

悦

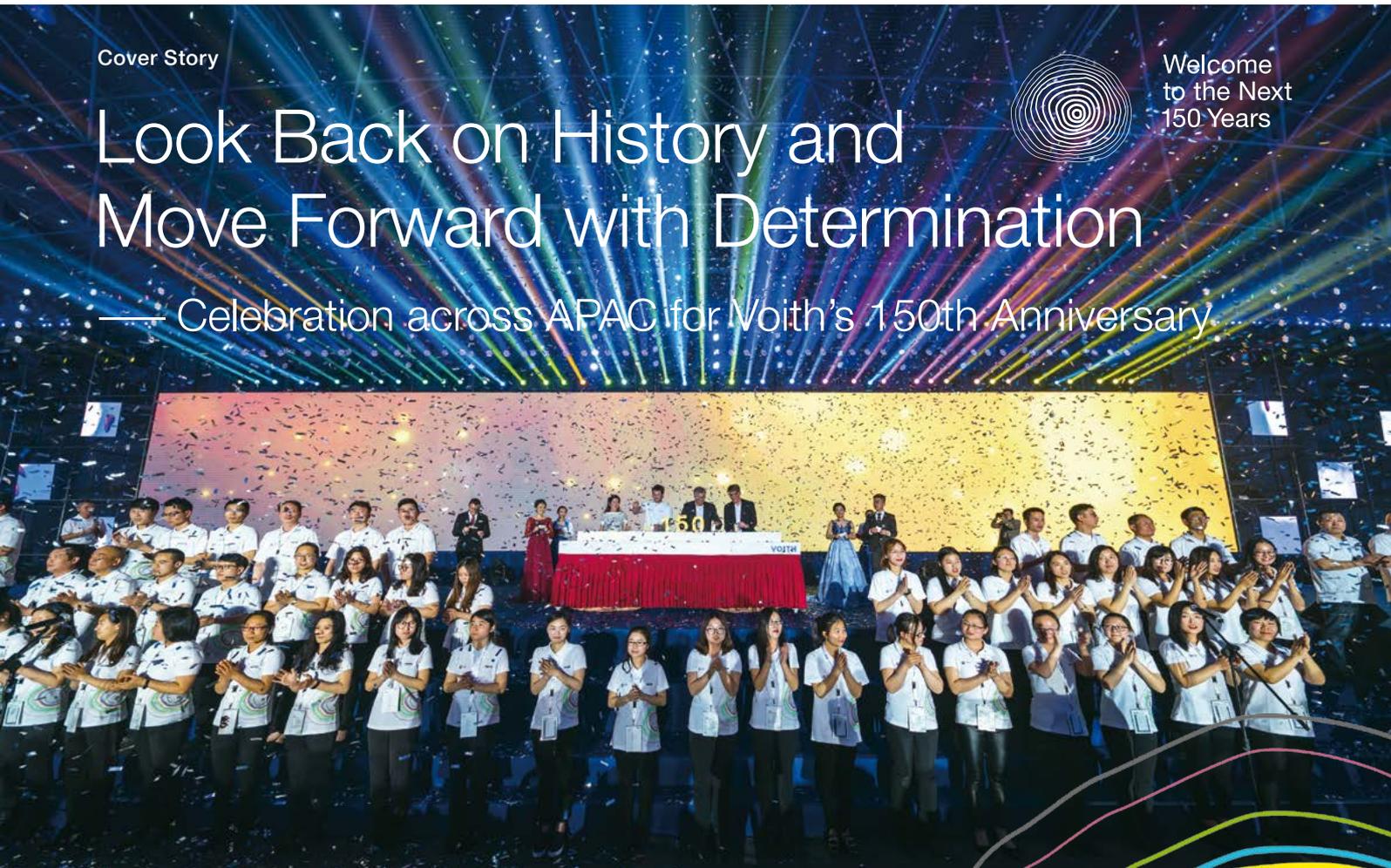
1 | 2017 A Magazine for Voithians

Cover Story

Look Back on History and Move Forward with Determination

— Celebration across APAC for Voith's 150th Anniversary

Welcome
to the Next
150 Years



Corporate News

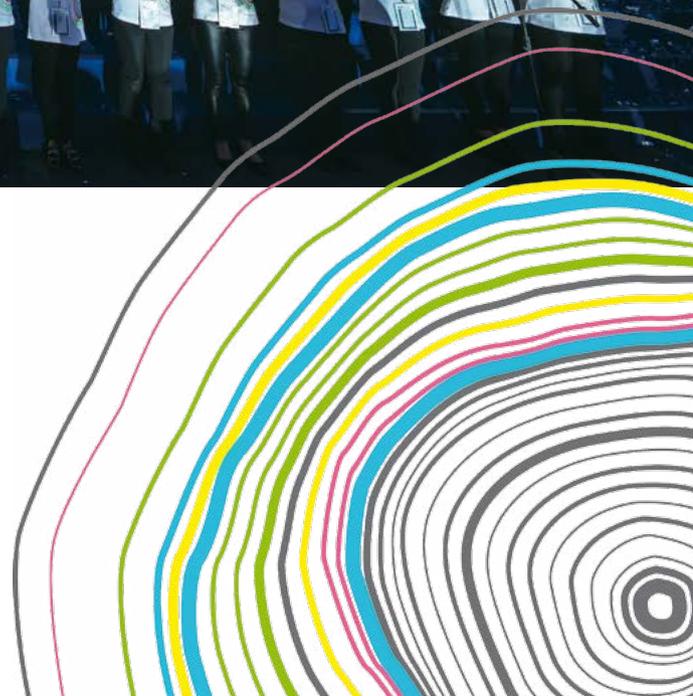
Interim report 2016/2017: Voith improves its earnings power once again in its anniversary year

Face to Face

Accelerate the localization process to boost a successful future with our customers
Following the Digital Trend, Shaping "Intelligent" Industrial Manufacturing

Focus

Half year highlights of fiscal year 2016/2017 in China



Cover Picture:

On March 31, 2017, More than 2,300 Voithians from Shanghai and Kunshan participated in the grand Employee Event held in Kunshan, celebrating the 150th Anniversary of Voith Group.

03 Editorial	14 Corporate News	26 Focus
03 Koko Sheng Director of Group Communications & Marketing, APAC	14 Interim report 2016/2017: Voith improves its earnings power once again in its anniversary year	26 Half year highlights of fiscal year 2016/2017 in China
04 In Brief	16 Voith generates just under EUR 1.2 billion from KUKA transaction	38 Panorama
04 Business News News from the Voith Group and Group Divisions	17 Voith and the Boston Consulting Group Digital Ventures Establish merQbiz, a Digital Trading Platform for the Paper Industry	38 Ushering in Another 150 Years for Voith, with China by Its Side — Exclusive interview with Mr. Thomas Koller, VP Regional Corp. OPEX Region CN&SE Asia As one of the longest-standing employees of Voith, Mr. Thomas Koller will share with us the story of Voith in China that he has witnessed. Meanwhile, based on his personal experience with Voith, he has some words for all people in Voith and wishes Voith more brilliant for the next 150 years.
08 Cover Story	18 Face to Face	
08 Look Back on History and Move Forward with Determination — Celebration across APAC for Voith's 150th Anniversary 2017 marked the 150 th anniversary of Voith Group, the now ages-old famous family corporation. Along with the anniversary, plans are being implemented to put "150 Good Causes" into full practice, and with it, Voith's social commitment as a corporate citizen can now be further articulated than ever before.	18 Accelerate the localization process to boost a successful future with our customers — Exclusive interview with Mr. Martin Wawra, MD VTCN & CMO APAC Mobility	
	22 Following the Digital Trend, Shaping "Intelligent" Industrial Manufacturing — Exclusive interview with Mr. Dietrich Henne, President of Voith Digital Solutions China	

Dear Voithians in China,



As the sea of time rages on and the journey ahead advances relentlessly, in the past 2015/16 fiscal year, Voith Group not only significantly improved the operating performance of its divisions, but achieved dramatic development beyond expectations and gained a significant growth in net profits once again under the challenging macro-economic conditions in 2016, and this is all thanks to our “Voith 150+” program.

Voith Group is seeking to leverage and support China’s “Belt and Road” initiative and promises to invest a comprehensive list of technologies, services and global resources to help get our partners better involved.

Marking the 150th anniversary of Voith Group, the year 2017 is one of the most important milestones in our history, and it is our proven track record in sustainable business management and innovation that has helped Voith Group stand out as an excellent company in the course of its 150 years of ever-growing development. During this year’s anniversary celebrations, each and every Voith employee participated in the festivities held by our offices across the world and felt the pride and sense of mission of his and her fellow Voithians. A look at this issue’s “Cover Story” (pp. 8-13) will therefore bring you a holistic view of the celebrations taking place and what public service activities are being held in China and other areas in Asia.

In our “Face-to-Face” column (pp. 18-25), Mr. Martin Wawra, MD VTCN & CMO APAC Mobility, shares the update of Accelerate and newly-opened Lotus base, as well as his insights on markets in China and Asia Pacific. Mr. Dietrich Henne, president of Voith Digital Solutions China, shares his view on how Voith shapes “intelligent” industrial manufacturing in the context of Internet+.

