Knowledge grows

"All our knowledge begins with experience"

Immanuel Kant

Impact Review 2014

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"All our knowledge begins with experience"

Immanuel Kant (1724–1804) was one of the foremost thinkers of the Enlightenment – a philosopher of great influence; preoccupied with knowledge and reason, he is widely acknowledged for his work in ethics and epistemology; the theory of knowledge. The cycle of three critiques, starting with the 'Critique of Pure Reason' ('Kritik der reinen Vernunft') is considered the Prussian (German) philosopher's major work, signaling a revolution in philosophical thought. Here, he investigates the limits of human knowledge, discussing the conceptions of a *priori* and a *posteriori*.

About Yara

Yara's knowledge, products and solutions grow farmers and industrial customers' businesses profitably and responsibly, while nurturing and protecting the earth's resources, food and environment.

Our fertilizers, crop nutrition programs and technologies increase yields, improve product quality and reduce the environmental impact of agricultural practices. Our industrial and environmental solutions improve air quality by reducing emissions from industry and transportation, and serve as key ingredients in the production of a wide range of goods. Throughout our organization, we foster a culture that promotes the safety of our employees, contractors and society.

Founded in 1905 to solve emerging famine in Europe, today, Yara has a worldwide presence, with more than 12,000 employees and sales to more than 150 countries.

"In the long run, doing business in a responsible way will grow profits sustainably."

Torgeir Kvidal
President and CEO (acting)

Passionate about coffee, knowledge, and margins

Enjoying an Americano at the Yara House coffee bar, Yara's President and CEO Torgeir Kvidal engages passionately on how knowledge is key for developing tomorrow's solutions – and our business.

Q: Yara has a specific innovation platform for coffee – why?
A: We saw positive results from trials in Vietnam, partnering, amongst others, with the coffee industry. Even in intensive farming systems, our products and knowledge improved yields and profits, with a lower environmental footprint.

Q: Does it make sense for Yara to invest in farmer-focused activities?
A: In a highly competitive market, part of our value proposition to the farmers is to maximize their income. Providing the best advice on crop nutrition application strengthens our brand value and supports our portfolio of value-adding products and solutions, which have overtaken commodity fertilizers.

Q: The coffee growers are mainly smallholders – will you be able to reach them all?
A: Coffee is one example on how we can have a wider impact when working in partnerships. Together with Vietnamese authorities, NGOs and other companies, we have been part of a coffee task force.

Q: How important is coffee for Yara's bottom line?
A: Today the financial contribution is limited, as is natural in an early phase. But coffee demand is growing substantially, also for the specialty coffees with sustainability certification. The global coffee trade is already estimated to be worth USD 100 billion.

Q: Will Yara fertilizers gain sustainability certification?
A: Today certification is more about the overall footprint of the farming practice. Using our knowledge and products has reduced the emissions from coffee growing in Vietnam.

In the long run, doing business in a responsible way will grow profits sustainably. That goes for us, the coffee growers, and the companies sourcing, processing, and selling the coffee. We can provide knowledge for important parts of the certification processes.

Q: Is this business, or is it a CSR exercise?
A: It's business, without a doubt. To Yara, leveraging our knowledge to grow the business sustainably is a strategic priority. Taking positions in cash crops niche markets has already contributed to our margins, with our growing NPK markets overseas as an example.

Q: Big companies engaging in developing markets are often accused of taking advantage of the smallholder farmers. What is Yara's position on this?
A: Our business success depends fully on the farmers' continued profit. If we can't help the farmers become more productive and increase their incomes, we can't grow our business in a sustainable way.

Yara will always sell its products at market value, and delivering smaller volumes to developing markets comes at a cost. For this reason we have an interest in seeing the markets grow and become more productive. In 2014, we were, for example, an active partner in both FAO and UN Global Compact processes on responsible business conduct in the agricultural sector, supporting such a development.

Coffee – and its intriguing journey adding value from crop to cup

The potential is great: The world's coffee farmers see global demand growing. Consumption is increasing in emerging markets while demand for specialty products is rising in mature coffee countries. Reliable future supplies, sustained quality – and profitability for the growers – are key challenges in the complex coffee value chain.

Sharing a cup Sharing knowledge

Experience is knowledge: Building on a century of agronomic experience, Yara manages a wealth of crop, soil and market knowledge – readily shared with growers, to increase yields and improve quality.

Chrystel Monthean, Yara's Value Chain Director and an agronomist by education, is familiar with the world of coffee: Interacting with coffee growers and industry members, forging alliances and finding solutions on boosting productivity and profitability – improving conditions for smallholder producers and enhancing the sustainability of coffee production.

Join Chrystel Monthean into the coffee business

The crop – and the culture

Coffee is in high demand, and has become fashionable – embraced by connoisseurs. But it is also history and tradition. The story behind this first truly globally traded commodity is intriguing and a testament to the rich culture of the ever-popular drink.

Coffee is culture and agriculture, a global beverage – and a growing business. Not least is that the case of the Robusta coffee, with steadily increasing volumes sold to, and consumed in, large developing economies.

An African origin

Coffee is a transnational business built on a tropical crop. According to legend, Ethiopian herders took notice of the invigorating effect of the berry on their goats. So it was first consumed as a stimulant, as a solid – mixed with grains and fat, given to warriors for extra vigor: as ancient energy bars! The breakthrough of the brew came in the Arab world. Despite its Ethiopian roots, coffee was long believed to originate from Yemen – where Mocha became the principle port of trade. In another part of the world, the Dutch invested in coffee plantations on Java. Et voilà: Mocha-Java – the classic coffee blend.

A cup of culture

The Starbucks and the Costas may seem to have been around forever, appearing on any corner around the globe – signifying the global nature of the coffee business. Still, they are newcomers to the ancient history and culture of coffee.

From its cradle around the Red Sea, coffee was embraced in the Arab world, spreading through the Ottoman Empire. The Turks began roasting coffee beans over a fire before crushing them into a powder, which they mixed with spices and brewed with hot water. The *kahveh* was created, never to disappear. Its place in history was secured when it reached the elites of Europe, then crossed the Atlantic to conquer America – and finally was planted in the Far East and in Latin America.

From being an exotic curiosity, the crop became the first truly globally traded commodity when the Dutch set up the first coffee market in Amsterdam in the 1640s, thereby also giving birth to coffee houses: The new, favored places to discuss and deal, a preferred rendezvous for business and politics. Coffee became celebrated; plays were written and music composed: J. S. Bach contributed his *Coffee Cantata*.

1530

The first coffee house opens in Damascus, soon to be followed by others in Cairo.

1660

The premier scientific association, the Royal Society is founded in a London coffee house.

1720

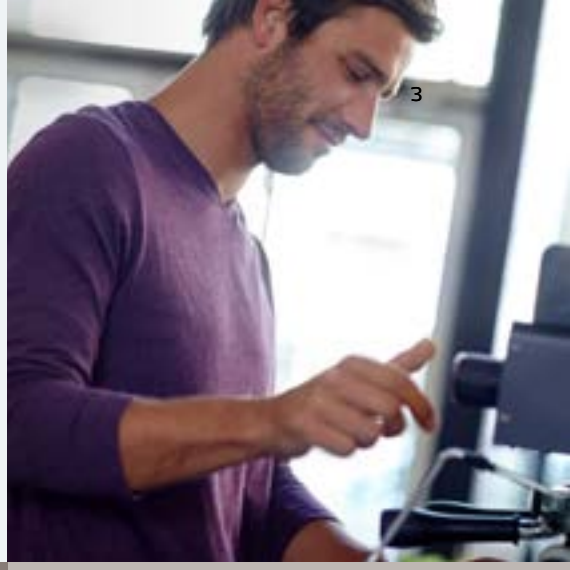
The world-famous Venetian institution, Il Caffè Florian opens on Piazza San Marco.

COFFEE IS LIFE: Coffee provides livelihood for about 25 million members of the global farming community.

The majority of coffee growers are smallholders with tiny plots, little income – and high risks. Coffee is labor-intensive farming. The grower has to rely on his family, and the community, especially during the critical harvesting season. The berries have to be picked by hand, one by one, and treated as soon as they ripen.

Challenge: Having travelled to all major coffee regions, I have seen much of the same struggle: Making farming viable for the smallholder family, for rural communities which, to such a great degree, depend on this fascinating crop.

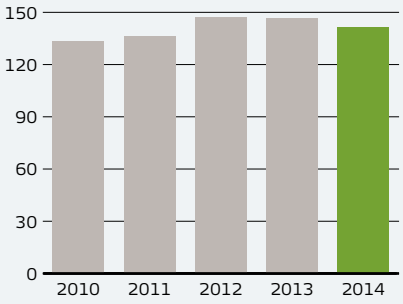
Trees are prone to diseases and crops vulnerable to irregular weather. Growers are susceptible to market volatility, and are often producing at a loss. Many cannot afford adding crop nutrients or they waste money on inappropriate applications.



World production of coffee, 2010–14

Million bags

Source: ICO



Arabica. Robusta.

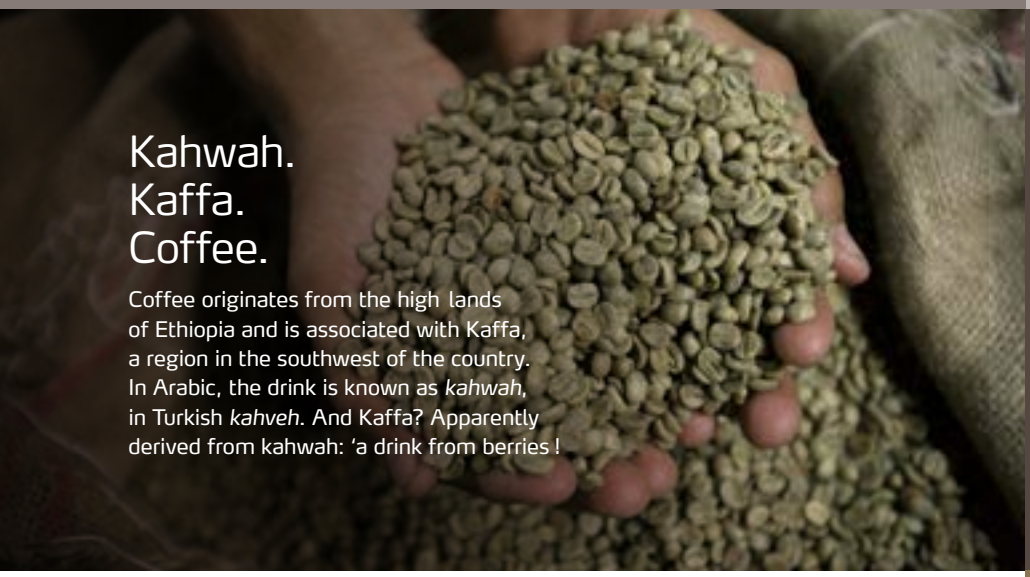
Coffee is brewed from two main types of beans: The *coffea canephora*, commonly known as robusta is, as the name indicates, a tougher plant than the *coffea arabica*. While Robusta coffee beans are widely used to produce instant coffee and cater to the mass market, Arabica beans are favored by baristas and celebrated by connoisseurs, fetching a premium price.

