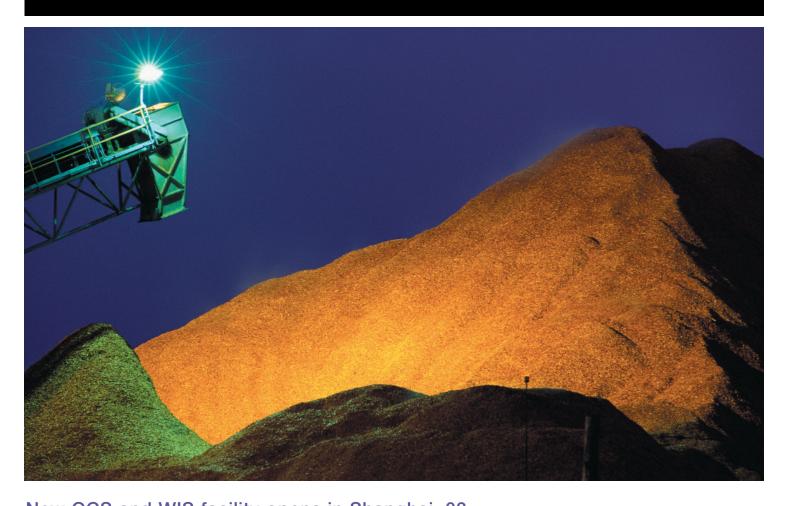
## PerformancePartner



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#### Shanghai

Asia and beyond. ABB's new QCS and WIS manufacturing facility is open for business.



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Nettingsdorfer

No gears to grind

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As we adapt to the changing global marketplace, ABB's Pulp and Paper business unit has taken a crucial step that underscores our strong industry commitment: We built a brand new QCS/WIS facility in Shanghai, China, that is now open for business. After an official opening ceremony on November 18, 2010, our state-of-theart facility began manufacturing and shipping products to China and throughout the world.

Importantly, moving our QCS and WIS business to Shanghai, one of the world's largest cities, puts us in the middle of the biggest growth market for our products. It's in keeping with ABB's overall strategy of aligning our global manufacturing footprint with market demand.

ABB has a leading position in all of the world's major markets, including growth markets such as China and India. Our customers benefit directly from our global operations, because our footprint in these areas allows us to lower the cost of our products and be more competitive. Long before opening the new Shanghai factory, ABB had a presence in China. We established our Chinese Pulp and Paper business unit in 1994. Starting with a small group of people we built a local team of 136 people that has delivered DCS, QCS, Drives and Electrification projects to some of the world's largest mills.

I have been in the QCS business since 1985, and have served as ABB's QCS global manager for the past nine years. Recently I moved from Dundalk, Ireland, to Shanghai, to oversee our new manufacturing base – and I have found this to be one of most exciting times of my career. One thing that I am most proud of is the quality of our facility's workforce. Our team not only has a high level of knowledge and skill but they are also extremely motivated to respond to customer needs.

At the new facility, we manufacture sophisticated measurement and control systems specifically created for the pulp and paper industry. We capitalize on the expertise in sensing, control, firmware, software and electronics

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that has enabled ABB to be the QCS market leader.

In this edition of Performance-Partner, you can read more about our new Shanghai facility and the strengths it brings to the region and beyond. You'll also find out more about "In China, for the world" – it's our strategy, and a business philosophy we are proud to have.

The customers who have already visited our new Shanghai facility have come away with a deeper understanding of ABB's continuing dedication to product innovation and quality. I hope as you read about our new factory you will capture the enthusiasm that we have for this exciting venture in the center of our market.

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# Asia and beyond

ABB opens a new Shanghai QCS and WIS manufacturing center for its pulp and paper business that further optimizes ABB's global footprint with "in China, for the world" strategy.



t's a consolidation that more precisely meets the demands of the global papermaking market: late last year ABB launched a new factory for Quality Control Systems (QCS) and Web Imaging Systems (WIS) in Shanghai, China. After an opening ceremony on November 18, the state-of-the-art facility became ABB's only manufacturing base for QCS and WIS worldwide.

The move was made to optimize ABB's global business footprint and exemplify its "in China, for the world" approach. The factory is already fully operational and delivering leading-edge technology to customers in Asia and around the world.

