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In Focus | Continuous Development on All areas



Continuous Development on all Areas



Growth and development are in many ways synonyms. For businesses these two should represent the purpose of being on several areas, such as employees, products, markets and the firm itself. However, growth and development require most importantly actions and therefore we often also draw plans and roadmaps to guide that action.

Savcor Forest, like other businesses, employs a continuous routine in drawing and updating our plans and roadmaps. We are built on a foundation of a few core technologies and industries but that does not, however, mean that we have been applying those same principles for the last 30 years. After all, growth and development can only occur when something is prior to them. In our case that something is technology, customers and our employees.

Technologies we have acquired strong knowhow from are materials technology, chemistry, physics and information technology. Our markets have expanded from

Finnish pulp and paper industries into global process industries and forestry and solid wood business. With customers growth and development occurs always vertically or horizontally. Some of our customers have been with us for a longer time and we have been able to apply our technologies as they expand their operations. Others we have started cooperating with only recently and therefore gained a new stake in the raw material flow or value chain. Our solutions and services are therefore always technologies applied into customer's need. Based on the previous prerequisites our employees are specialists in their own areas. They apply theoretical knowledge and skills to different customer segments to solve problems and within time those applications turn into experience.

Standing still on the market is not an option for us. Technology is constantly applied in new ways, customer's businesses and needs change and develop and our specialists need to stay up to date with both of them. Otherwise we become obsolete. These are the conditions of differentiated markets.

In Europe the capacity and demand of forest-based industries has remained constant the past few years. This should not be interpreted as a contradiction to growth and development, as the focus is now precisely in those, through application of experience, expertise and newest technology. These three also enable solutions to increased cost efficiency and environmental constraints on set demand. Understanding the shifted nature of business we are also communicating

the value of our solutions in more detail. Market situation in North America is in many respects similar to that of Europe. Almost half of the world's pulp volume comes from here and the focus is constantly on cost efficiency and on extending the life cycle of the process equipment. Differing from Europe and North America, South America is experiencing growth in terms of volume and expertise. European and North American investors are not the only ones on this market; new production facilities start up almost monthly and only the newest technology is applied. Operators are new and expect both experience and expertise from suppliers.

Consequently growth and development in terms of technology, customers and employees are a standard. The key is to find the most optimal ways to practice them through cooperation and value chain integration. The meaning of these will only increase in the future. We are all striving for advances and innovation and therefore our operational environment is dynamic.

CEO *Jukka Rautiainen*
Savcor Forest Group

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What you are about to read is a collection of our ways to develop on a continuous basis. We have a couple of new interesting projects and customers that we want to tell you about. In addition to that we have updated some of our products to apply contemporary technology and new knowhow. We will also give you an example of how we presently promote wellbeing for our employees. Growth and development are fostered with encouragement.



Trust in Experience and Expertise

ERP Cooperation with Vapo Timber

Savcor Forest's ERP system is used by a significant share of privately owned sawmills in Finland. History and development of this industry-specific system goes already 15 years back when ideas of strategic planning and thorough reporting were born. Newest ERP client, Vapo Timber Oy, started co-operation with Savcor Forest in early January 2012.

Renewal of company ERP system was not a rushed decision at Vapo Timber. Laying groundwork to the negotiations was an organisational change where the company went from three separate sawmills to one with three different units.

As there were mills specific ERP systems in use before, completion of this change required now a common one for all the units to share. Savcor Forest's solution was found the most optimal to reinforce this transformation, says Juha Hakala, Managing Director of Vapo Timber Oy.

Replacing old existing system, the new ERP will bring significant advances on three different areas of operations; order-supply chain management, stock management and management reporting, all contributing to increased transparency and benchmarking. In stock management especially real-time graphic visualisations of stock statuses and wlan connection are much anticipated to assist inventories. For management, advanced data mining options are centric to bring accurate, comparable numbers easily near them. In general what Vapo Timber expects is a collection of new tools for strategic planning of operations as well as for coordination of raw material and sales.