Backed with its principle of engaging in extensive consultation, sharing benefits and making joint contributions toward the “Belt and Road” initiative, Voith Hydro participated in the co-construction of Africa’s largest hydropower project in Ethiopia; Voith Paper was honored with the “China Cailun Award” at the China Paper Industry Development Conference for its outstanding contribution to the paper-making industry in the Asia Pacific Region during the 2015/16 fiscal year; and Voith Turbo was recognized by China General Nuclear Power Corporation (CGN), China’s largest nuclear power operator, who awarded it with its “Excellent Performance Improvement of the Year” award. We will look at some of the most splendid moments in this issue’s “Brief News” (pp. 4-7) and “Focus” (pp. 26-37) columns, allowing you to get a glimpse of all the exciting things that have taken place within the last fiscal year alone.

Voithians are the “source of power” boosting the Group’s development. In our “Panorama” column (pp. 38-41), the employee with one of the longest working life in Voith China sheds light on the background of Voith’s localization in the rising country.

Many thanks to everyone for your contributions and support for Yue, and with that, I would like to leave you with these heartfelt words of congratulations from Chinese President Xi Jinping: “There is no such thing as a free lunch, and only working hard can make dreams come true. Dear Voith colleagues, hand in hand, let us create a more brilliant ‘next level’! Let us roll up our sleeves to work harder!

Best Regards,

盛茵

Koko Sheng
Director, Group Communications & Marketing, APAC

Voith China Sets up Digital Solutions Division



Voith Digital Solutions Division (“DS”), officially launched in April 2016 in Germany, has envisaged three strategies, the first of which is to incorporate additional digital functions into existing product portfolio to provide clients with extended and value-

added services; the second to introduce new digital solutions into the traditional core markets; and the third to develop new products and business models for markets yet to be covered. November 2016 saw the preparation for establishing a Voith China DS Division kicked off. Similar to its German counterpart, Voith China integrated the IT Solutions Division (“VOIS”) first. By early 2017, staff of Voith China Hydropower, Paper and Turbo Automation Divisions and those of related sales and service departments were all included into DS. Meanwhile, Voith China DS has two registered legal entities, one in Shanghai and the other in Kunshan, Jiangsu Province. Currently, the division is gradually perfecting its organizational structure, with a local digital solutions team in place. Voith China DS will bring together the strengths in automation and digitization of the Group to promote digital products and solutions and provide better service for Chinese clients.

Voith Paper with new management responsibilities

The supervisory board of Voith has appointed Andreas Endters as new Voith Paper CEO as of October 1, 2017. Andreas Endters joined Voith Paper in Heidenheim in 1995 as Head of Sales and Marketing for “QualiFlex Press Sleeves.” In 2000, he was appointed as Executive Vice President at Voith Paper in Ravensburg; one year later, he became Chairman of the Advisory Board. Two years later, in 2004, Andreas Endters was appointed to the Management Board of the Group Division Voith Paper and put in charge of the Business Division Rolls. In 2008, he moved to the Management Board of the Group Division Voith Hydro, where he was responsible for the worldwide contract handling of Large Hydro. At the end of 2011, he returned to Voith Paper as a Member of the Group Division Management, initially in charge of paper machines. Since October 2012 he has been responsible for the business line Projects.

The successor of Andreas Endters as Member of the Board of Management of Voith Paper and responsible for the global

Business Line Projects will be Thomas Holzer. He joined Voith Paper in Heidenheim in 1999. In 2003, he took over the role as General Manager Sales and Vice President Voith Paper Rolls Indonesia. From 2009, he was responsible for the area of machine-section rolls in St. Pölten, Austria. In 2012, he was appointed COO/Senior Vice President for Voith Paper Fabric & Roll Systems Asia. Since 2014, Thomas Holzer was Regional President Voith Paper Asia and President BL Projects Voith Paper Asia.

Successor of Thomas Holzer as Regional President Voith Paper Asia and President BL Projects Voith Paper Asia will be Kurt Yu. He joined Voith Paper Rolls China as Customer Service Manager in 2004; in 2007 he took over as Operations Manager of Nansha Rolls plant and, in 2012, he was appointed Vice President Business Development for BL FRS. Kurt Yu has served as Vice President Sales BL Projects Asia since 2014.





Voith and China Three Gorges Corporation (CTG) Signed Agreement

On 1 June 2017, Chinese Premier Li Keqiang and German Chancellor Angela Merkel together witnessed Mr. Lu Chun (Chairman of China Three Gorges Corporation) and Dr. Hubert Lienhard (President and CEO of Voith Group) signing an agreement in Berlin, Germany, which enhances their further strategic cooperation in the hydropower business.

China Three Gorges Corporation (CTG) is the world's largest producer of hydroelectric power. In 2014, CTG acquired the sixth-largest hydroelectric complex in the world, the Ilha Solteira and Jupia power stations in Brazil, as part of a 30-year concession contract to carry out step-by-step modernization of existing power units, and in March 2017, Voith was awarded the EPC contract for the first four units after CTG's public call for tender. Voith will deploy state-of-the-art tech-

nology throughout the entire modernization process to lengthen the plants' lifetime and generate electricity with higher efficiency.

As part of the new agreement both sides express the desire that such cooperation can be extended to other aspects of CTG's hydropower business in Brazil.

CTG and Voith have already established a mutual trusting relationship based on their successful cooperation during the Three Gorges project and Xiluodu projects, and Voith, in addition, is actively joining in on overseas projects with CTG. Both parties hope to enhance the implementation of sustainable hydropower development and also further local economic and societal development through such third-market cooperation.

Voith and CRRC signed Strategic Cooperation Framework Agreement

On June 14, 2016, in the presence of Chinese Premier Li Keqiang together with German Chancellor Angela Merkel, who was then visiting China, Voith and CRRC, the largest supplier of rail transit equipment in China, entered into a strategic cooperation framework agreement whose signing parties will start or reinforce cooperations on global businesses like gear case, after-sales service network sharing and intelligent manufacturing. The agreement marked a step further for the long-term cooperation between Voith and CRRC as well as a milestone in the cooperation on manufacturing between China and Germany.

"Voith and CRRC enjoy a long history of cooperation. This agreement is significant to establishing a mutually beneficial strategic partnership between the two companies. Aside from strengthening cooperation in terms of technology, product, market and capital, the agreement provides a great opportunity for the two companies to set up a new cooperation mode



in the digital age. In the meantime, it also marks the further deepening of cooperation between China and Germany on manufacturing," said Dr. Lienhard, who led the delegation of German industrial and commercial communities in the visit to China with Chancellor Angela Merkel.

Voith 150th Anniversary celebrations - China Employee Event



On March 31st, 2017, the air at the Kunshan International Convention Center was electric with local Voith employees attending the grand Employee Event there, with Ms. Julia Maria Schily, Mr. Martin Schily and Mr. Valentin Schily, members of the Voith Group Management Committee and also the Voith family, joining in on the festivities among the throngs of Voith employees, which numbered more than 2,300 in total.

At the event, the president of Voith APAC, Mr. Thomas Holzer, delivered a wonderfully inspiring kick-off speech, with the of-

ficial opening of the event subsequently being announced by Voith Group President and CEO Dr. Hubert Lienhard, and it was then that the latest brand promotion video was presented for the first time.

Then came Hello Tomorrow, the Chinese version of The Song of Voith, which was sung by a chorus composed of Voith employees. The song brought everyone to their feet, with cheers flooding the room to commemorate the historic moment. Smiles were everywhere, and the sheer, utter pride of taking part in the 150th anniversary celebrations was undoubtedly palpable.

The number of participants broke the record for being the venue with the highest attendance ever since the establishment of Voith APAC. The program had a distinct Chinese quality to it, with the agenda including the Voith history corridor, Chinese acrobats, traditional drum dance, a lights show, and other remarkable performances: a truly vivid depiction of the diversity of us Voithians, indeed. This unique Voith event brimming with Chinese characteristics was an instant hit, and it was a pure demonstration of the Group's powerful technological background and future-oriented vision.

Excellent start-up of Lee & Man TM 10

At 13:55 June 13th 2017, the new XcellLine tissue machine TM 10 in Jiangxi was successfully started up in a new record time. Thanks to the great cooperation between Lee & Man and the Voith Paper onsite team, it took only 30 minutes from the "stock on wire" to "paper on reel". From the very first parent roll produced the tissue was of saleable quality. All components and parts of TM 10 are perfectly matched and integrated with each other. This State-Of-Art coordination ensured the remarkable start-up performance and will continue to deliver excellent results for our customer over the entire lifecycle of the XcellLine tissue machine.



With a wire width of 5,600 mm, TM 10 is designed for a maximum operational speed of 2,000 m/min. It will produce 60,000 tons of household tissue annually from virgin fiber. The scope of supply includes the BlueLine stock preparation, approach flow system, broke handling, a white water system and the tissue machine. It features the perfect combination of a NipcoFlex T shoe press to offer remarkable energy savings, a 5.5-meter steel Yankee dryer cylinder to enhance drying efficiency by optimized heat transfer, and a high-performance steam heated hood to provide the required tissue quality with lower energy consumption. Moreover, the Voith automation package with DCS, MCS and QCS is also an integral part of the order.