Roger Bailey, global manager of ABB's Pulp and Paper Business, said the decision to locate the new factory in Shanghai was based on ABB's continuing strategy to align its footprint with market demand.

"Most new paper machines are being built in Asia, and to better support this demand, we needed to invest in the region," said Bailey. "We came

to the conclusion that we are not talking about 'Made in China' but 'Made by ABB'."

The new factory, located in the Shanghai Pudong New Area, covers 9,000 square meters. Custom designed to meet ABB manufacturing specifications, it includes areas for fabrication, testing, welding and storage.

Tobias Becker, head of the Process Automation Division, ABB North Asia Region and ABB China, said, "Emerging markets such as China, Brazil and Indonesia became growth

engines of the global paper industry. Their rapid development is fueling demand for all kinds of automation technologies and is establishing the latest industry trends. The commissioning of the new factory is ABB Group's most recent move to optimize our global business footprint. It allows us to promptly respond to both Asia and the global markets, and sustainably provide leading products and services to our global customers."

#### QCS and WIS: essential for product quality

ABB's Pulp and Paper Business Unit transferred all of its QCS and WIS manufacturing from Ireland and Finland to the new Shanghai site. Research and development, product support and marketing continue to be supported in Ireland.

ABB's QCS controls production quality by analyzing the paper's moisture, thickness, gloss and other physical parameters with various types of sensors. This analysis helps papermakers control quality and reduce product waste.

ABB's WIS detects and reports defects, including holes, spots and streaks. It helps mill personnel make sound decisions and perform needed adjustments during production to avoid problems.

The Shanghai facility has the ability to take each QCS and WIS project from purchase order to client handover. Paper mills can also obtain service support from ABB that ranges from spare parts to on-demand service to full service with onsite maintenance.

#### Win-win cooperation

Over the past decade, China's paper industry has experienced especially fast expansion. ABB engineers and technicians have worked with Chinese paper mills to contribute to this breathtaking growth in products and technological expertise.

Active in more than 100 countries worldwide. ABB has an extensive portfolio of pulp and paper products and services that are very relevant to the technological challenges facing China's papermakers.



ABB's history with Chinese industry began more than 100 years ago, when ABB began delivering boilers to Chinese factories. Since then, ABB has developed the most comprehensive pool of specialists and the strongest service capabilities currently serving the country's paper industry.

ABB began establishing its Chinese pulp and paper team in 1994, and set up branches in Beijing, Shanghai and Guangzhou. Today ABB has successfully completed more than 500 significant projects in China and built longterm partnerships with paper companies that include Hengan Paper, Nine Dragons Paper, Lee & Man Paper and Huatai Group.

As ABB analyzed its global pulp and paper business they understood that by designing and building systems in China they could reduce the costs of fabrication and avoid expensive shipping costs from North America and Europe. In the past, QCS and WIS were typically built by specialized companies in North America or Western Europe and then shipped across the



globe, but the pulp and paper boom in China and Southeast Asia changed market dynamics. By making the strategic decision to move its QCS and WIS manufacturing to Shanghai, ABB positioned itself to better serve the needs of the Asian market, and especially China.

With the opening of the Shanghai facility, ABB continues to expand its footprint in China. ABB is currently launching a transformer design center in Chongqing, and setting up a new joint venture company consisting of

ABB Tianjin Switchgear Co, Ltd and Tianjin Binhai Huineng Investment Co, Ltd.

ABB has also stressed localization in China. Currently, over 90 percent of ABB's businesses in China feature locally originated products and services, and 99 percent of ABB China's 13,000 employees are Chinese citizens.

#### A good corporate citizen

In China as in other countries, ABB strives to be a good corporate citizen.

ABB runs a wide variety of programs that support education, environmental issues and charitable causes. ABB provides scholarship assistance to needy Chinese university students that helps them fulfill their dreams. The company has also worked with vocational schools in Xiamen and Chongqing to set up "ABB Classes" that help students develop their skills.

In keeping with ABB's commitment to the environment, ABB supports many environmental protection campaigns in China. One of the most important is ABB's efforts with a key customer, Inner Mongolia Power Company, to fight against desertification in Ordos, a city in China's north Inner Mongolia Autonomous Region.