Coffee.

The hot brew is essentially the seed of an evergreen, tropical tree. Cultivated throughout history, it s one of the most valued crops and traded commodities.

Culture.

The modern, trendy coffee shop is a feature of our time. Coffee shops have been around for ages as places to connect, contemplate and conspire.



Kahwah. Kaffa. Coffee.

Coffee originates from the high lands of Ethiopia and is associated with Kaffa, a region in the southwest of the country. In Arabic, the drink is known as *kahwah*, in Turkish *kahveh*. And Kaffa? Apparently derived from kahwah: 'a drink from berries !

Yara adds quality: The quality of coffee improves through best farming practices. These include our crop nutrition recommendations contributing to bigger berries with uniform ripening, to better yields.

In 2014, we participated in the fifth Annual National Coffee Conference in Morogoro, Tanzania, presenting our coffee platform for the country. Coffee is a strategic segment for Yara in East Africa, where low crop nutrition is a major impediment to realizing productivity potentials.

Solution: Yara has the crop nutrition solutions – and we have the application knowledge. We can assist coffee farmers in improving their productivity to increase their yields and incomes. That's our mission.

We are dedicated to farming: to the farmer, the soil, the crop and to coffee.

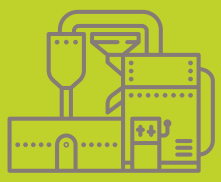
In 2013, Yara launched the Coffee & Cocoa innovation platform. Tasked to implement it, starting the rollout in 2014, I have set out on a journey to share our agronomic knowledge and crop nutrition solutions. Our experience in the correct use of nitrogen fertilizer allows us to share invaluable knowledge with the farmers.

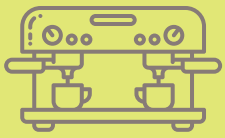
Testing. Tuning.

A key component of Yara s approach to improving sustainability in the coffee value chain is the extensive use of field trials. Through trials, in close cooperation with farmers, our recommended crop nutrition application is fine tuned to suit local growing conditions. Crop nutrition is crucial for quantity as well as quality – and profitability for the farmer.

Yara offers knowledge: Engagement with growers and other stakeholders in the value chain improves sustainability. We contribute crop nutrition expertise to improve productivity while reducing environmental footprints.

In 2014, we celebrated the first International Coffee Seminar in Pereira, Colombia, sharing experiences with farmers from around the country. Coffee occupies 900,000 hectares or the size of Yellowstone National Park – in Colombia. The average fertilizer application rate is about a third of the recommended amount.





Coffee. Value. Chain.

Coffee is mostly produced by smallholder farmers on tiny plots, with limited access to capital and expertise. Coffee is a labor-intensive crop, largely picked by hand. Brazil, however, has plantations with mechanized harvesting. Most of the value – from crop to cup – is added towards the consumers' end: on the beans' journey through roasting to brewing, in retailing, serving and drinking.

COFFEE IS BUSINESS: Coffee is a crop and a commodity, and value is added all along the process – from grower to consumer.

Smallholder farmers balance between making a living or failing. But the industry fully depends on them. That's where we can contribute.

Coffee is a multi-billion industry. It depends on reliable supplies of green coffee from the farmers, in adequate quantities to meet market demand.

We want to play a role in making the industry more sustainable; economically, environmentally and socially by putting the farmer at the center.

Approach: We apply a value chain approach when working to improve coffee productivity.

Our main contribution is our agronomic experience, crop nutrition competence and management tools. We engage with farmers, and we interact with roasters, certifiers and other stakeholders.

The commodity – and the challenges

Coffee is held in high esteem, as one of the world's major commodities, in a volatile market. It is a global multi-billion business with many stakeholders, from the smallholder growers to the multinational corporations: an industry with great value and high stakes.

The coffee market is characterized by volatility and uncertainty, including reappearing price crisis – and a cyclicality connected with the fact that coffee plants take three years or more to deliver its fruit: The fruit, the berries, is the tangible return on the farmer's investments, vulnerable also to other conditions affecting the supply side, as well as extensive commodity trade.

A global commodity

Coffee is traded globally, with an estimated value of about USD 100 billion a year – depending on the current price level. The coffee industry is estimated to create a living for about one percent of the world population. Coffee is the main source of income for about 25 million smallholder farmers, and a major source of revenue for several countries. And in some countries, the government is directly involved in production as well as trade.

Produced throughout the tropics, coffee is a demanding crop. The coffee berry is a fresh fruit, ideally harvested at the exact right time, and processed immediately to preserve its inherent quality.

A global business

The coffee market is highly volatile, making coffee farmers vulnerable, unable to hedge against fluctuations. At the start of the new millennium prices dropped to an annual average of USD 45.6 a bag in 2001. Ten years later, in 2011, prices had more than quintupled to USD 231. The 1999–2004 coffee crisis, with prices not sustaining production costs, caused severe financial problems for farmers, societies and nations. A World Bank study found that the fall in coffee prices in 2000–03 led to a ten percent increase in poverty in the coffee regions of Nicaragua, which depends on coffee for about a quarter of its export earnings.

A key strategy to achieve a more sustainable market would be to "hold down production costs through improved productivity, better use of technology and of agricultural inputs", according to the Director of the International Coffee Organization (ICO), Ribeiro Silva.

A global demand

Coffee is the most widely traded tropical agricultural produce. Brazil is the top producer, providing a quarter of global supplies. Output from its plantations defines to a large extent, world prices. Drought or frost in Brazil likely creates shortages in the world market. By 1900, USA had firmly established itself as the major coffee market of the world. While domestic consumption is rising in Brazil, even greater growth is expected from coffee gaining ground in populous, traditionally tea-drinking markets such as China and Russia.

A global threat

Coffee plants are highly sensible to climate change, which the ICO considers the biggest threat to future supply. With a temperature increase of about 2°C, large coffee producing areas may be lost, not least in East Africa and Central America. According to the Intergovernmental Panel on Climate Change (IPCC), a rise of 3°C in Brazil will slash suitable land in the country's core coffee areas by two-thirds.

A major threat emanating from climate change is the spread of diseases. Higher ambient temperatures speed up the ripening of the coffee berries, resulting in poorer quality and lower price.

We offer knowledge solutions and tools to improve productivity. It may sound counterintuitive for a fertilizer producer to recommend lower quantities. Still, that is sometimes what we do. Lower, but balanced application of nutrients is rewarded by higher quality. This also serves the environment: Helping farmers, and the entire industry, to reduce the ecological footprint of coffee production, and increase resilience against impacts of climate change.

Research: R&D is an integral part of our innovation platform, including trials in the glasshouses of our research center Hanninghof. It's a joy to see our glasshouses full of coffee plants – in the heart of Germany, one of the main coffee consumers in the world.

We carry out research on improved methods, working on several hypotheses, including how optimum fertilization may help prevent plant disease – in addition to improving crop quality. And even taste!

Yara improves yields: Repeated field trials with our crop nutrition program in Vietnam in 2009–2013 document high returns. They include an increase in yield volumes (11%) and higher profits for the farmers (17%).

In 2014, we continued our R&D efforts into improving the sustainability of coffee growing in Vietnam, including resilience to climate change. The research includes ways to reduce the carbon footprint of coffee farming, connected to the development of criteria for certification of coffee.

The business case – and the knowledge

Coffee is a demanding yet rewarding plant, responding favorably to good agricultural practices. Vietnam has demonstrated that the economic potential of coffee can be tapped by investing in knowledge.

Coffee production can always be improved, and engaging in partnerships is one way to move forward. In Vietnam, a task force on coffee has demonstrated that it is possible to become more sustainable, reducing soil acidification and water use, and cutting greenhouse gas emissions by half, compared to traditional practice.

A remarkable success

The coffee industry has been restored after the Vietnam war, supported by economic reforms. Today, Vietnam is the world's uncontested no. 2 coffee producer and exporter, with an output of 27.5 million bags in the 2013/14 growing season. The country is poised to become the largest coffee exporter, surpassing Brazil. Already, Vietnam is the world's largest producer of Robusta coffee.

Vietnam's coffee success is largely attributed to an extremely efficient supply chain, and the country is considered the world's most cost-efficient coffee supplier. Widespread use of irrigation and access to inputs are keys to achieving the world's highest yield levels. The growth rate, however, comes with sustainability challenges.

Around 97 percent of the producers are family farms, typically of about 1 hectare. They produce about 95 percent of Vietnam's total coffee output, and – in a normal year – generate more than one billion US dollars in income.

An adverse side

The volume produced and the jobs created are key achievements. The adverse side includes a heavy ecological footprint, not least caused by an exces-

COFFEE IS CULTURE: Coffee is something I grew up with; after all, I'm French. But for me, coffee will forever be associated with my experience in Vietnam:

Vietnam's success story of improved sustainability is built on collaboration. A story Yara is part of.

Coffee is a crop well suited for Asian agriculture. Other countries in Asia rank among the world's leading producers, but none in the range of Vietnam.

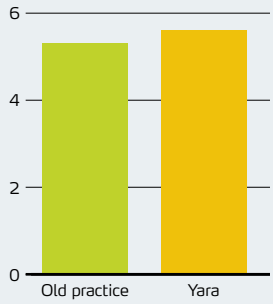
The coffee accomplishment of this country is remarkable. Its achievements in productivity are startling; its approach to partnerships is exemplary.

Practice. Profits.

In the Chu Se district of Gia Lai province, Vietnam, Tan Quoc Phong makes a living from coffee growing. "Using recommended fertilizer application, I have increased my yield with 0.3 tons per hectare, to 5.6, compared to traditional practices," he says. In addition to increased volumes, he has noted stronger trees with more branches and leaves, and less drop of cherries, and, he notes: "Profits have increased, compared to our old practice.

Results from Mr. Phong's farm

(Yield ton/ha)



+15,900,000 VND/ha

Higher yield and quality increased profits by more than USD 700 per hectare.

sive use of agro-inputs, and depletion of groundwater supplies due to unchecked irrigation. Excessive and unbalanced fertilization is not only costly to the farmer, but also causes soil acidification and increases the carbon footprint. And, in the long run, soil exhaustion and reduced yields.

Still, experience demonstrates that farmers can successfully switch to sustainable practices, thereby also increase yields and profits.