Co-operation started and has gone smooth so far. What Savcor Forest finds quite unique is the level of commitment and thoroughness from Vapo Timber project team, led by Jussi Meriluoto, and Kirsi Seppänen from Savcor Forest side. The project employs actively some 10 professionals from Vapo Timber organisation and approximately the same

amount will take part in different project phases from Savcor Forest. The project will be carried out in a year and installations will start from Nurmes after summer, continuing the further to Lieksa and Nurmes.

During this spring, the focus will be on definitions and testing in the project; so far everything has gone according to the project plan and surprises are being avoided through risk assessments. Kirsi Seppänen has been delighted by the quality of cooperation between the two companies from the beginning on. People in Vapo Timber have been keeping busy with unifying the three different databases, but it has not kept them from finding time for questions and continuous contact. Communication has been strong the whole time.

Concerning uniqueness of the system, Savcor Forest COO Matti Perämäki says that each client brings a new angle to system's development work. In order for this ERP system to stay contemporary dialogue with clients must be kept frequent; future directions of the software are to great extent influenced by expressed needs coming from clients.

Vapo Timber chose Savcor Forest after a careful evaluation of alternatives. What weighted in the end the most, was Savcor Forest's expertise and experience in solid wood business with a system that has proven track record of development, concludes Juha Hakala.



Process Analysis at its Best.

Wedge development cooperation with Stora Enso PCC

Sampo Luukkainen Stora Enso

The usage scope of the Savcor Wedge diagnostics system has developed and expanded in the last few years. Savcor started an alliance with Stora Enso's Pulp Competence Centre in Imatra, Finland in 2006.

PCC uses Wedge as a tool for improving the efficiency of its pulp mills. By using Wedge, process data is retrieved from different mills and then pre-processed and analysed for the use of R&D projects.

Identification of best practices and distribution of them to a wider sphere of users is the main area of application for PCC. They are able to develop process models, data calculations and analysis

tools by using Wedge.

The way PCC uses Wedge gives benefits to both Stora Enso and Savcor. Once the usage of a tool of this kind is used intensively in one place, significant process competence is created which can be utilised more widely.

The development of Wedge for the needs of PCC is discussed on a regular basis giving PCC the chance to initiate relevant modifications as they wish. This is how Savcor ensures that development of our solutions goes in the right direction by cooperation with industry operators' requirements.

Another significant plus for both Stora Enso and Savcor Forest has been the extension of the Wedge system to mills

where it has not been used before. By using the same tool, Stora Enso is able to promote implementation of development projects, and in return Savcor Forest naturally gets new clients. PCC is at the moment one of the most significant Wedge partners working in conjunction with Savcor Forest. Many years of cooperation have enabled a well-established mode of operations and continues to develop in favour for both parties.

Sampo Luukkainen is Stora Enso PCC's development engineer and also one of the key users of Stora Enso Global Network Wedge. He has actively participated in the development process of this tool inside Stora Enso and brought up interesting new angles on Wedge to the developers of this software.





A Step towards the Future of Forest Management

Zenith Upgrade project with Saint-Gobain PAM Bioenergy

Sergio Correia, Customer relations Director, Savcor Forest Limitada

Saint Gobain Steel Tubes forestry department acquired three modules of Forest Management Systems to manage their forest assets; Register, Inventory and Wood Flow, in 2006. Those modules were developed on Delphi platform and attended at that time the needs of Saint-Gobain.

After some years of use and monitoring support from Savcor Forest, the partner-

ship was terminated, and as a consequence, no updates were done to the system and it was used only partially.

Renewed Needs

In 2011 along with the demand for modernisation, Saint-Gobain decided to create PAM Bioenergy. The company is responsible for Saint Gobain's forestry assets, production of charcoal, and also upgrading of their technology, both hardware and software. For PAM Bioenergy a special interest was

the modernisation of their existing three forest management modules, including new features like control of harvesting and operations and use of Inventory module including the realisation of pre-harvest inventory, an operation that was not performed until then.

To reach the set objectives, partnership with Savcor Forest was reintroduced.