ABB raised USD 150,000 for a project to improve the housing conditions of 1,000 elderly people in Shanghai. In Xiamen, ABB employees participated in the "Water of Life" campaign. ABB employees also provided support for the Shanghai Special Olympics.

#### Staff experience and expertise

One of the most important benefits the new ABB Shanghai facility brings to the pulp and paper industry is a multinational, multidiscipline staff with the experience and track record to handle major global projects. These experts give ABB the ability to deliver systems at extremely competitive prices.

ABB recruited and trained local personnel for their new Shanghai factory. Those chosen to staff the center have the engineering skills and motivation to ensure precise fabrication and on-time system delivery. Mills can also draw on exceptional local after-sales support, provided by ABB's specialized pulp and paper service engineers. The same ABB multidiscipline project team is involved throughout a project's lifecycle, an approach that reduces costs and creates long term reliability, ease of maintenance and lower total cost of ownership for customers.

With a new manufacturing facility positioned to meet the needs of a changing pulp and paper marketplace, ABB is now better able to deliver products to China – and the rest of the world.



## No gears to grind

Smurfit Kappa's Nettingsdorfer mill invests in the future with ABB's gearless drives that lower energy use and reduce downtime.

murfit Kappa's Nettingsdorfer mill in northern Austria, came to a crossroads when the aging drives on their PM6 started causing unscheduled downtime. Mill managers had a decision to make: should they replace their drive system? And if so, what kind of replacement drives would be the best investment for them?

After intensive analysis the mill chose to add a completely new drive system – and they asked ABB to supply them with Direct Drive highly-advanced gearless technology.

The last time Nettingsdorfer purchased a new drive system for their PM6 was in 1984, when the paper



machine's speed averaged 750 m/min. But 20-plus years and several machine rebuilds later, PM6 was running at speeds up to 1,100 m/min - and the original drives were struggling to keep up. The outdated drive system wasn't designed to operate at high speeds, and as a result the automation was experiencing heavy wear and tear – and the paper machine, which had a long history of solid output, was beginning to have unscheduled shutdowns.

The Smurfit Kappa Group has a set procedure for making new equipment investments; each of the company's mills needs to perform a rigorous analysis before proceeding with a

purchase. In Nettingsdorfer's case, mill managers began to discuss replacing the PM6 drives a full five years before placing their order.

As Nettingsdorfer considered which kinds of drives to purchase, mill executives kept in mind their main goals: reducing downtime and lowering maintenance costs. To determine which technology would best meet their objectives, they assessed both conventional gears and gearless direct drives.

After comparing each alternative, the mill decided that although a conventional drive system would cost less in the short term, gearless drives would be more cost effective in the long run because they keep maintenance costs low, while increasing machine uptime. Importantly, gearless drives use less energy so they are a greener alternative.

#### Gearless for a longterm solution

One of the world's largest paper companies, the Smurfit Kappa Group has sales of more than USD 10.1 billion and 40,000 employees in more than 30 countries. The company is the European leader in containerboard, solid board, corrugated and solid board packaging.

Nettingsdorfer won the "Paper Mill of the Year" award for 2009, an honor they received at the Smurfit Kappa Management Conference in Dublin, Ireland in March 2010.

At the awards ceremony, Smurfit Kappa COO, Ian Curley, stressed that Nettingsdorfer was a "worthy winner thanks to its continuous and exemplary reliability and planning security." He also cited the high levels of dedication and individual responsibility shown by the mill's staff, which, he said, led to Nettingsdorfer's excellent performance.

In his remarks, Curley singled out the success of the PM6 drives project and said it played a key part in the decision to give the award to Nettingsdorfer. Said Curley: "This highly complex and demanding project was only possible due to the considerable expertise of all employees and the strict organizational measures within the proposed time and budget

constraints, without any production losses."

Implemented in the summer of 2009, the PM6 project involved installing a totally new drive system. ABB provided new control automation including motors, frequency converters, transformers and cabling.