Just one week earlier, in the same factory, the Lee & Man TM 9 supplied by Voith Paper successfully reached its operational speed up to 1,905 m/min within only 14 days. With our satisfied customer, Voith Paper received the start-up Certificates of TM 9 and TM 10 in two days.

Jiangxi is an important tissue production base of Lee & Man Group which covers the East Coast market in China. As a strong partner to Lee & Man, Voith helps to set the right course and offers ideal solutions for raising quality and efficiency to the next level.



The successful delivery of runner for 1st generating unit in Ethiopia hydropower project

The Grand Ethiopian Renaissance Dam (GERD) hydropower project contract was signed by Voith Hydro Shanghai and Ethiopian Metals and Engineering Corporation (METEC) on April 4, 2013. The project consists of four vertical Francis turbine generating units each with a capacity of 400MW, excitation system, governors as well as online monitoring and protection system. Meanwhile, technical support for installation, testing and commissioning are also included in the project.

In August 2016, the first turbine runner, a critical component of the project, passed the customer's final acceptance test and was delivered to Ethiopia upon completion. With a diameter of

6.3 meters, height of 3.16 meters and net weight of 113 tons, the runner was successfully delivered on schedule. This success comes from all staff's hard work in VHS and also demonstrates the valuable teamwork spirit of various departments.

With a total installed capacity of 6400 MW and designed annual power generation of 15.69 TWh, it will become the largest hydropower plant in Africa when completed and will make an important contribution to the economy of Ethiopia. Voith has a long-standing presence on the African continent and is committed to bringing safe, reliable and clean energy to Africa.

VT New Structure Project Advances Accelerate Project

June 1, 2016 Voith put a new organizational structure in place. The VT management visited the major offices across the globe to discuss with the employees vis-à-vis on the new organizational structure. As a result, VT successfully launched the new structure project, getting closer to the core targets of the Accelerate Project, which are, "client first, leading technology, and excellent performance". The building of the new structure and business processes has yielded satisfactory results. For instance, the new Innovation Committee of VT is securing greater transparency for the current project; the integration of divisions is providing more room for improvement; by way of reviewing the old processes the IT division is establishing new ones. Currently, while further optimizing the functional structure, the VT process team has successfully coordinated the



major business processes. Cooperation between the brand-new VT Expertise Division and other divisions has proved to be highly effective. VT has benefited from the new organizational structure and entered a new stage of development thanks to the Accelerate Project.

Look Back on History and Move Forward with Determination

— Celebration across APAC for Voith's 150th Anniversary

福伊特150周年庆典-中国员工日
中国·昆山 2017年3月31日
Voith 150th Anniversary - China Employee Event
Kunshan, China March 31st 2017



2017 marked the 150th anniversary of Voith Group, the now ages-old famous family corporation. Around the world, various corporate branches joined together in celebration, but a distinct Asian vibe could be felt with Voith APAC, one of the Group's most important regions and an area with immense potential for further business ventures. Along with the anniversary, plans are being implemented to put "150 Good Causes" into full practice, and with it, Voith's social commitment as a corporate citizen can now be further articulated than ever before.





Voith APAC celebrations for the Group's 150-year anniversary kicked off in India, with this particular event in Hyderabad and New Delhi lasting from February 10 to 11. This unveils a series of festivities in the APAC region, and also marked the start of global celebration for the 150 years of success Voith's 150th anniversary

First up on the celebration list was Hyderabad. There, local employees of Voith India came face-to-face with Ms. Ina Maria Schweppenhäuser and Mr. Daniel Schily from the Voith family; Dr. Roland Münch, president and CEO of the Digital Solutions Division and Dr. Uwe Knotzer, president and CEO of Voith Turbo. Attendees enjoyed a great variety of performances that included the wonders of traditional Indian music, sand art and other fine displays, and our dear Indian colleagues performed The Song of Voith for the first time ever, making it truly a historic event.(6)(7)

Then came China on March 31, where the grand EmployeeEvent was held at the Kunshan International Convention Center. Ms. Julia Maria Schily, Mr. Martin Schily and Mr. Valentin Schily, all members of the Voith Group Management Com-

mittee and the Voith family, joined more than 2,300 Voith colleagues in China for the occasion.(3)

The number of participants broke the record for being the venue with the highest attendance ever since the establishment of Voith APAC. The program had a distinct Chinese quality to it, with the agenda including the Voith history corridor, Chinese acrobats, traditional drum dance, a lights show, and other remarkable performances: a truly vivid depiction of the diversity of us Voithians, indeed.(1)(4)(5)

At the start of the event, the president of Voith Paper Asia, Mr. Thomas Holzer, delivered a wonderfully inspiring kick-off speech, with the official opening of the event subsequently being announced by Voith Group President and CEO Dr. Hubert Lienhard(2), and it was then that the latest brand promotion video was presented for the first time. Students from elementary schools sponsored by Voith's financial aid program performed beautiful folk dances and cut the anniversary cake together with Dr. Lienhard to express their best wishes during Voith's 150th Anniversary. Then came Hello Tomorrow, the Chinese version of The Song of Voith, which was sung by a





Cover Story

1



2



3



4

chorus composed of Voith employees. The song brought everyone to their feet, with cheers flooding the room to commemorate the historic moment. Smiles were everywhere, and the sheer, utter pride of taking part in the 150th anniversary celebrations was undoubtedly palpable. This unique Voith event brimming with Chinese characteristics was an instant hit, and it was a pure demonstration of the Group's powerful technological background and future-oriented vision.

Asia is known as a place where tradition stemming from ancient civilizations coexists with modern industry. The Employee Event Celebrations in Asia therefore demonstrated the diversity of Asian culture, fitting perfectly in line with the diversified corporate culture Voith has been advocating.

To mark the group-wide milestone event, Voith has been implementing its charitable "150 Good Causes" across the globe. Voith Paper and Voith Digital Solutions CSR program



made efforts to support students of migrant workers who attend Wulian Elementary School in the town of Yushan within Kunshang City(1)(2)(5)(6). With many of these children being physically challenged, a great number of Voithians from Voith Turbo joined up with Shanghai Huge Grace Disabled Children Welfare Center in Fengxian District to provide the little ones with helpful donations(3)(4). Voith Hydro also turned a charitable eye toward the Puzhi Public Welfare Childcare Service Center's "Abandoned Baby Conservation" program, helping to bring up, support and provide medical rehabilitation for abandoned and sick infants to give them a chance at a better life (7)(8). All these charity programs have shown Voith's love and care for the society and its dedication to shouldering the corporate social responsibilities. This is a remarkable celebration for the 150th ceremony.

In addition to these activities, a total of 150 sporting events are held for a good cause at the locations, which employees

organize based on their favorite sports. Voith will donate €1 for every kilometer over the distance traveled during these events combined, up to a total of €150,000, to an international education project.

In summer 2017, the festivities to mark the company's 150th anniversary will reach their high point in Heidenheim, Germany, where Voith was founded and still has its headquarters: In July, the event for the approximately 4,500 employees who work at the location will take place. Also in summer the employees in Heidenheim will have the chance to show their families around where they work. The Ceremonial Act in July forms the conclusion of the anniversary and will focus primarily on the future of industrialization. Guests from the worlds of politics, business, and culture are expected to celebrate the company's 150-year history and its future at the Heidenheim congress center.

Interim report 2016/2017: Voith improves its earnings power once again in its anniversary year

In the first half year of fiscal 2016/2017, the Voith Group is making great progress along its path towards a sustainably successful future. Over the course of the anniversary year 2016/2017 to date, the operating business has presented itself in even better shape: the volume of orders received rose noticeably in the first half of the year. Despite the market environment that remains challenging, the Group succeeded in maintaining sales at a roughly stable level and further increasing the operating result in the core business overall. At the same time, Voith has consistently driven forward its strategic agenda. Already in the first year of its existence, the new Voith Digital Solutions Group Division has fully met the expectations placed in it. Voith is developing into a company that is playing a major role in the digital transformation of its industries. Aided by the successful

sale of the KUKA shares, the Group's financial situation has likewise clearly improved.

"In the first half of the year, Voith has once again succeeded in increasing its return on capital and its return on sales, while sales remained roughly at the same level. And we are making substantial progress in the gradual implementation of our digital agenda. Thanks to central strategic decisions made in past years, Voith has a profitable core business, a coherent strategy for the future and a strong balance sheet. Following the Company's successful transformation it is now in a good position to achieve profitable growth on a sustainable basis," explained Dr. Hubert Lienhard, President & CEO.

Developments in the core operating business as planned

In the first half of the 2016/17 fiscal year, the Voith Group's core operating business continued to see positive developments. The volume of orders received by the three core businesses, Voith Hydro, Voith Paper and Voith Turbo, totaled €2.32 billion. This is an increase of eight percent from the previous-year period. Likewise, the volume of orders on hand increased by eight percent in comparison to the level seen at the end of the past fiscal year and now stands at €5.75 billion (€5.31 billion). Significantly above one is Voith's book-to-bill ratio with a value of 1.18 – this confirms the positive development of the company.

