



# kemira

ANNUAL REPORT 2010





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Kemira experienced a good financial year in 2010. In 2010, Kemira continued to improve its operational efficiency and successfully implement the water-business-focused strategy.



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## 12 RESEARCH & DEVELOPMENT

The Center of Water Efficiency Excellence (SWEET) founded by Kemira and VTT gathers water know-how globally into one package.



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Understanding the challenging conditions faced in the oil and mining industries led the Oil & Mining segment results towards strong growth in 2010.





# IN SERVICE OF CLEAN WATER

TEXT JOHANNA HYTÖNEN PHOTO ISTOCKPHOTO

**B**y 2050, the world population will increase by an estimated one-third. The need for water is constantly growing as urbanization, population growth and climate change increase pressure on water resources.

Only 2.5 percent of the water on this blue planet of ours is fresh, and less than 1 percent of this fresh water is actually usable.

Will there be enough fresh water for the needs of cities, local communities and the industry? How will local conditions be considered in water treatment? We need advanced water treatment technologies and top expertise in water reuse,

environmental concerns and sustainable development. Water scarcity challenges us to innovate.

Kemira tackled the water challenge in its strategy in 2008. The company is investing in research and development, strongly and consistently, to offer to water-intensive industries solutions that help save water and energy.

Over the years, Kemira has accumulated impressive expertise and knowledge related to water-intensive processes. Combined with water chemistry, this competence enables Kemira to create production processes that require less water, energy and other invaluable resources. ■





#### CEO'S REVIEW

Kemira recorded a strong financial performance in 2010 and our profitability improved significantly. Kemira's revenue increased by 10 percent to EUR 2,160.9 million and EBIT (operating profit) increased by 42 percent to EUR 156.1 million. Our strong balance sheet enables growth and allows for added flexibility in implementing the company's strategy, says Harri Kerminen, CEO of Kemira.

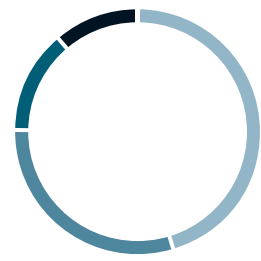
TEXT HARRI KERMINEN PHOTOS ISTOCKPHOTO,  
SUSANNA KEKKONEN AND JARI KIVELÄ



KEMIRA'S YEAR  
WATER  
STRATEGY  
PAYING OFF

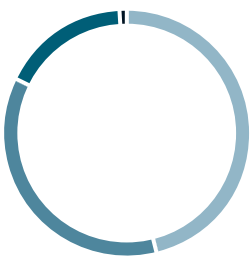


REVENUE BY SEGMENT\*



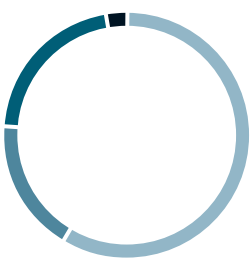
45% PAPER  
30% MUNICIPAL & INDUSTRIAL  
14% OIL & MINING  
11% OTHERS (INCLUDING E.G. CHEMSOLUTIONS)

OPERATING PROFIT BY SEGMENT\*



47% PAPER  
36% MUNICIPAL & INDUSTRIAL  
18% OIL & MINING  
-1% OTHERS (INCLUDING E.G. CHEMSOLUTIONS)

CASH FLOW BY SEGMENT\*



62% PAPER  
19% MUNICIPAL & INDUSTRIAL  
23% OIL & MINING  
-4% OTHERS (INCLUDING E.G. CHEMSOLUTIONS)

\* FIGURES EXCLUDING TIKKURILA

In 2010, the Kemira strategy proved successful. Kemira aims to become a leading water chemistry company. We provide customers in water-intensive industries with effective solutions for water quantity and quality management.

More than 75 percent of our business is related to water. Kemira's segments – Paper, Municipal & Industrial, and Oil & Mining – build on the product and water chemistry expertise we have developed through determined and consistent research and development.

#### IMPROVED PERFORMANCE

Kemira recorded a solid financial performance in 2010, and our key figures developed in the right direction. Sales volumes began to increase in early spring, and our revenue rose by 10 percent in 2010.

The Paper segment improved its profitability significantly, and its revenue increased by 9 percent. The revenue of the Municipal & Industrial segment increased by 6 percent driven by demand in the industrial customer segment and profitability remained strong. The demand for water management solutions in cities and municipalities remained relatively stable during and after the recession of 2009. The Oil & Mining segment's revenue increased by 27 per-

We would not be able to implement our strategy without our highly motivated personnel and the common values we have worked hard to create.

cent percent and its profitability doubled. ChemSolutions, Kemira's specialty chemicals business, showed good results, and the demand for specialty chemicals was stable.

We have a strong balance sheet, and our profitability has improved significant-

ly. We completed our extensive cost-savings program in late 2010, slightly ahead of the schedule. The program helped Kemira save EUR 60 million in fixed costs.

By the end of the year, our gearing had decreased to below 40 percent and our equity ratio had risen to above 50 percent. This makes us well-positioned to further develop and increase our business.

The results were well received among investors: after Tikkurila was separated from the parent company in March, Kemira's share price increased by about 40 percent in 2010.

#### STRATEGY IN PRACTICE

The successful listing of Tikkurila on the NASDAQ OMX Helsinki was one of the milestones of 2010. Of Tikkurila's shares, 86 percent were distributed as dividends to Kemira's shareholders. We also strengthened our profile by selling our sulphuric acid business in Finland and our optical brightener business.

Moreover, we strengthened our market position in municipal water treatment in North America by acquiring Water Elements, LLC in September 2010. In England, Kemira acquired one of Albemarle's production plants, which mainly serves companies in the oil and gas fields of the North Sea. This acquisition expanded the Oil & Mining segment's product selection and expertise. It also enabled Kemira to offer its products to the Russian oil and gas industries.

In 2010, Kemira decided on two major investments in strongly developing markets. Water shortages and related municipal and industrial challenges call for more effective solutions in Asia and South America. In order to reach our strategic goals, we need to gain a stronger foothold in these markets.

In China, Kemira will build a process chemical plant consisting of multiple production units. In India, the company launched a joint venture to build a water chemicals plant in Vishakapatnam in the state of Andhra Pradesh. The plant will produce inorganic coagulants, which are integral to industrial and municipal water treatment.

Production will begin at the end of 2011 in India and in the spring of 2012 in China. These investments considerably improve our growth opportunities in

## KEY FIGURES 2010

EUR million	2010	2009
Revenue	2,160.9	1,969.9
Operative EBIT	162.3	124.9
EBIT	156.1	109.7
Operative EBIT, %	7.5	6.3
EBIT, %	7.2	5.6
Profit before tax	137.9	67.1
Net profit from continuing operations of which attributable to owners of the parent ***	110.9	54.0
EPS, EUR from continuing operations	0.73	0.40
ROCE, %*	9.9	6.3
Cash flow after investments ** ***	168.6	202.2
Equity ratio, % at period-end **	54	45
Gearing, % at period-end **	39	53
Personnel at period-end	4,935	8,493

Figures excluding Tikkurila  
\*12-month rolling average

\*\*Includes Tikkurila until March 25, 2010

\*\*\*Net profit January-December 2010 includes a non-recurring income of EUR 529.2 million from the separation of Tikkurila, consisting of the difference between the market price of Tikkurila on March 26, 2010 and the shareholder's equity of Tikkurila on March 25, 2010 less the transfer tax related to Tikkurila's listing as well as listing costs.



"Research within SWEET aims to develop new technologies that enhance water use and recycling, as well as more sustainable and energy-efficient solutions for water-intensive industries," says CEO Harri Kerminen.





## FINANCIAL TARGETS

### Growth in revenues

Mature markets > 3%

Emerging markets > 7%

### Earnings before interest and taxes (EBIT), % of revenue

> 10%

### Cash flow after CAPEX and dividend

> € 0M

### Gearing

< 60%

With current water technologies, the gap between demand and supply will be 40 percent in 2030. We need more water- and energy-efficient solutions so that industries can thrive.

- ▶ Asia, which is projected to represent half of the world's water business in twenty years.

### WATER SCARCITY CHALLENGES TO INNOVATE

Water treatment is the fastest growing business in the world. The demand for water-efficient processes outpaces supply. With current technologies, the gap between demand and supply will be 40 percent in 2030 because of water-intensive industries, among other factors. We need more water- and energy-efficient solutions so that industries can thrive and meet the needs of the growing population.

The Center of Water Efficiency Excellence (SWEET) was among the most significant strategic investments in 2010. Kemira and VTT Technical Research Center of Finland established the center in March 2010. Kemira and its partners will invest a total of EUR 120 million in SWEET over the next four years. We aim to develop new technologies that enhance water use and recycling, as well as more sustainable and energy-efficient solutions for water-intensive industries. Project partners include companies and research institutes.

In addition to new products and applications, research within the SWEET network focuses on competence development. In the future, we will be able to introduce more rapidly solutions for industries that are new to us. This enables organic growth.

### KEMIRA'S WATER EXPERTISE SPURS GROWTH

Over the years, Kemira has accumulated impressive expertise and knowledge related to water-intensive processes. We serve over 10,000 customers in approximately 40 countries, including cities, municipalities and industries in Europe, North America and South America, among others.

We have an exceptionally wide product selection that consists of water chemistry applications and products for water treatment. Combined with chemistry, our unique water expertise helps us stand out from the competition. The right type of water chemistry helps reduce the consumption of water, energy and raw materials, which creates added value for our customers.

Kemira's personnel are one of its greatest competitive assets. For this reason, I am particularly pleased that our personnel find Kemira's water-focused business valuable. We would not be able to implement our strategy without our highly motivated personnel and the common values we have worked hard to create.

Transferring these values from paper to practice was an enormous effort – and well worthwhile. Personnel surveys show that Kemira's employees have grasped the company's values, which were introduced in 2010: We are dedicated to customer success. We care for people and the environment. We drive performance and innovation. We succeed together.

We achieved a great deal in 2010. Kemira recorded a strong performance, its profitability improved significantly, and the company has a strong balance sheet. This has laid a rock-solid foundation for making Kemira a leading water chemistry company. ■

The strength of Kemira's business model comes from our decades' worth of accumulated expertise and problem-solving abilities based on them.





# STREAMS OF INNOVATION

Research and development at Kemira support business growth and a customer-oriented approach. In 2010, Kemira and VTT Technical Research Center of Finland established SWEET (Center of Water Efficiency Excellence) to develop more sustainable and energy-efficient solutions for water-intensive industries. SWEET promotes efficient water use and recycling through new technologies.



## RESEARCH & DEVELOPMENT

Water-related research at Kemira made significant advancements in 2010. In March, Kemira and VTT Technical Research Center of Finland established a center of expertise that brings together water know-how in a new way. Investments in research and development are integral to Kemira's goal of profitable growth through new products and customers.

TEXT JOHANNA HYTÖNEN PHOTOS ISTOCKPHOTO, RAMI LAPPALAINEN, JARI KIVELÄ AND SUSANNA KEKKONEN

# FASTER, BETTER, MORE EFFICIENTLY

In the past few years, Kemira has geared research and development to support profitable growth even more strongly than before. Research and product development have been seamlessly integrated into all operations.

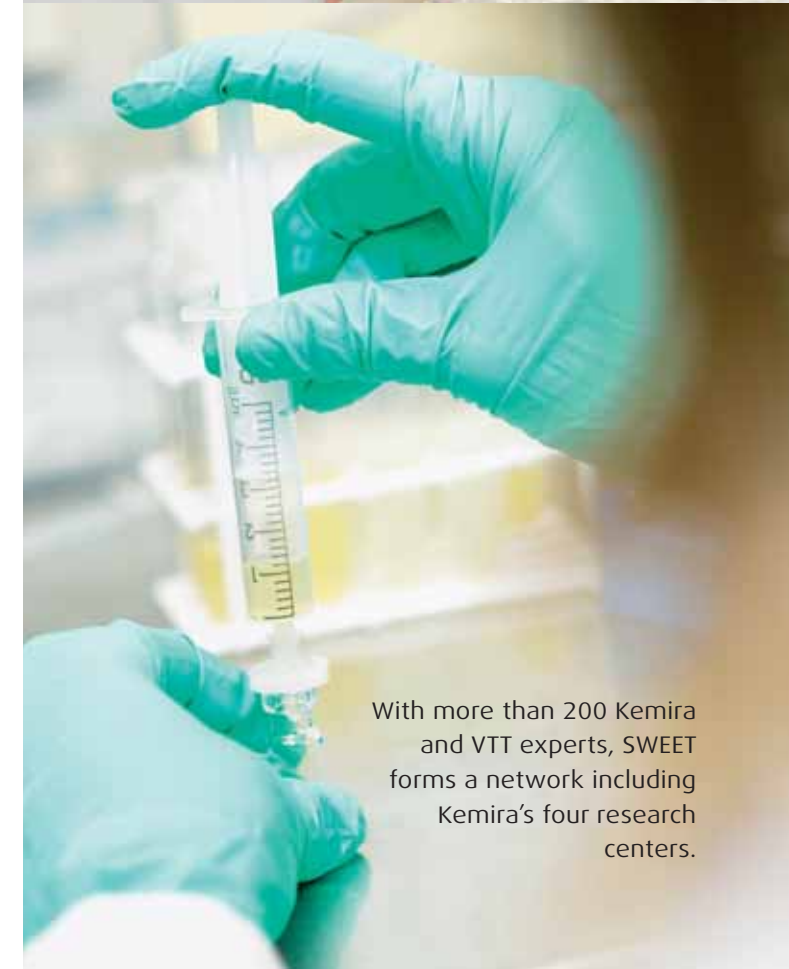
The innovation process aims to commercialize new products and introduce them to customer segments for use as quickly as possible. Research targets are chosen based on customer needs. The path of the innovation process, as well as the related rights of ownership, have been defined in detail through close collaboration among all of Kemira's segments and operations.

### MAJOR INVESTMENTS

The restructuring of research and development at Kemira was completed in 2010. The company now has four research centers, the newest of which was opened in São Paulo, Brazil, in late 2010. Kemira's research centers focus on supporting profitable growth and creating new business.

In March, Kemira and VTT launched the Center of Water Efficiency Excellence (SWEET), which brings together Finnish and international water expertise. Headquartered in Espoo, the center develops technologies and applications for water-intensive industries. Through major investments in research and development, Kemira aims to create new products and applications that offer added value to customers. With more than 200 Kemira and VTT experts, SWEET forms a network including Kemira's four research centers. Other companies and research institutions are also involved in this.

In 2010, Kemira invested EUR 41.6 million in research and development which represented 2 percent of all operating expenses. From 2008 to the end of 2010, Kemira's R&D was led by **Johan Grön**, Executive Vice President of R&D and Technology. In January 2011, he was succeeded by the new Executive Vice President of R&D and Technology **Heidi Fagerholm**, who was Director of Kemira's Espoo R&D center. ▶▶



With more than 200 Kemira and VTT experts, SWEET forms a network including Kemira's four research centers.





sive competitive factor, and it is difficult for a single company to acquire sufficient expertise rapidly enough,” adds Grön.

**EFFICIENCY MEANS SUSTAINABILITY**  
Sustainable development is a key goal for research and product development, and solutions related to sustainability will continue to gain significance. Chemical use can be reduced and measuring methods improved by optimizing water treatment processes.

Waste will become a new resource, because more and more raw materials can be separated from biomass, a by-product of water treatment processes.

“This will enable closed product cycles and the reuse of all raw materials,” Grön says. ■



► **WATER EXPERTISE FOR LOCAL NEEDS**

All of Kemira’s research centers strongly support work with local customers. The research center in Brazil focuses on reusing and refining biomass, which are significant issues in South America. Other focus areas include developing applications for the pulp, oil and mining industries.

Kemira’s research center in Shanghai, China, focuses on securing sufficient-quality raw water for water-intensive industries, a key issue in China and India. In addition to tissue manufacturing, the research center in Atlanta, USA, specializes in efficient and ecologically sustainable water treatment for the oil and mining industries, and related water chemicals. The research center in Espoo, Finland, focuses on water treatment solutions for municipal treatment plants and water-intensive industries.

Kemira’s global organization enables customer segments to adopt innovations quickly and apply them to water treatment in different industries.

“The research centers also serve to put technologies into practice. Staying attuned to weak signals at the local level is essential. The composition of raw materials and water varies greatly by location,” Grön explains.

**A STRATEGY-BASED PRODUCT PORTFOLIO**

During 2010, Kemira created the necessary pools of expertise for research and

product development and recruited new expertise in selected fields. The company also revised its product development portfolio to support its strategy and established strategic partnerships.

Carefully selected partnerships support Kemira’s goals.

“Equipment manufacturing, for example, will never be a core business for Kemira. We need partnerships to gain the necessary expertise. Swiftness is a deci-



Kemira’s research centers strongly support work with local customers.

**30 SECONDS**

- Kemira has four research centers: Espoo, Shanghai, Atlanta and São Paulo. The newest center São Paulo was opened in collaboration with VTT in 2010. The research centers enable Kemira to consider local needs and make its expertise available to all customer segments rapidly and globally.

- Established by Kemira and VTT in March 2010, the Center of Water Efficiency Excellence (SWEET) brings together leading water-related expertise globally. The center aims to create products and applications for more efficient water management. Key research areas at SWEET include more efficient water use in water-intensive industries, reuse of biomass for energy production, production of fresh water through desalination and sustainable development through water chemistry. SWEET also allows Kemira to manage its major strategic partnerships, which aim to increase and commercialize expertise rapidly.

- In 2010, Kemira completed the reorganization of its R&D operations, which began the previous year. This created a unique innovation process that involves all organizational levels of the company.



# AGILE PARTNERSHIPS

Successful water management innovations require carefully selected partnerships and a comprehensive vision.

In the spring of 2010, Kemira and VTT established the Center of Water Efficiency Excellence (SWEET), a global center for leading water-related expertise. Kemira is strongly committed to SWEET, which was a major investment for the company.

SWEET aims to create new business concepts. Kemira and its partners will invest a total of EUR 120 million in SWEET over the next four years. Headquartered in Espoo, SWEET also serves as a hub of expertise and partnerships.