The Direct Drive solution is a combination of AC drives, traditional or new Permanent Magnet motors and both motor control and system control features designed for the Direct Drive. Used in pulp and paper mills around the world since 1999, ABB's Direct Drive dramatically reduces the need for mechanical drive components and machine space by coupling the motor directly to the paper machine.

#### Energy consumption reduced by 10 percent

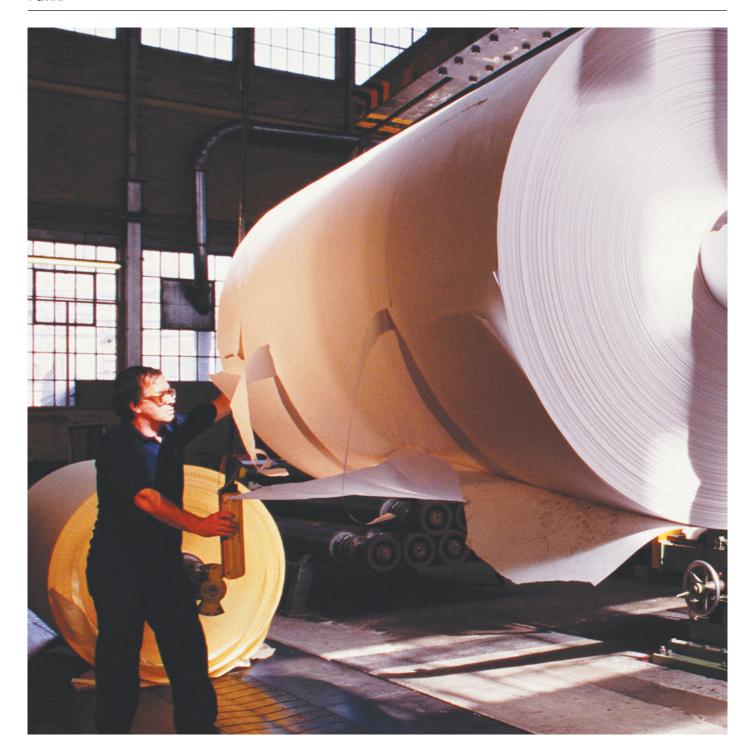
Nettingsdorfer planned that their PM6 would have to be shutdown for three weeks while the installation of their new drive system took place. But it took only 19 days for the old drives to be removed and all of the new components installed. An hour after startup, the new system was producing sellable paper.

With the new drive system in place, the mill quickly found that PM6 was running smoothly, with dramatically increased availability. Unplanned shutdowns were no longer the problem they had been when the machine had the outdated drives. Another benefit: speed control was now more precise. Mill managers calculate that with these changes they have added two full production days per year.

Maintenance was now easier and more predictable with gearless technology, reducing costs, staff time and downtime.

One of the most critical advantages Nettingsdorfer gained is reduced energy consumption. The mill estimates that it saves 10 percent on its energy use, resulting in a savings of USD 243,000.

Working with ABB, the mill has been able to implement the gearless automation that will help them meet performance, maintenance and energy consumption goals for years to come.



Favini's Rossano Veneto mill adds new HPIR moisture sensor and quality control system to its 60 year old paper machine and improves quality and dramatically reduces product waste.

### Renaissance at Favini

Ithough Favini's Rossano Veneto mill had a strongperformer in its PM1, the paper machine, installed in 1948, was badly in need of updated quality control. With the old equipment, mill engineers did not have access to the precise measurement data necessary for ensuring product quality. And problematically, replacement parts were no longer available for the machine's dials and gauges. After detailed discussions with ABB, in mid-2009 Rossano Veneto decided to purchase a new ABB Quality Control System (QCS). As part of the order, Rossano Veneto became one of the first mills in the world to install ABB's High-Performance Infrared (HPIR) moisture sensor.

From the start, mill management had clear-cut project goals: they wanted a system that was user friendly and that could monitor the process for consistent production results and minimized waste. With key personnel reaching retirement age, mill managers were especially interested in making sure their new automation would be easy to operate. They also needed to have production data readily available.

The QCS order for PM1 included a server and engineering station; operator station, control network with TCP/IP: frame and sensors with TCP/IP; NP reflection platform and HPIR.