At €1.97 billion (€2.04 billion), Group sales were nevertheless around the previous-year level as a result of the low level of market-related orders received by Voith Turbo from some customer in-



dustries in the previous year. At the same time, Voith succeeded in further improving the profitability of the core business: the profit from operations of the three established Group Divisions increased to a total of €117 million (€110 million) with Voith Paper excelling with a growth of 54 percent. In the core business, the return on sales increased to 6 percent (5.5 percent). The ROCE (return on capital employed) also rose to 11.8 percent (11.2 percent). The total profit from operations recorded by the Group fell slightly in comparison to the previous year to €91 million (€97 million) primarily on account of the budgeted build-up costs for Voith Digital Solutions. With a significant effect coming from the proceeds of the sale of the shareholding in KUKA completed in January 2017, the group net result rose from the previous-year period to €566 million (€-48 million). But even without this non-recurring ef-

fect, Voith was able to generate a positive net result once again.

The Group's financial situation has similarly significantly improved over the first half of the year, primarily on account of the high cash inflows from the KUKA sale. The equity ratio rose to 23.8 percent as of March 31 reporting date after 14.9 percent as at the end of the previous fiscal year. The Group's net liquidity increased over the same period from €168 million to €597 million. "We have considerable financial headroom at our disposal for organic growth or acquisitions that we are planning to consistently exploit over the coming years – not only in our established business but also in the area of digital services," says Voith's CEO Lienhard.

Outlook: Voith Group on track for the future

Voith retains its confidence with regard to the full fiscal year 2016/17. The Group will continue to invest in its digital transformation over the remaining course of the year and, at the same time, drive forward the growth of its core activities. In the operating business, Voith continues to expect sales roughly matching the previous-year level and a slightly increasing volume of orders received in an ongoing challenging environment. The profit from operations will be clearly positive but is likely to fall below the level seen in the previous year as a result of the build-up costs for the Voith Digital Solutions Group Division in line with planning. The group net result will reach a record level in the anniversary year. In particular, the effect on results from the sale of the KUKA shares made a contribution to this development.



Voith generates just under EUR 1.2 billion from KUKA transaction

- Cash inflow intended for further development of the Voith portfolio
- KUKA transaction now brought to a successful conclusion by Voith

Heidenheim/Augsburg. Tuesday, January 10, 2017 – Voith GmbH informed KUKA AG that it no longer has any voting rights in KUKA AG. Independently, Dr. Hubert Lienhard has informed the Chairman of the Board of Management of KUKA AG that he has stepped down from his seat in the Supervisory Board

of KUKA AG with immediate effect. At the same time, Voith confirmed the receipt of just under EUR 1.2 billion in cash from MECCA International (BVI) Limited, an affiliate of Midea Group Co. Ltd. Within about 18 months, the value of Voith's KUKA holding had approximately doubled. This means that Voith has now brought the KUKA transaction to a successful conclusion.

Voith can now push ahead faster with the transformation of its business, pursuant to its digital agenda. The intention is to invest the additional funds in the

further development of its portfolio: "We can now flexibly invest the resources which have so far been tied up in KUKA to promote organic growth and also to make attractive acquisitions," says Dr. Hubert Lienhard, President and CEO Voith GmbH.

As an established technological leader with extensive domain knowledge and a wide range of existing systems and products in the markets, Voith believes that digital business models with its customers can offer significant potential for growth.

Voith and the Boston Consulting Group Digital Ventures Establish merQbiz, a Digital Trading Platform for the Paper Industry

Voith is accelerating its digital transformation, taking yet another step in its digital agenda. The technology group has joined forces with the Boston Consulting Group Digital Ventures – a subsidiary of the Boston Consulting Group – to establish a digital marketplace for paper industry. The joint venture has been named merQbiz after Mercury, the Roman god of trade. “As an established technology leader with a profound expertise knowledge, we want to make a significant contribution to the digital transformation of the industry – and with the foundation of merQbiz, we at Voith have taken yet another step forward in our digital agenda,” explains Dr. Hubert Lienhard, President and CEO Voith GmbH.

The merQbiz company has its headquarters in Manhattan Beach, California. John Fox, previous President of Voith Paper in North America, has been named merQbiz CEO. The first product solution from merQbiz is the first digital trading platform for recovered paper in the US, initially aimed at market participants of the North American paper industry. The North American recovered paper market has so far been characterized by strong fragmentation, with many different market participants, inconsistent supply and logistics chains, low levels of price transparency and fluctuating product qualities. This is where the merQbiz trading platform steps in: traders and buyers from pulp and paper mills, paper brokers and recycling companies

can directly network with one another in the future and receive all the relevant information on supply and demand. They can also conduct their buying and selling transactions securely on the trading platform. Like many well-known online marketplaces, merQbiz can take over the evaluation of the sellers and buyers and the quality of the merchandise. This ensures enhanced transactional transparency, professional processing and a high level of security for all goods, logistics and payment flows.

Recovered paper is a critical commodity for paper manufacturing. An example would be a containerboard mill, which requires around 350,000 tons of recovered paper per year. This is equivalent to roughly 100 truckloads per day and costs of around 40 million US dollars every year. “Digital marketplaces and e-commerce platforms have long been established in the world of consumer goods, but a digital trading platform for recovered paper market is the first of its kind in the US, where sellers and buyers can come together on one single platform. Thanks to merQbiz, the buying and selling of recovered paper can be processed securely and quickly and the paper industry is provided with a predictable and scalable inflow of recovered paper – a resource that’s essential for the operation of paper mills,” explains John Fox.

The trading platform for recovered paper

has now been online for around two weeks and has already traded more than 100 tons of recovered paper.

For Voith, merQbiz is another major step in becoming one of the significant players of the digital industry. Voith plans to invest about €50 million in the setup of the venture by the end of fiscal 2020. The course for the group’s digital agenda has been already set in April 2016, when Voith founded its new Group Division Voith Digital Solutions. With this, Voith takes three strategic directions: first, supplementing our existing product portfolio with additional, digital capabilities that offer customers extended functions and added value; second, developing new digital solutions in the traditional core markets; and third, developing new products and business models for markets to date not covered by Voith.



Accelerate the localization process to boost a successful future with our customers

— Exclusive interview with Mr. Martin Wawra, MD VTCN & CMO APAC Mobility

Voith Turbo has launched a reform in its organizational structure since June 1st, 2016, and a new production base named Lotus will be put into production for Voith Turbo Asia Pacific in this fiscal year. To celebrate these new programs, Mr. Martin Wawra, MD VTCN & CMO APAC Mobility arranged an interview by Group Communications, CoC, Asia Pacific. His interview covered a range of topics, including the acceleration of new organizational structure and business process, career development for the staff under the new organizational structure, newly-opened Lotus base as well as his insights on China market. He also shared the updated operation of Voith Turbo together with exciting goals and visions.

“The newly-launched organizational structure has been operating smoothly since it is being rolled out”, Mr. Martin Wawra said. Employees overcame differences and challenges, and they also followed standard procedures for handovers. Cross department/functional cooperation was conducted smoothly.







For example, application engineers were integrated into Sales Department to improve communications and reduce problems. Thus, coordination and production scale effects are fully used to create a better practice mode which guarantees the overall success and goal-achievement for Voith Turbo.

In addition, employees are provided with more opportunities for personal career development including those overseas training according to the new organizational structure. This new organizational structure also inspires self-study and progress so that the employees can adapt themselves to the new organizational structure with more open minds.

Mr. Martin Wawra introduced Lotus base in detail. He emphasized that the site selection for this production base was



aimed to provide customers with products and services more efficiently and rapidly, including application engineering, design and tests on gearboxes and couplers. These localized designs, products and services have sharpened the competitive edges for Voith Turbo in the areas of delivery punctuality, lead time and cost control.

In a rapidly-growing market full of opportunities and challenges, all our efforts are put with the purpose of maintaining competitiveness and responding faster and more accurately to changes. Therefore, the localization plan of Voith Turbo will be accelerated in the following two years. We are also far-sighted and plan to explore market potentials in industries such as electric vehicles and offer internet based services. Besides China market, products will be exported to Taiwan,

South Korea, Japan, ASEAN and Australia from the Lotus base. Through better understanding the customers' requirements and challenges from these markets, we will provide appropriate products, services and solutions to help our customers to solve their problems more efficiently.

As an important part for the strategy of Voith Turbo and Voith Turbo Asia Pacific, new organizational structure and new production base symbolizes the smooth implementation of the program "Focus on our customers, develop the best solutions and accelerate to build up local know how". Bearing the guideline of "Serve our customer" in mind, Voith Turbo will offer quicker and better solutions and products tailored for the local requirements via our improved infrastructure and R&D strengths.

Following the Digital Trend, Shaping “Intelligent” Industrial Manufacturing

— Exclusive interview with Mr. Dietrich Henne, President of Voith Digital Solutions China

On April 1st, 2016, Voith Digital Solutions was officially put into operation. The new division incorporates the Group’s comprehensive expertise in automation and digitization, with a focus on developing new digital business models for all existing and brand-new domains in which Voith has been engaged. On March 31st, 2017, Mr. Dietrich Henne, president of Voith Digital Solutions China, attended the media interview during Voith’s 150th anniversary celebrations, providing a detailed description of China’s digital solution market and the development of Voith Digital Solutions in China.

