for. For example, excessive movement like leaving a work station to get a box of parts.

"The customer doesn't care how that screw gets in the hole," says Kabur,

pausing a video of a worker who's fumbling with a screwdriver in a position awkward for the human body. "He only pays for the fact that the screw is present."

"The idea isn't to get more work out of people," Kabur clarifies. "People often misunderstand this. The idea is to produce 14 units with the same effort you used to produce 10."

So the team called for cell layout changes, assembly processes were reordered, and activities consolidated within a single cell. They did everything humanly possible.

continued ▶



Winning team at Keila plant, from the top left: Andres Rajamets, Andres Vettner, Aivar Gutmann, Riivo Kabur, Katrin Rähn, Merle Alber, Marje Kruus, Maja Peet, Külli Vapper.

Ensto Innovation Award

The Ensto Innovation Award (EIA) is an internal competition for innovative solutions within Ensto.

A jury, chaired by Ensto's CEO with members from throughout the whole organization, reviews the audited results and awards the EIA Challenge trophy plus a cash prize of 1,500 euros.

The overall winner is chosen from the three prize categories:

- A, Technical solutions (products, investments)
- B, Processes (internal efficiency, better ways to work),
- C, Teams (the best innovation team and best acting team).

The jury considers and scores the project's newness, customer need, competitive advantage, profitability, impact on environment, and positive interaction (a good-feelings, team-spirit creating measure).

The 2013 winners of the EIA Challenge trophy, chosen from among 22 applications, are from category C, Teams. The team is: Marje Kruus, Sergei Piht, Andres Rajamets, Margus Piir, Sven-Erik Talivere, Merle Alber, Külli Vapper, Riivo Kabur, Ketlin Kuuskne, Aivar Gutmann, Madis Noor, Andres Vettner.

The team saved 1,300 hours in a pole fuse switch improvement project.

But some things were just not humanly possible. "There are instances when the human can do no better," says Kubar, "where you can't rearrange parts or change the order to get improved results. That's when you call in an engineer and build a machine. Workers think it up, the engineer makes it happen."

Machines were built to automate some of the production process: replacing pneumatic handheld screwdrivers, creating a machine to eliminate human hammering of a fuse part, and adding an automated bag packing machine.

Kabar likens the team's work process to editing a movie: Cut non-essential scenes and you have a shorter film but with more impact.

Results?

Before, four people worked in the pole fuse assembly cell. Thanks to the team's effort, it is now the work of three. (The third person's labor was applied where needed elsewhere.) The scalability in the cell was also improved. Previously the amount of

work done could be doubled during peak time production; it can now be tripled, if necessary. Statistically, improvement was 20 percent over the previous 12 months' standard hours, saving a total of 1,300 hours per year, roughly the annual labor of one human being.

For their efforts, the team was awarded the Ensto Innovation Award Challenge Trophy and 1,500 euros.

Success on the back of success

Despite remarkable statistical results, Plant Production Manager Gutmann still sees the most important aspect of the project in how the team came together.

"Workers are the key to everything," he says. "They bring the profit. The better you get along with people who assemble or weld or whatever, you get a team feeling, and this bonds them to the company. This message of loyalty is spread and you attract the right kind of worker, creating the right kind of company." 🏆



Alaskan Malamute



- Nicknames: **Mal, Mally**
- Country of origin: **USA (Alaska)**
- Use: **family pet, show and performance dog, sled dog**
- Life span: **up to 16 years**
- Weight: **male 38.5 kg, female 34 kg**
- Height: **male 63.5 cm, female 58.5 cm**



meet MARKO VESTERINEN

✉ Riina Silvennoinen 📷 Marko Vesterinen



Tell us about yourself

I have worked at Ensto as Regional Sales Manager in Northern Finland for a year now, and I have 15 years of previous experience in the field. I like my work but I love my 14 dogs even more. I own Alaskan Malamutes and compete with them in dogsled racing and weight pulling.

How did you end up with so many dogs?

When my wife and I decided to move to a house we wanted an outdoorsy and active dog suitable for the harsh Northern climate. The Alaskan Malamute met our criteria perfectly. Then one of our friends persuaded me to take part in a race – and I was instantly hooked. During winter season a minimum of four dogs is required to make a team – so I needed more dogs to be able to compete properly. There was no stopping me after that.

Racing with sled dogs sounds exotic and extreme. What is it like?

My longest race has been 160 kilometers, but in Alaska the distance can be up to 1,000 miles. The legs are usually something between 30 and 150 kilometers, but in long-haul competitions the whole distance is done at once. These races test both the stamina and skills of the dogs, as well as the driver's own endurance.

During winter season I focus on long distance competitions, but I also compete in weight pulling. There the dog has to pull a load five times its weight for ten meters without guidance.