A collaborate effort

The Government of Vietnam in 2010 launched a Public-Private Partnership in order to advance sustainable agriculture. A task force on coffee was set up in collaboration with non-governmental organizations and private companies, including Yara.

The challenges of meeting a growing global demand call for sustainable production, which also improves the profitability of the farmers. Sharing knowledge on best agricultural practices has paid off, with remarkable results from field trials:

Yields have increased by an average of about ten percent, and so have farmers' profits. Improved crop nutrition practices have reduced fertilizer application by 20 percent, saving money for the farmers – and more than halving the carbon footprint. Vietnam has shown leadership, and the government is expected to scale up from these results and implement the new knowledge.

Change: In Vietnam, Yara has partnered up with other stakeholders to make progress. Already, results are impressive. For example, through field trials we have demonstrated that tailored crop nutrition significantly improves uniform ripening and reduces fruit drop; increases the size of berries and the weight of the harvest, which results in added value to the farmer – as well as the industry and country.

I'm encouraged by the cooperation we have achieved, with farmers and authorities, and global corporations. We all play a role in the same value chain.

Lessons: Yara has learned a lot from the partnerships in Vietnam. We transfer these experiences, together with our own knowledge, to other coffee countries, particularly in East Africa and Central America. The partnership engagement in Vietnam has been instrumental in developing our innovation platform.

Dr. Phan Huy Thong, Director of the National Agricultural Extension Center Vietnam (NaAEC), and Member of Vietnam Coffee Coordinating Board (VCCB), on the importance of the coffee sector in the country – the world's number one producer and exporter of Robusta beans:

"Coffee is the most important crop in Vietnamese agriculture: It provides livelihood and employment for 500,000 households, it is the major export crop and the sector attracts foreign investments."

"The investments on coffee are very intensive, but farmers' incomes vary due to price fluctuations. So, Vietnam focuses on sustainable development on coffee yield and quality by developing a master plan."

"We manage the total production acreage, save irrigation and fertilizer, and improve farming practices. We provide farmers training on variety management, pruning, irrigation, compost production and application of balanced fertilizers."

"NaAEC works with coffee certification organizations to improve standards, as well as the private sector to define technical needs, share locations, organize knowledge transfer and share the cost of farmers' training to produce coffee sustainably."

"Vietnam also works with the International Coffee Organization to raise the importance of sustainable coffee production with coffee roasters and end users, which can increase the premium bonus for coffee growers."

"Through VCCB, the private sector aligns with the government development program on coffee. Through Public-Private Partnerships, knowledge is exchanged and coffee demos executed. In the coming time, the private sector and VCCB will continue cooperating."

COFFEE IS COOL: Coffee conquers new markets, raising the demand for volumes, while dedicated drinkers drive the quest for quality and sustainability.

Coffee is challenging. We can contribute to improving the health of the plants; the quality of the crop – and the livelihood of coffee farming communities.

If demand is to be met in a sustainable way, we need to grow the yields on existing fields to prevent deforestation. Yara's knowledge can be part of the solution, and one main action is to partner with local or regional R&D capacity.

In addition to yield improvements we need to safeguard the natural habitats. Knowledge makes the difference: We

50,000,000,000

Fifty billion cups of coffee are consumed worldwide every year

The cup – and consumption growth

Coffee is a product attracting growing attention and characterized by major market movements. The market, calling for increased quantities and improved qualities, drives a growing demand for sustainable solutions and improved productivity.

Growing demand

Coffee has become trendy, and demand may soon surpass supply: By 2023, world consumption is estimated to be close to 200 million bags, while production is predicted to touch 190 million bags.

Growing concern

Urban consumers are raising attention to quality: The specialty coffee segment has seen rapid growth. It now accounts for about a fifth of total global coffee sales, and further growth is expected.

Growing markets

Brazil epitomizes another important market trend: Some producers are turning into consumers. Yet, the greatest growth potential lies in new markets, especially in Asia – and particularly in China.

provide solutions that bring the right nutrients, at the right time and at the right dosage, and we adapt our solutions to both the technical knowledge and financial capacity of the farmer.

Introducing more sustainable practices helps both the farmers and nature. But if farmers don't experience the benefits of our solutions in improved quality, yield or profitability, they will not implement them. We need to show the farmers that it is possible to be more productive and profitable, and that fertilizer is an investment, not a cost. Remember, the world needs more coffee!

We've embarked on a journey towards greater coffee sustainability. But we also have to be patient: Coffee trees take 3–4 years to respond fully to new nutritional regimes.

So, you may wonder: Do I enjoy a cup of coffee myself? Of course, because I know that we're helping many coffee farmers to see the light at the end of the tunnel. We are part of their solution.

Strategic approach

Yara is a global company in a global market. Using our industrial and agronomic expertise, we engage in global processes to help tackle major global challenges. We share knowledge to grow our customers' business profitably and responsibly, while nurturing and protecting the earth's resources, food, and environment.

Sharing knowledge – creating shared value

Priority areas for Yara's global engagement and expert solutions

Resources
Resource efficiency

Food
Sustainable agriculture

Environment
Reduced emissions

Global company

Our corporate strategy is one of sustainable, profitable growth. In our strategic approach and ambition, we believe that knowledge drives business and creates value for our customers.

Our framework for business development and value creation aligns our business operations with prevailing market conditions and mounting global challenges, creating a competitive edge allowing us to increase the potentials of our customers.

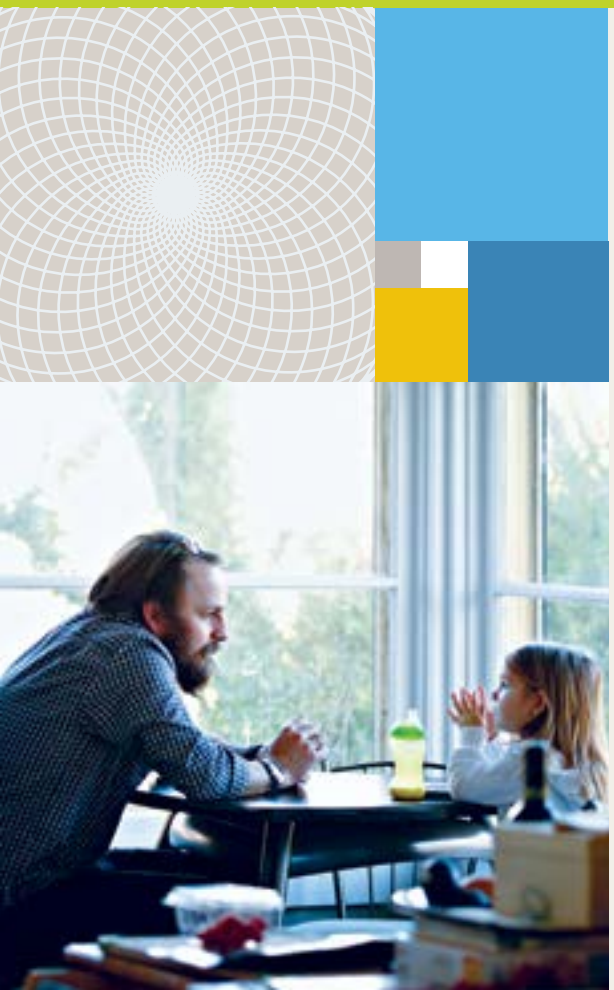
- By continuously developing our knowledge base, we create a corporate asset, a knowledge margin.
- By leveraging our accumulated experience, we have built a platform for global engagement.
- By transferring knowledge we provide sustainable solutions that help tackle global challenges

Global solutions

Yara is a world leader in providing crop nutrition solutions for the global farming community, supporting sustainable agriculture and food production. We have also developed a strong market position within industrial environmental solutions, offering products used to reduce harmful emissions, and to improve air and water quality.

We create solutions by combining our core products with expert knowledge, utilizing a century of experience and drawing on our broad contact with our customers and entering into cooperation with business partners. With our comprehensive solutions we contribute towards improved resource efficiency and increased food security, while reducing harmful emissions that cause climate change and pollution. Growing on knowledge we create shared value.

Impact chronicle 2014



Global challenges

influence our business environment and affect our company, customers and society page 12

Yara engages

in policy processes, connecting the critical challenges of food, resources and the environment page 13

Yara responds

by developing and delivering solutions for sustainable agriculture and improved life quality page 21

Emissions to air

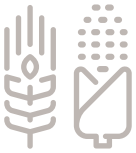
Special feature page 17–20

Responding to global challenges 2014

Global challenges affect our operations and wider society, and may impair the business of our customers as well as that of our company. We have identified three main areas where we can contribute towards coping with the major challenges of resource scarcity, food security, and environmental issues.

Resources

Contributing to resource efficiency is a Yara priority. Scarcity of critical resources in food production is a major global challenge.



Food

Contributing to sustainable agriculture is a Yara priority. Food security is a major global challenge, closely connected to nutritional quality and agricultural productivity.

Environment

Contributing to reduced emissions is a Yara priority. Climate change and pollution to air and water are major global challenges.

Global challenges

Global challenges affect business and society over lengthy periods. They call for intervention from a wide range of stakeholders, and the private sector has been defined as key contributor.

Providing food security in a time of climate change is of vital importance. Farming is a main solution, but expansion is limited by resource scarcity. The required efficiency and productivity increases have to be climate-smart and environmentally sound.

Resource scarcity, particularly in relation to future water scarcity and its implications for agriculture, is a global concern. Improved resource efficiency is key. In addition to concern over scarce water resources and limited farmland, increased attention is given to poor soil quality.

Food security and the challenge of meeting growing food demand remains a concern. Sustainable intensification is the way forward. It must be based on increased agricultural productivity from improved farming technologies.

Climate change related to food production is a major global challenge as it affects the livelihood of farmers and the income of national economies. Climate-smart agriculture is part of the solution. It aims to increase agricultural productivity, build resilience to global warming and reduce greenhouse gas emission.

Our response

Global challenges require collaborate actions and perseverance. We have heeded the call for action from the private sector, and respond to the challenges by developing solutions and sharing knowledge.

Our knowledge base and innovation agenda are key to identifying opportunities and developing solutions, contributing to solving pressing global challenges. We have relevant experience and expertise to address these challenges.

Improved efficiency is our ambition related to all major agricultural input factors, notably land, water and nutrients. Our fertigation offerings provide water saving solutions and our Crop Nutrition concept contributes to improved agricultural productivity and resource use efficiency.

Improved productivity is our approach to support sustainable, climate-smart agriculture and increase food production within existing resource limitations. Our tools for precision farming put our knowledge and application competence in the hands of farmers, guiding them to higher yields and farm profitability.

Reduced pollution is a target we pursue within our own production process as well as with our environmental solutions. The market's first low-carbon guaranteed mineral fertilizer is one of our offerings, and we supply abatement solutions that reduce harmful emissions to air and water.