After installing the new ABB quality control, mill personnel quickly decided that system performance met and exceeded their goals. They found that data was easy to access, read and understand, and they were able to achieve greater product consistency and lower waste.

#### User friendly technology

Favini, which has been in business for more than 250 years, is an Italian

papermaker with two mills: Rossano Veneto (near Venice) and Crusinallo (north of Milan). Favini's core products are specialty fine papers, industrial release papers and a converting operation for producing office and school products. The company employs 450 people.

Known for its commitment to the environment, Favini uses pulp that is Elemental Chlorine Free and comes from managed forests. At Rossano Veneto, mill water is recycled and returned to local waterways after being purified. To make their operation even greener, exceptionally low amounts of water are used during paper production.

Rossano Veneto began production in 1736 when the Republic of Venice authorized a wood mill in the town of Rossano Veneto to manufacture paper. Todav Favini's Rossano Veneto mill specializes in converting paper for education and office use, high quality and colored paper, board, embossed paper and green paper products.

ABB worked closely with Rossano Veneto to prepare for their new QCS. After extensive preplanning, startup took just a week. In days the system was up and running.

#### Key production data to improve CD control

The new HPIR transformed Rossano Veneto's moisture measurement by giving mill operators a much better understanding of what was actually happening during production. They can easily view measurement data, which is continuously fed into QCS displays and contour maps. This provides mill engineers with a solid way to view and assess data - and they can create a better process model to improve CD control performance.

Intended as a replacement for the popular HemiPlus moisture sensor,

ABB's HPIR is designed to improve the performance and reliability of both new and existing ABB QCS systems. With HPIR, papermakers can have more confidence in the precision of their moisture measurement. They can achieve tighter CD control, and faster startups and grade changes. Papermakers can shift their moisture targets closer to acceptable quality limits, saving energy and reducing fiber costs while remaining within the paper grade's quality specifications.

The increased precision comes from several technical breakthroughs in the design that significantly increase the signal-to-noise ratio and the measurement rate of the sensor. As a result, the sensor can resolve moisture streaks as narrow as 4 mm. With a measurement rate of 5,000 per second, the sensor provides precision measurements, even as paper machines continue to become wider and faster.

The HPIR's design simplicity has been very helpful for Rossano Veneto personnel. HPIR does not require liquid cooling and has no continuously-moving parts. Mill workers can easily replace modules, avoiding factory repairs and eliminating the need to stock a complete spare sensor.

At Rossano Veneto, product waste was dramatically decreased because the new QCS gave personnel the tools to more accurately control the process. Mill managers say waste has been reduced from 15 percent to only four or five percent.

The mill can now make grade changes on PM1 much more quickly and achieve faster startups, which increased production and helped meet product demand.

Along with benefits like smoother operation and better quality, the mill is experiencing another highly positive result: greater customer satisfaction.



# Tailor-made control for high-end projects

Huatai obtained tailor-made, world-leading technology and equipment, including drive control systems and high-efficiency frequency conversion motors that ensure smooth and efficient operation plus save energy and reduce emissions.

n January this year, ABB completed the commissioning of a PMC800 multi-drive control system in a high-end coated paper project at Huatai Paper. Installed on the mill's PM8, a machine with an annual production of 700,000 tons, the system met Huatai's design requirements – it solves the problem of off-machine coating automation control, ensures smooth and highly efficient operation and realizes energy savings and emission reduction.

There are only two off-machine coaters of the same type in China, and each is equipped with ABB drive systems. Commissioned in 2004 and 2005 respectively, each is operating well.



Lin Shuming, head of ABB Pulp and Paper North Asia, said: "It indicates that, by integrating unique innovative technologies, ABB's customized service model successfully passed the test of China's high-end paper projects."

#### Optimal utilization of advanced technology

During a recent interview, Chen Linfeng, Sales Director of ABB Pulp and Paper China, said that ABB tailored the drive control system PMC800 installed on Huatai's PM8 according to customer requirements and specific application needs. The drive system on Huatai's PM8 and coating machine is by far one of the most complicated drive systems used today. The system includes 223 drive sections, 241 AC frequency conversion motors and 10 AC800M controllers ,as well as additional control equipment. It provides AC drive and control for specific parts of the production line, including the paper machine, rewinder, off-machine coater, super calender and winder.