Have there been any challenges along the way?

This hobby comes with constant challenges. One is optimizing your pack. The competitions impose many rules and requirements for the dogs, and you never know beforehand which of your dogs will work well with each other. Optimal pack size is often hard to achieve because of limited resources and the difficulties a large pack brings to logistics and practicing. The races are organized mainly in northern Finland where distances are long.

What makes you continue regardless of all these challenges?

I have a strong will to develop my skills and I don't want to quit what I have started. Besides, competitions are a great way of meeting new people, and I've made many friends there over the years. Of course walking the dogs daily can be tiring, but I never feel lonely because I have my dogs there with me. 🐾



Starting the Conversation

 Scott Diel  Kaupo Kikkas, Väestöliitto

Being a teenager isn't easy – nor is being a teenager's parent. Urpot.fi extends a helping hand to the latter.

Urpo (singular), Urpot (plural): Finnish slang for stupid, old fashioned, out of touch. It's a kinder, gentler (and hipper) way for an adolescent to say his parents are idiots.

Urpot.fi is a gathering place for us "idiot parents," or urpot. It offers help when we're at wit's end as parents of adolescents.

Parenting quiz

A teen arrives at the breakfast table grumpy and shouts at her mother. "Porridge again! I am so tired of porridge!"

The mother, who has risen early to prepare the warm breakfast before the daughter walks to school in the cold and dark, shouts back. "You think I get up every morning and make you breakfast just for fun?"

How will the mother's response affect the relationship?

Changing behavior (ours, not theirs)

It's behavior like this that Urpot has set out to change. Parental behavior, that is.

As the jokes go, being a parent doesn't require any education, and no instruction manual comes with your children when they're born. "But in fact," notes Dr. Raisa Cacciatore, one of the child psychiatrists behind Urpot "there is lots of help for parents of infants out there." But Cacciatore saw very little information for parents of teens. So together with Väestöliitto, the Family Federation of Finland, she set out to remedy the situation.

Through expert lectures, videos, and chat rooms, all centered around post-puberty topics, Urpot.fi helps parents cope

When you're in love you don't have to kiss immediately. When you're angry you don't have to hit immediately."

RAISA CACCIATORE, FAMILY FEDERATION OF FINLAND



with the physical, mental, and emotional growth of adolescents.

"In one respect adolescents are all the same," says Cacciatore. "They're full of energy and questions. But even though the world is full of information they don't find answers. They look on the internet and find 100 doctors saying different things. There should be a trustworthy, nearby place to ask questions."

Correct solutions

How would psychiatrists from Urpot suggest our aforementioned parent deal with her emotional teen?

The mother's tit-for-tat response using the same emotions isn't the solution. Studies show that the distance between the mother and daughter in our example will grow during the day, and it's likely they may not speak to one another in the evening.

"A very easy way to reduce the teen's irritation," says Cacciatore, "is to listen, understand, and echo aloud what you have understood. 'You don't like this breakfast.' The teen may respond with, 'I want to have tea.' 'So you want to have tea,' the parent repeats. Soon, the irritation level is reduced, and the teen begins speaking more clearly. It doesn't mean the mother agrees. It simply means the teen has been heard. Quickly the circle of negativity breaks down, and the teen feels safe and respected."

Cacciatore and Urpot give parents options, so that children have options. "Emotion is only emotion, and we are more than our emotions," says Cacciatore. "When you're in love you don't have to kiss immediately. When you're angry you don't have to hit immediately."

The corporate role

Issues facing adolescents are many: eating disorders, aggression, alcohol abuse, first love, sexual awakening, teenage pregnancy, escaping from home, violence, and

even suicides. The need for help is clear. A Family Federation telephone hotline for boys, staffed by qualified professionals, receives 3,000 calls per month. The staff has the resources to handle only 1,000.

The Family Federation is an NGO with limited resources, and it could not exist without support of the assistance of private enterprise. Ensto is proud supporter of the Federation and Urpot.

Cacciatore vividly draws the connection between parents and work: a troubled parent is not a productive employee. "The questions of parenthood are always present in the workplace. Phone calls are made to schools, to other parents. For the parent, the child is more important than work. The employer needs to be aware of this, accept it, and support it."

Big worries

What's an adolescent's biggest worry? "How do I find my place in the world, my own identity," says Cacciatore. "Am I the right kind of person with the right skills to get friends, get a girlfriend or boyfriend, and get a job?"

What's a parent's biggest worry? "We want our child to be happy and find their way, and we don't know how to support and help them," says Cacciatore. "The world has changed and children need a coach to help them learn to withstand disappointment and cope with uncertainty. To help them believe in themselves, and relax without having all the answers."