Research at SWEET focuses on more efficient water use in water-intensive industries, reuse of biomass for energy production, production of fresh water through desalination and sustainable development through water chemistry.

## SWIFTESS COUNTS

The partnerships managed through SWEET are essential to Kemira, especially when the company wants to make rapid progress and enter new growth areas among tough competition.

“Swiftness counts, and reliable partners enable rapid responses,” says Johan Grön, outgoing Executive Vice President of R&D and Technology.

During 2010, Kemira established many international partnerships that also serve to secure sufficient knowledge of local conditions. In September, Kemira announced its collaborative project with the University of Alberta to promote sustainable water use in Canadian oil sands extraction. The project also involves close collaboration with the Finnish company Outotec, an equipment manufacturer for the oil and extractive industries. In addition, Kemira’s research centers in Atlanta and Espoo are participating in the project.

Kemira and Outotec also collaborated to establish a new research chair at the University of Alberta. The five-year research program aims to enhance the efficiency of water use and recycling in the Canadian oil sands.

This helps the collaborating companies gain a stronger foothold in the oil and extractive industries. The companies are expecting results that will benefit the growing oil sands industry at large. As reserves become scarcer, oil must be sought deeper and extracted from oil sands, as is done in Canada. Water consumption presents major challenges for the oil industry.

In the summer of 2010, Kemira announced another key partnership, a collaborative project with Nanyang Technological University in Singapore. The two-year program aims to enhance wastewater treatment efficiency in order to produce high quantities of clean water and as little waste as possible. In October 2010, Kemira launched a strategic alliance with PUB, Singapore’s national water agency, to conduct R&D in water research. Kemira and PUB will collaborate in the areas of raw water, used water, effluent and sludge treatment. One of the great water industry centers of the world, Singapore is home to more than 70 water-related companies. ■



# SEEKING NEW GROWTH

## 3 QUESTIONS ABOUT KEMIRA’S INNOVATION PROCESSES

Research and development offers new opportunities and creates new business. What are the most promising research areas of the future and how does Kemira plan to take advantage of them? We asked Johan Grön, Executive Vice President of R&D and Technology, who left his post at the end of 2010, and his successor, Heidi Fagerholm.

### WHAT ROLE DOES RESEARCH AND DEVELOPMENT PLAY IN PROFITABLE GROWTH?

Research and development creates new competences and expands the product portfolio. Research focuses

on increasing expertise in chemicals for which there is a recognized need. Research and development strengthens expertise in accordance with the company’s strategy, helping us make even better choices in the future.

### WHAT IS THE BASIS OF KEMIRA’S UNIQUE INNOVATION PROCESS?

In addition to R&D, we need many other functions, such as marketing, sales, production and raw material procurement. Our process incorporates all of these functions and the related responsibilities at different stages of the project. All operations must contribute during product development. Commercializing product development requires measurable goals and the relevant indicators, as well as an effective sales organization.

### IN WHICH FIELDS CAN WE EXPECT NEW BUSINESS?

Microporous filters known as membranes have been a key research area for 10 years now. They remain important, and the research has been expanded to cover microtechnologies and nanotechnologies. Membranes are used in desalination, for example.

Biomass is the most important new research area, as it will be possible to separate more and more raw materials from biomass in the future. Sludge from water treatment is rich in nutrients and minerals that can be reused, such as phosphorus, nitrates and nitrogen. It may even be possible to produce biodegradable polymers from biomass. When everything else has been processed, the remaining methane can be used to produce biogas. Major future research areas will include bioethanol fuels. ■



Until the end of 2010, Kemira’s R&D was led by Johan Grön, Executive Vice President of R&D and Technology. In January 2011, he was succeeded by Heidi Fagerholm.



# PROFOUND WATER EXPERTISE

Kemira's broad and diverse product selection includes water chemistry applications and products for drinking water, process water, wastewater and sludge treatment for municipal and industrial customers. Combined with in-depth water expertise and a profound knowledge of customers' production processes, this makes Kemira a leading expert in its field. Kemira's three segments – Paper, Municipal & Industrial and Oil & Mining – serve over 10,000 customers in 40 countries.



The Paper segment's profitability continued to improve in 2010. Over the next few years, the segment will seek significant growth in emerging markets.

The improvement of Paper segment's profitability has created a foundation for growth.

"In 2010, we implemented our strategy and improved our profitability. We grew sales of process chemicals and divested the optical brightener business and the Kokkola sulphuric acid plant, which were not part of our core business," says Petri Helsky, President of Kemira's Paper segment.

The work to improve profitability and enhance customer service continues. Customers will see this in an even more advanced and relevant product selection, among other things.

"In particular, we will strengthen and further develop Kemira's synergistic product lines, focusing on process chemicals for the pulp and paper industries. Instead of offering everything to everyone everywhere, we will customize our product offerings to local needs, as our competitive strengths vary," says Helsky.

Centralizing all products under the same sales organization has enabled more comprehensive solutions and closer collaboration with customers.

Kemira's core competencies include water quality and quantity management in pulp production, and in the wet end of the paper machine. The company continues to develop new solutions for the treatment of raw water, process water and wastewater.

Customers value Kemira's multi application expertise. Water quality and quantity management, process runnability, efficient use of raw materials, energy-efficient solutions and high-quality products are all interrelated.

"For example, applications related to retention, microbe prevention, and water quality and quantity management are synergetic. These allow us to manage paper machines' chemistry more comprehensively," he notes.

Kemira's new retention system enables paper mills to reduce energy and water consumption by 10 to 15 percent.

"Our expertise is our strongest competitive asset. We have a highly integrated product palette and the ability to

optimize the chemical dosages for different process stages. All this contributes to Kemira's solid reputation, which attracts new customers," describes Helsky.

He points out that only a few of Kemira's competitors are strongly committed to process development for the pulp and paper industries.

"For us, this is a core business," says Helsky. "We make major investments in research and introduce innovative products to the market."

GROWTH IN SOUTH AMERICA AND ASIA  
Approximately 80 percent of the Paper segment's revenue comes from the mature markets of Europe and North America, ▶▶

# GROWTH

## IN EMERGING MARKETS

TEXT JORMA LEPPÄNEN PHOTOS ISTOCKPHOTO,  
ANTTI KANGASSALO, JARI KIVELÄ  
AND SUSANNA KEKKONEN





## 30 SECONDS

- The Paper segment's profitability continued to improve in 2010. The demand for paper products increased considerably because of restocking after the recession.

- Drawing on the Group's shared base of know-how and products, the segment seeks new growth in process chemicals. The growth areas are emerging markets such as Asia and South America. The demand for packaging board and tissue paper, in particular, is expected to grow. Kemira is primarily focusing on growth in China, Brazil, Indonesia and, increasingly, India.

- Kemira is committed to process development for the pulp and paper industries. Its product portfolio will be expanded and customized on the basis of customers' needs. Its applications enhance the use of raw materials, water and energy, improve the runnability of manufacturing processes and the quality of end products.

▶▶ but the proportion of emerging markets is increasing.

"In addition to continuous profitability improvement, our strategy focuses on emerging markets. We believe that in three years, 30 percent of our revenue will come from South America and Asia."

In China, Kemira is expanding its paper chemical production.

"In early 2009, we established a joint venture that produces sizes for the paper industry in China. These products are important in the production of packaging board, and printing and writing papers. We are also building a process chemical plant in China. In 2012, this plant will

produce most of our strategically important chemicals locally."

In addition to China, Kemira has major paper industry customers in Indonesia and, increasingly, in India. The company also seeks to gain a stronger foothold in South America, where new mills will increase the demand for pulp chemicals.

The global recession delayed pulp projects in South America, but many of them are now moving forward and this region will offer Kemira plenty of opportunities for growth in pulp chemicals.

### COST EFFICIENCY FOR CUSTOMERS

The global demand for all types of pulp was high in 2010. Consequently, pulp prices remained high, and cardboard manufacturers were also able to raise their prices. Paper prices remained relatively low, even though paper production is firmly recovering from the recession.

The demand for paper products decreased during the recession, as did production. The recovery was strong and according to market analysts, world paper production reached a new record high in 2010.

Geographically, paper production is divided differently than before. Mature markets are yet to match their previous peak levels, but paper production

has increased considerably in emerging markets.

Nonetheless, Helsky believes that demand for Kemira's products in mature markets will not necessarily decrease.

"Customers seek cost efficiency, which often brings new momentum to our business. The use of recycled fiber is a good example. When the same fiber is recycled through the process repeatedly, its strength properties weaken. Our products help customers retain the strength properties of paper and cardboard, despite fragile fiber," states Helsky.

### PAPER HOLDS ITS OWN

The total demand for paper products is projected to grow at almost the same rate as the global gross domestic product.

In 2010, however, the demand growth rate was exceptionally high because of restocking after the recession. This also meant growing demand for Paper segment products. In particular, chemical deliveries to the cardboard and packaging sectors increased.

"The growth rate in demand for papers will decrease, but it is expected to be about three percent annually in the medium term."

Over the next few years, the demand for packing board and tissue paper is expected to grow strongly in emerging markets.

The demand for printing paper and newsprint decreases due to electronic media, especially in Western countries. According to Helsky, however, these products will hold their ground at the global level.

"The global demand for newsprint is predicted to remain relatively stable, and the demand for printing paper is projected to increase slightly. As a whole, the paper product market looks promising to a competitive chemical supplier such as Kemira," says Helsky. ■

## KEY FIGURES 2010

### Customers:

Pulp and paper industry.

### Market Area:

Global.

### Markets:

The market relevant to Paper segment is about EUR 10 billion (Kemira's estimate).

### Products and Services:

Chemical solutions for the entire process from pulp manufacture to paper production to water treatment.

EUR million

Revenue	984.3
Operative EBIT	75.6
EBIT	68.4
Operative EBIT, %	7.7
EBIT, %	6.9
Capital expenditure, excluding acquisitions	33.3
Cash flow after investments, excluding interest and taxes	85.9



Besides the continuous profitability improvement, our strategy focuses on emerging markets.

Asia is one of the main growth areas for Kemira. Major customers are in China, Indonesia and, increasingly, in India.





“New business opportunities may be related to nano cellulose manufacturing,” says Petri Helsky.

## FOCUS ON NEW APPLICATIONS

**HOW DID YOU IMPLEMENT YOUR STRATEGY IN 2010?**  
We focused on improving profitability by adjusting our product portfolio and increasing process chemical sales, to name two examples. In research and application development, we focused on the wet end of the paper machine. We divested businesses that did not create synergy benefits and which had lower profitability, such as our sulphuric acid business in Finland and our optical brightener business in Germany.

**KEMIRA HAS EXTENSIVE EXPERIENCE IN PROCESS DEVELOPMENT FOR THE PULP AND PAPER INDUSTRIES. HOW DOES THIS BENEFIT OTHER SEGMENTS?**

Kemira’s expertise in process water treatment originates from the Paper segment

and our application know-how is utilized in e.g. in the industrial water management, and in the the oil and mining industries. Synergy works both ways. Kemira’s expertise created mainly in Municipal & Industrial segment in raw water and waste water treatment has helped us to develop paper industry processes. The various segments share their expertise, which is applied to each customer industry.

**TISSUE PAPER CONSUMPTION IS PROJECTED TO INCREASE GLOBALLY.**

Yes, that is correct. North America was the first market we entered, and now we will proceed to Europe.

Application development is always based on customers’ needs. This work is supported by Kemira’s internal synergies, says Petri Helsky, President of the Paper segment.

**WHAT KIND OF OPPORTUNITIES DO YOU SEE IN NEW MATERIALS OF THE FUTURE, SUCH AS NANO CELLULOSE?**

We are participating in several research projects. For example, these are being carried out at the Center of Water Efficiency Excellence (SWEET), which was established by Kemira and VTT. We believe we will develop applications for completely new fields. Micro and nano cellulose may offer new business opportunities. For example, nano cellulose can be used as a raw material for chemicals in the future, as a plastic-like structural material or a food ingredient. The new business opportunities for us may also be related to the production phase of nano cellulose. ■



## NEW PRODUCTION PLANT BOOSTS GROWTH IN CHINA

Kemira’s new production plant in Nanjing, China, supports the company’s strategy of being close to its customers.

**T**he production plant in Nanjing will be the bedrock of Kemira’s strategy in Asia and the Pacific region. The new plant will be a multi-purpose production base for a range of common process and functional chemicals, key products for all of Kemira Group’s customer segments.

The Nanjing plant will be opened in the second quarter of 2012, and it will collaborate closely with Kemira’s technology center in Shanghai.

“We will develop a business model based on our local customers’ needs. With research, development and production located near customers, we will be able to offer shorter delivery times and

even more specifically customized solutions,” says **Ronald Kwan**, Region Head for Asia Pacific at Kemira.

Kemira’s technology center has already developed many new products for local customers.

“We have expanded our product selection, especially in process chemicals. At the same time, we have strengthened our application development team. This ensures our competitive strength in the long term,” says Kwan.

He believes that Kemira’s strong application expertise will win the trust of new customers.

New technologies are adopted more rapidly in the emerging markets, e.g. in China, than in the mature markets.

Kemira has already become a highly valued player in the Chinese market.

“Supported by local R&D operations, our profound application expertise has helped us to get closer to customers. This is an excellent foundation for expanding business after the new production plant has been completed,” Kwan explains.

The highly competitive labor market in China is reflected in high staff turnover. According to Kwan, profitable growth is the best way to attract the most competent employees and convince them to stay.

Nanjing is a chemical industry hub with a high level of technological competence. Employers compete extremely hard for highly skilled labor.

“Kemira improves its visibility by offering scholarships to universities and technology institutes as part of its recruitment program,” says Kwan.

“At Kemira, managers and employees cooperate to ensure that everyone has relevant and meaningful goals, as well as the means and incentives to reach these goals. Chinese employees greatly appreciate professional development opportunities. Profitable growth is key because everyone in China wants to be part of the winning team.” ■



## SEGMENTS – MUNICIPAL & INDUSTRIAL

In addition to emerging markets, the growth of Kemira's Municipal & Industrial segment largely comes from applications that attract an increasing number of water treatment customers.

The year 2010 was favorable for Kemira's Municipal & Industrial segment in water treatment for municipalities and water-intensive industries.

"We have furthered Kemira's water strategy and are heading in the right direction. The global market for water treatment chemicals continues to grow. Clean water is a basic commodity that is relatively unaffected by the economy in terms of consumption," says Pekka Ojanpää, President of Kemira's Municipal & Industrial segment.

The segment offers water chemicals and applications for the treatment of drinking water, wastewater and industrial water, as well as sludge. Industrial clients for the segment include companies ▶

# WORLD-LEADING APPLICATIONS

TEXT MATTI REMES PHOTOS JARI KIVELÄ, ISTOCKPHOTO, GETTY IMAGES AND SUSANNA KEKKONEN



“In Europe, we have solidified our position particularly in application expertise, such as sludge treatment.”

► involved in the sugar, foodstuff, beverage, bioethanol and textiles businesses. Its profitable growth comes from many areas. Kemira is a market leader in coagulants and third biggest provider of flocculants.

“We are strong in our traditional markets in Europe and North America, and we continue to grow in South America and Asia. New applications and long-term research and development projects also contribute to growth,” says Ojanpää.

#### NEW GROWTH FROM APPLICATIONS

The global market for the Municipal & Industrial segment’s product groups is EUR 5 billion in municipal water treatment and EUR 5 billion in industrial water treatment.

“The market potential is enormous. The segment has about 9,000 customers, and we can generate new growth by offering our customers new products and operating models. Our wide product selection and global sales and distribution organizations enable us to meet the needs of both old and new customers,” Ojanpää points out.

More than half of the Municipal & Industrial segment’s revenue comes from Europe and about one third from North America. In September 2010, Kemira acquired Water Elements LLC, which strengthens its market leadership in inorganic coagulants in North America.

“In Europe, we have solidified our position particularly in application expertise, such as sludge treatment. We have also made progress in the use of industrial side streams,” Ojanpää explains.

LATIN AMERICA HOLDS GREAT POTENTIAL Mexico and Brazil are Kemira’s most important markets in Latin America.

“In Mexico, we are the leading supplier of coagulants, and we have strengthened our position in Central America. The area holds great potential. In addition, we have begun investing in water treatment in the Caribbean islands,” says Ojanpää.

Kemira is the market leader in coagulants in Brazil, where the water treatment market is being boosted by infrastructure investments. These major investments are related to the 2014 FIFA soccer World Cup and the 2016 Summer Olympics.



“In addition to Brazil, we are increasing business in other South American countries,” says Ojanpää.

#### INTEREST IN SLUDGE TREATMENT IN CHINA

In Asia, the growth of Kemira’s Municipal & Industrial segment is focused on India, but China also offers promising opportunities. Both countries are making significant investments in water and wastewater treatment.

“Major challenges in municipal and industrial water treatment mean growth opportunities for Kemira,” Ojanpää points out.

Kemira’s application expertise in sludge treatment, in particular, is attracting great interest in China. The country is seeking new, cost-efficient treatment methods for the sludge from wastewater treatment.

“Our global operating model enables us to adapt the expertise we have developed in Europe to Chinese conditions,” says Ojanpää.

ADVANCED ODOR CONTROL SOLUTIONS Developing markets are showing an increasing interest in wastewater odor control solutions. Kemira has gained strong expertise in these solutions in Europe.

“We are able to offer comprehensive solutions that include all the required chemicals, as well as measuring and dosing equipment. The demand for such solutions is growing in South America and many other places.”

Kemira’s customers in Rio de Janeiro include many wastewater treatment plants that use its comprehensive odor control solutions.

“System managers can check chemical dosages and the amount of hydrogen sulfide, a strong source of unpleasant odor, using their cell phones. None of our competitors are able to offer a similar service, which gives us a competitive advantage,” says Ojanpää.

In industrial customers, the segment focuses on water-intensive sectors, especially the food, pharmaceutical, sugar, ►►





## KEY FIGURES 2010

### Customers:

Municipalities and industries.