Production lines of this type are commissioned at the average rate of one every three years. The difficulty lies in the control of the off-machine coater, particularly the flying splice control. While the off-machine coater operates at a designated speed, this control method is applied so that online roll-changing can proceed without shutdowns.

Meeting this challenge requires drive equipment that has control precision down to a millisecond level (1-10 ms), along with extensive cooperation and experience between the drive supplier and equipment supplier.

At Huatai, there are numerous tension control points on the production line. When the speed on the production line varies, it is very difficult to precisely control the tension. The maximum speed of PM8's coater is 2,100 meter/min, which is the extreme speed of the machine and motor. But ABB's leading drive control technology ensures the production line will operate smoothly and continuously.

To minimize energy consumption, ABB installed customized motors with optimization design on various parts of Huatai's production line, including the winder, rewinder, super calender and coater. This kind of motor is much smaller and lighter than standard motors. Its design is optimized according to a piece of equipment's specific load requirements, so that control and efficiency are optimized.

The current installed power of paper machines in China's paper industry is dramatically higher than it was in the past. This renders the 400V motor, which was previously prevalent, unable to meet new industrial demands. As a result, ABB promotes its 690V grade low voltage motor - the ABB M3BP is the most high-efficiency AC motor in the industry.

"It has higher voltage than the 400V motor, so there is less heat loss due to smaller current, contributing to energysaving," said Linfeng. The efficiency of ABB's standard motor is 3.8 percent higher than that of a normal motor. On Huatai's PM8 production line with total installed power estimated to be 390,000 kW, this motor can annually

save nearly USD 7.6 million in electricity costs and almost 3,700 tons of coal.

#### Problem-solving with the world's best combined service resources

In terms of technology, PM8 is the most complex paper machine in China - or even the world. So ABB selected its best global service team to ensure the project's smooth implementation. ABB Finland sent its principal engineers to meticulously oversee the software and equipment design work, key technology, project progress, etc. They worked with a Chinese team consisting of highly-skilled engineers who are experts in different aspects of the automation. These Chinese specialists could fully utilize local service and equipment manufacturing systems to provide Huatai with the most efficient and high-quality service possible.

Said Linfeng: "Engineers from ABB Finland and China cooperated by contributing their strengths and advantages, which overcame many technical difficulties, accomplished the project meeting its schedule, quality and quantity requirements, and achieved customer satisfaction."

Linfeng added: "Currently, the most challenging and state-of-the-art paper equipment and projects in the world are in China. ABB has many customers similar to Huatai, such as, Sun Paper, Lee Man Paper, APP, HengAn, Nine Dragons Paper and Shan Ying Paper. ABB finds the best cooperation points with these customers, and establishes long-term partnerships. This is due to the tailor-made service, which provides a very cost-competitive plan."

Shuming said: "The paper industry is a high energy consumption industry. ABB's automation technology could significantly help customers improve energy efficiency, and realize green environmental production and sustainable development. Shandong Huatai Corporation is a world-leading paper enterprise. The long-lasting cooperation between ABB and Huatai demonstrates the mutual trust between the two partners, raising excellent cooperation model and energy-saving example for the industry."

#### Major papermaking orders

#### Australia

ABB won an order for a sensor upgrade at Australia Paper.

#### Austria

SCA Graphic Laakirchen AG placed an order for an Optipak sensor.

#### Canada

**Howe Sound** upgraded to a Network Platform NP1200, purchased a SteamPlus profiler and a quality control Automation Sentinel upgrade.

#### China

ABB won an order at Chongqing Well Mind for a Network Platform NP700.

HengAn purchased two new Network Platform NP1200s, DCS, QCS and Drives.

UPM Changshu ordered a sensor and headpackage upgrade.

ABB won a significant order at Shougang (Chenming) Meilun for four Network Platform NP1200s, two Network Platform NP1200s for their super calenders, along with a Network Platform NP1200 for TM1.

#### Egypt

El Obour placed an order for a Network Platform NP1200. They also purchased a Network Platform NP700.

#### India

Murali Industries purchased Network Platform NP700s and sensors.