Savcor Forest proposed a project to upgrade the current Forest Management modules into Zenith system with installation of Zenith Register, Zenith

Inventory and Zenith Operations, this with the functions of harvesting, control and valuation of the wood stocks, coal production control and wood flow.

The project proposal was well accepted by PAM Bioenergy. The financial planning and schedule part the company chose to perform in two steps: 1) Zenith Technology Migration and 2) Implementation of the new features Zenith-Operations. The first part was deliverable in 2011 and the second would follow in 2013.

Project delivery

Purpose of the project was to conduct a technical migration of Delphi-based forest management systems based into the corresponding modules in Zenith.

The project was initiated in the beginning of October, with a Kick-Off meeting on October 13th. Present were the key professionals involved; Mr. Omar Nonato, Director of PAM-Bioenergy, the project sponsor, Cassio Bridge, CIO, Helder Barbosa, project manager of PAM Bioenergy, key-users, users and Marcos

Moraes, project manager from Savcor Forest Ltda.

With the effort and dedication of both teams and with full support of the process owners of both companies, the project achieved success. On December 9th, in line with the project schedule and scope, the new modules with all earlier mentioned features entered production. Only the integration of GIS required finalisation and when it was implemented on January 10th 2012, PAM Bioenergy gave their final acceptance. The project was now delivered and ended formally and warranty and support mode started.

Future

For 2012, the main objective is to foster the partnership between PAM Bioenergy and Savcor Forest with an excellence in quality service and support. Implementation of the new features of Zenith Operations gives a jump also in the quality of control processes in forestry for PAM Bioenergy. This adds gains in process control and improves speed in the management and summarisation of data from these

processes. Improvement in the integration of forestry, industrial processes and administration translate finally into efficiency, quality and cost reductions.

With an understanding over this challenge, Savcor Forest is ready to serve our customer PAM Bioenergy. We believe and trust that this partnership can only grow stronger in 2012.

Greetings from the new Managing Director of Savcor Forest Limitada



My best greetings from sunny Brazil, summer holiday period and Carnival time is now over and it is time to work. I am Jari Suihkonen, new Managing Director of Savcor Forest Ltda. I started about one month ago and now I am familiarising myself with Savcor professionals as well as

with our customers and business challenges.

This is my second time in Brazil, in fact, as I was here earlier 1996 – 2002, working with Safematic Ltda. and Metso Automation. So, I have a fairly good grounds to direct Savcor Forest to fulfil customer business needs and attain prosperous future for both our customers and ourselves.

Our short and long term plans circle Sustainability and Growth. We are starting the delivery of Forestry Management solution project based on Savcor Forest's new global platform architecture. This new platform helps Forestry operators to manage their supply chains more efficiently and accurately. Also strengthening and developing our South American support group is being

worked on to fulfill our customers support requests and system development projects more systematically.

Savcor Forest Group's 30 years of experience and long term cooperation with our customers, ensure our ability to provide modern solutions for forest management information systems, corrosion management, process purity, process diagnostics and optimization to increase efficiency, profitability and transparency of operations.

Brazil and South America in general are extremely charismatic markets to be working on. Something new is happening every day and people are motivated and talented. I am happy to be here again.

*Best regards,
Jari Suihkonen*

Sonica is now White!

Peter Honkanen, Product manager **Savcor Forest Oy**

Sonica air content analyser represents one of the seniors of Savcor Forest's customer solutions. Sonica measures the air content of paper stock and that information can be then further used in optimising the usage of defoamers. Unlike other air content analysers, Sonica is connected to the papermaking process constantly and online. First Sonica installations date back to the 1990's. Along the past years the core principle of Sonica has remained relevant despite time; however the software side has been developed according to the contemporary technology.

Sonica's new and fourth generation is now finished and ready. In line with the previous generations, the lower cabinet, techniques, of Sonica remain almost the same. The upper cabinet has, however this time, undergone a series of significant changes. As a first change one can mention sample-line specific calibration curves that replace formerly used calibration lines. The accuracy of measurements will be therefore improved.