Yara's engagement 2014

During 2014, Yara continued to engage in global issues affecting our business, our customers – and society. Resource scarcity, food security and climate change are at the top of our agenda.

Yara utilizes its competence to engage in key policy processes as a dedicated private sector partner, sharing ideas and creating partnerships – catalyzing change.

In 2014, we prolonged our participation in a number of processes, mainly related to the interconnected challenges of food security and climate change. Here, we play a role in offering solutions that improve agricultural productivity and reduce harmful emissions.

Development goals

Agriculture is a vital provider of food and nutrition, fiber and fuel – and a major source of jobs and income especially in the developing world. The sector is a key contributor to a range of development factors; not least the struggle against poverty.

At the January 2014 annual meeting of the World Economic Forum (WEF) in Davos, Yara's CEO joined a dinner hosted by the United Nations Secretary-General Ban Ki-Moon, who urged the private sector to contribute towards a set of post–2015 sustainable development goals (SDGs). He challenged business to show leadership in addressing climate change. Subsequently the issue was addressed during the UN Climate Summit in New York in September, which was held in conjunction with the opening of the General Assembly.

Here, we participated in several meetings, including the event hosted by Unilever and the UN Foundation: 'Action 2015: How can the private sector help deliver the Sustainable Development Goals?' – where Yara was one of the 15 signatories to the Business Manifesto in support of the SDGs. The Manifesto states that business, already the biggest contributor to the reduction in poverty in the developing world, still has a lot to do.

Business principles

During 2014, we continued to participate in the formulation of the Food and Agriculture Business Principles (FAB), which were launched by the UN Global Compact in September. This was the culmination of a process started in 2012. Yara joined the Core Advisory Group in 2013. The principles address the need for more specific sustainability throughout the agriculture value chain. In February, we co-hosted consultations in Brussels, hosted by Paolo De Castro, Chair of the Committee on Agriculture and Rural Development of the European Parliament; in March, we supported regional consultations in Bogotá.

Africa engagement

Since our centenary in 2004, we have engaged in African agriculture. In January 2014, Yara's CEO was a speaker at the African Union (AU) Summit in Addis Ababa, under the banner of Africa's '2014 Year of Agriculture'. In July, the AU adopted a new vision, the Malabo Declaration on Accelerated Agricultural Growth.

The African Green Revolution Forum (AGRF) in Addis Ababa in September focused on increasing food

Global Compact

- Yara has participated in the United Nations Global Compact (UNGC) since 2006.
- In April 2014, Yara s Board confirmed joining the UNGC Board Programme on Corporate Sustainability, as a pilot within Global Compact LEAD, the group of corporate sustainability leaders.
- In July 2014, Yara formally declared its endorsement of the UNGC s 'Call to Action: Anti-Corruption and the Global Development Agenda'.

The Food and Agriculture Business Principles (FAB):

1: Aim for Food Security, Health and Nutrition
2: Be Environmentally Responsible
3: Ensure Economic Viability and Share Value
4: Respect Human Rights, Create Decent Work and Help Communities To Thrive
5: Encourage Good Governance and Accountability
6: Promote Access and Transfer of Knowledge, Skills and Technology

New Vision for Agriculture

The CEO of Walmart International, David Cheesewright, and the CEO of Yara International, Torgeir Kvidal – as Co-Chairs of the New Vision for Agriculture – presented examples of interventions to improve productivity at the WEF 2015 annual meeting in Davos.

Caring for Climate

Since 2009, Yara has been a signatory to 'Caring for Climate', which is the UN's initiative for business leadership on climate change. Having halved its own greenhouse gas emissions since 2004, Yara engages to improve the carbon footprint of crop production.

Grow Asia

In May 2014 Yara took part in the launch of Grow Asia, a partnership platform supporting scalable, market based solutions for sustainable, inclusive, economic growth through agriculture.

Grow Africa

In 2011, Yara took part in the launch of Grow Africa, a public-private platform for accelerating investments and transformative change in African agriculture. We remain a partner, also co-chairing its Financing Working Group. By 2014, GA had triggered more than USD 7 billion worth of private sector investment commitments.

AGRF 2014

In 2006–08, Yara hosted the Oslo series of African Green Revolution conferences, which were then moved to the African continent and renamed the African Green Revolution Forum (AGRF). The event convened for the fourth time in Addis Ababa in 2014. Yara remains a member of the AGRF Partners Group.

productivity, agricultural adaptation to climate change, and sustainable, inclusive agricultural growth. Yara's CEO was a keynote speaker at the plenary session on 'Up-scaling Domestic Private Sector Investment in Transforming the Value Chain'.

At the 4th Africa–EU Summit in Brussels in April, international leaders discussed the role of agriculture as a transformative driver. Yara addressed opportunities for investments in African agriculture and how partnerships can increase productivity and improve smallholders' livelihoods. Our CEO again engaged at the Grow Africa Investment Forum in May 2014.

In October, the completion of the scientific research project 'Environmental and Climate Compatible Agriculture' was celebrated in Njombe, Tanzania. The four-year trials were co-led by Yara alongside partners Syngenta; Sokoine University, Tanzania; and University of Life Sciences, Norway. The partners presented promising preliminary results to Hon. Godfrey Zambi, Tanzania's Deputy Minister for Agriculture.

In June, Yara organized a mini-seminar in Oslo to debate current perspectives on how to close the yield gap and boost African smallholder agriculture in a sustainable way.

Asian engagement

In May 2014, the Grow Asia initiative, a multi-stakeholder partnership platform was established by the World Economic Forum and the Association of South East Asian Nations (ASEAN). The latter covers ten countries with 600 million inhabitants. Yara signed up to the platform, participated in the inaugural Agricultural Forum in the Philippines, and joined the Grow Asia Business Council.

The issue of improved farm productivity was raised at the convention, as a solution to advance agricultural transformation. Among the opportunities brought to the table were the dissemination of existing knowledge, leveraging mobile services to reach scale, and elevate the status of farmers. The forum also highlighted the need to develop climate-smart agriculture, and to include water and soil management in policy and investment frameworks.

The Vietnam Public Private Task Force on Sustainable Agriculture, which was established together with Yara in 2010 was featured at the forum. *See story on page 6–7.*

Resources

In 2014, Yara sustained its engagement for resource use efficiency, particularly in farming, with a need to improve the utilization of limited resources such as land and water. We further developed our Water Scarcity innovation platform, aiming to reduce the water footprint of agriculture.

Water scarcity

Being responsible for 70 percent of total freshwater withdrawals, agriculture is a main part of the challenge of – and solution to – water scarcity. In 2014, we committed to the UN Global Compact 'CEO Water Mandate', a public-private initiative designed to advance strategies and solutions for more sustainable water use. The mandate provides a platform to partner with relevant stakeholders and to share our knowledge and solutions for more efficient water use in agriculture. Advocating the agricultural sector's potential role in improving efficiency, Yara participated at the 'Oslo Water Initiative' forum hosted by the Norwegian Church Aid in October.

During 2014, within the framework of our Water Scarcity innovation platform, our researchers participated in several conferences, sharing their

knowledge and findings. Furthermore, we continued to roll out the Fertigation Plan software, which we launched in 2013 along with a water footprint calculator developed at Yara Research Center Hanninghof in Germany. Through numerous field trials, with different management practices, we have documented that correct nutrient supply increases water use efficiency in crop production.

Soil value

On December 5 2014, Yara took part in celebrating the first World Soil Day, emphasizing its critical role in food production – and in carbon sequestration. "People often consider soil simply as dirt," said Barry Bull, Yara's Agronomic Competence and Training Director on the occasion. "In reality it is a limited and vulnerable resource." The United Nations declared 2015 as the International Year of Soils.

Yara featured prominently in the 2014 study 'Strategic Partnership for the Fertile Grounds Initiative', published by the Royal Tropical Institute of the Netherlands and the Food & Business Knowledge Platform, focusing on our engagement in Africa.

Food

In 2014 Yara continued to champion improved agricultural productivity as the key strategy to satisfy future demand for agricultural produce, engaging in a number of processes and initiatives, including some pertaining to the critical dimensions of innovation and investments.

Agricultural productivity

At the 2014 Global Forum for Food and Agriculture in Berlin, Yara participated in dialogues on how to secure food and nutrition for a growing world

Impact footprint

Our strategic approach of delivering attractive returns to our shareholders while at the same time creating value for society – creating shared value – is increasingly being used as an example to showcase sustainable engagement in general and shared value in particular.

In December 2014, our engagement in African agriculture was the theme of an in-depth case study published by the Harvard Business School (HBS). The esteemed institution also focus on Yara in its new executive leadership program offered by professors Michael E. Porter and Mark Kramer under the title 'Creating Shared Value: Economic Success and Social Impact'. At the HBS Agribusiness Seminar in Boston in January, Yara's Head of Strategy Terje M. Tollefsen presented our strategic approach to agribusiness executives from around the world, in conjunction with a new HBS paper on the company.

Yara's strategic approach of creating shared value is based on our unique knowledge, products and solutions. We are well positioned to address some of the major global challenges of our time, particularly within food, environment and resources, which also represent business opportunities. We have called this our 'Creating Impact' strategic ambition, and we aim to grow our business based on these principles.

When the United Nations Global Compact (UNGC) presented its new Board Programme in 2014, Yara's strategic implementation of Creating Impact was one of the featured cases from the pilot phase, in which six companies took part. A case study on Yara pointed towards Yara's focus on sustainability also having yielded "significant social and environmental results".

In a study on building a post-2015 development framework for sustainable prosperity in Africa – 'A New Global Partnership with Business' published by Harvard Kennedy School and Business Action for Africa – Yara's Public-Private Partnership engagement on the continent was featured, using the Ghana Grains Partnership as an example.

population. Three principles were in focus: diverse production, sustainable management of natural resources, and increased agricultural productivity.

Yara participated in the celebration of the 2014 World Food Day, under the theme of 'Family Farming", drawing attention to the fact that farming largely remains a family business.

Agriculture investments

In FAO's flagship publication, the State of Food and Agriculture (SOFA), the expert organization notes that "Raising agricultural productivity in a sustainable way is indispensable for accelerating poverty reduction and feeding a growing world population from an increasingly constrained natural resource base. Farmers need to increase production on the available land to meet the growing demand for food."

In October 2014, the Principles for Responsible Investment in Agriculture and Food Systems (RAI) were approved by the plenary of the Committee of World Food Security (CFS). The set of 10 voluntary principles includes a link to climate change, urging appropriate measures to be taken to reduce or remove greenhouse gas emissions. Yara's Head of Public Affairs and Industry Relations, Jean-Paul Beens, participated at the plenary. Yara has taken part in the two-year multi-stakeholder consultation process leading up to the 2014 endorsement.