Voith – At the Forefront of Industrial Digitization

With the rapid development of the Internet of Things (IoT) and Intelligent Manufacturing (IM), the concept of Industry 4.0 has recently been gaining immense public acceptance. As a leader in the industry, Voith predicted this trend years ago, considering it as a dominating force in the world of tomorrow. As a result, Voith set up its special task force in 2015 by bringing together a total of 60-80 employees from different divisions and IT department to brainstorm and develop some new ideas, concepts and service patterns.

In spite of the success of such an attempt, their efforts alone were not enough for future development. The Group therefore decided to establish a new division – Voith Digital Solutions – in early 2016.

The new division consists of employees from Automation business department of Voith Hydro, Voith Paper and Voith Turbo, as well as those from corresponding sales and service departments. “We brought together many experts who have rich experience and expertise in automation, software, information technology, digitization and sensors, with the division now having 1,530 employees in total,” said Mr. Dietrich Henne.

“Our Digital Solutions in China shares the same structure as their German counterparts in a way that brings together internal IT personnel as well as experts in automation and industrial automation, a move that was initiated in early 2017,” Mr. Dietrich Henne continued. “We now operate two branches in China, one in Shanghai and the other in Kunshan, Jiangsu. The earliest attempt took place last November, and up to now,



we have created a complete staffing framework. In other words, we have established a local digital solutions team focused on serving local Chinese customers.”

Opportunities and Challenges

Alongside significant growth opportunities, the emerging IoT market will surely bring challenges to manufacturing. “The greatest challenge, in our view, comes from those specialized software companies who may target the same markets we are focusing on and who have more professional knowledge when it comes to data, therefore making them our main competitors,” said Mr. Dietrich Henne.

“What we can do, though, is prove that we have more profound and stronger expertise and experience and a more

solid technical background in mechanical equipment manufacturing, and we do have better understanding of performance, design, monitoring and other machinery-based aspects. We are able to run mechanical equipment faster and better, as we have better understanding of how to assess the performance of these devices and how to diagnose their operations and provide better data analyses, and I believe it is our stark advantage.”

As is well known, new manufacturing devices must be updated or replaced with the continuous upgrading of modern technology. In today’s world, manufacturers are required to provide more effective monitoring and diagnoses for manufacturing devices to ensure their operational effects.

Aside from improving the operating performance of mechanical

HyGuard Agile
Predictive Maintenance
机器学习 Big Data
Artificial Intelligence
Machine Learning Open Source Lifecycle Remote
Digital Solutions
Virtual Reality 物联网 无线 Scrum 平台 客户
Sensor Security 云计算 Monitoring 数字克隆 RFID
Wireless 3D Digital 安全 工业 4.0 智能工厂
大数据 自动化 执行器 增强现实 Augmented Reality 监测
Industry 4.0 Full of Cloud 高级分析
Actu Disrupt Talking Machine Mobile
Srv 4.0 Advanc Diagnostics



1
2



equipment, Voith also works on developing better services. “This means that we need to deepen our understanding of the conditions of the devices used by our customers. And we manage their assets more effectively to make us able to give them timely reminders for further maintenance.” continued Mr. Dietrich Henne.

To this end, Voith is determined take on these challenges and equip itself with an arsenal of improved preparations to give it that leading edge.

Further Layout to Create Strategic Value

In recent years, Voith’s strategy has been focused on improving its competitiveness in engineering technology in the digital era to accelerate the digital transformation of the Group as a whole. Such strategic planning includes three objectives: first, to leverage additional digital functions to extend the existing product portfolio, offering customers extended and value-added service; second, to develop new digital solutions for the traditional core market; and third, to develop completely new products and business models in markets yet to be covered.

“We are providing the other three divisions with solutions specially tailored to their equipment, calling them ‘Talking Machine’,” said Mr. Dietrich Henne. “They can transfer their own operational data and status data to the cloud, and we can offer them digital solutions from there. It is particularly important to ensure the transmission security and confidentiality of big data in the Internet Era, and that is why it is necessary to ensure that solid dialogue between our devices takes place and that the cloud is secure and protected.

“When offering devices, Voith takes quality seriously, and the same is true for the provision of network and cloud solutions. We hope that we can deliver a 100% security guarantee, an additional value that we in fact are providing for Voith Hydro, Voith Paper and Voith Turbo.

“We have incorporated the Group’s existing IT companies into Digital Solutions, where their existing platforms and technologies can be applied to services in this respect. Our design personnel, for instance, can clearly tell whether a hydroelec-

tric generator can generate power with 10% higher output than normal performance at a given time, making the impossible possible. For example, they know how to optimize a paper machine when a new material is put to the test or after other modifications have been completed. We believe the combination of indexing our professional know-how in machinery with data analysis can bring us greater advantages when compared with other companies.”

Based in China, Partnered with China, Serving China

Historically, Voith has offered the largest paper machinery and hydropower project in China to its customers, with the most recent order of hydropower equipment used in Wudongde Hydropower Plant from China Three Gorges Corporation. “The equipment was designed, manufactured and deployed by engineers from Voith China, and our strong engineering background in the industry marks Voith’s core competitiveness in the region,” said Mr. Dietrich Henne. “It is our hope that we can continue to expand our business and better serve our Chinese customers based on our vision of being based in China, partnering with China, and serving China.”

The Chinese market is utterly gigantic. Mixing the national “Made in China 2025” initiative with “Industry 4.0” strategy proposed by Germany has paved the way for a great unleashing of unprecedented business opportunities, and Voith therefore plans to make its own contributions to the digital development of China’s manufacturing process.

Furthermore, Voith’s companies in China have very strong capacities in foreign trade, exemplified by their continuous exporting of manufacturing equipment to other countries in past years. Taking hydro business as an example, Voith Hydro Shanghai has exported its hydropower equipments to several countries, with Laos, Cambodia, Thailand and Ethiopia just to name a few, and with expanded foreign trade in automation and IoT expected to be a significant result.

Now, with new development opportunities on the horizon, Mr. Dietrich Henne says that Voith Group has combined its long-term vision with the vitality and innovation of the digital world to be well poised for the group’s development for another 150 years.

Half-year highlights of fiscal year 2016/17 in China



> September

In November 2002, Voith and Shandong Taishan Pumped Storage Power Station Co.,Ltd (STPSPS) signed the supply contract for the Phase I project of Tai'an pumped storage plant. It was the first power station EPC contract won by Voith Hydro globally after the joint venture Voith & Siemens was established.

As time goes by, it has been 10 years since the first generator unit was put into operation. During the past 10 years, Voith Hydro Shanghai (VHS) has won customer's trust and praise by virtue of its dedicated, professional and high quality after-sales service. In October 2016, Voith received another letter of thanks from the customer in recognition of the outstanding contribution made by Voith's field service experts in the trouble-shooting of generator unit 4 stator bar in 2015.

All these customer praises come from VHS employees' hard work and sweat. In September 2016, STPSPS launched A-class overhaul for generator unit 1. In the implementation process of overhaul, VHS set up a special internal project team for this project, and dispatched 14 technical experts to provide onsite support for the project. They helped solve various difficult problems and played an irreplaceable role in the whole overhaul project. After careful examination of all core components and subsystems of generator unit 1, no major defects was found and all equipment are still in good condition. The customer is very satisfied with the result and gives high praise for the good quality and performance of the equipment supplied by Voith Hydro. (1)



As the first overseas EPC project undertaken by Voith Hydro Shanghai (VHS), the main inlet butterfly valve of the first unit for Pakistan Tarbela IV project was successfully manufactured and delivered to the customer on September 28, 2016. With a diameter of 7500mm and total weight of over 600 tons, it is the largest butterfly valve with maintenance sealing structure in the world. Thanks to the joint efforts of VHS and VHH colleagues, the model test of the butterfly valve was accepted by the customer in 2014. The main inlet butterfly valve of Tarbela IV project is designed as double disc and double sealing structure, and the maintenance sealing is of all stainless steel metal sealing construction.

VHS and VHH worked together to overcome various difficulties and conducted numerous analyses to make sure that the main inlet butterfly valve meets the requirements. Moreover, there were great challenges in such links as valve design, procurement, manufacturing, inspection and assembly, and VHS implemented strict control measures during each process. The workshop made a lot of improvements in equipment and manufacturing method, which guaranteed the smooth production. The successful manufacturing of this super large main inlet butterfly valve will greatly consolidate Voith hydro Shanghai's leading position in the design and manufacture of valves.

> October

In October 2016, the Nuclear Power Division of China General Nuclear Power Corporation (“CGN”) presented the POG department of VT with the award of “Excellent Performance Improvement of the Year” for its PK fluid coupling and Vorecon.

In addition to the award, CGN also spoke highly of the quality services provided by the POG department. Over the years, VT has accumulated rich expertise and striven to provide clients with the best solutions. In the days to come, VT will continue to enhance its infrastructure and local R&D power. Eyeing for “systematic service” and in

line with clients’ demands, VT will offer clients more comprehensive and local services relying on optimized resources, leaner production processes and greater efficiency.