Another change is network connection and possibility for remote access. "We

want to offer our customers a possibility of remote support as well, through which for example problems can be dealt with immediately when we have the information and not only after when we get on-site. This also increases the quality of our service", tells Sonica product manager Peter Honkanen. Sonica has a wide installation stock outside Finland as well, so this change simplifies and quickens the problem solving process there significantly.

The newest generation has a Modbus transfer protocol readiness as well, through which the mill's own information system can be reached. This simplifies new installations but most of all the data transfer and distribution within the customer organisation, concerning process efficiency.

Online- connectedness and accuracy of measurements has been completed in the new generation with enabling the possibility to get samples from four different sample lines. A broader overview of the paper stock air content is therefore achieved and overall quality can be taken further. Other changes in the new

Sonica are also new control, air service and magnetic valve units.

Fulfilling the changes occurred in the upper cabinet and differing from the previous generations, the outer being of Sonica has undergone changes this time, as well. Shape and colour are no longer the same. Until now the changes have always occurred only inside the cabinet, non-visible to our eyes. We wanted to boost the internal changes with visual aspects as well.

Sonica product manager Peter Honkanen is content with the brand new generation. Changes made increase the added value Sonica brings and for that he is hoping the users to pay increasingly more attention the possibilities Sonica has to offer. Usage of Sonica measurement data can, at its best, lead to large cost savings when usage of chemicals is optimised based on real demand. Sonica has all the potential in the world to bring new information and added value to the monitoring of entire process's cost efficiency.

Wedge 8.0

Karl Holmström, Development manager, **Savcor Forest Oy**

The newest version of Wedge Process Diagnostics is now ready for shipment to customers. We have added a lot of new features that make it possible to use Wedge in ways that go beyond traditional process diagnostics. A slew of improvements to existing features are also included in this release: a new table report type, support for alphanumeric data and several user interface improvements, just to name a few. The version number has been bumped up to Wedge 8.0 to reflect the amount of changes.

Smart sensors and analysis views that can be embedded in the main process diagram are the main new features that we hope will make Wedge 8.0 useful to almost any user at a mill. Smart sensors display the value of a process measurement or the result of a calculation graphically. Several gauges and indicators are part of the standard software distribution, and new ones can easily be added either by advanced users or by Savcor Forest.

Embedded analysis views are used to visualise more complex analysis results. The result views can contain almost any