Agriculture innovations

The 2014 Global Forum for Innovations in Agriculture (GFIA) in Abu Dhabi has become a main event highlighting sustainable agriculture initiatives, facilitating knowledge transfer and demonstrating investment opportunities. Yara's Head of Innovation, Pierre Herben, also representing the Farming First alliance, participated on a panel debating Africa as the frontier for arid farming – and how innovations can be applied practically to support poverty alleviation in developing regions of the world.

The combined focus on agricultural innovation and Public-Private Partnerships were emphasized by the Organisation for Economic Co-operation and Development (OECD) at the October 2014 meeting of its Food Chain Analysis Network in Paris, in which Yara participated. Joachim Lammel, Yara's Vice President R&D, is a member of the OECD expert team on nitrogen.

Smallholder farmers

In 2014, we again took part in the 'Feeding the World' event, which was hosted in London by The Economist under the theme 'Sustainable Solutions for a Global Crisis' – posting the question: 'A Crisis now and a Catastrophe in 2050?' As a panelist on 'An Action Plan for Smallholder Farmers', our Head of Strategy Terje Tollefsen pointed at the dysfunctionalities within the food value chain, and the need to help smallholder farmers move from subsistence agriculture to commercial farming.

In its Africa Agriculture Status Report 2014, the Alliance for a Green Revolution in Africa (AGRA) highlighted climate change and African smallholder agriculture, arguing the case of Climate-Smart Agriculture.

Environment

In 2014, Yara increased its attention to environmental challenges, highlighting agricultural solutions to promote climate-smart agriculture and its environmental solutions offering, which includes technologies to reduce harmful emissions to air.

Climate smartness

Since 2008, the Secretary-General of the United Nations has convened the UN Private Sector Forum during the opening session of the General Assembly, bringing the private sector into intergovernmental debates. Yara has been part of the Forum since its launch. The Forum was an integral part of the Climate Summit in New York in September 2014.

At the Summit, the Global Alliance for Climate-Smart Agriculture (GACSA) was launched as a cross-sector coalition, with Yara as one of the co-founding members. The main priorities of the Alliance include work for sustainable and equitable increases in agricultural productivity and incomes, and reduced greenhouse gas emissions from agriculture. The Action Plan released during the Summit includes a target of enabling 500 million farmers to practice CSA by 2030.

Taking part in the launch of the GACSA, Yara's former CEO Jørgen Ole Haslestad said "the alliance has the potential to shape the vital joining of the food and climate agendas." Addressing the Agriculture Policy Room session of the Summit, the CEO noted that agriculture is the key – "and we cannot afford to fail". Yara is represented on the Steering Committee of the GACSA.

To facilitate the identification of the potential key and priority areas of work, GACSA ave created three action groups have been created on:

1. Knowledge
2. Investment
3. Enabling Environment

Continues on page 21

Emissions. Hazards. Solutions.

Applying knowledge – cleansing emissions – creating value

E2A (Emissions to Air);
Yara's innovation platform
for emission control solutions

NO_x abatement solution;
transforms NO_x exhaust gases
into harmless nitrogen and water

SO_x scrubber;
removes SO_x and residual
products from exhaust gases

What are NO_X and SO_X?

Nitrogen oxides (NO_X) and sulphur oxides (SO_X) are created when burning fossil fuels. Industrial plants, ships and vehicles are heavy emitters of NO_X and SO_X. The amount of SO_X released depends on the sulphur level in the fuel. The higher the sulphur content, for example in heavy fuel oil, coal and diesel, the more SO_X is emitted.

What make NO_X and SO_X emissions dangerous?

When NO_X emissions react with sunlight, they form harmful ground-level ozone and smog. Both NO_X and SO_X are also precursors to the deadliest of air pollutants, particulate matter (PM). These tiny particles and droplets consist of a cocktail of different substances that can penetrate into the lungs and bloodstream.

Yara fights emissions to air

Clean air is essential to life. We cannot survive without it. This is why combating air pollution on land and at sea has become a major global challenge – and a business opportunity for Yara.

The world still relies heavily on the combustion of fossil fuels: We burn fuel to generate electricity, to produce goods and to transport merchandize – on land and at sea. Global population growth is increasing demand for energy and transportation. However, current emission levels are not sustainable. Yara has taken on the challenge of battling air pollution. Besides making a significant positive impact on human health and the environment, our emissions abatement solutions are a profitable and growing business for Yara.

Prospects for a decisive switch from fossil fuels to cleaner energy sources are still bleak. Yara has developed technological solutions that reduce harmful exhaust gas emissions, thereby helping to fight air pollution. We offer complete solutions to cleanse toxic NO_X emission from vehicles, ships and industrial plant, along with a highly efficient SO_X scrubber solution for seagoing vessels.

Business cornerstone

"Emissions to air – or E2A as we call it for short – has become a cornerstone in our business model," says Stefano Bartoletti, Yara's Technical and Innovation Manager for Industrial Solutions and the driving force for developing the emission control business area. Since 2011, he has headed Yara's E2A innovation platform, a framework for business development rooted in fertilizer production and the company's extensive competence in nitrogen chemicals.

"The most commonly used technology for cleansing NO_X emissions uses ammonia or urea reagents to spur a chemical reaction that transforms harmful NO_X emissions into harmless nitrogen and water vapor," says Bartoletti. Being a large producer of ammonia and urea – reagents used in emission reduction technology, Yara identified an emerging market when emission legislation first came into force in the 1990s. Since then, Yara has gradually added technology and know-how to its E2A portfolio, firmly establishing itself as a leading provider of comprehensive emission control solutions.

"We launched the E2A innovation platform because we wanted to become a full-service emissions control solution provider, moving beyond the sale of reagents and down the value chain," says Bartoletti. "We identified E2A opportunities in different industries. We started with industrial plants, then moved into the automotive sector – and more recently we have added the maritime sector to our portfolio".

What are the health concerns?

NO_X and SO_X make people sick. They cause a variety of health issues from irritation of eyes and nose, shortness of breath to lung cancer. They also significantly increase the risk of asthma. And they cause harm to the environment and biodiversity as they are the main cause of acid rain.

1.3 million people die globally every year from urban air pollution

WHO

Today, Yara is the only company supplying a comprehensive air cleansing solution: chemical reagents, cleansing technology, and after-market services. In 2014, we helped our customers cleanse a total of 1.1 million tons of NO_X emissions, equivalent to total annual emissions from France. The target for 2015 is to increase that number to 1.3 million tons.

"Our ambition is to expand the E2A innovation platform to include the abatement of a wider range of harmful emissions."

Stefano Bartoletti, Technical and Innovation Manager, Yara Industrial Solutions

Converting black smoke into white smoke

"If you see a ship emitting black smoke – that is because of sulphur oxides and carbon particles," explains Kenny Strandberg, Vice President Business Development at Yara Marine Technologies, as he describes the latest addition to Yara's emission control portfolio: the SO_X scrubber for seagoing vessels. "But," he adds, "when an engine is equipped with a scrubber, the smoke is completely white. The scrubber removes the residual products, essentially turning the exhaust gas into water mist."

Yara Marine Technologies was born when Yara acquired a majority stake in Green Tech Marine in 2014. The SO_X scrubber offered by this new Yara branch is an easy and cost-efficient solution to fighting air pollution at sea. "We have developed the most economical SO_X scrubber for the marine segment. It can be retrofitted into any seagoing vessel, be it a cruise ship, a car ferry or an oil tanker," says Strandberg. "It simply replaces the ship's silencer. Thanks to their small size, no valuable space for passengers, crew or cargo has to be sacrificed."

The SO_X scrubber for ships is firmly anchored in a billion dollar market. As concerns related to emissions from seagoing vessels are growing – and legislation is becoming increasingly stricter – a huge market for emission control systems is emerging in the maritime segment. More than 15,000 ships will be equipped with SO_X scrubbers by 2020, according to a report by certification company DNV GL.

Stefano Bartoletti sees legislation driving demand for emission control solutions. He has big plans for Yara's E2A platform. "We target to grow our technology and service sales to more than USD 500 million within the next years. On top of this, we will sell our reagents to many of these customers," he says, and unveils plans to extend Yara's impact: "Our ambition is to expand the E2A innovation platform to include a wider range of harmful emissions."

Extensive and expanding offering

Yara's E2A innovation platform has grown through a combination of innovation projects and acquisitions. It catalyzes synergies from the fertilizer business by merging our expertise in nitrogen applications and technology development with our global production and distribution network.

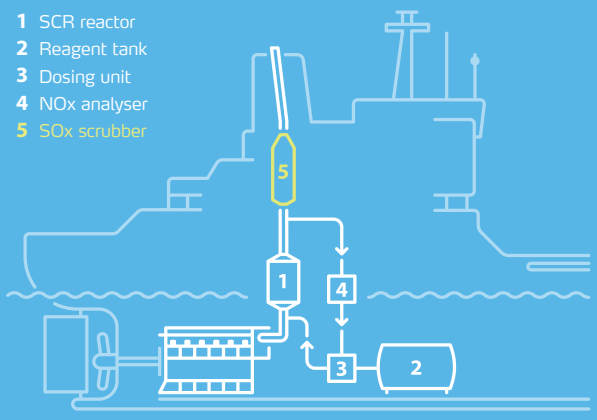
2014 marked a major leap in the development of our emission control offering with investments of NOK 300 million in mergers and acquisitions.

We took full ownership of Yarwil, an entity specializing in NO_X abatement solution for seagoing vessels. Later we acquired H+H Umwelt und Industrietechnik GmbH, the market leader in NO_X reduction technology in the maritime sector. We also acquired a majority stake in Green Tech Marine, now Yara Marine Technologies, and finally we took over the flue gas treatment division of Strabag SE.

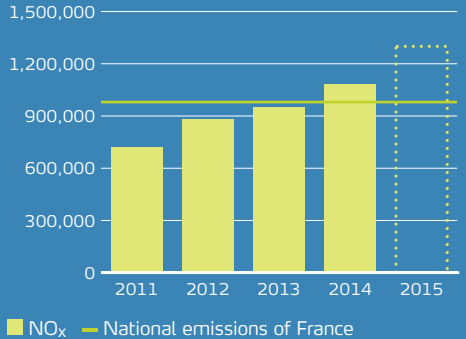
The acquisitions firmly positioned Yara as a full-service emissions control solution provider of technology, regagents and after-market services in the maritime segment. They also reinforced our already comprehensive offering for NO_X abatement in industrial plants. Building on decades of expertise in emission control reagents along with technical know-how, we are able to assist customers in planning and optimizing emission control solutions in new-builds as well as existing systems, on land and at sea.