As the largest nuclear power service provider in China, CGN imposes stringent requirements on the operating reliability of nuclear power and related equipment. The award that POG department received this time is not only a recognition for the technology and products of VT, but an appreciation for its client-oriented service philosophy and professionalism in the industry. (1)



> November

On November 19th 2016, the 9th China Paper Industry Development Forum and 10th Anniversary of China Paper Industry Chamber of Commerce were held in China World Hotel in Beijing by China Paper Industry Chamber of Commerce. About 400 people attended the event, including government officials, economists, industry experts, representatives from various organizations of the industry and famous national and international enterprises.

As a leading supplier of technology and industry services, Voith Paper was also invited to the event. Thomas Holzer, President of Voith Paper Asia, accepted the “China Cailun Award”. Dr. Gregor, President Regional Asia, P&S also at-

tended the conference. The award is a recognition for Voith Paper’s influence and exemplary achievement in the Chinese paper industry.

Now in the new normal of stable economic growth, China is one of the most dynamic economies in the world, with an enormous demand for paper. Voith Paper has strong belief in the huge potential of the Chinese market and will further invest in its sustainable development in China. Voith Paper hopes to hold hands with other enterprises in the industry to promote the development of the Chinese paper market. (2)

POWERWEEK 2016 was held in Singapore from November 7 to 11, 2016. As a keynote speaker at the meeting, Stephen George Lewis, President of Voith Hydro Shanghai, delivered a speech on the sustainable development and prospect of hydropower, shedding light on the current development of world energy, the market prospect of hydropower, the sustainable technologies of VH, and successful cases of Voith hydropower plants.

The speech was warmly applauded by the guests, who raised questions for further discussion on the real-life cases of using hydropower as renewable energy. Later, Mr. Lewis attended

the Panel Discussion on “Integrating Renewable Energy, Financing and Coping with Climate Change” where he shared his insights on hydropower and pumped storage.

It is the responsibility of the whole society to stick to the sustainable development of energy. As an overall hydropower solution provider, VH provides excellent solutions to building of new power stations and the modernization of existing ones by virtue of its project expertise gained over the past century. In the days to come, Voith will redouble its efforts in the pursuit of the sustainable development of energy. (3)



On the morning of November 7th 2016, Mr. Rainer Domberg, Mayor of Heidenheim, visited Voith Hydro Shanghai. Also in this 28-member delegation were councilors Ms. Stefani Schall-Uhl and Mr. Thomas Potzner, Ms. Ingrid Roth, member of Twinning Committee Heidenheim and honorary citizen of Qianjiang City, and Mr. Wolfgang Schön, chairman of TSG Schnaitheim 1874 e.V.

The management team of Voith Hydro Shanghai warmly welcomed the delegation. Mr. Dai Jianxian, CFO of Voith Hydro Shanghai introduced to them the current businesses of the company and accepted the presents from them. Later, under

the guidance of Voith staff, the delegation visited the production plant to have a clearer understanding of how Voith Hydro products were manufactured. The visit ended in a relaxing and warm atmosphere created by both parties.

Voith has been a leading supplier of hydropower equipment, technologies and services in the world. In the upcoming days, Voith will continue to develop and improve our hydropower technologies. We expect to see wider social attention on hydropower and, together with other sectors, facilitate the development of renewable resources and economy of the world. (4)

> December

Recent years have seen the successful production of Voith scoop fluid coupling in China, with several orders.

The product has proved to have a stable and compact design, a load-adaptive driver and reliable quality. When the engine starts, it can help buffer so that the major parts accelerate in a smoother manner.

Customized assembly of scoop fluid coupling in Shanghai involves three steps, which are pre-installation, general assembly and electrical installation. Local production of scoop fluid coupling, while ensuring its quality as good as those “made in Germany”, effectively caters to

the demands of local clients and shortens the time of delivery by two months. All the project files of the product are completed by local design teams, which allow them to submit the files within a shorter time and ensures flexibility, reducing the cost by 30%.

Since local production was launched, Voith Turbo has been striving to boost its efficiency with optimized resources and lean production processes. Meanwhile, it has been establishing and refining local management teams in China to facilitate local production and build up local thinking and design so as to react to the changes in the local market more quickly and accurately. (1) (2)



The 2016 Voith-Yutong Technical Exchange Day fell on December 7 in the Yutong Technical Center where Voith's latest products and digital solutions in response to intelligent manufacturing were displayed. Present at the event were Director of Yutong Supply Chain Ms. Zeng Rong, Director of Yutong New Energy Technology Department Mr. Li Gaopeng, Senior Vice President of Voith Turbo Product Management Dr. Benedikt Hofmann, Vice President of Voith Turbo AP Commercial Vehicle Division Mr. Chen Hongguo, and R&D Director of Voith Turbo Retarder Product Program Mr. Laukemann.

During the event, Voith demonstrated some of its products to Yutong, highlighting DIWA, the automatic trans-

mission product for urban public transport and intercity buses, as well as VR115CT, retarder for the Chinese market. In addition, Voith shared measures, products and solutions to cope with intelligent manufacturing in the days to come, accentuating its latest digital service solutions. After the sharing, Voith Turbo and Yutong discussed about Voith's hydraulic retarders, technical development capacity and new technologies of the future. In the end, VT and Yutong exchanged views on planning of new energy products and extended their best wishes for their cooperation on the green industry. In the future, Voith Turbo and Yutong will establish long-term strategic cooperation and together create a better future. (3)

The four 300 MW Francis reversible pump turbines and generators, which were provided by Voith Hydro Shanghai, were all put into operation in Hong Ping Pumped Storage Power Station (Hong Ping PSPS) on December 8th, 2016.

The contract included four 300MW Francis reversible pump turbine generating units, with a total installed capacity of 1200MW. The rated head of the generating unit is 540 meters (maximum head: 580 meters) and the rated speed is 500 rpm.

VHS encountered difficulty of “tight schedule and heavy tasks” during the whole power station construction process. How to complete the construction project in a safe, quality and effi-

cient way is main challenge to VHS experts. To meet problem and find a good solution timely, the project management team were presence onsite for a long term. They communicated with customer frequently and response for all issue quickly. By the end, all set targets were achieved in a perfect way by co-ordinating all internal and external resources, overcoming all difficulties and making great efforts from all employees in VHS. The customers quite satisfy the performance of all equipment and express their sincere appreciated to VHS. On December 21st, VHS receive the letter of thanks and also certificate of awards for “Excellent Service for Equipment Supply” from Hong Ping PSPS. (4)





Voith wins the order from Shandong Chenming Paper Holdings Ltd. to rebuild Zhanjiang Chenming PM4 (Old Shouguang PM7) in January, 2015. Zhanjiang Chenming PM4 was relocated to Zhanjiang, Guangdong province, and restarted up on Oct of 2016. At present, the project has been taken over to Chenming and it obtained the acceptance from the customer. After the rebuild, the paper grades of PM4 will be switched from the original Coated White Top Kraftliner to Folding Box Board with a quantitative range from 175 to 400g/m² and the operating speed will be up to 1,000 m/min with a wire width of 10.4m. The design annual capacity is going to reach 1.1 million tons.

On December, 2016, Voith has officially executed the contract with Shandong Chenming Paper Holdings Ltd. in Shouguang, Shandong and it will provide Chenming Paper with a PM7 fine

Paper Machine. PM7 will be installed in the factory located in Shouguang, Shandong of Chenming Paper, and it is able to be put into operation in June 2018. PM7's net width is 10.5 m, the width is 9.85m, the designed speed is 1800m /min, the operating speed is 1700 m/min, and the annual weight 60-140g /sqm paper will be produced up to 510 thousand tons. PM7 has the maximum width and fastest speed among all the supplies.

Voith has a successful partnership with Chenming Paper for 14 years. The accomplishment of this project and the decisions to reorder reflect that the high quality products and services from Voith have won the recognition and trust from the customers. And it also further consolidates the leading position of Voith in the fine paper machine market globally. (1)

Voith Paper China Co. Ltd. and Jiangxi Taisheng Paper Co. Ltd. signed a contract in Q4 2016, with Voith to provide the first four machines (TM7, TM8, TM9 and TM10) with a web width of 5,600 mm as part of Phase I. These new machines will help Taisheng Group meet its capacity expansion demand by increasing its annual tissue production by up to 240,000 metric tons.

The designed maximum operation speed of the four issue machines is 2,200 m/min, and Voith's application of the latest products and most optimized technologies to the production line of these four machines provides Jianxi Taisheng Paper with the most optimal way of saving energy and reducing costs. Using different raw fibers to pro-

duce various paper grades is now made more convenient, and higher quality can now be ensured when trying to keep up with consumer preferences.

Voith has always been committed to meeting requirements in terms of higher energy efficiency, lower water consumption, less fiber usage and higher system reliability in the papermaking industry. Based on their existing business, Voith and Taisheng Group can now hope to further their partnership through this new contract, and this once again demonstrates Voith's profound innovative tendencies in papermaking technology when it comes to tissue production. (2)



Mr. Ying Guangdong, Deputy General Manager and Chief Engineer of Sun Paper (front row, second by right), Mr. Fu Guoling, Director of Packaging Paper Division (front row, first by right), Mr. Holzer Thomas, President of Voith Paper Asia (front row, second by left), Dr. Michael Trefz, SVP Project Sales (front row, first by left) and Mr. Kurt Yu, Vice President Sales BL Projects Asia (second row, second by left) attended the ceremony.