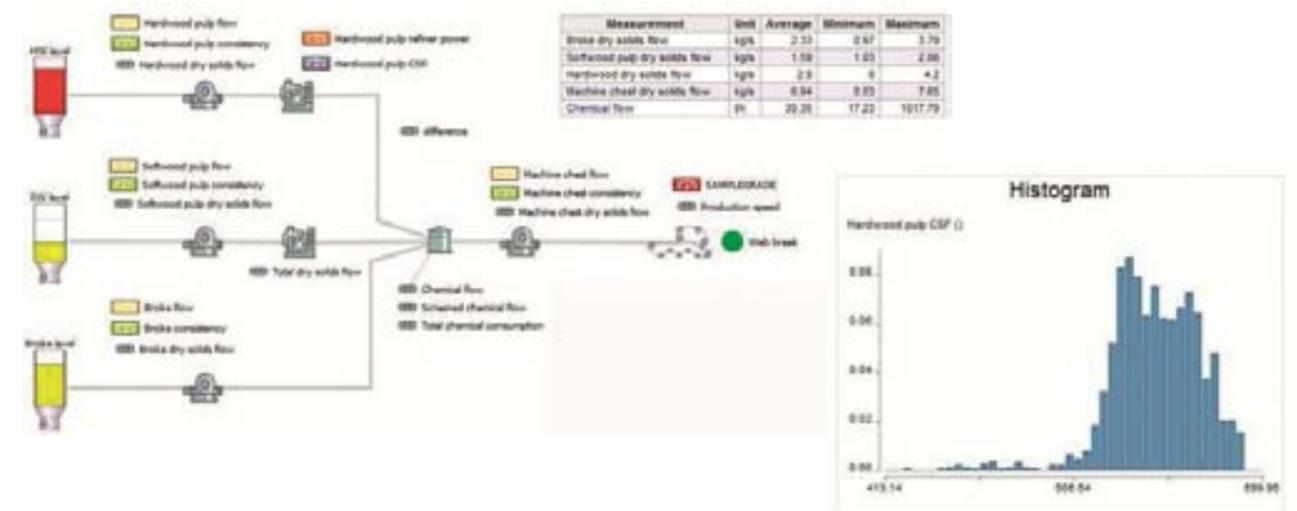
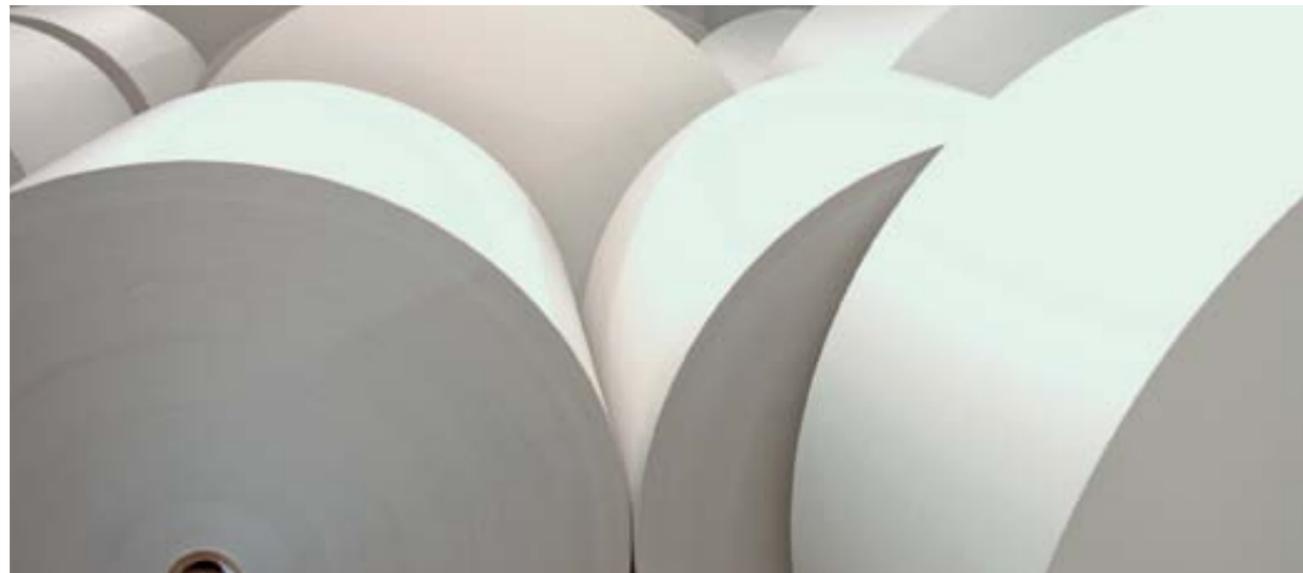
graphical elements including tables, data plots, and graphs. All visualisations can contain active elements that enable the user to drill down into the diagnostics results. A statistics table and a histogram are included as sample components in the standard software distribution.

Simplified dashboards and automated analysis result views can be used to bring Wedge features to process operators. Key performance indicators (KPI) based on complex calculations can be shown as indicators with drill-down capabilities in the process diagram, enabling managers and process engineers to gain insight into process performance without performing tedious diagnostics tasks.

All active display elements are implemented using open standards like HTML5, SVG, and JavaScript. Advanced users can apply their existing skill sets to create new active elements. More complex cases may require a bespoke project with Savcor Forest where custom data display components and calculations will be implemented based on customer specifications.

In addition to active data displays there are several other new features in Wedge 8.0. The new table report can be used to create automated reports where measurement value averages are aggregated by day, shift, grade, roll number, or almost any time criteria. Process data can now include alphanumeric channels which will make support for grade codes much simpler. Best correlations is now a standard feature of Wedge. Wave form analysis has been extended so that it is now possible to search for consequences of a feature in a measurement time series.