The third branch of our E2A offering – NO_X abatement in vehicles – also continued to grow in 2014. We are the leading provider of AdBlue (DEF/ ARLA32) used in Selective Catalytic Reduction (SCR), the most widely used technology for cleansing NO_X emissions from vehicles. We offer this reagent under our Air1® brand along with a full range of storage and handling equipment to meet fleet operators' individual requirements.

Emission control technologies in seagoing vessels



NO_X abated by Yara customers (ton)



Source: CITEPA

Yara's response 2014

Throughout 2014, Yara continued to develop solutions to meet global challenges. We focused on keeping a high innovation pace, engaging in partnerships and harvesting benefits from our broad knowledge base.

Yara continuously searches for ways to respond to global challenges and local demands. We use our industrial experience and agronomic expertise to tailor products and solutions to the specific needs of our customers, helping them achieve their goals.

Knowledge grows

We build our business on gaining and sharing knowledge. We exchange, transfer and encourage development of knowledge in a number of ways, from meeting farmers in the field to partnering in higher education.

One 2014 initiative was the launch of a free online course in 'Agriculture, Economics and Nature' in cooperation with the University of Western Australia (UWA) in Perth. The Yara-sponsored Massive Open Online Course helps farmers address the challenge of improving productivity in a sustainable way.

In Germany, Yara has a strong foothold and several established avenues for interacting with the farming community, including the Yara Forums in key agricultural areas. The long-term presence of Yara's Research Center Hanninghof is an important reason for our strong position in Germany. During 2014, the center engaged with farmers as well as agricultural institutions. Among them were a group of Hungarian teachers with agricultural universities, invited by Yara Hungary as part of efforts to reach students.

Throughout the world, we hosted or took part in a large number of knowledge transfer activities in different formats, including social media platforms and technology tools. We also met stakeholders at seminars and conferences, farmers meetings and crop clinics.

In 2014, we opened our new Development & Training Centre in Pocklington in the United Kingdom. This is a high-tech training facility linked to a large climate-controlled glasshouse with flexibility to carry out development work on a wide range of crops: from standard European crops of cereals, oilseed and maize to more exotic species such as bananas, sugarcane, soybean and coffee. The training center will be available for training our agronomists, customers and farm groups from all over the world, as well as local schools and colleges. The center also features a photographic studio designed to provide photos and video documenting nutrient deficiencies and product uptake at different growth stages – for use in our apps and advice literature for growers.

Research & Development

Yara Innovation, R&D in Porsgrunn and Wroclaw University of Technology in Poland staged the competition 'Fertilize the Future' for students in 2014. The theme was to design a neutralization step for a nitrophosphate NPK plant. Lasting two months, the competition was finalized in May, with the winning team of four students being invited to visit Yara's Porsgrunn plant.

With support from the UK government-backed Technology Strategy Board, Yara UK will perform

N-Sensor®

Trials demonstrate an increase of 12% in nitrogen uptake by maize while using the N-Sensor® compared with the fixed dose conventionally applied by farmers.

Recognition

Yara's N-Sensor® has been recognized by the esteemed journal of the Brazilian Society of Soil Science. Two articles recognized Yara's investments in technology and equipment in the area of precision farming, documenting the impact of the N-Sensor®.

Award winners

The German Agrarmanager 'Precision Farming Prize' has been awarded to 12 winners since starting in 2008. Eleven out of the 12 winners have been a Yara N-Sensor® user, and all three 2014 winners use the technology. The award is open to all farmers using any kind of precision farming technology.

Glasshouse upgrade

In 2014 we finalized the upgrade of our glasshouse facility at Research Centre Hanninghof. The upgrade corresponds with a growth in R&D activities. The glasshouse is now a state of the art facility with capacity to serve both ex isting markets and innovations projects. High tech solutions for heating, cooling, lighting and fogging enables us to repli cate the full range of growing conditions.

Yara Prize 2014

Professor Tekalign Mamo Assefa from Ethiopia is the 2014 Yara Prize laureate, receiving the prestigious award for more than three decades of championing sustainable agricultural development.

The Yara Prize for an African Green Revolution was awarded in conjunction with the African Green Revolution Forum (AGRF) in Addis Ababa, Ethiopia in September.

Professor Mamo was hailed for his relentless work. He has leveraged his scientific knowledge and exhibited leadership to improve the livelihoods of Ethiopian farmers. As a soil scientist he has developed targeted interventions for management of waterlogged soils, rehabilitating acidic soils and degraded landscapes, winning farmer acceptance of technologies and modernizing the country's fertilizer advisory service. His innovative and inclusive efforts have been instrumental in lifting millions of farmers' income.

More: yaraprize.com

a three-year research project to increase grass yields. The project has tremendous potential benefits for UK farmers, helping dairy and beef farmers fight rising feed costs. The key intervention is calibration of the Yara N-Sensor® to measure the fertilizer requirements for grass.

In December 2014, a NOK 35 million pilot plant for NPK fertilizer production was inaugurated in Porsgrunn, Norway. This plant is tailor-made for medium scale testing of different raw materials. It will be a resource to our water platform in researching new water-soluble NPK formulas.

Resources

In 2014, we delivered on our Water Scarcity innovation platform, not least by investing in the development of tools to improve water productivity.

Water innovation

The Water Scarcity innovation platform embodies our response to the need for more efficient water use in agriculture.

With our business deeply rooted in agriculture, it is essential to understand the global water challenge and develop solutions to help farmers grow more with each drop. To this end, we have for several years invested in our Water Scarcity innovation platform, and work on the Platform progressed well in 2014. Through the platform we explore opportunities related to water shortages challenging agriculture and food production. In 2014 we concluded research clearly showing that nutrient supply – amount, timing and form – should be adapted to the availability of water in order to maximize crop water productivity. An important element of the platform is the development of tools to improve water productivity. The newly acquired ZIM system, which includes a sensor probe, transmitter, and radio controller linked to a database, is designed to assist growers in irrigation management. The system complements our fertigation portfolio and drew considerable attention in 2014.

2014 saw the opening of the Yara Fertigation Training Center in Vlaardingen, the Netherlands. The greenhouse facility is small in size, but has a potentially big impact on farming practices: Set up with state-of-the-art equipment and different growing systems, it will serve as a training arena and demonstration site for our fertigation solutions – applying crop nutrition together with irrigation. The greenhouse is also fully equipped with a CO_2 feeding system to demonstrate the benefits of CO_2 to a crop to growers and to train them in safety issues.

Food

In 2014, we continued to develop and distribute crop nutrition knowledge, tools and solutions, delivering on our ambition to contribute towards global food security and farming profitability.

Agricultural productivity

Yara's traditional core business is the production of mineral fertilizer and the development of crop nutrition solutions. The foundation for improved productivity, aligning food production with climate change challenges, is our Crop Nutrition Concept, built on three dimensions: crop knowledge, application competence, and portfolio combinations.

Throughout 2014, we brought our crop nutrition solutions to millions of farmers around the world, contributing to

growing an estimated 240 million tons of grain.

A set of tools are part of our solutions. They include agronomic guidelines for major crops, soil analysis systems, nutrition and water sensors, and apps for mobile devices. In 2014, we extended our Plantmaster® series with one on tropical fruits trees, including mango, papaya, longan, durian, and guava. A solid knowledge platform, it helps us in guiding customers to better quality, increased productivity and improved nutrient use efficiency. Our Maize Plantmaster® was launched in Brazil in 2014. And maize and rice were the featured crops at the first International Seminar of Tropical Crop Nutrition, held in Guayaquil, Ecuador in April, where Yara shared its knowledge on balanced nutrition. *See separate article on tools on page 25–30.*

African partnerships

In 2014, Yara continued to take a key international leadership role in the public-private dialogue around transformative agricultural partnerships currently evolving in several African countries through Grow Africa. Yara remains committed to the four country-specific commitments stated in 2012 for Tanzania, Ghana, Burkina Faso and Ethiopia.

In Tanzania, Yara in 2014 rolled out the 'One step forward' program tailored to local market conditions, designed for farmers to take incremental steps forward which are manageable and suitable for their capacity and tolerance for risk. Yara provides 5-kg fertilizer bags to accommodate smallholders' economy, and a simplified training setup with a scoop to be used for every one meter – one step.

Yara is also actively involved in the New Vision for Agriculture Transformation Leaders Network engaging over 120 senior practitioners and experts to pursue practical efforts for sustainable and inclusive agriculture. Yara attended the annual Transformation Leaders Workshop in October 2014.

Coffee platform

Yara's Coffee & Cocoa innovation platform was adopted in late 2013, to be implemented as of 2014. Through the platform we combine crop specific nutrition knowledge with recent experiences from Public-Private Partnerships and value chain approaches, not least from our participation in the Coffee Task Force in Vietnam. During 2014, the engagement in Vietnam was extended, while we entered several new projects and partnerships in Africa and Latin America.

One main pillar of the Coffee & Cocoa platform is R&D, with several initiatives taken in 2014, and with glass house trials taking place at our Research Center Hanninghof as well as field trials in Asia, Africa and Latin America. Within the value chain pillar of the platform, we engaged with a wide range of coffee stakeholders, including major roasters and distributors, and with several certification bodies. The platform is to be implemented in several waves, and also includes cocoa, with an emphasis on West Africa. A main focus of Yara's coffee R&D is to search for solutions to increase plants' resistance to diseases, and to improve yields and incomes through balanced fertilization. *See separate coffee stories on page 1–8.*

Environment

In 2014 we continued to develop our environmental solutions, and to deliver on our Emissions to Air innovation platform.

Baltic commitment

Yara has for several years engaged in the efforts to stall unwanted effects of

Water sensor

The ZIM water sensor technology combined with Yara's Crop Nutrition can increase yields by up to 15%, reduce water consumption by up to 30%, and improve crop quality.

Our Fertigation Training Center in Vlaardingen, the Netherlands is a new training and demonstration site for our fertigation solutions.

Krishi Vasant

The 2014 Krishi Vasant national agriculture fair and exhibiting in Maharashtra, India, reached out to millions of farmers through web-cast and telecast. Participating in the event, Yara highlighted its crop nutrition concept, and how it supports farmers in optimizing yields.

300,000

Yara North America in 2014 hosted a Citrus Nutrition Symposium in the International Agri Center in Tulare, California, inviting 60 elite growers, fruit packers and distributors. Tulare lies at the heart of California s citrus country, which accounts for 300,000 acres of citrus.

Innovation Award

Yara Marine Technologies was honored with Innovation Norway's Entrepreneur of the Year 2014 Award for the great economic and environmental potential of its SO_X scrubber technology.

Air1® milestone

Our Air1® solution is paving the way in the rapidly growing global market for AdBlue (DEF/ARLA32) reagent for NOx abatement in vehicles. In 2014, our global sales of Air1® grew by 31%.