### Market Area:

Global.

### Markets:

The market relevant to Municipal & Industrial segment is approximately EUR 10 billion (Kemira's estimate).

### Products and Services:

Water treatment and purification, sludge treatment solutions.

EUR million

Revenue	643.6
Operative EBIT	59.0
EBIT	55.8
Operative EBIT, %	9.2
EBIT, %	8.7
Capital expenditure, excluding acquisitions	22.5
Cash flow after investments, excluding interest and taxes	25.6

- ▶ bioethanol and construction industries. Kemira also offers efficient water treatment solutions for power companies in developing markets.

### NEW PRODUCTS SPUR GROWTH

As Kemira's strategy suggests, innovations are essential to the Municipal & Industrial segment's success. Development projects are expected to result in new products and services that will boost growth.

"Research and product development are key to creating new products and services. Several dozen of the Municipal & Industrial segment's employees are involved in research and development, which is a major investment," says Ojanpää.

The segment's most important development projects are related to the SWEET (Center of Water Efficiency Excellence). Launched in 2010, SWEET brings together top-level water expertise in a new way.

"All segments actively participate in research and development, employing a customer-oriented approach," says Ojanpää. One key research area involves us-

ing membrane technologies – that is, filters with extremely small pores – in water treatment. According to Ojanpää, this field has significant long-term growth potential.

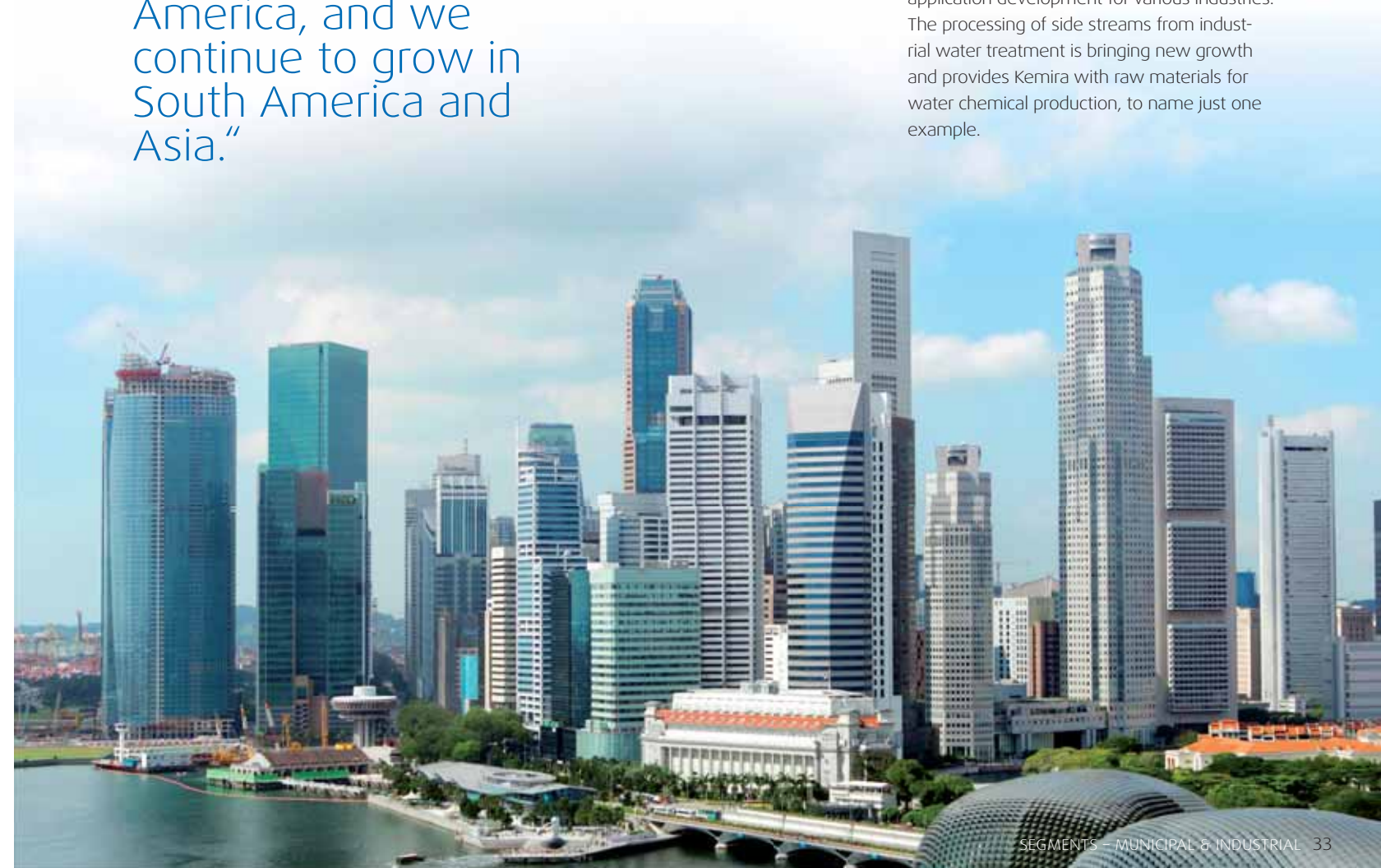
Industrial by-products can increasingly be used as raw materials in coagulant production. This reduces costs and the fluctuation of raw material prices. By efficiently using industrial by-products, Kemira helps rid the industry of production side streams.

Converting by-products into raw materials benefits both parties. For example, pickling acids from the steel industry and hydrochloric acids from industrial processes can be used in water chemical production. ■

"We are strong in our traditional markets in Europe and North America, and we continue to grow in South America and Asia."

## 30 SECONDS

- Kemira's Municipal & Industrial segment produces water chemicals, applications and comprehensive concepts for the treatment of drinking water, wastewater and industrial water as well as sludge.
- The year 2010 was favorable for Kemira's Municipal & Industrial segment in water treatment for municipalities and water-intensive industries. More than half of the segment's revenue comes from Europe and one third from North America. Latin America and Asia, especially India and China, are expected to show the strongest growth. In these areas, major investments are being made in water treatment and waste management.
- Emerging markets are showing considerable interest in application and odor control expertise related to sludge treatment.
- The Municipal & Industrial segment invests strongly in expertise related to industrial raw water, process water and wastewater, as well as knowledge of special local features and application development for various industries. The processing of side streams from industrial water treatment is bringing new growth and provides Kemira with raw materials for water chemical production, to name just one example.





# KEMIRA TO GROW STRONGER IN INDIA

Over the next few years, Kemira aims to grow stronger in India, the country with the second largest population in the world. India holds immense potential for a company offering advanced water treatment solutions.

**K**emira's goal is to increase business in India and to secure a significant market share, especially in industrial water treatment.

According to **Sudip Sarkar**, Kemira's sales manager for India, an estimated one third of household wastewater and about 60 percent of industrial wastewater is currently treated. These proportions are expected to increase significantly, because water management is one of the government's focus areas. This also means significant investments.

"We estimate that the market related to Kemira's operations in India is worth 300 million dollars," Sarkar says.

At first, Kemira will focus on industrial customers, especially those in the paper, textile, chemical, metal, mining and food industries. Municipal water treatment customers will be included later.

Kemira's market position in India is currently based on imports, but the company will also build local production. In September 2010, Kemira established a joint venture with the promoters of an Indian company IVRCL to build a water chemical plant in Vishakapatnam on the Indian east coast. The factory will produce inorganic coagulants, which are integral to industrial and municipal water treatment.

Kemira's office is located in Hyderabad, in central India. The company is building a sales and service network with a local partner.

"Our partner has expertise and networks that help us gain a foothold faster," says **Hannu Virolainen**, Head of the Industrial Customer segment.

Kemira's key goals in India include creating water treatment technologies that meet customers' needs and local circumstances. In collaboration with customers, Kemira is seeking comprehensive concepts that enable more efficient water treatment based on modern membrane technologies and water chemicals. New methods are needed for treating raw water for power plants, to name just one example.

"In India, we can study and develop new business models that are based on high technology and top expertise. Our work in India is linked to global research and development at Kemira, offering us valuable knowledge and experience that we can apply to other markets," Virolainen explains. ■

"The requirements for raw-water quality vary by industry," says **Pekka Ojanpää**.

## GLOBAL BUT LOCAL

"Kemira's global organization enables the company to put its water treatment applications to use near customers," says **Pekka Ojanpää**, President of Kemira's Municipal & Industrial segment.

**K**EMIRA'S MUNICIPAL & INDUSTRIAL SEGMENT SEEKS GROWTH IN NEW WATER APPLICATIONS. HOW WILL THIS GOAL BE ACHIEVED IN PRACTICE?

We have invested in application expertise through competence development and new recruitments. We have also acquired new expertise for industrial water treatment, in particular. The requirements for raw-water quality vary by industry, as do the challenges related to wastewater treatment. It is important to understand the composition of wastewater from the food, brewing or construction industries, for example. It is also important to understand what types of solutions we can offer our customers. This requires industry-specific water treatment expertise.

**HOW WILL THE MUNICIPAL & INDUSTRIAL SEGMENT USE KEMIRA'S DIVERSE AND VERSATILE WATER EXPERTISE IN NEW MARKETS?**

Because of our global organization, we are able to transfer and use our expertise faster than many of our competitors. We can transfer, for example, sludge treatment expertise from Europe to Asia or

elsewhere. In China, our unparalleled application expertise is a competitive advantage.

**AS ITS STRATEGY SUGGESTS, KEMIRA OPERATES GLOBALLY, YET CLOSE TO THE CUSTOMER. HOW IS THIS REFLECTED IN THE MUNICIPAL & INDUSTRIAL SEGMENT'S CUSTOMER RELATIONS?**

Customers like to work with water chemical suppliers they have known well for a long time. If the partnership is based on trust, the customer is more open to new ideas.

In Brazil, for example, we have long cooperated with large municipal customers. We have helped these customers with many challenges related to water treatment, such as wastewater odor control, pipe corrosion, and algae control in raw-water reservoirs. Our global applications, which we can adjust and apply to local conditions, offer us a strong competitive edge. ■



## 30 SECONDS

- The revenue and result produced by Kemira's Oil & Mining segment were considerably higher in 2010 than in the previous year.
- Kemira's expertise in water chemicals helps companies in the water-intensive extraction industries succeed in challenging conditions. Kemira's applications add value to customers' processes and support sustainable development, helping customers enhance the efficiency of water use and recycling.
- Working close to the customer, Kemira develops and customizes need-based solutions. The company's new R&D center in Brazil serves South America. The new production plant in Nanjing, China, serves Asia.
- The Oil & Mining segment seeks growth especially in South America, China, and Russia, but will also increase resources in South Africa and the Middle East.

# MEETING NEW WATER DEMANDS

## SEGMENTS – OIL & MINING

Kemira's Oil & Mining segment provides innovative solutions in response to increasing global demand for water. As extraction industries seek reserves in challenging places, efficient water management is key. And that is where Kemira can help.

TEXT ARJA HAUKKASALO  
PHOTOS ISTOCKPHOTO AND SUSANNA KEKKONEN

Surface water and groundwater are scarce in many areas of the world. Efficient water use is crucial to extraction industries, such as oil and mining. More water is needed for extracting and processing because reserves are located in increasingly hard-to-reach places and as existing reserves degrade, water usage increases.

"Kemira brings innovation and industry expertise from decades of leadership in water-intensive applications adding value to our customers' processes," says Randy Owens, President of Kemira's Oil & Mining segment.

The need for fresh water is growing, putting pressure on current reserves. Water must be treated, recycled and used more efficiently. In the future, the sea will be a more important source to meet fresh-water needs. ▶





► As water treatment is Kemira's core competence, these megatrends are aligned with our strategy to become a leading water chemistry company.

#### FROM PRODUCTS TO APPLICATIONS

In 2010, the Oil & Mining segment's revenue increased by 27 percent compared to the previous year. The oil and gas industries, as well as the mining industry, have increased their investments, as the demand for energy, minerals and metals has increased since the financial crisis. Growing economies such as China are leading the recovery.

"Our success this year has been the result of leveraging our water application knowledge and our industry expertise to move from product sales to application sales. In particular, our intimate knowledge of customers' processes and the environmental pressures they face has been key. Our offerings help our customers overcome various challenges in water processing and wastewater treatment," says Owens.

"In 2010, we saw tangible signs of converting customers from sales of single products to applications, where our expertise adds value to the customers' processes," Owens points out.

Research and development at Kemira focuses on sustainable chemistry that meets increasingly strict environmental requirements. This improves the environmental footprint, while maintaining or exceeding the performance of the original products.

Owens describes 2010 as challenging but rewarding. Scarcity and the high price of raw materials presented challenges. However even with these challenges, the Oil & Mining segment was able to grow application sales and improve profitability as well as meet, increased production demand.

According to Owens, innovation is crucial to Kemira's competitive advantage. Innovations, based on close collaboration with customers, are designed to help them save money through more efficient water management.

#### TACKLING SAND AND SALT

The Oil & Mining segment's strategy aims at profitable growth. Kemira's success in water chemistry is based on a customer-oriented approach, agility, and innovation.

According to Owens, the strategy has been successful, with sales from new products contributing to growth.

"We are well-positioned for continuous growth. With declining reserves in the mature markets, we are seeing increased water use in the North Sea and an escalation in processing water in mining. The Canadian oil sands and production of shale gas also require large volumes of water presenting new opportunities in North America. We intend to translate our success in mature markets into the emerging markets of China, South America and Russia," he says.

Significant oil reserves have been discovered, for example, deep in the water off the coast of Brazil under a thick layer of salt. Drilling for oil at the bottom of the sea is extremely demanding and requires technologies that are resistant to high temperatures and pressures.

"South America, China, and Russia are important because of their enormous raw material reserves. We also expect to see sales growth in South Africa and the Middle East," says Owens.

#### CLOSER TO THE CUSTOMER

Kemira continued to invest in R&D and to elevate the importance of customers to the development process. The Center of Water Efficiency Excellence (SWEET), a joint research network between Kemira and VTT Technical Research Center of Finland and their partners, brings together top expertise in Finnish and international water research.

Specifically within the Oil & Mining segment, research cooperation with the University of Alberta near the Canadian oil sands is helping to build a better understanding of what is needed to address the water issues. Kemira's new R&D center in Brazil is well positioned for customer collaboration in South America.

Kemira also continues to add to its global manufacturing footprint, adding to its infrastructure to be closer to customers. In 2010, Kemira acquired Albemarle's Teesport, England production site, which produces polymers and other specialty chemicals for the oil and gas industries. This allows local supply for the North Sea. In addition, a new production plant in Nanjing, China will help bring innovations for the mining, oil and gas industries closer to customers.

#### THE PEOPLE FACTOR

Owens credits the people within the Oil & Mining segment for its continued success.

"We have a strong global team, and we work hard to ensure we are delivering true. In addition to strong customer focus, we have been very flexible and quick to adopt the new application strategy which further strengthens the value we bring," Owens says.

In 2010, the Oil & Mining segment also made significant progress in transferring technology and expertise into the emerging markets.

"We have seen improvements not only in our financials, but in many other areas of the business. Our technology platform in R&D has enabled us to quickly transfer knowledge within our organization, and this same spirit of cooperation is evident in our cooperation with customers. We continue to deliver groundbreaking innovation and sustainable chemistries. This strong culture of working together towards our vision to be a leading water chemistry company is what differentiates Kemira," says Owens. ■



Our success this year has been the result of leveraging our water application knowledge and our industry expertise to move from product sales to application sales.

## KEY FIGURES 2010

#### Customers:

Oil and mining industries.

#### Market area:

Global.

#### Total market:

The market relevant to Oil & Mining segment is approximately EUR 6 billion (Kemira's estimate).

#### Products:

Oil and mining industry products and customized production

EUR million

Revenue	297.5
Operative EBIT	28.6
EBIT	31.9
Operative EBIT, %, EBIT, %	9.6
Capital expenditure, excluding acquisitions	10.7
Cash flow after investments, excluding interest and taxes	6.8
	30.9



# NEW HORIZONS IN BRAZIL

The extraction industry in South America offers a growing market for sustainable water management.



The Santos Basin oil wells, one of the world's largest oil reserves, are located 300 kilometers off the Brazilian coast, at a depth of five to seven kilometers.

The location alone presents great challenges, but the reserves are covered by sedimentary rocks and a two-kilometer layer of salt.

According to Sergio Cabo, Vice President of Oil & Mining in Brazil, reaching and producing from these reserves is extremely demanding requiring new chemistries to be successful. Chemistries require more resilience to meet increasingly high temperatures and pressures. Another challenge is protecting equipment from corrosion.

"Never before has anyone drilled through a two-kilometer layer of salt," Cabo points out.

According to Cabo, Kemira is well positioned to bring technical solutions to the customer. To collect expertise, Kemira has entered into research and product development agreements with local research institutes. The company has also opened a research center in Brazil.

#### AN ENORMOUS MARKET

Oil production in Brazil is expected to increase to 2.9 million barrels per day by 2014, which is 38 percent more than today. At the same time, natural gas production in Brazil is expected to increase by 62 percent and ethanol production by as much as 193 percent. In the next few years, Brazil is projected to see investments worth hundreds of billions of euros in oil seeking and refining.

The mining industry is also thriving in Brazil. In 2010, the total production value was 25 percent higher than before the financial crisis of 2008. The mining industry in Brazil will invest about 26 million euros in production between 2010 and 2014.

As a by-product of drilling, large quantities of saltwater are produced and also significant volumes of waste water are generated during the production process. All of this water requires proper treatment and management so it can be reused. Kemira offers products that help control these processes and facilitate sustainable water use.

South America has the largest mineral and metal reserves in the world, which means growing markets for Kemira. Water use will increase as resources become more scarce. All in all, the reserves in Brazil represent 15 to 20 percent of mining investments globally. The second most important market in South America is Chile, the largest copper manufacturer in the world. Chile is also a significant manufacturer of iodine, lithium, molybdenum and sodium. ■



"Our success is based on a profound understanding of customers' needs and environmental pressures", says Randy Owens.