The process diagram has undergone many changes and has now a new look with completely redesigned process components. Usability has been improved with integrated search functionality, fast trend display and small enhancements in user interaction.



Savcor Employee Wellness programme



As a family business Savcor carries strong traditions in promoting wellness at work through different employee events. Right from the start employee's happiness at work, sense of belonging and creation of a community has been special interest of Savcor's management.

First in greater extent coordinated employee wellness programme was started in spring 2010. In addition to traditional employee events also expert coaching was brought from Excenta, a provider of health-related services. The objective was to build a coordinated programme to improve wellbeing of the employees in its totality. This totality was promoted through the versatility of the programme that started off with a wellbeing survey and afterwards introductions to a variety of different sports, healthy nutrition and quality of sleep. Also superiors received special coaching related to wellbeing at work; how to maintain their own wellbe-

ing and how they can promote wellbeing of their employees through their own actions. We wanted to strive towards good management in all aspects of life. Based on the wellbeing survey also a special interest group of 20 employees were selected to one-on-one coaching to enable special care in the areas of exercise, nutrition and lifestyle. The first programme came to a conclusion in late 2011 and the positive employee feedback encouraged management to continue the campaign.

Second wellness programme started in early 2012 with a new wellbeing survey. Differing from the first round, the new programme will also offer a possibility of physical condition testing for employees. The second round will also highlight the importance and viewpoint of balance of mind to enable the original idea of wellbeing in its totality.

During the following year Savcor employees will again be introduced to a se-

ries of new sports, learn about personal wellbeing and keep up with the traditional employee events. As a permanent support for wellbeing the company offers culture vouchers, volleyball and floor ball as well as a gym turn. Continuity and encouragement towards developing one's wellbeing is vital. Both of the campaigns have been partly enabled by the company's employment pension insurance institutions; during first round Savcor cooperated with Tapiola and during second current partner Fennia.

Human resources manager Minna Wilkman is pleased about employer's interest towards employee wellbeing. Employee events have long traditions but in addition to them we have been able to bring also expert services for our employees. "When our employees are doing well in all aspects of life, they also radiate positivity and energy at work. This strengthens also the wellbeing and happiness of co-workers".

Savcor Finnish Open

International Squash tournament in Mikkeli since 1990

Internationally recognised professional level squash tournament was held again in Mikkeli in mid-February. Savcor Finnish Open tournament is one of the few in Squash world that has been played almost continuously for more than 20 years. Savcor Group has sponsored the event since 1990.

This year the tournament underwent a tremendous change. It was brought to the centre of Mikkeli, to Galleria of new shopping centre Stella in a full glass court. Nothing alike has happened in Finland before and the planning and implementation took about five years. The event managed to stop a great percentage of passers-by during their shopping sprees and to follow the upbeat tempo of this sport. The crowd of players competing this year was again highly diverse; in addition to Finnish players, the participants represented countries like Norway, Czech Republic, Austria, England and Egypt. Furthest players came to Mikkeli from New Zealand, Argentina and South Africa. From women this year's winner was only 17-year-old Emily Whitlock from England, making her debut in Mikkeli. In finals she went against South African Siyoli Waters and won with a clean 3-0. Men's cup returned to Finland after one year's break when Olli Tuominen met Egyptian Karim Abdel Gawad in finals and won 3 out of four games.

The reason why Savcor originally started to support squash and Finnish Open tournament was the desire to support the effort and vision the Mikkeliian squash people represented. Juha Pekonen had just invested in building a squash centre in town and the vision of taking Mikkeli to national top and even international top lived strong. From local players Tuija Paarma demonstrated strong results and the support funding from Savcor back then was appreciated. "When Savcor takes part into something,



we also want to get results. The tournaments were improved constantly and what I found positive was the progress the squash people of Mikkeli drove actively as well, says Hannu Savisalo, CEO and founder of Savcor Group. Hard work paid off when Misq players reached national team championship in both women and men in 2011! Last year's success got a great continuation in this year's renewed surroundings. Savcor Finnish Open has already worldwide recognition and the live-streaming online

from this year's games enabled even more followers to attend from wherever the world.