#### Indonesia

PT TEL ordered a Network Platform NP1200 and sensors for their PD1.

ABB secured an order for a Network Platform NP700 from Pindo Deli Perawang.

#### **IKPP** ordered a Network Platform

NP700 and sensors.

Fajar Surya Wisesa Tbk purchase a Network Platform NP700.

#### Italy

MC Tissue purchased a Network Platform NP700.

ABB won an order for an Air-Water xP profiler at Cartiera Ciacci.

#### Japan

Rengo Yashio ordered a Network Platform NP1200.

ABB won an order at Hokuetsu-Kishu Ichikawa for Network Platform NP1200 for PM4.

#### Korea

ABB won an order at Moorim Paper to upgrade their sensors on PM2.

Hansol JangHang upgraded their control system to a new System 800xA with Network Platform NP1200s plus a Coat Weight xP Profiler.

#### Malaysia

GS Paper & Packaging ordered an Network Platform NP1200 upgrade.

Jeonju Paper purchased a Network Platform NP1200 upgrade.

#### Netherlands

ABB won an order from Solidpack for a Network Platform NP1200 for KM1.

#### **Pakistan**

Century Paper ordered a Web Inspection System plus Ink Jet Color Marker for PM7.

#### **Philippines**

ABB secured an order at Diamond Paper for a Network Platform NP700.

#### Romania

Vrancart ordered a Quality Control QCS800xA with a Network Platform NP700 and Air-Water xP profiler.

#### Singapore

#### Schweitzer - Mauduit International

Inc., ordered automation and electrification systems for its Batangas mill and a Quality Control QCS800xA with Network Platform NP700.

Asia Pulp and Paper placed an order for a DCS, a QCS with two Network Platform NP1200s, CD Weight interface and PMC800 AC Drives.

#### Slovakia

SHP Slavošovce a.s. added color measurement and control to an existing system.

#### Sweden

ABB won an order at Korsnäs AB in Gävle to replace the automation and control systems on RM5, install new converters and drives for the wet end of PM5 and a new drive system on

Hallstavik ordered an Optical Caliper sensor for their PM12.

Vida Paper purchased a new QCS800xA system with a Network Platform NP1200, Network Platform RNP1200 and an Induction xP profiler.

ABB won an order at Stora Enso Hylte that includes a Network Platform NP1200, Slice xP, Steamplus xP, Induction xP and Air-Water xP profilers.

#### UK

ABB secured an order to deliver the paper machine and winder sectional drive systems for Saica

Containerboard's new PM11.

ABB won an order to provide automation, quality control and production management software to Arjowiggins Creative Papers' Stoneywood Mill. The delivery includes a System 800xA for boiler house control and a new QCS800xA along with cpmPlus, Smart Client.

#### USA

New Page Luke ordered a Dilution xP profiler plus LV Control.

ABB won an order at **Domtar** Hawesville Kentucky, for a new Web Inspection System.

Georgia Pacific Gypsum purchased a Network Platform NP700 for their gypsum wall board paper line.

Domtar Port Huron ordered a sensor upgrade including a SteamPlus xP profiler.

Twin Rivers ordered a Network Platform NP1200 plus a Slice xP profiler. Twin Rivers also ordered a SteamPlus xP profiler for their PM7.

ABB won an order at Evergreen Packaging Pine Bluff for a SteamPlus xP profiler.

Packaging Corp of America purchased Automation Sentinel as part of major QCS upgrade.

ABB was awarded with an order from Hollingsworth & Vose for a Network Platform NP700.

ABB achieved a win at Clearwater Paper for a new sensor.

ABB won an order at Georgia Pacific Port Hudson for a Network Platform NP1200 plus a Network Platform RNP1200.



#### ABB's Shih-Chin Chen named TAPPI Fellow for 2011

Shih-Chin Chen has been named a TAPPI Fellow for 2011. Fellow is an honorary title bestowed upon a very small percentage of TAPPI's membership. It is given to individuals who have made extraordinary technical or service contributions to the industry and/or the Association.

"Dr. Chen's contributions to TAPPI and its Process Control Division have been most noteworthy over the years," said Larry N. Montague, president and CEO of TAPPI.