"Kemira's top expertise is reflected in its customer relations," says Randy Owens, President of the company's Oil & Mining segment.

## CUSTOMIZING UNDERGROUND SOLUTIONS

#### WHAT WERE THE SECRETS OF THE OIL & MINING SEGMENT'S SUCCESS IN 2010?

In water treatment and industrial expertise, we shifted our focus from individual products to application sales. In the mining industry, in particular, our success is based on a profound understanding of customers' needs and environmental pressures.

#### WHAT ARE THE SEGMENT'S GREATEST BUSINESS CHALLENGES?

Increasingly scarce raw water reserves and strict environmental requirements are our main challenge, but these challenges also offer new business opportunities.

#### HOW WILL THE OIL & MINING SEGMENT HELP CUSTOMERS WITH SUSTAINABLE DEVELOPMENT AND EFFICIENCY?

We will focus our research and product development resources on products and applications that meet the increasingly strict environmental requirements and enhance the efficiency of customers' processes.

In addition, we have product teams that consist of experts in research, development, marketing, and sales. These teams can accelerate innovations that are essential to the industry and create added value.

#### HOW WILL YOU ACHIEVE PROFITABLE GROWTH IN 2011?

We will strengthen our presence in growing markets and invest in local production. Our new production plant in Nanjing, China, is a prime example. To foster

and accelerate innovation, we will continue to invest in research and development and collaborate closely with universities and equipment suppliers.

#### WHICH AREAS ARE PARTICULARLY IMPORTANT?

We will focus our resources on South America, Russia, the Canadian oil sands, China and the North Sea. We will also increase resources in South Africa and the Middle East, both markets where we expect to see growth.

#### WHAT DO YOUR CUSTOMERS VALUE THE MOST?

We are easy to work with, and our customers appreciate our expertise. We are completely committed to fostering our customers' success, and this is something we try to prove in every encounter. ■



# ENHANCED TASTE

ChemSolutions increased its business in 2010, boosted by growing markets. The megatrends of population growth and prosperity, as well as a more diverse service offering, promise further growth.

TEXT **OLLI MANNINEN**  
PHOTO **ISTOCKPHOTO**

**B**ecause of the increasing demand for safely produced food that keeps its taste, the future of Kemira's ChemSolutions business looks bright. Above all, the global demand is being accelerated by population growth and the growing middle class in the Asia-Pacific region.

ChemSolutions creates added value for Kemira by serving the food, feed, chemical, and pharmaceutical industries, as well as the infrastructure sector related to ice and snow control. Product development at ChemSolutions is based on expertise and materials related to water chemistry research and production.

"We are an innovative, profitable and growth-oriented partner," says **Frank Wegener**, head of ChemSolutions.

ChemSolutions continued to grow in 2010. All customer segments grew stronger, especially after the Asia-Pacific region had rapidly recovered from the recession. The unusually long winter increased the demand for snow and ice control solutions for airports.

#### TASTIER AND SAFER FOOD

For the food industry, ChemSolutions introduced solutions that improve meat preservability and the taste of foods more efficiently than before. Provian, a product that extends the shelf life of meat products, combines in a new way the antibacterial qualities of acetates and lactates.

"We also introduced a new-generation sodium and potassium acetate solution that is mainly used in dialysis fluids and as a flavoring agent in vinegar, potato chips and other similar products."

According to Wegener, ChemSolutions creates carefully targeted innovations for customers' changing needs.

"Foodstuff requirements are increasing continually. Our solutions improve food safety, preservability, taste and quality. They also enhance our customers' business and create added value for Kemira," Wegener explains.

ChemSolutions is the world's leading manufacturer of organic acids and salts, offering a wide selection of products for the feed industry.

Customers are interested in new solutions related to feed safety and efficiency. The growing demand for food increases the need for feed. Coupled with consumer habits, it also increases the necessity for pharmaceutical products.

"The demand for our chemicals used in diabetes treatment is growing rapidly. This is one of the ways in which we want to contribute to an improved quality of life," says Wegener.

#### FROM BIOMASS TO RAW MATERIAL

ChemSolutions supports sustainable development. For example the potential use of chemicals produced from biomass is being examined carefully.

ChemSolutions also offers formic acid solutions for the leather, textile, rubber and chemical industries. For these customer segments, ChemSolutions introduced a method of improving leather tanning. The Tanfor product group is a cost-efficient alternative to formic acid solutions.

"Our formate and acetate products are used at airports to remove ice and snow from runways. These environmentally-sustainable solutions attract a great deal of interest in developing markets, such as Russia, as well as in the Asia-Pacific region, where the number of airports will increase significantly in the next few years," concludes Wegener. ■

# SAFETY AT ALL LEVELS

Based on a conservative estimate, Kemira has a financial responsibility toward approximately 100,000 representatives of different interest groups, such as shareholders, employees, customers and suppliers.

In addition to profitable business, Kemira depends on efficient water management that respects and protects the planet.





# RESPONSIBILITY EQUALS PROFITABILITY

By the end of 2010, Kemira achieved most of its financial goals. Strong profitability fosters growth in both mature and emerging markets.

TEXT MATTI REMES PHOTO ISTOCKPHOTO

In 2008, Kemira's Board of Directors set five financial goals for the company. These goals were further specified in September 2010.

"We have now achieved three of the five goals. Cash flow after investments and dividends is positive. Return on capital employed has improved continually. In addition, we have reached the lower end of our targeted gearing level of 40 to 60 percent," says Jyrki Mäki-Kala, Chief Financial Officer of Kemira.

Additionally, in Kemira's revenue and operating profit percentage targets, the company has progressed well. The operative EBIT rose to about 7.5 percent in 2010 (2009: 6.3 %).

The company reached its goal of five-percent organic growth during 2010. Mäki-Kala believes that organic growth will continue to improve with the implementation of its water strategy.

"Research and development, as well as the various business operations, will create new products, expertise and applications that will spur growth."

Kemira's growth target was revised and divided into two in September 2010. In mature markets, mainly in Europe and North America, Kemira is seeking revenue growth of at least three percent. In the emerging markets of Asia, South America and Russia, its minimum goal for revenue growth is seven percent.

"We want to grow in highly active markets. Mature markets are still important, but growth in these markets corresponds to general economic growth," Mäki-Kala points out.

## SOLID FOUNDATION FOR GROWTH

In the last quarter of 2010, Kemira completed its extensive cost-savings program, which was launched in the summer of 2008. The program helped Kemira save EUR 60 million in fixed costs.

"This program, which required great effort from Kemira's personnel, helped the company improve profitability and cash flow. It also introduced a new perspective on cost structure," says Mäki-Kala.

Kemira further improved its balance sheet by issuing new shares in late 2009 and listing Tikkurila's shares in March 2010. According to Mäki-Kala, a strong balance sheet allows for flexible implementation of Kemira's strategy. It also enables organic growth as well as growth through acquisitions. In line with its strategy, Kemira has made significant investments in research and product development as well as in expansion to new geographic areas.

"In order to reach our strategic goals, we need to gain a stronger foothold in Asia and South America, the two markets where the demand for water expertise is growing the fastest in the world. On both continents, water shortages and the related municipal and industrial problems call for more effective solutions."

Kemira pays taxes and other fees to 40 countries, with obligations to 10 financial institutions. Based on a conservative estimate, Kemira has a financial responsibility towards approximately 100,000 representatives of different interest groups. This includes around 5,000 employees and their families, 30,000 shareholders and 10,000 customers, as well as approximately 30,000 suppliers.

"A great number of people and companies trust that Kemira will bear its financial responsibility. This requires profitable business operations. Only a profitable company can help its customers succeed, be a reliable partner, increase share value and offer an inspiring work environment to its employees," Mäki-Kala sums up. ■

## KEMIRA'S ECONOMIC IMPACT

EUR million	2010	2009
Customers	2,222.6	2,607.3
Income from customers on the basis of products and services sold, and financial income		
Suppliers	-1,713.1	-1,842.1
Payments to suppliers of raw materials, goods and services		
Employees	-313.4	-390.3
Wages and salaries and social expenses		
Investors	-85.4	-94.3
Interest paid and financial expenses, dividends		
Taxes	-22.9	-26.3
Capital expenditure on maintenance and improvement	-61.7	-54.5
Defect/Surplus	26.1	199.8
Income from divesting assets	142.7	0.3
Capital expenditure on expansion and acquisitions	-45.4	-31.3
Repayment of capital	-314.0	-216.4
Repayment of loans (-) and new loans (+)		
Capital injections	0.0	200.0
Additional equity from owners		
Net change in cash	-190.6	152.4

## KEMIRA CODE OF CONDUCT

### ECONOMIC RESPONSIBILITY

Consistent accounting policies, reliability, veracity.  
Responsibility for the protection of company assets.  
Prohibition of the use and disclosure of any insider information.  
Compliance with applicable competition laws, ethical competition.

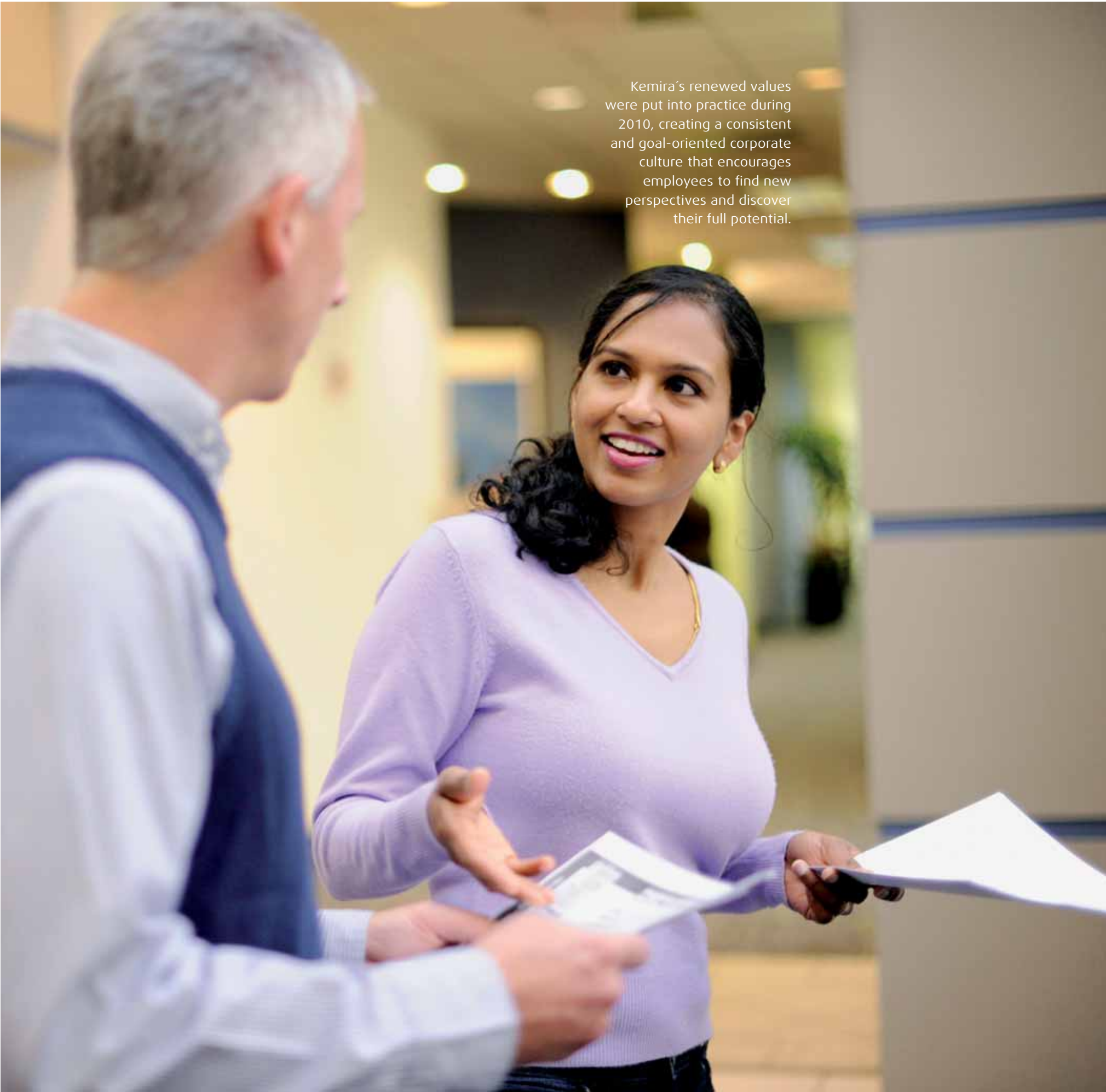
### SOCIAL RESPONSIBILITY

Equal treatment and nondiscrimination.  
Confidentiality.  
Fair partnership and respect for multi-culturalism.  
Avoidance of personal conflicts of interest and personal benefits.  
Prohibition of offering and accepting bribes.  
Transaction with reliable partners.

### ENVIRONMENTAL RESPONSIBILITY

Prevention and minimization of harmful effects.  
Efficient use of natural resources.  
Development of environmentally preferable products and services.  
Development of the environmental business.





Kemira's renewed values were put into practice during 2010, creating a consistent and goal-oriented corporate culture that encourages employees to find new perspectives and discover their full potential.

Kemira adopted new values and a new operating model in 2010. These support the company strategy, which is based on growth, profitability and innovation.

## WE SUCCEEDED TOGETHER

TEXT OLLI MANNINEN PHOTOS MICHAEL A. SCHWARZ AND RAMI LAPPALAINEN

**K**emira created new company values in 2010: We are dedicated to customer success. We care for people and the environment. We drive performance and innovation. We succeed together.

These values were put into practice during 2010, creating a consistent and goal-oriented corporate culture that encourages employees to find new perspectives and discover their full potential.

"People make the business. Human Resources plays an active and integral role in further developing and implementing Kemira's strategy. We need both highly skilled employees and competent managers," says Eeva Salonen, Executive Vice President of Human Resources.

There has been a need to develop common values, management and operating models as implementing a common water strategy requires a strong and consistent corporate culture.

### VALUABLE STAFF CONTRIBUTIONS

Renewing the values began in 2009. The goal was to define distinct values that support Kemira's vision and strategy in practice. Approximately one-fifth of Kemira's personnel in 30 countries contributed to this process.

The starting point was existing best practises. In addition, it involved identifying the factors that would support Kemira's vision to become a leading water chemistry company.

"Successful implementation of our strategy requires clear values that are applicable in everyday work. It is essential that employees find the values meaningful and relevant," Salonen points out.

### ENCOURAGEMENT THROUGH COACHING

"Integrating the values into behavior has become part of our everyday work. We always consider how we can communicate the values through action and fulfill our value promises," Salonen explains.

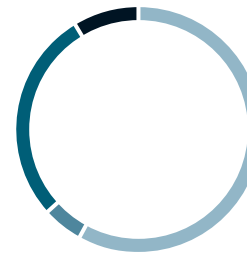
Creating a consistent corporate culture requires determination in the long term. According to Salonen, Kemira has made great progress toward its goals: nearly all employees were familiar with the new values a few months after they had been introduced.

Leadership practices are also being revised based on the new values. Salonen adds that a global matrix organization like Kemira requires coaching-based leadership, where operations and decision-making are guided by values. ▶▶



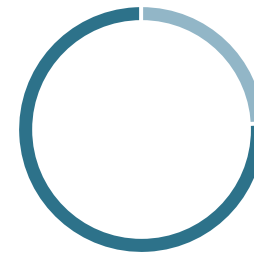


PERSONNEL BY REGION, YEAR-END



59% EUROPE, MIDDLE EAST AND AFRICA  
5% ASIA-PACIFIC  
28% NORTH AMERICA  
8% SOUTH AMERICA

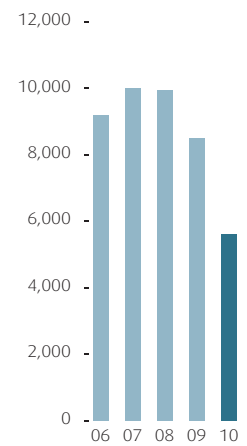
PERSONNEL BY GENDER, YEAR-END



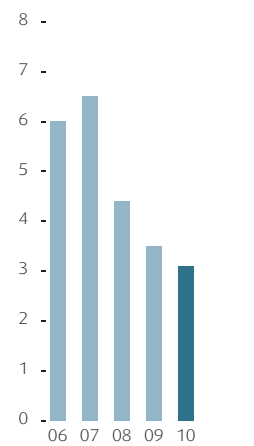
1,196 WOMEN  
3,739 MEN



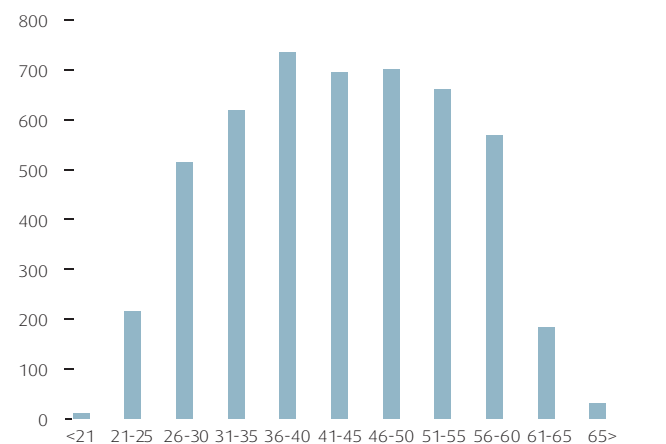
AVERAGE PERSONNEL



LOST TIME INCIDENTS PER MILLION WORKING HOURS



AGE BREAKDOWN, YEAR-END PERMANENT PERSONNEL



Kemira's leadership practices are also being revised based on the renewed values. Global matrix organization requires coaching-based leadership.



A consistent leadership culture, shared operating methods and a corporate culture based on common values are important tools in terms of future growth.

► “Coaching-based leadership encourages employees to participate, contribute and collaborate. Supervisors must be able to set clear goals for employees, explain how these goals are related to the company strategy and support competence development as well as employees’ work toward the goals,” says Salonen.