> January

In the morning of January 25, 2017, the signing ceremony of Sun Paper ordered two papermaking machine production lines from Voith was held. Deputy General Manager and Chief Engineer of Sun Paper, Mr. Ying Guangdong, Director of Packaging Paper Division, Mr. Fu Guoling, President of Voith Paper Asia, Mr. Holzer Thomas, Dr. Michael Trefz, SVP Project Sales and Mr. Kurt Yu, Vice President Sales BL Projects Asia attended the event.

The order of the two paper machine production lines are PM36 annual production of 400,000 tons of low-gram high-grade kraft liner board production line and PM37 annual production of 400,000 tons high-strength corrugated paper production line.

The design speed of two paper machines is 1200m / min,

coiling width is 6,660mm. These two paper machines are re-optimized in design and upgrading based on 2016 paper machine PM31 & 32 in 2016. It is characterized by low weight, high ring crush strength, good water resistance, high wet strength, good folding resistance, etc. It also has the characteristics of saving resources, reducing packing cost and reducing carbon emission. The products are widely used in domestic and overseas medium and high product packaging market.

Voith Paper saves cost for customer to achieve sustainable development through resource-saving new technologies while achieving the best performance at lower prices for papermaking's each section and each grade of paper to grasp "Industry 4.0" better. (3)

> February

Nanjing Metro Operating Co., Ltd. spoke highly of Voith Turbo's Aftersales Service Team for Chinese Railway for their excellent performance over the year 2016 with a commendatory letter to extend gratitude to the team for their unremitting efforts in aftersales services and overhauling under intensive and stressful conditions. **(1)**



On February 10, 2017, the meeting on “Building Work Style and Efficiency and Encouraging Pioneering Move in Kunshan New & High-Tech Industrial Development Zone” was held in the Lecture Hall on the second floor of the government building of Kunshan New & High-Tech Industrial Development Zone.

Enterprises that actively advanced transformation and upgrading, represented by Voith Paper, were commended for their contribution to the economy and qualitative efficiency of Kunshan. The Party Working Committee and Management Committee of Kunshan New & High-Tech Industrial Development Zone decided to honor Voith Paper with the title of “Pioneer Enterprise in Transformation and Upgrading of 2016 in Kunshan New & High-Tech Industrial Development Zone” and cash award. Mr. Lin Jiangbo, vice president of Specialty Order Execution APAC of Voith Paper received the award.

Voith has been performing its corporate social responsibil-

ity vigorously and making unremitting contributions to the society. Back in 2012, Voith initiated the five-year “Voith China Scholarship Program” in Shanghai which has benefited excellent students majoring in engineering, electro-mechanics and hydropower etc. in more than ten key institutes of higher learning in China. The program facilitated the cultivation of talents in China as well as the sustainable development of talents. On September 9, 2016, Voith kicked off a series of public benefit activities known as “Voith and Future”. Thomas Holzer, president of Voith Paper Asia and honorary citizen of Kunshan, together with other Voith leaders and employees, went to Wulian Primary School at Yushan Town, Kunshan, starting a special school year for the kids with love and strength.

In the days to come, Voith Paper will continue to speed up its transformation and upgrading, making more contributions to the economy and society of Kunshan and even China. **(2)**

On February 21, 2017, the Truck Owners Survey and Appraisal Awards Ceremony was successfully held by chinatrucks.com in Intercontinental Beijing Beichen. Voith Turbo's VR115CT Hydraulic Retarder won the Excellence Award and came into the spotlight at the event. Mr. Xu Xi, sales director of Voith Turbo Truck Business Division, received the award.

VR115CT is a parallel hydraulic retarder especially designed for the heavy-duty trucks in China. Featuring great power, high braking torque, light weight, and low power loss, it allows continuous braking of trucks and buses without abrasion and cruise control on the down-

slope. Whether in high or low speed, the VR115CT can help vehicles achieve the best braking effect and secure safety in any condition.

The award has exposed more users to the products of Voith Turbo. At the event, enterprises benefited a lot from exchanges on the new trends and technologies in the truck market. With "Lotus", the new production base of Voith APAC in Shanghai, Voith Turbo will ramp up its research, development and innovation of products and provide Chinese clients with better local products and services by virtue of optimized resources and lean production processes. (3)



3



4

> March

On March 15, 2017, 26 members from the delegations that participated in the CMPC visited Voith Paper. In the company of Sales Director Asia of Voith Paper, Mr. Ronaldo, the visitors were shown around the equipment in Kunshan factory and had in-depth discussions. Later, heads of different business lines of Voith China met and had cordial conversations with the visitors.

From March 13 to 14, 2017, CMPC Pulp held a symposium for its clients in Asia of tissue, writing paper, printing paper and specialty paper, including Voith Paper. The visit after the symposium better exposed the CMPC attendees to the products and production of Voith Paper, encouraging further cooperation and exchanges between CMPC and Voith Paper.

Back in September 2016, Voith Paper provided CMPC with a full VTM 4 double-width tissue machine which was installed in the new production line of its subsidiary Protisa in Gannett, Peru. In addition, Voith Paper offered CMPC factories in Mexico, Brazil and Peru Process Line Package (PLP). Each paper machine enjoys an annual output of up to 60,000 tons. The visit and exchanges without doubt laid a foundation for further and more extensive cooperation between the two groups. Voith Paper will invest more on research, development and production and provide clients with more quality products and services. (4)



A group photo of Mr. Andreas Endters (left), President of the Business Line Projects at Voith Paper, Mr. Yang Yanliang (middle), Chairman of Shandong Bohui Paper Group Co., Ltd. and Mr. Thomas Holzer (right), President of Voith Paper Asia

Voith and Shandong Bohui Paper Group Co., Ltd. have recently signed an official contract in Zibo, Shandong Province, under which a set of brand-new XcelLine Board Machine BM4 will be supplied to Bohui Paper. Voith's XcelLine board machine can provide an integrated solution to facilitate outstanding performance throughout the life cycle of the paper machine. With a reeling width of 9.66 meters, the BM4 has the widest width and highest speed ever supplied by Voith to Bohui Paper. The BM4 will be installed in Bohui Paper's production base at Dafeng, Jiangsu Provinc. The scheduled time for start up is at the end of 2018.

According to the Contract, Voith's supply scope includes approach flow system, paper machine, parent roll conveying system and two VariFlex winders. Technologies such as MasterJet

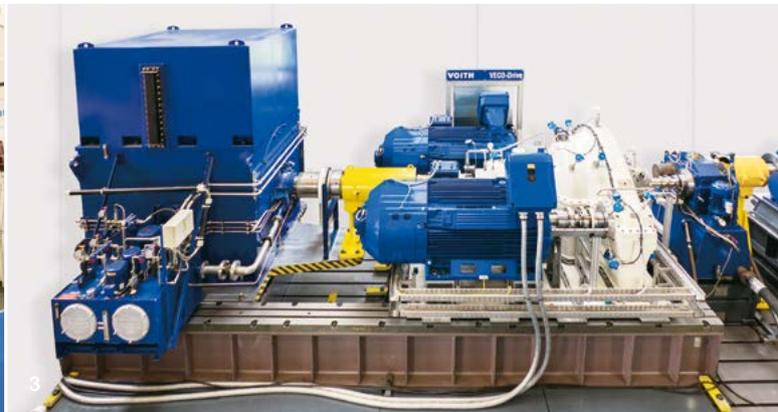
headbox, DuoFormerD II former and NipcoFlex shoe press section will help to reduce energy consumption while guaranteeing the best paper quality. Moreover, Voith will also provide a complete set of mature and advanced automation systems, including distributed control system (DCS), machine control system (MCS), quality control system (QCS) and web inspection system (WIS).

Voith and Bohui Paper have a 15-year-long history of cooperation. Bohui Paper has ordered paper machines from Voith once again not only demonstrates Bohui Paper's recognition of and trust in Voith's high-quality products and services over the years, but also pushes the cooperation between the two sides to a new level, which further manifests Voith's leading position in the global board machine market. **(1)**

> April

Voith Turbo Co., Ltd. (VTFC) located in Japan joined GASTECH Exhibition & Conference 2017 in Makuhari Messe on 4th -7th April. Gastech is the world's leading gas and LNG conference and exhibition. Join over 25,000 commercial experts and technical innovators from the up, mid and downstream sectors of the supply chain to discover business-changing insights, explore innovative solutions and build profitable business connections. Gastech has been held every one and half year in worldwide. In 2017 which is Voith's 150 anniversary year, this exhibition event was held in Japan. VTFC had a booth for this event and featured Voith advanced technology, "Vorecon NX" - development of hydrodynamic power transmission in combination with planetary gear, and "AeroMaXX" - simple and reliable solution that considerably increase efficiency.