+5% biogas

Our novel Yara Biogas Production Optimizer used a nitrate solution to speed up and optimize the naturally occurring fermentation of biomass used to produce biogas. The enhanced production process results in a 5% higher gas yield.

agricultural activities in the Baltic Sea Region and to restore the sea's environmental status. In 2014, we participated in the 16th Baltic Development Forum Summit and the 5th Annual Forum of the EU Strategy for the Baltic Sea Region in Turku in May. We also engaged with farmers, policy makers and academia at a high level Baltic Sea conference which we organized in Kaschow in Germany. Furthermore, we organized events in Denmark, Germany and Finland under the heading 'Feeding the Future', gathering farmers, farmers' organizations, policy makers and other stakeholders in the food value chain. During these events, we advocated sustainable intensification of agriculture, shared our knowledge and presented tools and solutions. These events were complemented by a number of activities engaging farmers throughout the year, as well as engagement at major agriculture events such as Land Owners' conferences and exhibitions. Market activities are complemented by a number of knowledge development actions, such as integration of research stations and universities' work with demo farms in Germany, and a coordinated research mission in Denmark labeled 'Future Cropping', which includes a number of PhD and post-doc projects.

Emissions to air

Through our Emissions to Air (E2A) innovation platform, we explore opportunities arising from air pollution, such as the development of cleaner technologies. We have established a leading knowledge and market position in hazardous NO_X emissions, and we target innovation that develops applications and solutions for a growing global market, in the face of a mounting global environmental and health challenge.

In 2014 we extended our E2A portfolio significantly through a string of acquisitions. Combined with targeted efforts on our E2A innovation platform, they have enabled us to become a total solution provider for emission control at sea, providing leading technologies for reduction of both NO_X and SO_X emissions. Yara is now the only company supplying a comprehensive air cleansing solution: cleansing technology, chemical reagents, and aftermarket services. In 2014 we helped customers cleanse a total of 1.1 millions tons of NO_X emissions from vehicles, ships and industrial plants. *See separate E2A section on pages 17–20.*

Cool tool launch

A new web app version of the Cool Farm Tool (CFT) was launched in early 2014. CFT provides farmers with an easily accessible and user-friendly tool to determine the carbon footprint of their crop and livestock production. By pinpointing emission hotspots, it enables farmers to test different management scenarios and identify those with the lowest greenhouse gas (GHG) emissions. Many leading agri-food companies support the CFT.

Yara is one of the founding partners of the Cool Farm Institute (now Cool Farm Alliance) behind the tool, and contributed all of the methodological and data inputs for the CFT's calculation of the carbon footprint related to fertilizer manufacturing and use. During 2014 the CFT was named the highest-ranking GHG accounting tool available in the public domain in a UK survey by the Universities of Bath and Aberdeen, and it has won the prestigious 'Practice with Science' Award given by the Oxford Farming Conference.

Carbon guarantee

In 2010, Yara launched the world's first fertilizer with a guaranteed, low carbon footprint. At first aimed at the Scandinavian markets, the low-footprint products and Yara's knowledge support in calculating emissions has attracted interest worldwide. We delivered services on carbon footprint to a number of clients worldwide, including in Vietnam, Tanzania, Brazil, Spain, Malaysia and Germany.

Down to earth

Sharing knowledge – achieving quality

The challenge is complex: The world's farming communities have to improve agricultural productivity to feed a growing global population and make farming a viable livelihood. A part of the solution is apparent: Agriculture must be supported by extensive knowledge – about best practices and available technologies to enable sustainable and profitable farming.

Better decisions for better yields

Yara's precision farming tools allow for informed decision making in the field.

Precision farming is the key to best agricultural management practices. It enables farmers to add the specific nutrients needed for their crop, in exactly the right amount, at the right time. A major concern in the case of fertilizer application is that too much nutrient – more than the crops need – is wasting farmers' investments and harming nature.

Crisp success in the Balkans

Success is sweet. Or, in the case of potato chips: salty. A sprinkling of salt however, is just the final touch of the careful process of producing Croatia's crispy Čipi Čips – a household brand in the Balkans. Its market-leading position is sustained by a meticulous focus on quality, starting with the obvious: The potato.

The potato: A starchy tuber with a wide usage; a staple and a snack. A major food crop grown across the world; highly adaptable and largely undemanding. Still, quality calls for knowledge.

The market: A constantly growing consumption; ever more demanding consumers. A competitive, brand-conscious market setting high standards. Quality is required – and rewarded.

The knowledge: A quality crop commands agronomic knowledge; tailored nutrition management. A growing program derived from soil and plant analysis. Successful harvests are based on science.

The Balkans: A southeastern region of Europe; culturally diverse. A farming sector that suffered from years of wars, now catching up on modern methods. Adding knowledge creates value.

Crisp knowledge

Čipi Čips: The market-leading Balkan brand is a renowned product of the coffee, tea and snacks producer Franck d.d. Franck is one of Croatia's major food producing and exporting companies, and the region's largest producer of potato chips. The company, originally founded in 1828, prides itself on having offered guaranteed superior quality for generations.

Čipi Čips were launched as the first Croatian potato chips in 1977, made at the Franck factory in Hercegovac in the northeastern part of Croatia. Almost 40 years later, graded potatoes from local growers are still meticulously fed into an impressive cutting and cooking operation, ending their journey through the modern factory in colorful bags – ready for consumption. You may not see Yara on the Čipi Čips label. Still, Yara's knowledge is a key ingredients.

A leap forward

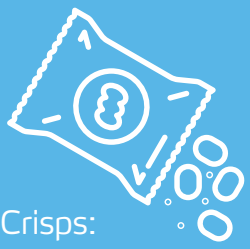
Living up to its reputation, Franck has to ensure that the all-important raw material – the potato – is of superior quality. The company has its own network of contract farmers that deliver potatoes. "Every year we host a 'winter school' for our growers, with a variety of topics," says Damir Lujanac, Production Manager at the chips factory. "A recent topic, developed in close cooperation with Yara agronomists, has been the appropriate use of mineral fertilizers, based on soil analysis and application recommendations, tested in field trials."

Agriculture in the Balkans suffered from the wars in the 1990s, and know ledge was – and still is – paramount in the reconstruction of the sector. "There was a need to improve the knowledge of the farmers as well as the agricultural network," says Stevan Mesarović, Yara's Balkans Area Manager. To bring the attention to the true value of knowledge-based application of mineral fertilizers, Yara brought its crop nutrition products – and its application knowledge – to the fields, for farmers to test for themselves. "Fertilizer was just something farmers bought and applied, they never connected it with knowledge,"

Yara engages with farmers, agronomists and researchers worldwide, sharing knowledge and gaining valuable experience on the optimal use of fertilizers.

Yara offers comprehensive knowledge to its customers, tailored to local growing conditions and specific crops, taking into account the nutrients available in the soil, crop residues and manures. This is the essence of precision farming. More efficient use of crop nutrients, tailored to local conditions, means lower cost for the grower and minimum adverse effects on the environment.

Yara's decision support tools are vital to achieve precision farming and, ultimately, best farming practices. They put our crop knowledge and applications competence in the hands of the farmer, turning science and experiences into practical advise that can easily be applied in the field.



Walkers Crisps: Carbon cutters

Walkers Crisps are made from 'good old British spuds , but not just any spuds. The manufacturer, PepsiCo, strives to reduce its carbon footprint by 50%, and the Walkers brand is doing its bit: Partnering up with Yara, PepsiCo encourages its growers to apply low carbon fertilizer solutions to their potato crops.

View slide show:
yara.com/potato

Čipi Čips: Croatia quality

Croatian chips, that s crunchy Čipi Čips, according to the producer and local market leader Franck. The snack was launched in 1977, based on the highest quality home grown potatoes, with the extra crisp "Čipi Čips Country" introduced to the market in 2013 – and sporting the official Croatia Quality stamp.

View video story:
yara.com/balkans

"The key to success, and the key differentiator between a successful and an unsuccessful farmer, is knowledge."

Damir Lujanac,
Production Manager,
Franck d.d.

says Tatjana Uljanić of the Sales and Marketing department of Yara Hungary, an agronomist herself.

With the collaborative efforts of chips producer Franck and local fertilizer distributors, Uljanić and her Yara colleagues made the Yara's crop-specific nutritional knowledge available to growers. One tool used in the transfer of knowledge is the Plantmaster® series for potato – a brochure with guidelines on how to grow potatoes in an optimal way.

Furthermore, distributors of Yara products throughout the Balkans have encouraged customers to make use of Yara's MEGALAB®. Based on soil and plant tissue analysis, growers were invited to test specific crop nutrition recommendations from this tool. They were able to witness the improvements themselves: adopting best practices will maximize yields and crop quality, while minimizing production costs.

This is something Nicola Stepić, a potato grower in Veliki Zdenci in central Croatia, can testify to. Having participated in the program, Stepić is harvesting record crops. "Last year," he says, "the yield surpassed 50 tons per hectare," a 52 percent increase over the previous maximum of about 33 tons.

"This is not just a step forward," says Damir Lujanac; "it's a leap." Not only is it a leap for Stepić and his Croatian colleagues, it demonstrates the untapped potential of agricultural growth in a region where farming

MEGALAB® is one of our most used tools. It is an internet-based system offering interpretation and biometric data services from agricultural lab analysis. Operating 24/7 through a network of partner and internal labs, MEGALAB® processes data from all over the world and generates product recommendations based on local farming practices and conditions. Two of the main analytical services offered in MEGALAB® are soil analysis and tissue analysis:

Soil analysis is a predictive tool, used ahead of the growing season. Based on soil samples, it provides background knowledge on the soil nutrient levels as well as other factors relevant for fertilizer application.

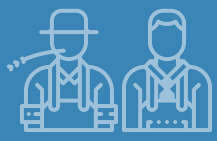
Tissue analysis is a reactive tool, used during the growing season. Based on tissue samples, it offers the current nutritional status and allows action to be taken. Tissues analyzed include leaf samples, petiole samples, fruit and fruitlet samples.

has been affected by years of war and is suffering from a lack of knowledge.

Key differentiator

"The key to success, and the key differentiator between a successful and an unsuccessful farmer, is knowledge," says Damir Lujanac. Investing in knowledge pays off. Ignoring higher quality demands can easily put a farmer out of business.

Leaps are indeed needed if potato production in the region is to reach former levels. In Croatia, the average potato yield is only 10 tons per hectare, which is well below the world average of 17–18 tons per hectare. With purchasers such as Franck raising the quality criteria, and suppliers like Yara providing critical nutrition knowledge, yields can increase again, making potato growing an attractive proposition in the Balkans.