**INCREASED ATTRACTION**

Salonen goes on to say that a consistent leadership culture, shared operating methods and a corporate culture based on common values are important tools in terms of future growth.

“We seek growth, and competence and constant improvement are essential to business growth. A few years ago, Kemira revised its target setting and development discussion for employees, which was necessary to ensure effective global leadership. Kemira’s future growth will come from developing markets in Asia and South America,” Salonen adds.

“Growth makes Kemira an even more attractive employer and offers employees new opportunities to work in new locations and different cultures. Kemira is undergoing a fascinating phase. Its work to secure sufficient water and energy resources is highly relevant and meaningful. Kemira’s growth story will also attract professionals seeking new challenges,” says Salonen. ■

## CUSTOMERS COME FIRST

**K**emira’s HR team’s North American unit has led the implementation of the company’s values in practice. According to Human Resources Development Manager **Leanne Fisher**, the first step was to consider how the values are reflected in decision-making. Operating methods were evaluated and adjusted to match the new values at regular meetings.

“We have adopted a more customer-oriented approach. We evaluated our operations from the customer perspective and prepared a development plan. We monitor the implementation of this plan regularly,” says Fisher.

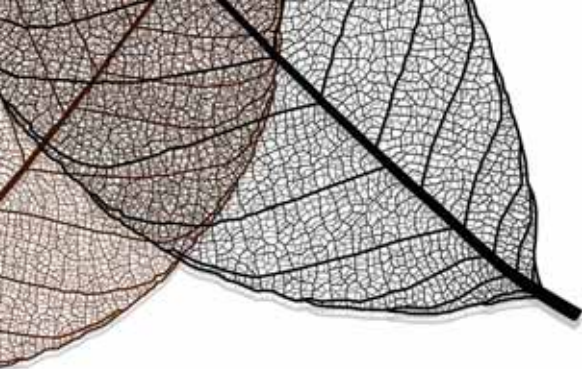
As her title suggests, Fisher is responsible for personnel development. Committing to the new values was easy for her and her HR team members, because the values bring new consistency and efficiency to their work.

“When adopting new values, it is essential to monitor regularly to ensure that everyone truly adheres to the new operating methods,” Fisher points out.

The implementation of the new values has progressed successfully in Kemira’s other North American units as well. About 250 people from different parts of the organization have participated in discussions about the meaning of the new values in everyday work. Based on these discussions, operating methods have been revised and aligned with the new values.

“Teams consisting of employees from different units have proven to be the most effective way to adopt new values and implement change. I am happy to see how committed Kemira’s employees are to putting the new values into practice. Common values help us reach our goals,” Fisher says. ■





# LONG-TERM EFFORTS FOR THE ENVIRONMENT

TEXT ARJA HAUKKASALO PHOTOS ISTOCKPHOTO

In 2010, Kemira continued its determined long-term efforts to reduce its emissions and waste. Kemira offers its customers water management solutions that help them use less raw materials, cut costs and reduce their environmental effects.

**K**emira continued efforts to reduce its environmental impact in 2010. In all, the company's waste and emissions into the water and air have decreased by approximately 80 percent in the past 12 years.

Kemira's key environmental goals include minimizing wastewater emissions, using water and other resources efficiently, reducing industrial waste and improving energy efficiency.

In 2010, Kemira's environmental investments in its production plants totaled EUR 2.9 million, which is slightly more than in 2009. Environmental operating costs decreased to EUR 12.8 million, mainly because of the separation of the paints and coatings business, Tikkurila, from Kemira.

"We carried out improvements at many plants in, for example, water chemical production. The process enhancement project at the Tiancheng paper chemical plant in China was completed in 2010, reducing emissions and waste," says **Aarno Salminen**, Kemira's Vice President for Environment and Safety.

Kemira's environmental remediation projects continued as planned mainly in five locations in Finland, Sweden and the United States. For these projects, Kemira has made provisions of EUR 19.6 million. The most important project is the landfill closure at the Pori facility, where the work has progressed well. In addition, a sediment remediation project will be launched in full in Vaasa in 2011.

#### SMALLER WATER FOOTPRINTS

Kemira recycles water efficiently in its production plants, creating no significant wastewater impacts. Through its products

and solutions, Kemira also has an impact on how its customers treat and recycle water.

Kemira monitors its environmental effects on water by comparing its wastewater loading to the total amount of water treated with Kemira's products at its customers' production plants. Judging from these comparisons, the company is headed in the right direction.

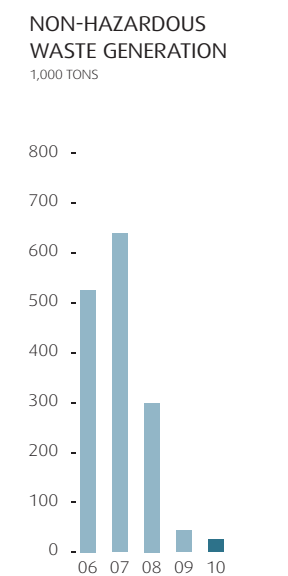
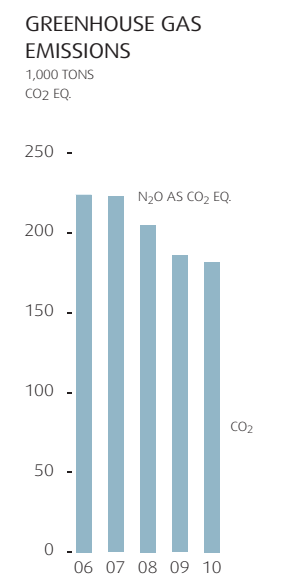
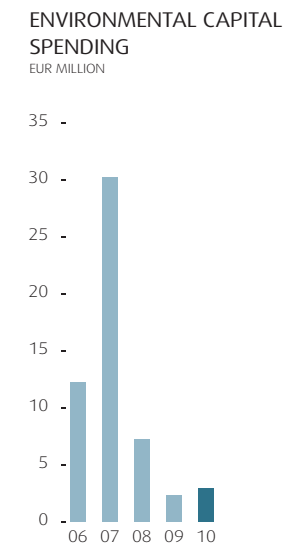
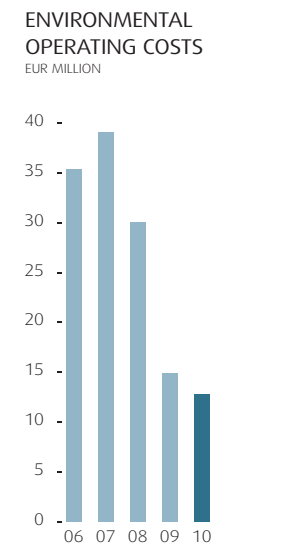
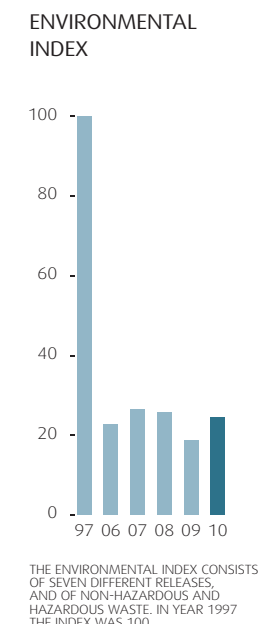
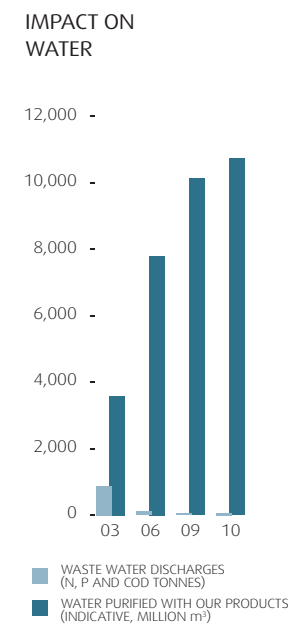
"Even though the comparisons don't cover the entire product life cycle, the results indicate the general trend," says Salminen.

The international standardization of the water footprint method is in progress. Kemira aims to calculate water footprints for its key products after the standardization work has been completed.

#### CONSISTENT OPERATIONS

Kemira's environmental, health, safety and quality (EHSQ) management systems aim at establishing consistent certification, operating and reporting practices at all of its locations.

In addition to ISO standards, the Kemira Group has a more detailed internal standard for production plants.



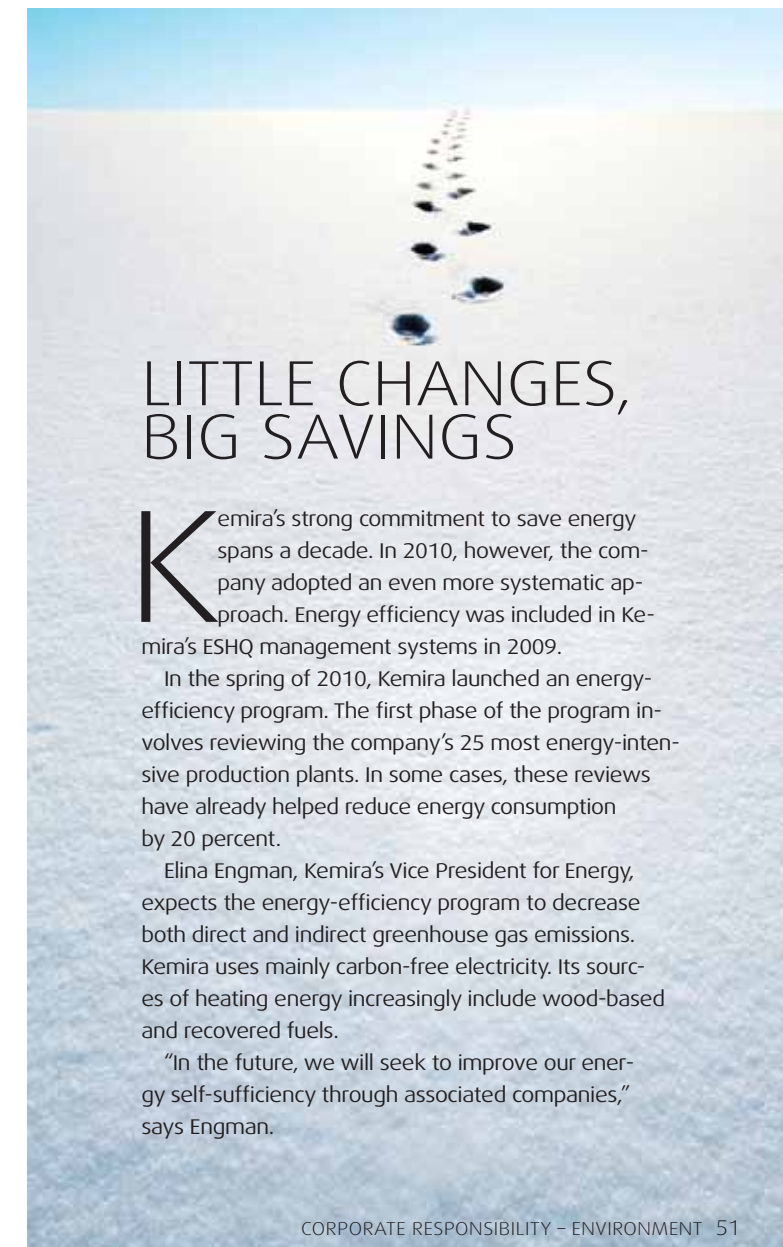
"Above all, a shared operating model helps us improve occupational safety," says Salminen.

No process accidents with serious consequences were recorded in 2010. Kemira continued to carry out preventive technical audits and risk assessments throughout the year. Many of the investments carried out at Kemira's locations also enhance safety, and most of Kemira's key personnel received safety management training in 2010.

"In Asia, we have focused on improving process safety, and safety is integral to the Nanjing plant project as well," Salminen explains.

All of Kemira's plants were audited against the company's EHSQ standards in 2010. In addition, key locations were audited as planned in terms of process safety and certified management systems.

Kemira also expanded its safety management software (Synergi, Dyadem), which are complemented by comprehensive multimedia materials on occupational safety for personnel training. ■



## LITTLE CHANGES, BIG SAVINGS

**K**emira's strong commitment to save energy spans a decade. In 2010, however, the company adopted an even more systematic approach. Energy efficiency was included in Kemira's ESHQ management systems in 2009.

In the spring of 2010, Kemira launched an energy-efficiency program. The first phase of the program involves reviewing the company's 25 most energy-intensive production plants. In some cases, these reviews have already helped reduce energy consumption by 20 percent.

Elina Engman, Kemira's Vice President for Energy, expects the energy-efficiency program to decrease both direct and indirect greenhouse gas emissions. Kemira uses mainly carbon-free electricity. Its sources of heating energy increasingly include wood-based and recovered fuels.

"In the future, we will seek to improve our energy self-sufficiency through associated companies," says Engman.



# KEMIRA BOARD OF DIRECTORS

PHOTOS SUSANNA KEKKONEN

## PEKKA PAASIKIVI

Chairman of the Board, b. 1944, B.Sc. (Eng.)  
Member of the Kemira Oyj Board of Directors since 2007

Kemira shares: 209,781

### Positions of trust:

Oras Invest Ltd, Chairman of the Board since 2004 | Foundation of Economic Education, Member of the Board since 2003

### Past positions of trust:

Varma Mutual Pension Insurance Company, Chairman of the Supervisory Board, 2005-2010 | East Office of Finnish Industries, Member of the Board, 2008-2009 | Raute Oyj, Member of the Board, 2002-2008 | Erkki Paasikivi Foundation, Chairman of the Board, 1997-2008 | Okmetic Oyj, Member of the Board, 1996-2008 | The Federation of Finnish Technology Industries, Member of the Board, 1996-2005 | Uponor Oyj, Chairman of the Board, 1999-2008 | Finpro ry, Member of the Supervisory Board, 2000-2005 | Hollming Oy, Vice Chairman of the Board, 1993-2005

### Career history:

Oras companies, various positions since 1966, among others Managing Director, President and CEO, Chairman of the Board

## JUKKA VIINANEN

Vice Chairman, b. 1948, M.Sc. (Chem.Eng.)  
Member of the Kemira Oyj Board of Directors since 2008

Kemira shares: 3,115

### Positions of trust:

Metso Oyj, Member of the Board since 2008, Chairman of the Board since 2009  
Lahden alueen kehittämissyhtiö Oy LAKES, Chairman of the Board since 2009  
The Finnish Medical Foundation, Member of the Supervisory Board since 2005

### Past positions of trust:

Rautaruukki Oyj, Chairman of the Board, 2001-2009 | Saiph Therapeutics Oy, Chairman of the Board, 2003-2005 | Orion Diagnostica Oy, Chairman of the Board, 2003-2005 | Orion Holding Sverige AB, Chairman of the Board, 2002-2005 | Kronans Droghandel AB, Chairman of the Board, 2002-2005 | Huhtamaki Oyj, Member of the Board, 1999-2005 | State Research Institute, Chairman of the Board, 1994-2002 | Uponor Oyj (Former AskO Oyj), Member of the Board, 1993-2001 | Lassila & Tikanoja Group Oyj, Member of the Board, 1993-2001 | Neste Oyj, Vice Chairman of the Board, 1996-1999 | Neste Oyj, Member of the Board, 1990-1996

### Career history:

President and CEO of Orion Oyj 2000-2007 | President and CEO of Neste Oyj 1997-1999 | Executive and Board positions in Neste Oyj 1983-1999

## ELIZABETH ARMSTRONG

b. 1947, Ph.D.  
Member of the Kemira Oyj Board of Directors since 2003

Kemira shares: 1,492

### Past positions of trust:

Image Polymers, Chairman of the Board 1996-2005

### Career history:

President of NeoResins 1996-2005 | 30-years experience in the chemical industry and 15 years in senior management positions (Cyanamid, Cytec Industries, Zeneca, Avecia)

## WOLFGANG BÜCHELE

b. 1959, Dr. rer. Nat.  
Chairman of the Board and Chief Executive Officer of BorsodChem Zrt. | Managing Director of First Chemical Holding Kft., Hungary, since May 2009 | Member of the Kemira Oyj Board of Directors since 2009

Kemira shares: 1,492

### Positions of trust:

Member of the Supervisory Board of Merck KGaA, since 2009 | Member of the Board of Partners of E. Merck KG, since 2009

### Career history:

Senior Advisor of Permira Beteiligungsberatung GmbH. | Project Advisor, Blackstone Group LLP, 2008 | BASF AG, various positions, 1987-2007: President of Fine Chemicals Division, 2005-2007 | President of Performance Chemicals Division, 2003-2005 | Chairman of the Supervisory Board BASF Printing Systems GmbH | President Eastern Europe, Africa, West Asia Regional Division, 2001-2003 | Group Vice President Business Management Fine Chemicals Europe, 1999-2001 | Managing Director Global Marketing Cosmetic Raw Materials, 1997-1999 | Managing Director Regional Marketing Catalysts Asia, 1993-1997 | Head of Research Group Industrial Catalysts, 1990-1993 | Research Chemist, 1987-1993

## JUHA LAAKSONEN

b. 1952, B.Sc. (Econ.)  
Executive Vice President and CFO, Fortum Corporation since 2000 | Member of the Kemira Oyj Board of Directors since 2007

Kemira shares: 1,492

### Positions of trust:

Sato Oyj, Chairman of the Board since 2007 | OAO Fortum, Member of the Board since 2008 | The Association of Finnish Fine Arts Foundations, Member of the Board since 2006 | The Fortum Art Foundation, Chairman of the Board since 2006 | Kemijoki Oyj, Member of the Supervisory Board since 2002 | Fingrid Oyj, Deputy Member of the Board since 2002

## Past positions of trust:

Teollisuuden Voima Oy, Member of the Board, 2003-2010 | Tapiola Mutual Insurance Company, Member of the Supervisory Board, 2002-2007 | Neste Oil Oyj, Member of the Board, 2005-2007 | Fortum Pension Fund, Chairman of the Board 2002 - 06/2005