He is a Corporate Executive Engineer with ABB Pulp and Paper Division. He holds 10 patents and has published more than 40 technical papers. Dr. Chen has pioneered numerous initiatives to improve control of paper machines. His recent paper on "VAP and new indices for quantifying sheet quality and trouble shooting" won the 2009 Jasper Mardon Award.

Dr. Chen has served in a number of offices within TAPPI, including PaperCon Steering Committee, PaperCon Track Manager, PCE&I Division Technical Program Chair, PC Division Vice Chair and PC Division Chair. He developed a plan for the Process Control Division focusing on member involvement, contributions from the Common Interest Groups and networking with local chapters and student sections.

#### QCS/WIS factory grand opening - fun for all who attended

One of the year's most exciting events in Shanghai was the gala grand opening of ABB's new QCS and WIS factory, held on November 17 and 18, 2010. One hundred people, including ABB business partners, the media, local government representatives and customers, took part in the launch ceremonies.

Roger Bailey, Pulp and Paper Business Unit Manager, and Tobias Becker, Process Automation Manager China, kicked off a celebratory dinner by welcoming participants.

The next day, Bailey, Becker and government officials gave opening speeches that launched the new factory. A highpoint in the festivities came when the management team and government dignitaries cut the ribbon and

declared the facility officially open for business.

Many toured the new factory, which was already in operation. Participants could see the QCS and WIS technology and how the products are actually made.

The spectacular success of the factory opening also drew wide media coverage. Many pulp and paper industry magazines, including Tissue World, Middle East Tissue, Paper Asia, Pulp and Paper International (PPI) and Pulp and Paper World (PPW), sent their editors to cover it.

Our new Shanghai factory demonstrates ABB's long-term commitment to the worldwide pulp and paper industry - and is compelling proof of the "Made by ABB" concept.



The gala welcoming dinner for guests and dignitaries.



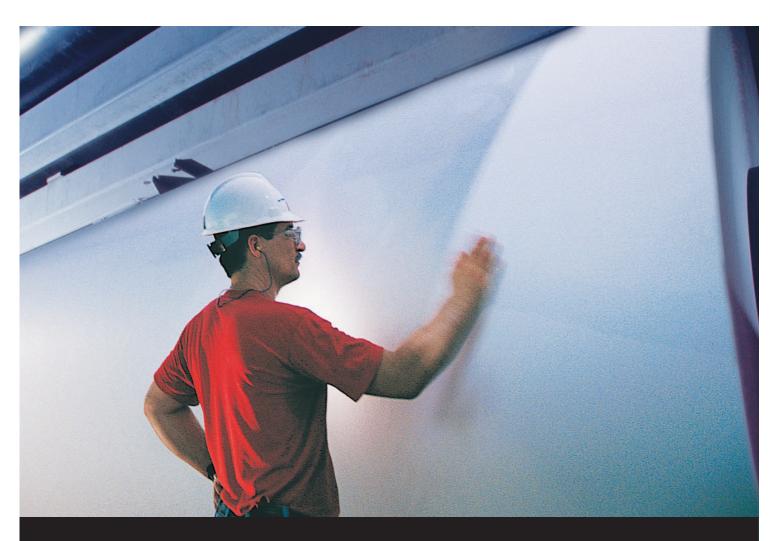
The ancient Chinese art of papermaking demonstration.



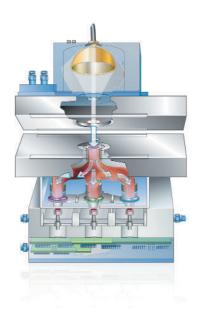
The much anticipated factory tour of the ultra-



The ribbon cutting ceremony that made the new facility "officially' open for business.



# Do you need better moisture measurement? Definitely.



Excellent moisture measurement is critical to papermaking because almost every controllable parameter on the paper machine has an impact on moisture. ABB's new HPIR (High-Performance Infrared) measurement provides the most precise tool available to measure moisture with the confidence needed to maximize control performance and save on both energy and fiber costs. To find out more, contact your local ABB Account Manager and visit <a href="https://www.abb.com/pulpandpaper">www.abb.com/pulpandpaper</a>