Squash was Savcor's first supported form of sport. "When the squash centre was opened in Mikkeli, we perceived it as a very positive opening from Juha Pekonen and also an extraordinary local entrepreneurial deed. This was something to encourage" concludes Hannu Savisalo.



Butterflies of steel

Savcor Ballet *Ulla Savisalo*



Sometimes you get an offer you cannot resist. This offer came to Ulla and Hannu Savisalo, Savcor Group's founders, in the summer of 1995. They received a phone call inquiring if they would like the Bolshoi Ballet and Maija Plisetskaja to perform in Mikkeli. Understanding the significance of these names in the world of ballet their decision was reached instantly. In their own words:

Another exceptional thing also happened that same summer. Only a day after we had driven Maija Plisetskaja towards Mikkeli and having announced to the whole country the arrival in Finland of this world-renowned ballerina, we flew to Australia to acquire Savcor's customer Remedial Engineering.

It had never even occurred to us to start doing any cultural acts, despite our passion for ballet. The possibility however was so intriguing, that it could not be passed. Taking risks is part of being an entrepreneur.

Two months later Mikkeli was crowded with 12,000 ballet lovers. The whole of Finland wanted to see Maija, and she did not fail

her admirers! This first autumn fever eventually became Ballet Mikkeli – an annual event bringing world class ballet stars into town. Leading performances have been seen from Patrick Dupond, Aleksei Ratmanski, Vladimir Malakhov, Julie Kent, Farukh Ruzimatov and Svetlana Zaharova, just to mention a few! Many of them have visited Mikkeli multiple times and the love affair has grown to be mutual. Mikkeli is known as a "ballet town" nowadays, everywhere in the world.

We have had the chance to choose the performers and performances, forming an unbelievable repertoire throughout the years. The audience has grown to love ballet here in Mikkeli and

we have faithful habitués who have seen close to all of our 100 performances. We have also learned to admire and appreciate the professionals of this demanding art, butterflies of steel. Behind the illusion of lightness lies unstoppable strength.

After that momentous phone call in the summer of 1995, we could not even begin to anticipate where the experiences and friendships ballet could take us. This is the sweet side of life. The salty side of life - even more essential, has come from Savcor and its technologies, our bread and butter. Without salt, sugar doesn't taste quite so sweet.

www.savcorballet.com

Kuva: Anastasia Matvienko

AAVA - a serene getaway

They say the apple doesn't fall very far from the tree. This definitely applies to the youngest son in the entrepreneurial Savisalo family, *Atte Savisalo*.

Having experienced enough of the business world, he decided to do some soul searching in serene Thailand. Within a few months of that journey he became the owner of a calm beach property and plans were drafted to build a holiday resort with his wife, *Kati*. The spirit of entrepreneurship cannot hide, even in paradise.

The courage of this young couple was to be admired. The thought of building a hotel had never crossed either of their minds before, but along the shores of this getaway, a common dream was born, entitled Aava!