### Career history:

Fortum Oyj, Corporate Vice President, Mergers & Acquisitions, 2000 | Fortum Oil & Gas Oy, Executive Vice President, Finance & Planning, 1999 | Neste Oyj, Chief Financial Officer, 1998 | Neste Oyj, Corporate Controller, 1997

## KAIJA PEHU-LEHTONEN

b. 1962, M.Sc. (Eng.)  
Oy Metsä-Botnia Ab, SVP Business Development since 2010 | Member of the Kemira Oyj Board of Directors since 2004

Kemira shares: 1,492

### Positions of trust:

Oy Keskuslaboratorio - Centrallaboratorium Ab, Member of the Board since 2010 | Technical Research Centre of Finland, Member of the Board since 2010 | Forestcluster Ltd, Member of the Board since 2008 | Oy Silva Shipping Ab, Member of the Board since 2009

### Past positions of trust:

Mittaportti Oy, Chairman of the Board, 2007-2010 | Rauma Chamber of Commerce, Member of the Board, 2004-2008

### Career history:

Oy Metsä-Botnia Ab, Vice President, New Businesses in the Business Development competence centre 2008-2010 | Site Manager of the Rauma pulp mill of Oy Metsä-Botnia Ab 2001-2008 | Expert and managerial positions with Kymmene Oy and Metsä-Botnia since 1986

## KERTTU TUOMAS

b. 1957, B.Sc. (Econ.)  
KONE Corporation, Executive Vice President, Human Resources, a member of the Executive Board since 2002 | Member of the Kemira Oyj Board of Directors since 2010

Kemira shares: 1,492

### Positions of trust:

JTO School of Management, Member of the Board since 2007 | Member of CEMS Strategic Board (the Global Alliance in Management Education) since 2008

### Career history:

Elcoteq Network Corporation, Group Vice President, Human Resources, 2000-2002 | Masterfoods Oy, Personnel & Organization Manager, 1994-1999



WOLFGANG BÜCHELE



ELIZABETH ARMSTRONG



KERTTU TUOMAS



KAIJA PEHU-LEHTONEN



JUHA LAAKSONEN



JUKKA VIINANEN



PEKKA PAASIKIVI

FOR RESUMÉ DETAILS, PLEASE SEE KEMIRA WEBSITE: [WWW.KEMIRA.COM](http://WWW.KEMIRA.COM) > INVESTORS > CORPORATE GOVERNANCE > GROUP MANAGEMENT > BOARD OF DIRECTORS



# KEMIRA MANAGEMENT BOARDS

PHOTOS SUSANNA KEKKONEN

FOR RESUMÉ DETAILS, PLEASE SEE KEMIRA WEBSITE:

WWW.KEMIRA.COM > INVESTORS > CORPORATE GOVERNANCE > GROUP MANAGEMENT > GROUP MANAGEMENT BOARDS

## HARRI KERMINEN

President and CEO since January 1, 2008  
Chairman of the Business and Strategic Management Boards  
Born 1951, M.Sc. (Eng.), MBA  
With Kemira since 1985  
Kemira shares 181,357

### Career history:

Kemira Oyj, President of the Kemira Pulp&Paper business area, 2006–2007 | Kemira Oyj, President of the Kemira Specialty business area, 2000–2006 | Kemira Chemicals Oy, Vice President, Human Resources, 1996–2000  
Kemira Oyj, Manager of Oulu plant, 1994–1996 | Kemira Kemi AB, Production Manager, 1990 | Kemira Oy/Kemira Oyj, Project Manager, plant construction projects in Finland, Sweden, Belgium and the US, 1989–1994

### Positions of trust:

CEFIC, Member of the Board, since 2008 | Chemical Industry Federation of Finland, Vice Chairman of the Board, since 2009, Chairman of the Board, since 2011 | East Office of Finnish Industries Oy, Member of the Board, since 2009 | Finpro ry, Member of the Board, since 2010, Chairman of the Board, since 2011 | Confederation of Finnish Industries EK, Member of the Board, since 2011 | TT Foundation of the Confederation of Finnish Industries, EK, Member of the Board, since 2011

## JYRKI MÄKI-KALA

Chief Financial Officer, since 2008  
Deputy CEO, since September 1, 2009  
Member of Business Management Board and Strategic Management Board  
Born 1961, M.Sc.(Econ.)  
With Kemira since 2005  
Kemira shares 69,908

### Career history:

Kemira Oyj, President of the Kemira Pulp & Paper business area, February 6, 2008 - September 30, 2008 | Kemira Oyj, Kemira Pulp & Paper, Vice President, Finance & Control, 2006–2007 | Kemira Oyj, Kemira Pulp & Paper, Vice President, Lanxess Paper Chemicals Integration, 2005–2007 | Kemira Oyj, Kemira Pulp & Paper, Vice President, Bleaching Chemicals Finland, 2005–2006 | Finnish Chemicals Oy, Business Controller, Director of Business Development, CFO, Divisional Director and Managing Director, 1988–2008

### Positions of trust:

Northern Power Company Ltd., Member of the Board, since 2009

## PETRI HELSKY

President, Paper business since 2008  
Member of Business Management Board and Strategic Management Board  
Born 1966, M.Sc. (Chem. Eng.), M.Sc. (Econ.)  
With Kemira since 2007  
Kemira shares 62,878

### Career history:

Kemira ChemSolutions, Senior Vice President, SBU manager, 2007–2008 | Kemira ChemSolutions b.v., Managing Director, 2007–2008 | Solvay SA, Business Manager H2O2 EMEA, 2002–2007 | Oy Finnish Peroxides Ab, Managing Director, 1997–2002 | Solvay Nordic Ab, General Manager, 1996–1997 | Solvay Nordic Ab, Sales Manager, 1993–1996 | Dow Corning, Sales Responsible, 1992–1993

## PEKKA OJANPÄÄ

President, Municipal & Industrial business since 2008  
Member of Business Management Board and Strategic Management Board  
Born 1966, M.Sc.(Econ.)  
With Kemira since 2005  
Kemira shares 68,493

### Career history:

Kemira Oyj, President of the Kemira Specialty business area, 2006–2008 | Kemira Oyj, Executive Vice President of Procurement & Logistics, 2005–2006 | Nokia Oyj, Vice President, Electromechanics Supply Line Management, 2001–2004 | Nokia Hungary, Managing Director, 1998–2001 | Nokia Mobile Phones, Sales and logistics managerial positions, 1994–1998

### Positions of trust:

Sievo Oy, Member of the Board, since 2007

## HÅKAN KYLANDER

Region Head for EMEA since 2008  
Member of Strategic Management Board  
Born 1953, Studies for M.Sc. (Econ.)  
With Kemira since 1988  
Kemira shares 23,929

### Career history:

Kemira Pulp & Paper, Vice President, Human Resources, 2004–2008 | Kemira Oyj, Kemira Chemicals Oy, Vice President, Human Resources, 2000–2003 | Kemira Pigments Oy, Vice President, Finance & IT, 1997–1999 | Kemira Kemi AB, Vice President, Finance & IT, 1995–1997 | Kemira Oy, Controller, 1990–1994 | Oy Hortus Ab (Kemira's associated company), Administrative Manager, 1988–1989

## RANDY OWENS

President, Oil & Mining segment, since 2008  
Region Head for North America, since 2010  
Member of Business Management Board and Strategic Management Board  
Born 1964, B.Sc. MBA  
With Kemira since 2002  
Kemira shares 65,545

### Career history:

Kemira Oyj, Kemira Pulp & Paper, Vice President, Strategic Business Unit Additives, 2002– 2008 | Vinings Industries, Business Manager, Sales/Product Management/Marketing Management, 1991–2002 | Nalco Chemicals, Sales, 1987–1991

## HILTON CASAS DE ALMEIDA

Region Head for South America since 2008  
Member of Strategic Management Board  
Born 1961, B.Sc. (Chemistry)  
With Kemira since 2007  
Kemira shares 64,590

### Career history:

Basf SA, Functional Polymers Unit, Regional Business Director, 2004–2007 | Basf AG, Functional Polymers Division, Sales Manager (Europe), 2001–2004 | Basf SA, Specialty Chemicals Division, Regional Sales & Marketing Manager, Product Manager, Sales Representative, Technical Assistant 1989–2001 | Bera do Brasil Met. E. Com. Metais Ltda., Head of the Technical Department, Quality Control Head, 1985–1988 | Duratex SA, Technical in Development of Manufacturing Process, 1982–1985



RANDY OWENS, JYRKI MÄKI-KALA AND HARRI KERMINEN



RANDY OWENS



HILTON CASAS DE ALMEIDA



PETRI HELSKY AND HÅKAN KYLANDER



PEKKA OJANPÄÄ AND HILTON CASAS DE ALMEIDA





EEVA SALONEN AND JYRKI MÄKI-KALA



LEENA LIE



ANTTI SALMINEN



JUKKA HAKKILA



▶ **RONALD KWAN**

Region Head for Asia Pacific since 2008  
Member of Strategic Management Board  
Born 1957, BA Chemistry  
With Kemira since 2007  
Kemira shares 60,444

**Career history:**

Kemira Oyj, Kemira Chemicals (Shanghai) Co. Ltd., Managing Director, Pulp & Paper, China, 2007-2008 | Ciba Specialty Chemicals, Head of Segment Coating Effects, Asia Pacific, 2005-2007 | Ciba Specialty Chemicals, Director of Business Development, Asia Pacific, 2002-2005 | Vantico Limited, Regional Managing Director, Asia Pacific, 2000-2002 | Ciba Specialty Chemicals, Manager, Performance Polymers Division, Asia Pacific, 1993-2000 | Dow Chemical, various positions in Technical Services and Marketing in Asia and Canada, 1980-1993

**PETRI BOMAN**

Executive Vice President, Supply Chain Management 2007-2010, with Kemira until December 31, 2010

Member of Strategic Management Board  
Born 1966, M.Sc. (Tech.)  
With Kemira since 2005  
Kemira shares 3,281

**Career history:**

Kemira Oyj, Group Vice President, Supply Chain the Kemira Coatings business area, 2005-2006 | Nokia Corporation, Senior SLM Manager, 2002-2005 | Nokia Corporation, Designer and New Technology Purchasing Manager in Denmark and the UK, 1997-2002 | Vaisala Ltd., Engineer, 1993-1996

**ANTTI SALMINEN**

Executive Vice President, Supply Chain Management since February 15, 2011

Member of Strategic Management Board  
Born 1971, PhD (Eng.)  
With Kemira since March 1, 2011  
Kemira shares: -

**Career History**

KONE Corporation: Director, New Equipment Business, Asia Pacific, 2009-2011 | KONE Corporation: Vice President, Delivery Process, 2005-2009 | Capgemini Finland: Managing Consultant, 2000-2005 | Helsinki University of Technology: Research scientist, project manager, program manager, 1995-2000

**JOHAN GRÖN**

Executive Vice President, R&D and Technology 2008-2010, with Kemira until January 31, 2011  
Member of Strategic Management Board  
Born 1966, D.Sc. (Chem.Eng.)  
With Kemira since 2006  
Kemira shares 48,581

**Career history:**

Kemira Oyj, Vice President, R&D, Business Area Pulp & Paper, 2006-2008 | Stora Enso Publication Papers Oy, R&D Manager, 2004-2005 | Åbo Akademi University, Adjunct Professor since 1998 | Metso Paper Inc., Vice President, Process Chemistry and Technology, 2002-2004 | Valmet Corporation, Research Manager, 1995-2002

**Positions of trust:**

Forestcluster Ltd, Member of the Board since 2008

**HEIDI FAGERHOLM**

Executive Vice President, R&D and Technology since January 1, 2011  
Member of Strategic Management Board  
Born 1964, D.Sc. (Chem.Eng.)  
With Kemira since 2010  
Kemira shares: -

**Career history:**

Kemira Oyj, Vice President, R&D 2010 | Ahlstrom Group, Business Area Building and Energy Nonwovens, Vice President Product Development 2007-2010 | Ciba Specialty Chemicals Oy, Head of Technical Center Europe (EuMEA) 2006-2007 | Top Analytica Ltd., Managing Director 2001-2006 | Turku Technology Center Ltd., Project Manager and Director of R&D Unit 1994-2001 | Adjunct professor at Åbo Akademi University since 1997 | Member of Swedish Technical Science Academy of Finland since 2007

**JUKKA HAKKILA**

Executive Vice President, Group General Counsel since 2005  
Member of Strategic Management Board  
Born 1960, LL.M.  
With Kemira since 2005  
Kemira shares 51,841

**Career history:**

Elcoteq Network Corporation, General Counsel, 2002-2005 | Finnish Export Credit Ltd., Senior Vice President, Lending and Legal Affairs, 2002 | Sampo Bank in New York, Chief Representative, 2001-2002 | Leonia Bank in New York, Senior Vice President, 1999-2000 | Leonia Corporate Bank, First Vice President, 1998-1999 | Finnish Export Credit Ltd., Chief Legal Counsel for business matters, 1996-1998, Senior Legal Counsel, 1995-1996, Legal Counsel, 1988-1995

**Positions of trust:**

Industrial Power Company Ltd., Member of the Board since 2009

**PÄIVI JOKINEN**

Executive Vice President, Marketing and Communications since 2008  
Member of Strategic Management Board (on maternity leave as of March 24, 2010)  
Born 1968, M.Sc. (Econ.)

With Kemira since 2008

Kemira shares 16,131

**Career history:**

International Paper Europe, Strategic Planning Manager, 2006-2008 | International Paper European Papers, Marketing Director, 2004-2006 | Specialty Minerals Europe, Marketing and Strategic Planner, 2003-2003 | The Boston Consulting Group, Management Consultant, 2000-2002 | Jaakko Pöyry Consulting, Business and Marketing Strategies Consultant, 1998-1999 | Price & Pierce Finland, Sales Manager, 1996-1998

**LEENA LIE**

Vice President, Communications since 2009  
Acting as Executive Vice President, Marketing and Communications as of March 24, 2010  
Member of Strategic Management Board  
Born 1968, M.Sc. (Econ.)  
With Kemira since 2009  
Kemira shares: -

**Career history:**

KONE, Vice President, Brand and reputation management, 2008-2009 | KONE, Vice President, Internal Communications 2006-2008 | Nokia, Customer and Market Operations, Head of Communications 2005-2006 | Nokia Corporate Communications, Manager Internal Communications, 2002-2005 | Nokia Mobile Phones, Manager, Communications, 1999-2002 | Hartwall Areena, Marketing, Communications and Event Manager, 1997-1999 | Nokia Mobile Phones, Communications Officer, 1995-1997

**EEVA SALONEN**

Executive Vice President, Human Resources since 2008  
Member of Strategic Management Board  
Born 1960, M.A.  
With Kemira since 2008  
Kemira shares 19,931

**Career history:**

Nokia Oyj, Vice President, Human Resources, Devices Research and Development, January 1, 2008-June 8, 2008 | Nokia Oyj, Vice President, Human Resources, Mobile Phones Business Group, 2004-2007 | Nokia Oyj, Director, Business HR, Nokia Mobile Phones, Global Operations, Logistics and Sourcing, 2002-2004 | Nokia Oyj, Senior Business HR Manager, Nokia Mobile Phones, operations, Logistics and Sourcing, Europe and Africa, 1999-2002 | Nokia Oyj, Human Resources Development Manager, Nokia Mobile Phones, Europe and Africa region, 1995-1999 | Quality Systems Oy, Consultant and Research Manager positions, 1987-1994



RONALD KWAN



HEIDI FAGERHOLM



# CORPORATE GOVERNANCE

## GENERAL

Kemira Oyj's corporate governance is based on the Articles of Association, the Finnish Companies Act and NASDAQ OMX Helsinki Ltd's rules and regulations on listed companies.

Furthermore, the Company complies with the Finnish Corporate Governance Code, with the exception that the Nomination Committee primarily consists of members outside the Company's Board of Directors which is not in line with the Governance Code's recommendation 22. According to the view of the Company's Board of Directors, it is in the best interest of the Company and its shareholders that the biggest shareholders participate in preparing nomination and compensation issues related to the Board of Directors.

The Finnish Corporate Governance Code is publicly available at [www.cgfinland.fi](http://www.cgfinland.fi).

Kemira's Corporate Governance Statement has been published as a separate report at the same time as the report by the Board of Directors. An English translation of the Statement is available on Kemira's website [www.kemira.com](http://www.kemira.com) > Investors > Corporate Governance.

## MANAGEMENT BODIES

The Shareholders' Meeting, the Board of Directors and the Managing Director are responsible for Kemira's management and operations. Their tasks are defined based on the Finnish Companies Act and Kemira's Articles of Association.

## SHAREHOLDERS' MEETING

Kemira Oyj's shareholders' meeting, the Company's highest decision-making body, is held at least once a year. The Annual General Meeting (AGM) must be held each year by the end of May.

The AGM makes decisions on tasks within its competence under the Companies Act and the Articles of Association, such as the adoption of the financial statements and dividend payout, the discharge of Board members and the Managing Director and his Deputy from liability, the election of the Chairman, Vice Chairman and other members of the Board of Directors and their emoluments, and the election of the auditor and the auditor's fees.

A notice of a shareholders' meeting must be published in at least two national newspapers, specified by the Board of Directors, no earlier than 2 months and no later than 21 days prior to the meeting. Kemira also publishes the notice of a shareholders' meeting as a stock exchange release and on its web pages.

Kemira Oyj's Annual General Meeting was held in Helsinki on March 16, 2010. The meeting was attended by 587 shareholders either in person or by proxy, together representing around 53% of the shareholders' votes. The documents related to the AGM are available on Kemira's website [www.kemira.com](http://www.kemira.com) > Investors > Corporate Governance > Annual General Meeting.

## BOARD OF DIRECTORS COMPOSITION

The AGM elects the Chairman, Vice Chairman and other members of the Board of Directors. In accordance with the Articles of Association, the Board of Directors comprises 4–8 members. On March 16, 2010, the AGM elected seven Board members. The AGM reelected members Elizabeth Armstrong, Wolfgang Büchele, Juha Laaksonen, Pekka Paasikivi, Kaija Pehu-Lehtonen and Jukka Viinanen to the Board of Directors and Kerttu Tuomas was elected as a new member. Pekka Paasikivi was elected to continue as the Board's Chairman and Jukka Viinanen as the Vice Chairman.