Solutions

While a website is certainly not a panacea for parent-child relations, it is in fact one key solution: it's a conversation starter.

"It would be great if children would turn to their parents with problems," says Cacciatore. "Urpot.fi is here to help parents start the conversation." ■

Go to www.urpot.fi

The Corporate Role

Kari Lankinen, the Family Federation's Business Development Director, says that given Finland's social welfare system, cooperation between NGOs and for-profit companies is very rare. "We're very grateful to EM Group, Ensto, and Meconet for seeing the value in this project," says Lankinen. "Fundraising for these projects is not easy."

"Company responsibility is the reason why my family and EM Group Oy [Ensto's parent company] decided to take part in this project," says board member Anu Miettinen, herself a psychotherapist. "As a Finnish family company, we want to support Finnish families, and we see a clear connection between family well-being and workplace health."



Ensto Chago eFill series expands

Ensto introduces new types of Ensto Chago eFill home charging products, to offer simple home charging solutions for electric vehicle owners. The new versions can be installed by the end users themselves, i.e. no wiring is required. The new "R" versions are equipped with a special wall bracket and fixed supply cable to enable rapid mounting and deployment.



Versions are available with Type 1 plug (SAE J1772) or with Type 2 plug including fixed supply cable with standard CEE 7/7 plug ("Schuko") or with industrial CEE plug (16A, 5-pole). The maximum charging current is limited to a safe home charging level.

New Ensto thermostats Ecointro

Ensto thermostat family grows with new and improved for floor and combination thermostats. These are now available in two colors, white and black. In addition to the new design the thermostat sensor has been also updated. The new sensor is a lot thinner than the previous version.



Ensto Rapid ready-made solution

The new Ensto Rapid distribution cabinet solution has a variety of options for building a low-voltage underground cable network. The installation with a finished product is easy, quick and cost-effective. Ensto Rapid -distribution cabinets are pre-installed packages. The cabinet, connectors and fuses are all in the same package. On-site installation is therefore simplified.



Ensto All-in-One makes cable jointing easy as 1-2-3

Ensto All-in-One stands for highly integrated cold shrink joints that belong to the Ensto Underground Cable Solutions. All-in-One installation is fool-proof as its structure includes all the critical components needed in cable jointing.

- Time saving with quick installation
- No installation errors
- Always uniform end result
- Very durable - super reliable



Ensto Clampo Pro 1000 V terminals - reliability and protection in extreme temperatures

Our new range of 1000 V terminals are well suited for applications where higher supply voltages are used, such as in drives, railway systems, ships and boiler control. They are also suitable for DC applications, making them a perfect choice for photovoltaic connections.

- Safe connections between Al/Cu • Higher operational temperature • Certified and UL-recognized

More information about Ensto's products on www.ensto.com

What went wrong with my Carbonizer 2020, EnstoMan?

ENSTOMAN

Can you fix me, O₂?

Dr. Fossil, meet Dr. Oxygen. She can fix you up.

Feast your eyes, Doctor. Here are some energy efficient alternatives.

Using one kilowatt-hour of energy, a 60-watt long life incandescent bulb will burn 16 hours, but an LED luminaire will burn 320 hours on the same amount of energy.

Wow, what super efficient and revolutionary solution is this, Dr. Oxygen?

It's your ideology that's flawed, not just your Carbonizer. We may still need fossil fuels, but you must embrace energy efficiency.

That's my espresso machine.

I guess you have a point, Doctor. I'll try to open up a bit.

It's only a matter of time before the whole world goes green.

Let's discuss sustainable living...

...I know a great all-you-can-eat steak house.

You'll never change, will you?

THE END

INTEGRATED LED LUMINAIRE



320
hrs.

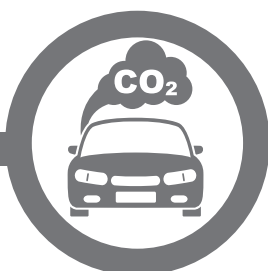
LONG LIFE INCANDESCENT BULB



16
hrs.

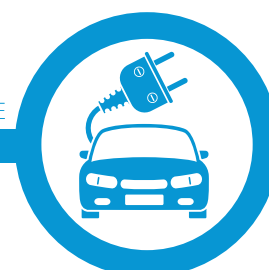
What's a kilowatt-hour to you?

COMBUSTION ENGINE CAR



1.5
km

ELECTRIC VEHICLE



5
km

It's a 60-watt long life incandescent luminaire burning 16 hours or an LED luminaire burning 320. It's an internal combustion engine traveling 1.5 kilometers at 80 kph, or an electric vehicle moving just as fast for five. What's a kilowatt-hour to you?



Saves Your Energy