Product Manager Mr. Peter Goretzki from Voith Turbo GmbH & Co. KG (VTCR) introduced our new technology of "AeroMaXX" and "Vorecon NX" for power transmission in the Oil & Gas industry at Product Showcase Theatre in Gastech Exhibition. During the days a lots of visitors come to Voith booth and exchange meaningful discussion for connect future business. Excellent feedbacks from customer make our staffs to expect good business on coming years. Since POG APAC North Sales meeting at Tokyo was held in parallel, colleagues from APAC sub-regions, China, Taiwan, Korea, Vietnam, and Germany all got together. Japan as many major OEMs located country for Industry business, VTFC put importance to focus on to keep cooperate with OEMs, and makes better collaboration with them to prepare for next Power Oil & Gas and Mining & Metal project in worldwide. (2)



> May

Voith Turbo VECCO-Drive New Product Launch was held in Shanghai on May 18, 2017. Dr. Kersten Hahn, who is Vice President Product Management for Industry; Mr. Henry Yang, who is Chief Marketing Officer & Senior Vice President, APAC Division Industry and Dr. Tilscher Martin, who is Product Manager of Voith Turbo, attended the event and addressed the audience, announcing the launch of the new VECCO-Drive solution and sharing with the customers the latest energy conservation technologies. The event welcomed more than 100 guests.

For years, Voith Turbo has been providing a broad array of innovative technologies and solutions to various oil and gas applications based on in-depth communication and co-creation with leading design institutes and industrial users, contributing greatly to the development of the industries. With Voith celebrating its 150th anniversary, Voith Turbo now brings its brand-new VECCO-Drive speed control solution for power generation and oil & gas industrial users. (3)



Ushering in Another 150 Years for Voith, with China by Its Side

— Exclusive interview with Mr. Thomas Koller, VP Regional Corp. OPEX Region CN&SE Asia

30 goes into 150 five times, meaning that Mr. Thomas Koller is just a fifth-generation Voithian whose entire career has been dedicated to working for the Group ever since his graduation on April 1, 1986.

"I came to Kunshan on January 3, 2009," Mr. Thomas Koller said, who was not quick to make such an important decision. "I knew what I would find, what circumstances awaited me, what language barriers I had to face; but before I came, I spent some time in Germany learning about the main cultural differences between Germany and China and preparing myself for what was to come."

Voith Paper had just started up in China around that time, with the main office having recently shifted from its location in Shanghai with 50-70 people to a really small operation on a big piece of land at the new plant in Kunshan. Mr. Thomas Koller's responsibility there, then, was specifically to build up an order execution team.

The first investment phase of Voith Paper City was completed in Kunshan in March 2009. The state-of-the-art facility covers a staggering area of 70,900 square meters and is an integrated manufacturing center for all divisions, including Paper Machines, Fabrics and Rolls services, Fiber and Environmental Solutions and Automation, solidifying the company's leading position as a comprehensive supplier for paper system solutions and services. With all divisions brought under one roof in this strategically located city, this phenomenally massive pool of know-how gives Voith the leverage it needs to serve the Chinese and Asia/Pacific market in a way that is more focused and efficient than ever before.

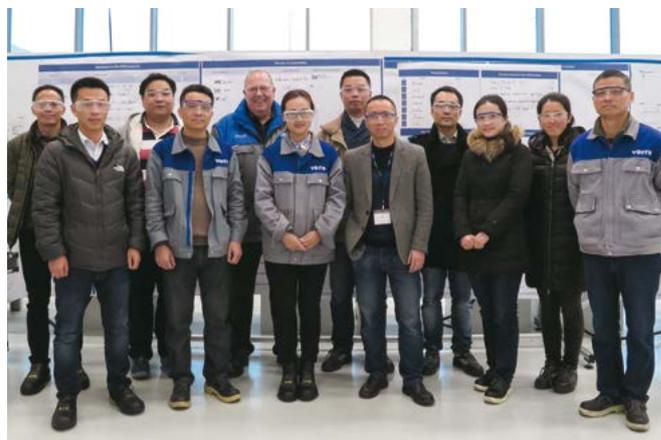
The relocation to Kunshan presented a great deal of challenges in terms of hiring and finding the right people in a limited amount of time. "If I remember the numbers right, in two to

three years, we went from around 70 people to somewhere around five to six hundred," said a warmly smiling Mr. Thomas Koller.

"The name we gave the project for ramping up our Voith Paper Projects and P&S business was 'Build up China'. In 2009, only 25% of the components of our paper machines were sourced from local manufacturers, with 75% still coming from Europe. When it came to our fiber system equipment, though, local components only accounted for around 10%. 'Build up China' was conceived to boost these figures."

Starting in 2010, the project has brought the percentage of local components used for a Voith paper machine up to the 75-80% range, which is like night and day when compared with before. Fiber systems, though, boast nearly 100%. While some parts here and there are still imported, it is pretty safe to say that the goal of reaching 100% local content has been more or less realized.

The project was immensely difficult for everyone in the order execution team, but efforts were not in vain, with employees





keeping up with the new production schedule and the second investment phase completed by the end of 2012.

Localizing products takes a lot of work. The whole supply chain must be managed in a way that builds up new suppliers, sets up a good purchasing organization and maintains the ability for the organization to support new suppliers while adhering to Voith's quality requirements throughout the entire production process. This is all not to mention manufacturing and engineering, which are tasked with providing top-notch Voith products in China. This meant a company-wide ramp-up for bringing all these products to the Chinese mainland, something that was achieved through Voith Hydro in Shanghai a couple of years ago as well as something that will hopefully happen with Voith Turbo and its new Lotus plant in the near future, meaning that the road is being paved for more and more products being home grown.

“Our board of management wants to promote the public's view of Voith in China as a local company with German roots, and to attain this, we have to produce locally here in China,” said Mr. Thomas Koller. “As the program manager in charge for making this happen with paper machines, I had a team of localization engineers who planned and supported all these localization proposals and executed them through the proper order execution departments.”

After working in China for more than eight years, what impressed Mr. Thomas Koller the most was how quickly everything changed. “Coming from Germany, the speed of change was really impressive and unbelievable for me. When I came to Kunshan in 2009, there was no high-speed train connection between Shanghai and Beijing, and construction for it was just starting up, with pillars marking where they planned to build. Then, three years later, I was able to ride that very



train from Kunshan to Beijing. Terminal 2 at Hongqiao Airport was also built during that same time. In Germany, word is in the air of a new train station to be built in Stuttgart, and a new airport in Berlin has been many years in the making. What a stark contrast!"

When it comes to Voith, though, Mr. Thomas Koller believes that plenty of opportunities lie in wait for further growth in China. While it is true that the 13-15% growth rate from 2007 has declined to 5-6%, the consumption of paper and energy continues to drive business in Paper and Hydro, and Turbo can expect a lot of business through the great push for investment in public transportation as a result of the massive urbanization taking place.

From all of this, new technology driven by new societal trends and a newly created demand for growth seems to be on the forecast for the coming years, and a great example of this can be seen with the rapid development of e-commerce within the region.

"Right now we have an unbelievable demand for board and packaging papers driven as a result of this new trend. I don't see this at all in Germany, and I see China as the leader here. What's to say that this won't be the case with other technologies in the future?"

Today, Mr. Thomas Koller has taken a great liking for his new role as Vice President Regional Corporate OPEX for China and Southeast Asia. "I can share my long experience with a lot of people now and not just in one Group Division!"

Starting 4 years ago with a Corporate Excellence Team in Germany, this concept will now be rolled out to the regions. That is why the regional Corporate Excellence Organization for Asia Pacific has started in January of this year.

One of the main tasks at the beginning was to set up a learning factory, where operations employees were to be trained in implementing "excellence" with methods and tools, something that was challenging but also a lot of fun. "I'm now looking forward to finding people who will support me in this role and discuss with the Group Divisions and the OPEX team where we can further develop our approach on 'excellence' and implement further promotion in Asia."

"Having worked with Voith Paper for 31 years, I like having the opportunity to work together with other Group Divisions in Asia, which will allow me to experience their specific cultures and product-related challenges. This is exactly what we want to achieve with this regional approach! We want cross communication between the Group Divisions, to learn from each other, to exchange good and bad experiences and to transfer success to other locations. Learning from each other is very important, and this is one of the major tasks of this new organization for regional excellence.

"I like what I do because I want to share my experience with the next generation of Voithians."

When talking about the 150-year anniversary, Mr. Thomas Koller hopes: "I've been here for 31 years, which is more or less my entire career, and I have witnessed an era of rapid development for Voith, especially in China. I take pride in that I achieved my personal career success while devoting all my efforts to the development of this Company. I sincerely hope that the company will march toward greater success in the next 150 years, and that all Voithians can make best use of their passion, initiative and creativity to really align their personal achievement with the development of this company. This will be the most meaningful thing we can do to embrace a better future."

Masthead

Editor

Koko Sheng
koko.sheng@voith.com

Serena Li
yuanyuan.li@voith.com

Printing

Chang Xin Long

Photographs

All photos provided by Voith China

Copyright

Copying and reproduction of any articles or pictures requires the prior consent of Voith Corporate Management (Shanghai) Co., Ltd.

Paper

Voith Regional Report China is printed using 100% recycled paper. The paper was manufactured using a Voith paper machine.

Voith Regional Report China is published in Chinese and English.



For more information about us, please go to:
www.voith.com.cn

And scan the QR codes to follow our social media accounts



Voith China WeChat



Voith China Weibo

Voith Corporate Center Asia Pacific
No. 199 Chen Feng Road
Kunshan, Jiangsu 215300, PRC

Telephone: +86 512 57993600
Teletax: +86 512 57993611

www.voith.com.cn

VOITH
Inspiring Technology
for Generations