All of the Board members are independent of the Company. Of the Board members, others than Chairman of the Board, Pekka Paasikivi, are independent of significant shareholders of the Company. Pekka Paasikivi is the Board Chairman of Oras Invest Oy and Oras Invest Oy owns over 10% of Kemira Oyj's shares. The personal information concerning the members of the Board of Directors can be found on page 52 of the Annual Report and their holdings can be found below under the heading Insiders.

## TASKS AND DUTIES

According to the Articles of Association, the Board of Directors is tasked with duties within its competence under the Companies Act. It has drawn up a written Charter defining its key duties and procedures. The following is a

description of the essential contents of the Charter.

The Board of Directors is in charge of Corporate Governance and the due organization of the Company's operations. It decides on convening and prepares the agenda for the shareholders' meeting and ensures the practical implementation of decisions taken thereby. In addition, the Board of Directors decides on authorizations for representing the Company. The Board of Directors' key duties include matters which, in view of the scope and type of the Company's operations, are uncommon or involve wide-ranging effects. These include establishing the Company's long term goals and the strategy for achieving them, approving the annual business plans and budget, defining and approving corporate policies in key management control areas, approving the Company's organizational structure and appointing the Managing Director, his deputy and members of the Group Management Boards. The Board of Directors approves the Company's investment policy and major investments and divestments. It also approves the group treasury policy and the major long term loans and the guarantees issued by the Company.

The Board's duties include ensuring that the Company has adequate planning, information and control systems and resources for monitoring result and managing risks in operations. The Board of Directors monitors and evaluates the performance of Managing Director, his deputy and members of the Group Management Boards and decides upon their remuneration and benefits. The Board's duty is to ensure continuation of the business operations by succession planning for key persons. The Board defines and approves the main principles for the incentive bonus systems within the Company.

The Board of Directors also manages other tasks within its competence under the Companies Act. It is responsible for the due organization of the supervision of the Company's accounting and asset-liability management. The Board of Directors sees to it that the Company's financial statements give a true and fair view of the Company's affairs and that the consolidated financial statements are prepared under the International Financial Reporting Standards (IFRS) and the parent company's financial statements under

the acts and regulations in force in Finland (FAS). The Board of Directors' meetings discuss the Company's profit performance at monthly level. The Board of Directors discusses the Company's audit with the auditor. The Board of Directors evaluates its performance and working methods on an annual basis.

In 2010, the Board of Directors met 10 times. The average attendance rate at the meetings was 95,7%.

## REMUNERATION

Remuneration of the Board of Directors is described on pages 62–63 of the Annual Report and in a separate Remuneration Statement which is available also on Kemira's website [www.kemira.com](http://www.kemira.com) > Investors > Corporate Governance > Remuneration.

## COMMITTEES

Kemira Oyj's Board of Directors has appointed three committees: the Audit Committee, the Compensation Committee and the Nomination Committee.

## AUDIT COMMITTEE

The Audit Committee works in accordance with its Charter confirmed by the Board of Directors. It is tasked to assist the Board of Directors in fulfilling its oversight responsibilities for financial reporting process, the system of internal control, the audit process and Kemira's process for monitoring compliance with laws and regulations and the Kemira Code of Conduct.

The Audit Committee consists of members independent of the Company, elected by the Board of Directors from amongst its members. The Audit Committee is chaired by Juha Laaksonen and has Kaija Pehu-Lehtonen and Jukka Viinanen as members. The Audit Committee met 5 times in 2010 with an attendance rate of 93.3%. The Committee reports to the Board of Directors on each meeting.

## COMPENSATION COMMITTEE

The Compensation Committee consists of members independent of the Company, elected by the Board of Directors from amongst its members. The Board of Directors has approved a Charter for the Committee, according to which the Committee assists the Board of Directors by preparation of matters related to compensation of Managing Director, his deputy and the members of the Group

Management Boards, by preparation of matters pertaining to the compensation systems and long-term incentive plans of the Company, by preparation of matters relating to appointment of Managing Director, his deputy and the members of the Group Management Boards. The Committee also monitors succession planning of the senior management and the senior management's performance evaluation.

The Compensation Committee is chaired by Pekka Paasikivi and has Kerttu Tuomas and Jukka Viinanen as members. In 2010, the Compensation Committee met 4 times. The average attendance rate at the meetings was 100%. The Committee reports to the Board of Directors on each meeting.

## NOMINATION COMMITTEE

In accordance with the decision of the Board of Directors, made on March 16, 2010, the Nomination Committee's task is to prepare a proposal for the AGM concerning the composition and remuneration of the Board of Directors. The Board of Directors has approved a Charter for the Committee.

In deviation of recommendation 22 of the Finnish Corporate Governance Code, the Nomination Committee primarily consists of members outside the Company's Board of Directors. According to the view of the Company's Board of Directors, it is in the best interest of the Company and its shareholders that the biggest shareholders participate in preparing nomination and compensation issues related to the Board of Directors.

The committee comprises of the representatives of the four largest shareholders of Kemira Oyj based on the situation on May 31, 2010, and the Chairman of Kemira Oyj's Board of Directors acts as an expert member. The members of the Nomination Committee are Jari Paasikivi, President and CEO, Oras Invest Oy, Kari Järvinen, Managing Director of Solidium Oy, Risto Murto, Executive Vice President, Varma Mutual Pension Insurance Company, Timo Ritakallio, Deputy CEO, Ilmarinen Mutual Pension Insurance Company, and the Chairman of the Board of Directors Pekka Paasikivi as an expert member. The Nomination Committee met twice in 2010 with an attendance rate of 100%. In addition, the Nomination Committee that was assembled by Kemira Oyj's Board of Directors on April 8, 2009 in order to prepare

a proposal for the 2010 AGM concerning the composition and remuneration of the Board of Directors, met 1 time in 2010 with an attendance rate of 100%.

## MANAGING DIRECTOR

The Board of Directors appoints the Managing Director and the Managing Director's Deputy. Under the Articles of Association, the Managing Director is responsible for managing and developing the Company in accordance with the instructions and regulations issued by the Board of Directors, ensuring that the Company's interests are served by the subsidiaries and associated companies under its ownership, and puts the decisions taken by the Board of Directors into effect. The Managing Director reports to the Board on financial affairs, the business environment and other significant issues. The Managing Director also functions as the Chairman of Kemira's Strategic Management Board and Business Management Board. Harri Kerminen acts as the Managing Director of Kemira Oyj. The Deputy Managing Director is CFO Jyrki Mäki-Kala. The Managing Director and the Managing Director's Deputy, including their related parties, are not involved in any substantial business relationships with the Company.

The personal information concerning the Managing Director and the Deputy can be found on page 54 of the Annual Report and their holdings can be found below in the section Insiders. The financial benefits related to the Managing Director's employment relationship are described on pages 62–63 of the Report and in a separate Remuneration Statement which is available on Kemira's website [www.kemira.com](http://www.kemira.com) > Investors > Corporate Governance > Remuneration.

## GROUP MANAGEMENT BOARDS

Kemira's management consists of two Group Management Boards. The Business Management Board concentrates on the operative steering of the business and the Strategic Management Board is responsible for the strategy implementation.

## BUSINESS MANAGEMENT BOARD

The Business Management Board consists of the Managing Director, CFO, and the Presidents of the Paper, Municipal & Industrial and Oil & Mining segments. The Chairman of the Board is the Managing Director.



► The personal information and areas of responsibility of the Business Management Board members are presented on pages 54–57 of the Annual Report and their holdings can be found below in the section Insiders.

#### STRATEGIC MANAGEMENT BOARD

The Strategic Management Board consists of the members of the Business Management Board, the 3 Region Heads of EMEA, South America and APAC, the Group General Counsel and the function heads of Supply Chain Management, R&D and Technology, Marketing and Communications, and HR.

The personal information and areas of responsibility of the Strategic Management Board members are presented on pages 54–57 of the Annual Report and their holdings can be found below in the section Insiders.

#### MANAGEMENT COMPENSATION

The decision-making process and main principles of remuneration of the Board of Directors, the Managing Director and other executives of the Company are described on pages 62–63 of the Annual Report and in a separate Remuneration Statement which is available on Kemira's website [www.kemira.com](http://www.kemira.com) > Investors > Corporate Governance > Remuneration.

#### GROUP STRUCTURE

Kemira Oyj has organized its business into three customer based segments with

P/L responsibilities. The Paper segment focuses on serving customer segments in the pulp and paper industry, the Municipal & Industrial segment concentrates on serving customer segments in municipal and industrial water treatment and Oil & Mining focuses on serving customers in the oil, gas and mining industries.

In segment Other, the ChemSolutions unit focuses on serving customers on food and feed markets as well as in the pharmaceutical and chemical industries.

Kemira Oyj's global functions are responsible for the exploitation of internal synergies. The functions manage and coordinate certain company-wide functions, such as human resources, legal affairs, logistics, purchasing and sourcing, treasury, risk management, internal audit, finance, IT management, R&D, environmental protection and communications. These functions are organized globally and they offer their services to all Kemira businesses.

Geographically Kemira's operations are divided into four regions: North America, South America, APAC and EMEA. The organizations of the geographical regions are responsible for building joint cost efficient infrastructures for all operations.

#### INTERNAL CONTROL

Kemira maintains an internal control system to ensure the effectiveness and efficiency of its operations, including the reliability of financial and operational re-

porting and compliance with the applicable regulations, policies and practices. Internal control is an integral part of all of Kemira's operations and covers all levels of the Group. The entire Group personnel are responsible for internal control and its effectiveness is monitored by managers as part of operative management.

Kemira's corporate values, Code of Conduct and Group level policies provide the basis for corporate governance and internal control in the Group. The internal policies and the Kemira Code of Conduct have been communicated to all Group staff. The Group also provides training concerning the main policies for people who need to know the policies in question. Every employee has the right and duty to report any violations of the law and the Code of Conduct.

The main components of internal control are the management and organizational culture, risk assessment, control activities, reporting and communication, as well as monitoring and auditing.

#### INSIDERS

As provided by the Finnish Securities Markets Act, Kemira Oyj's insiders consist of insiders subject to disclosure requirements, permanent company-specific insiders and project specific insiders. On the basis of their position, Kemira's insiders subject to disclosure requirements comprise Board members, the Managing

Director and the Deputy Managing Director, members of Kemira Oyj's Group Management Boards and the auditor or the chief auditor representing the independent firm of public accountants. Kemira Oyj's permanent company-specific insiders comprise certain other persons separately specified by the Group General Counsel.

Kemira Oyj complies with the Insider Guidelines issued by the NASDAQ OMX Helsinki Ltd, according to which insiders should trade in Company shares at a time when the marketplace has the fullest possible information on circumstances influencing the value of the Company's share. Accordingly, Kemira Oyj's insiders may not trade in Company shares for 30 days prior to the disclosure of the Company's interim accounts or the release of the financial statements bulletin.

Kemira's Legal function maintains Kemira Oyj's insider register and updates information on the Company's insiders subject to statutory disclosure requirements to be entered in the public insider register of Euroclear Finland Oy. Kemira's insider information is available in the web-based service maintained by Investis Flife.

The table on the previous page shows insider shareholdings in Kemira Oyj on December 31, 2010 and on December 31, 2009. Shareholdings include personal shareholdings and the related-party

holdings as well as holdings in companies over which the shareholder exercises control. Up-to-date insider information as well as updated shareholding information can be found on the Company's website at [www.kemira.com](http://www.kemira.com) > Investors > Corporate Governance > Insiders.

#### INTERNAL AUDIT

Kemira Group's internal audit function provides independent appraisal and assurance for the review of operations within the Group in order to support the management and the Board of Directors in fulfilling their oversight responsibilities. The purpose is to evaluate and contribute to the improvement of risk management, control and governance systems in the Group. The purpose, authority and responsibilities of the unit are defined in the Charter of Kemira Group Internal Auditing approved by Kemira Oyj's Board of Directors. Internal auditors have complete and unrestricted access to all Kemira activities. The internal audit function reports to the Board Audit Committee and administratively to the Group General Counsel. Internal audit plans and findings are subject to regular review with the external auditors during the course of the year.

#### AUDIT

Under the Articles of Association, the Shareholders' meeting elects an audit firm

as the Company's auditor. The audit firm appoints the Principal Auditor, who is an Authorized Public Accountant certified by the Central Chamber of Commerce. The auditor's term of office continues until the next Annual General Meeting after the Auditor's election. The 2010 Annual General Meeting elected KPMG Oy Ab as the Company's auditor, with Pekka Pajamo, Authorized Public Accountant, acting as the Principal Auditor.

In 2010, the audit fee paid globally to the auditor (KPMG) totaled EUR 1,3 million. In addition, a total of EUR 0,3 million was paid as fees for services unrelated to audit.

#### A DESCRIPTION OF THE MAIN FEATURES OF THE INTERNAL CONTROL AND RISK MANAGEMENT SYSTEMS PERTAINING TO THE FINANCIAL REPORTING PROCESS

##### GENERAL

Kemira's Board of Directors defines the main principles of risk management and approves the Group's risk management policy. The business segments and functions are responsible for identifying, assessing and managing risks involved in their activities. The Group's Risk Management function coordinates and supports risk management.

Kemira's internal control system covers all Group operations, including financial reporting. The internal control activities are carried out in all organizational levels as part of the Group's daily operations.

A more detailed description of risks and risk management can be found on pages 64–65 of the Annual Report and also on the Company's website at [www.kemira.com](http://www.kemira.com) > Investors > Corporate Governance > Risk Management. A general description of Kemira's internal control system can be found above under the heading Internal Control.

The following describes how Kemira's risk management and internal control work in connection with the financial reporting process to ensure that the financial reports published by the Company give essentially correct information of the Company's financial situation.

#### ROLES AND RESPONSIBILITIES

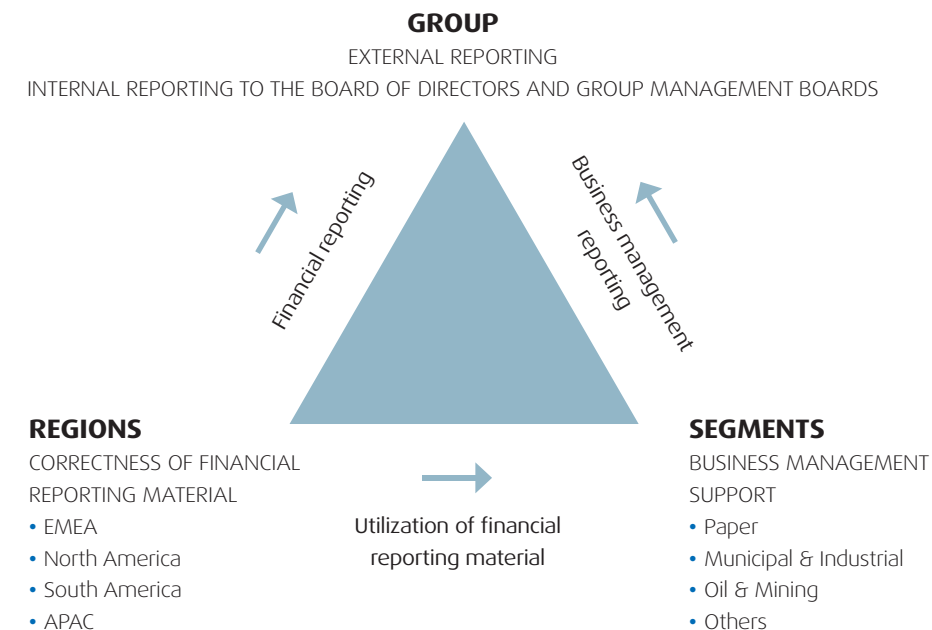
Kemira's Board of Directors ensures that the Company has sufficient resources for risk management and control, and that the control has been arranged appropriately and that the financial statements

## INSIDERS' SHAREHOLDINGS

Shares

	31.12.2010	31.12.2009		31.12.2010	31.12.2009
<b>Board of Directors</b>			<b>Members of the Management Boards</b>		
Armstrong Elizabeth	1,492	0	Boman Petri	3,281	1,297
Büchele Wolfgang	1,492	0	Casas de Almeida Hilton	64,590	57,325
Laaksonen Juha	1,492	0	Grön Johan	48,581	42,587
Paasikivi Pekka	209,781	988,382	Hakkila Jukka	51,841	46,102
Pehu-Lehtonen Kajja	1,492	0	Helsky Petri	62,878	54,652
Tuomas Kerttu	1,492	not an insider	Jokinen Päivi	16,131	20,425
Viininen Jukka	3,115	1,250	Kerminen Harri	181,357	158,252
			Kwan Ronald	60,444	53,125
			Kylander Håkan	23,929	18,732
			Lie Leena	0	0
			Mäki-Kala Jyrki	69,908	61,529
			Ojanpää Pekka	68,493	60,587
			Owens Randy	65,545	59,444
			Salonen Eeva	19,931	13,579
			<b>Auditors</b>		
			Pajamo Pekka	0	0

## THE ROLES AND RESPONSIBILITIES OF THE FINANCIAL ADMINISTRATION





▶ provide correct and sufficient information of the Company. The Board of Directors is assisted by the Audit Committee in these tasks.

The Managing Director handles the Company's everyday management in accordance with instructions and regulations from the Board of Directors. The Managing Director is responsible for the Company accounting being lawful and that assets are managed reliably.

The Group's CFO is responsible for the general control system of financial reporting. The areas of responsibility between financial administration of the segments and regions have been defined precisely. Controlling in segments operates under the segments' business management and analyzes the business processes. Financial administration in the regions is responsible for the functionality of the financial functions' processes and correctness of figures in their region. Group level financial functions support, monitor, instruct and offer training to the financial organizations of the segments and regions.

The Group's IT function has a significant role both in financial reporting and internal control, as reporting and many control measures, such as process monitoring are based on IT solutions.

The Internal Audit function including its tasks and areas of responsibility are described more specifically under the heading Internal Audit.