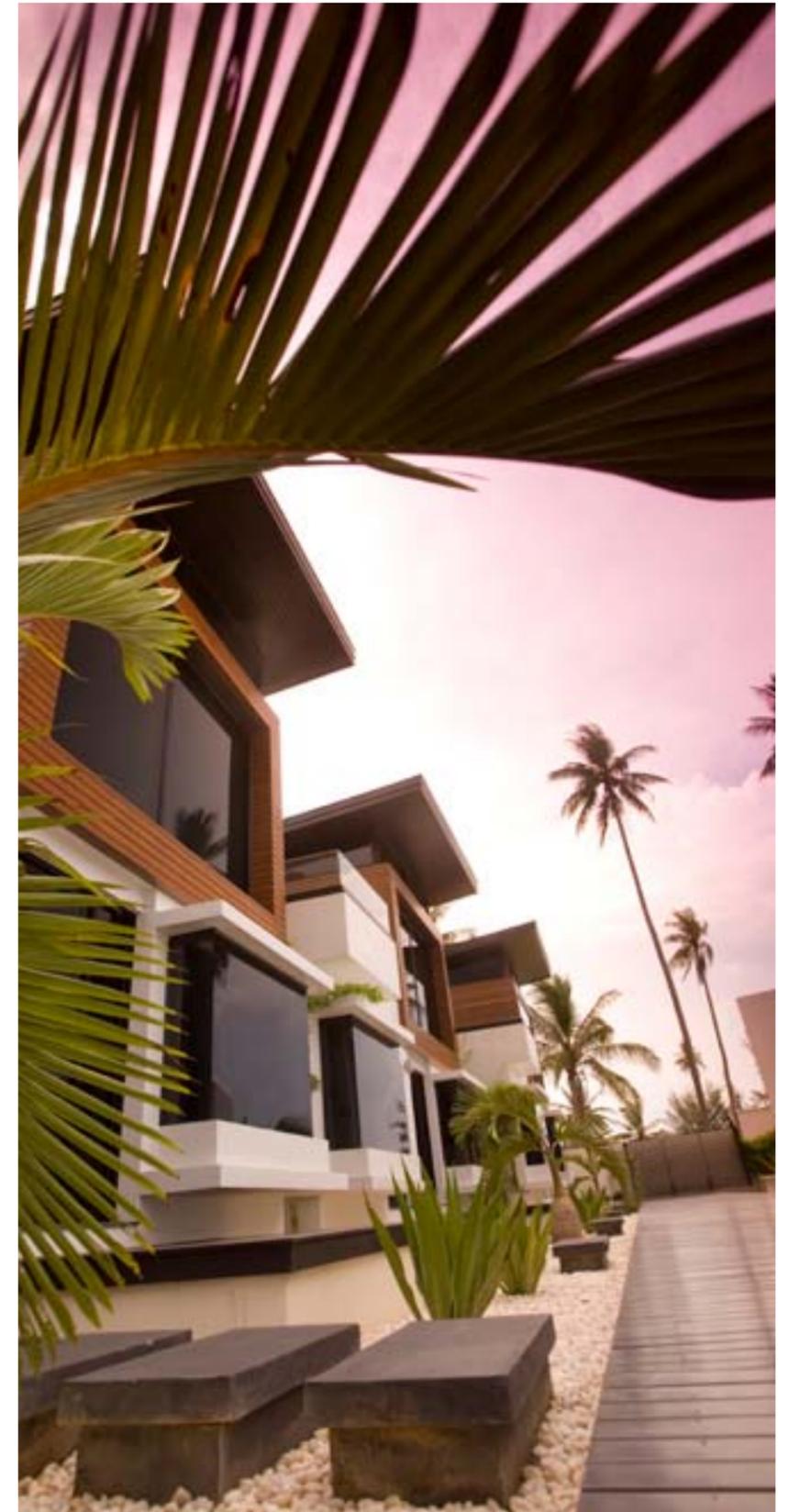
Construction work for Aava resort and spa began in Khanom in December 2009 and the grand opening was celebrated less than a year later on 4th September 2010.

The small fishing town of Khanom is located in southern Thailand along the bay of Siam. The popular island of Koh Samui is only 30 kilometres away and is visible from the shores of Khanom on a clear day. Furthermore the larger cities of Phuket and Krabi are only a few hours' drive away.

Aava resort consists of 28 villas situated on an eight kilometre stretch of white sandy beach, providing the serenity to take a walk or a dip in the ocean by yourself. A Thai architect and a Finnish interior design guru, *Vertti Kivi* have seamed together a combination of Scandinavian simplicity with a hint of Thai flavour. Local Thai traditions are being cherished in a relaxing Thai-Spa.

Charming surroundings do not change the fundamental principles of entrepreneurship, however. Faith, persistence and hard work are also required on this paradise beach.

www.aavaresort.com



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