#### RISK ASSESSMENT

The Group's financial administration is responsible for managing risks related to financial reporting. The risks are identified, assessed and managed in connection with the Group's general risk management process and separately as part of financial administration's own operating processes. The Kemira Business Control Manual compiled and maintained by the Internal Audit function is utilized when recognizing risks.

The Group's financial administration assesses each risk it has recognized related to financial reporting. In its risk analysis, financial administration defines to which function or process each risk is related and how the risk would affect the Group's financial reporting if it was to materialize.

The risk assessment is documented and made available to the persons concerned. The Group's financial administra-

tion is responsible for risk documentation being comprehensive and up-to-date and that the risks are reassessed annually in connection with the Group's strategy process.

**FINANCIAL REPORTING AND CONTROL**  
Kemira follows a uniform accounting and reporting principles based on the International Financial Reporting Standards (IFRS) in all its units. Kemira Group Financial Manual defines in detail the processes of accounting and financial reporting to be applied in all Group companies. The purpose of the Manual is to ensure the reliability of financial reporting and it is approved by the Group's financial administration management board.

The Group has adopted Enterprise Resources Planning (ERP) systems that ensure fast and reliable communication. Subsidiaries report their figures from the ERP system to the Group, using a uniform Group reporting system. The financial organizations of the Group, segments and regions check the correctness of the figures in the Group reporting system in accordance with the responsibility areas described above.

Proper control of financial administration, financial reporting and accounting processes is a basic requirement for the reliability of financial reporting. The Group financial administration determines the appropriate control functions, the objectives of each control function and how the effectiveness of the control functions is monitored and checked based on a risk analysis it performs. The control functions are described in the above mentioned risk documentation and financial administration is responsible for their practical implementation.

Financial reporting control functions is performed either continuously as part of the transactions of the company's monitoring processes such as purchasing and sales processes, or alternatively monthly or annually as part of the reporting process.

#### COMMUNICATION

The personnel of Kemira's financial administration regularly arranges internal meetings and trainings for different personnel groups and exchanges information and experiences concerning for instance reporting and monitoring practices in connection with these meetings. The

main instructions and regulations concerning financial reporting, internal control and risk management are available to all employees on the Company intranet.

#### MONITORING

The functionality of internal control, risk management and reporting systems is constantly monitored as part of daily management of the Company. Each segment, function and region is responsible for implementing internal control, its efficiency and reliability of reporting within their area of responsibility. The Group financial administration monitors the functionality and reliability of the financial reporting process at Group level. The financial reporting processes are also monitored by the Internal Audit function.

#### MANAGEMENT COMPENSATION BOARD OF DIRECTORS

Based on the decisions of the 2010 Annual General Meeting, Board members are entitled to a yearly fee and a fee per meeting.

The fees are as follows:

- the Chairman will receive 66,000 euro per year,
- the Vice Chairman 42,000 euro per year and
- the other members 33,600 euro per year.

A fee payable for each meeting of the Board and its committees is:

- 600 euro for the members residing in Finland,
- 1,200 euro for the members residing in rest of Europe and
- 2,400 euro for the members residing outside Europe.

Travel expenses are paid according to Kemira's travel policy.

In addition, the AGM decided that the annual fee be paid as a combination of the company's shares and cash in such a manner that 40% of the annual fee is paid with the company's shares owned by the company or, if this is not possible, shares purchased from the market, and 60% is paid in cash. The shares will be transferred to the members of the Board of Directors and, if necessary, acquired directly on behalf of the members of the Board of Directors within two weeks from the release of Kemira's interim report January 1 - March 31, 2010.

The following share amounts were paid on May 7, 2010 as part of the annual fee decided by the 2010 AGM:

- the Chairman received 2,930 shares,
- the Vice Chairman 1,865 shares and
- the other members 1,492 shares.

The meeting fees are to be paid in cash. The Board members are not included in any of the Kemira Oyj's share-based incentive plans.

#### MANAGING DIRECTOR

Compensation of the Managing Director consists of a monthly salary, fringe benefits and performance based incentives. The performance based incentives consist of a cash bonus plan and a share-based plan. The main principles of the performance based incentive plans are described below under section Decision-making process and main principles of remuneration.

The emolument of Kemira Oyj's Managing Director Harri Kerminen during the 2010 financial period was EUR 1,568,080 including cash bonus of EUR 302,756 and EUR 609,872 in shares and cash as part of the share incentive plan.

Managing Director Harri Kerminen is entitled to retire at the age of 62 based on agreement and his maximum pension accounts for 66% of his pensionable earnings. The maximum pension is based on the benefits provided by the Company pension fund for Kemira personnel, closed to new members since January 1, 1991.

A six-month period of notice applies to the Managing Director. The Managing Director will receive severance pay equaling his 12-month salary if the Company terminates the employment.

#### DECISION-MAKING PROCESS AND MAIN PRINCIPLES OF REMUNERATION

The Board of Directors determines the Managing Director's, his deputy's, and the other Group Management Board members' salaries, other remuneration, and employment terms.

Management compensation consists of a monthly salary, fringe benefits and performance based incentives. The Group Management Board does not have a separate supplementary pension scheme. The performance based incentives consist of a cash bonus plan and a share based plan.

The annual cash bonus is determined by the achievement of Group and personal performance targets for each financial

year. The maximum bonus is 50% of the individual's gross salary for the same period. In 2010, as regards the Group performance targets, the cash bonus is determined by Group EBIT and cash flow.

In February 2009, Kemira Oyj's Board of Directors decided to introduce a new share-based incentive plan aimed at Management Board members. The plan is divided into three one-year performance periods: 2009, 2010 and 2011. Payment of incentives is based on achieving the set Group EBIT target.

Rewards under the plan shall be paid so that 50 % of the value of the reward shall be paid in shares and 50 % of the value of the reward shall be paid in cash in order to cover taxes and tax-related costs arising from the grantable shares that shall be paid on the basis of this plan. The combined value of shares and cash payments paid out in the course of the three-year share-based incentive plan may not exceed the individual's gross sal-

ary for the same period. In connection with founding the new share-based incentive plan directed at the Management Board members, the members were excluded from the share-based incentive plan directed at key personnel.

Shares earned through the share-compensation plans must be held for a minimum of two years following the date of each payment. The shares must be returned to the Company without payment if a person's employment or service with the Company is terminated of his/her own accord or by the Company within two years of the payment. In addition, members of the Management Board must retain the Kemira Oyj shares obtained through the share-based incentive programs at least to the value of their gross annual salary for as long as they remain in the Management Board.

The shares transferable under the plan comprise treasury shares or Kemira Oyj shares available in public trading. ■

## BOARD OF DIRECTORS' REMUNERATIONS

(euro)

	2010	2009
Pekka Paasikivi, Chairman	90,300	75,000
Jukka Viinanen, Vice Chairman	61,500	50,400
Elizabeth Armstrong	63,600	60,000
Wolfgang Büchele	52,800	34,100
Juha Laaksonen	49,800	43,200
Kajja Pehu-Lehtonen	50,400	43,800
Kerttu Tuomas (since March 16 2010)	37,800	0
Jarmo Väisänen (until March 16 2010)	11,400	43,800
<b>Total</b>	<b>417,600</b>	350,300

## MANAGEMENT REMUNERATIONS IN 2010

(euro)

	Managing Director	Other Management Board Members
Salaries and fringe benefits	655,452	2,499,009
Performance-based bonus plan (cash)	302,756	1,130,335
Performance-based share plan (shares+cash)	609,872	2,330,817



In accordance with Kemira's comprehensive risk management policy, risks are systematically and proactively identified, analyzed, evaluated and treated. The objective of risk management is to reach the desired aggregate risk level and ensure the continuity of operations.



# RISK MANAGEMENT

## KEY RISK MANAGEMENT PRINCIPLES

The key principles of Kemira's risk management are defined in the Kemira Group Risk Management Policy. In the policy, a risk is defined as a potential event or circumstance, which, if it materializes, may affect Kemira's ability to meet its strategic and operational goals in a sustainable and ethical way. In accordance with its risk management process, Kemira aims at systematic and proactive identification, analysis, evaluation and treatment of various risk categories, such as strategic, operational, hazard and financial risks. The objective of risk management is to determine and maintain the desired aggregate risk level in relation to Kemira's risk tolerance, while ensuring business continuity.

Kemira Oyj's risk management is based on the Finnish Corporate Governance Code, the Kemira Code of Conduct and

on the company's values. In addition, Kemira has Group guidelines and policies in place that specify management objectives, responsibilities and risk limits in greater detail.

Kemira Oyj's Board of Directors defines the key principles applied in risk management and approves the Group's risk management policy, and the Audit Committee assists the Board in risk management supervision. The business segments, geographical areas and functions answer for the risks involved in their activities and for the related risk management. The Group's Risk Management function is in charge of developing and coordinating risk management and risk management networks within the Group.

## RISK MANAGEMENT IMPLEMENTATION

At Kemira, each business segment, geographical area and function performs its overall risk management according to the risk management framework and process described in Kemira's risk management policy and in conformity with the jointly agreed risk self-assessment methodology. The results of the risk management process are reported regularly both internally and as part of Kemira Oyj's external reporting.

Some of Kemira's risk treatment measures are performed centrally in order to generate cost benefits and ensure a sufficient level of protection. These include insurance cover for certain risks, such as general third party and product liability, cargo, property and business interruption insurance for major production sites, as well as the hedging of treasury risks.

## ABOUT KEMIRA'S RISKS

In its 2010 strategy process, Kemira has continued to develop its strategy based on water chemistry and also emphasized profitable growth. An integral part of Kemira's strategic planning process in 2010 has also been the identification and management of risks related to achieving the company's goals. The following is a short description of some of Kemira's strategic, operational and hazard risks. More detailed information on financial risks and their management is provided on page 64 in the Notes section. Despite the proactive risk management efforts, some of the risks may nevertheless materialize and significantly impact Kemira's ability to achieve its targets.

## COMPETITION

Kemira's performance in the ever-changing competitive arena represents a considerable risk to meeting its goals. New players seeking a foothold in Kemira's key business segments use aggressive pricing as a competitive tool, which may erode Kemira's financial results. Kemira is seeking growth in segments that are less familiar where new competitive situations prevail. In a long-term perspective, completely new types of technology may also considerably change the current competitive situation. The risk is managed both at the Group level and on segment and regional levels through continuous monitoring of the competitive situation. The company also aims at responding to the competitive situation with active management of customer relationships and development of products and services.

## PRICE AND AVAILABILITY OF RAW MATERIALS AND COMMODITIES

Continuous profitability improvement is a crucial part of Kemira's strategy. Significant increases in raw material, commodity or logistic costs could place Kemira's profitability targets at risk. For instance, high oil and electricity prices could materially weaken Kemira's profitability. Changes in the raw material supplier field, such as consolidation or capacity decreases, may also increase raw material prices. Poor availability of certain raw materials may affect Kemira's production if we fail to prepare for this by mapping out alternative suppliers or opportunities for process changes. Raw material and commodity risks can be effectively monitored and managed with Kemira's centralized supply chain management function (SCM).

## REACH

Introduction of the new EU chemicals regulation (REACH) may decrease the available raw material options and thus increase our raw material costs. REACH registration of Kemira's own products may also be more expensive than estimated, in particular if we are not able to divide the costs with other companies. Boric acid and borate have been added to the REACH Candidate List for authorization. If the above mentioned chemicals are added to the substances subject to REACH authorization procedure, it

makes their usage more complicated. Boric acid and borate are mainly used for producing pulp chemicals in Finland. The REACH competence centre that operates in Kemira's research center in Espoo cooperates with the Group's product safety network to actively manage REACH risks. Data systems are also being developed to better monitor and manage REACH risks and to generate more efficient communication concerning these risks both internally and externally in the supply chain.

## DEVELOPING A PROFITABLE BUSINESS MODEL IN ASIA

The lack of suitable and reliable cooperation partners may also slow down the development of an efficient business model in Asia. Development of new products and their successful commercialization are crucial factors for Kemira's growth efforts in Asia, and possible failure in these is a considerable risk for the company strategy. Development of a profitable business in Asia can also be threatened by difficulties related to intellectual property rights and local competitors with lower price levels. The growth and development of a profitable business model in Asia comes under risk if Kemira is not successful in hiring, inducting and managing to maintain skilled and motivated employees. In line with its strategy, Kemira pays specific attention to the development of its operations and risk management in Asia. The practical risk management is executed by the Kemira organization in Asia-Pacific (APAC) region.

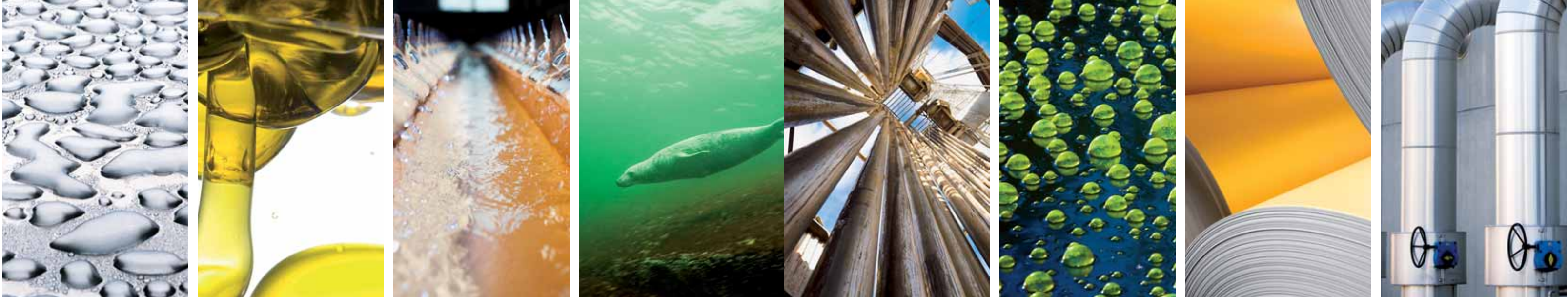
## HAZARD RISKS

Kemira has manufacturing in its plants across the world. Kemira's production activities involve many hazard risks like fires and explosions, natural catastrophes, environmental risks as well as employee health and safety risks. Certified management systems, efficient hazard prevention programs and the Group's network of experts play a central role in managing hazard risks. Kemira also has several insurance programs that protect the company against the financial effects of hazard risks. A more detailed account of materialized environmental and/or hazard risks is provided in Kemira's environmental report ([www.kemira.com](http://www.kemira.com)). ■

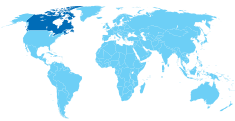


# NEW DIMENSIONS OF WATER

## KEMIRA SUCCESS STORIES



TEXT JOHANNA HYTÖNEN PHOTOS GETTY IMAGES, ISTOCKPHOTO, JARI KIVELÄ AND JUKKA RAPO (GORILLA)



### CANADA

#### CHALLENGE

Low temperatures and high rainfall compromised intake water quality in a water treatment plant, and the sand-filtration for water treatment was unable to produce drinking water of sufficient quality.

#### SOLUTION

By using Kemira's new type of aluminum coagulant, the water treatment plant was able to improve the quality of drinking water rapidly while raising its pH and reducing the amount of lime needed.



### BRAZIL

#### CHALLENGE

An oilfield produced 2,500–3,000 barrels a day of untreatable water-oil mixture. Its removal and transport required additional resources.

#### SOLUTION

To separate the oil from the water, Kemira created a customized method involving organic coagulants. This on-site procedure is cost-efficient and more oil can be returned to production.



### NORTHERN EUROPE

#### CHALLENGE

The mechanically dried sludge that was produced in the waste water treatment process contained around 80 percent water. It produced strong odor and the transport traffic was difficult.

#### SOLUTION

Kemira's Kemicond process and Bucher's dewatering unit made it possible to cut its volume in half. These solutions also eliminated the odor, improved working conditions, facilitated sludge reuse and cut the sludge transport traffic in half.



### BALTIC COUNTRIES

#### CHALLENGE

The Baltic is one of the most polluted seas in the world. Because of its shallowness and enclosed ecosystem, it is vulnerable to phosphorous contaminated wastewater from the 14 surrounding countries.

#### SOLUTION

Kemira offers water chemistry expertise and products that enhance the efficiency of wastewater treatment and help return nitrogen and phosphorus, the valuable nutrients in sludge, safely to nature. This reduces eutrophication.



### NORTH SEA

#### CHALLENGE

The production methods used in oilfields in the North Sea involve seawater. This poses challenges, as the salt in the water contributes to calcium scale formation in production instruments and equipment, which may cause blockages and interruptions.

#### SOLUTION

Kemira's KemGuard products prevent calcium and salt from scaling. These products are biodegradable. They do not accumulate in living organisms and so pose no risk to the fishing industry, for instance.



### CENTRAL AND EASTERN EUROPE

#### CHALLENGE

When decomposing, the organic matter in wastewater produced strong odors and compounds that can corrode sewers and equipment.

#### SOLUTION

Kemira's H<sub>2</sub>S-Guard solution enables continuous water quality control and automatic dosing of anti-odor and anti-corrosion chemicals, based on the actual need.



### CHINA

#### CHALLENGE

A paper manufacturer wanted to maximize paper production by strengthening microbiological control for secured runability. At the same time they wanted to reduce corrosion of machinery and improve cost-efficiency.

#### SOLUTION

Kemira's oxidizing biocides concept FennoClean, makes it possible to control the microbiology of process water effectively with minimized corrosion risks for paper machinery. In addition it reduces starch degradation in process water and enables cost-efficient production of defect-free paper.



### CHINA

#### CHALLENGE

With two different feed water sources which vary in water quality, a power plant had difficulties in coping with the variances in the water quality, which lead to increased scaling issues and increased the need to clean the system.

#### SOLUTION

Kemira's quality control system ensures consistent process water quality as well as chemical dosing based on process water quality. Kemira's profound water expertise makes it possible to monitor the overall water quality and other necessary parameters, and to manage the chemical dosing e.g. scale inhibitors very accurately. This enables situation-specific optimization of water treatment systems.





# kemira

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