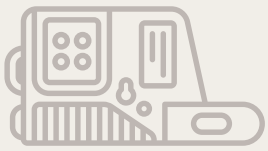
Potato encounters

Yara interacts with farmers across the world, sharing knowledge and exchanging ideas – also with potato growers. In 2014, Yara participated, among others, in a potato growers' convention in Australia, a potato producers' meeting in Brazil, and a potato alliance meeting in Colombia

In Colombia, potato is a major staple crop, and the agricultural product with the highest per capita consumption: 62 kilos per year. It is cultivated throughout the year, principally in the Altiplano area of the Andes region, mainly by smallholder farmers. Approximately 90,000 farmers are engaged in the production of potatoes in Colombia. Since 2006, Yara has worked closely with the Potato Farmers National Federation (Federación Colombiana de Productores de Papa, Fedepapa) to develop improved fertilizers and application programs to ensure balanced nutrition. Increased yields have been recorded, as well as improved homogeneity.

Yara believes that resource use efficiency can best be obtained by knowing the exact crop needs for nutrients. To this end, we have developed sensor technologies to measure the instantaneous nitrogen demand in the crop. Our N-Sensor® and N-Tester™ tools have proved successful on fields across the world by helping farmers achieve higher yields and profitability while limiting nutrient losses.

N-Sensor® is a tractor-mounted tool that uses light to measures a crop's nitrogen requirement as it passes across the field, and adjusts the fertilizer application rate accordingly.



N-Tester™ is a hand-held device that measures the nitrogen status of a crop from the chlorophyll content of its leaves.

Meeting farmers in the fields

Asia and Africa are growing continents. To feed an increasing population they will both have to make strides to improve agricultural productivity. Much depends on smallholder farmers. Farming is the future. Resources are limited. Knowledge is key.

Agriculture is vulnerable to global warming. More erratic weather patterns, drought and flooding are affecting yields in a time when we need to produce more food for a growing world. In order to avoid further deforestation and land use change, farmers have to improve their production methods to achieve sustainable increases in yields. Essentially, there is only one way forward: Increase the knowledge input.

Yara employs a wide range of management tools to support farmers. Still, for most growers, and particularly the smallholder farmers, physical meetings are appreciated. After all, says Yara's Chief Agronomist in Thailand, Seksan Ekkajit: "The most important thing is to make sure we understand the real needs of the farmers and find the relevant solutions".

Excessive use of fertilizers has negative impacts on the environment and on the farmers' economy. Yara's accumulated crop- and soil-specific knowledge is shared with local farmers around the world; transferred in meetings with farmers or electronic devises.

Knowledge channels

Meetings with farmers are organized in various ways, including the crop clinic concept. Here, Yara invites farmers to discuss their concerns with its agronomists familiar with local conditions. Yara's experts provide on-the-spot advice on how farmers can increase their yields and incomes.

Demonstration plots is an effective way of making knowledge relevant, by showing rather than telling. Together with partners, Yara runs a range of demo plots within local farming communities, for a variety of crops around the world. Typically, one part of the plot is tilled according to normal practice, while another is tended to in accordance with the recommended, improved method. In 2014, Yara set up more than one thousand demo plots across Asia alone. In India, a project involving 325 chili demo plots demonstrated an average yield increase of 7.5 percent using the recommended crop nutrition, while 49 sugarcane plots showed an average yield increase of 18.5 percent.

Yara engages in numerous field trials in cooperation with local partners. In Indonesia, trials on cocoa led to an increase in dry bean yields of 12–17 percent. A coffee project in Vietnam demonstrated the success of applied crop nutrition knowledge: yields increased by 11 percent while the carbon footprint was reduced by 54 percent.

In Africa, Yara engages with farmers in several countries. "We run hundreds of Yara Crop Nutrition programs across Tanzania," explains Kefa Maranga Makori, Head of R&D, Yara Tanzania. "Soils are often depleted of nutrients, requiring good agronomic practices. We help educate farmers on demo plots, field days, and crop clinics, and

Yara has an extensive knowledge base, which we share with our customers in various ways. One is by making the contents of our scientifically based Plantmaster® nutrient guides available and useful for a wider audience. By turning science into practical advice, we have used the Plantmaster® series to make our national websites more farmer-oriented, providing answers to common questions and concerns.

Another is by making use of smartphone technologies. We have developed apps designed to determine nitrogen uptake in crops (ImageIT™), to identify nutrient deficiencies (CheckIT™), and to find distributors and available products and verify the authenticity of the product (DiscoverIT™). We also offer the app TankmixIT™ to check compatibilities when mixing Yara foliar nutrition products with other plant protection products.

ImageIT™ generates a nitrogen recommendation based on photographs of the crop.

CheckIT™ allows simple and fast identification of possible nutrient deficiencies.

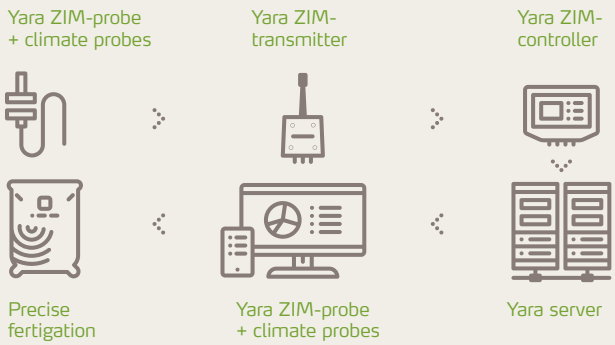
we use radio to communicate our messages."

Agricultural agents

Farmers are one target group when transferring knowledge; distributors and agro-dealers are another. Yara's worldwide network of local wholesalers and retailers ensures the availability of our products and solutions. They represent a crucial part of the agricultural value chain, not only in terms of providing crop nutrition, but also by helping farmers achieve higher yields from the investment in fertilizer. Yara tailors and hosts workshops together with local wholesalers and retailers to reach more farmers. In Indonesia, one such workshop theme was 'Creating Best Practices'. This way of engaging with farmers is, according to Yara Asia Chief Agronomist Nathan Price, the very core of sharing knowledge – of exchanging experience.

Bora Benjamin Msola (38), a smallholder of Igima village in the Njombe region of Tanzania took part in a Yara training program in 2014. "Without YaraMila WINNER I would never have increased my potato yield and income," he says.

We continue to invest in the Water Scarcity innovation platform. In 2014, we acquired an innovative crop sensor technology that measures the water demand of the crop, the ZIM probe™. Following the acquisition we invested significant time and resources into developing our Precision Fertigation solutions, giving precise crop nutrition recommendations for fertigation systems.



Performance 2014

Nurturing life
We grow and share our knowledge for better business and better environment page 32

Environment
We have made outstanding improvements in reducing greenhouse gas emissions page 33

Health and safety
Safety is our top priority and we believe that every accident is preventable page 34

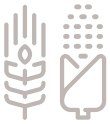
Workforce
Our workforce represents a great set of diverse skills and competencies page 35

Global impact

By creating value from existing operations and emerging opportunities, we strengthen our competitiveness while nurturing and protecting the earth's resources, food and the environment.

Resources

We aim to leverage Yara's fertigation software to support sales above 1 million tons for the fertigation segment.



Food

In 2014, our crop nutrition solutions supported food production feeding 240 million people worldwide.

Environment

Our N_2O catalyst technology prevents GHG emissions equal to 12 million tons of CO_2 equivalents from our plants each year – and another 18 million from other installations.

Impact ambition

Our ambition of creating shared value is embedded in our business strategy.

Yara believes that by offering a positive value proposition to our customers, we can deliver attractive returns to our shareholders while at the same time create value for society – creating shared value. Through our knowledge, products and solutions we are well positioned to address some of the major global challenges, particularly within food, environment and resources, which also represent business opportunities.

We have called this our Creating Impact strategic ambition and we aim to grow our business based on these principles. In 2014, we further developed our strategy processes to strengthen the organization's ability to capture future business opportunities.

Our innovation platforms are important vehicles in seizing these opportunities. The current platforms – Emissions to Air, Water Scarcity, Resource Efficiency and Coffee & Cocoa – have developed numerous solutions to improve farming practices or prevent harmful emissions. Equally, our investments in research and development have spurred innovative crop nutrition solutions and environmental applications, as well as improvements in our production processes. In 2014, we grew our R&D organization around the three core competency communities Product and Application Development, Process Research, and Catalyst Systems.

Impact performance

In 2014 we delivered on our ambition of combining attractive returns to our shareholders with value creation for society.

Our performance in recent years shows that our engagement in the areas of resource efficiency, food security and environmental pressure can indeed drive long-term growth for Yara.

Resources

More than half our fertilizer sales now consist of differentiated and specialty fertilizer. These crop nutrition solutions support better nutrient use efficiency and improved agricultural productivity, with less environmental impact. Our Water Scarcity innovation platform delivers solutions and tools for improving water use efficiency.

Food

In 2014, our fertilizers were used on an estimated 75 million hectares of land, producing about 240 million tons of grain. We share knowledge and provide training for farmers worldwide to help them increase productivity and farm profitability. In Asia alone, we meet 250,000 farmers each year to share our insight on crop nutrition and best farming practices.

Environment

In 2014, we helped our customers cleanse a total of 1.1 million tons of NO_x emissions. We offer complete solutions for emission control in the transportation and industrial sectors, and for improving thermal storage in concentrated solar power systems. And about 50 million people live in cities that smell better thanks to our environmental solutions.

Environment

We are committed to reducing pressure on the environment in every way we can. This includes minimizing impacts from the production, distribution and end use of our products in agriculture, as well as offering environmental solutions.

The two main priorities in our environmental efforts are improving energy efficiency in our operations and reducing emissions and environmental impacts of our processes and products. During the last decade, we have significantly reduced greenhose gas (GHG) emissions from our production sites, particularly our nitric acid units. As a result, we offer a very low-carbon nitrate fertilizer that, combined with our agricultural knowledge, presents a way to halve the carbon footprint from fertilizer use in crop production.

In 2014, we continued to reduce our GHG emissions, thanks to the good performance of our nitrous oxide (N_2O) catalyst technology, which has been installed in our nitric acid plants. Improved energy efficiency also contributed to lowering our GHG emissions from production.

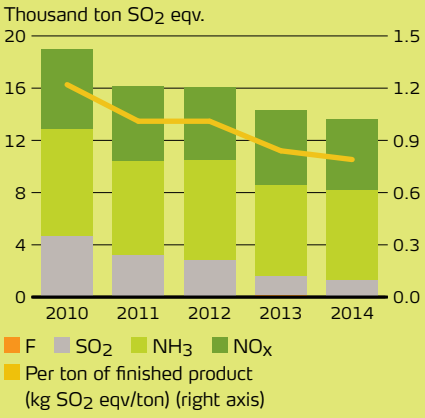
-20%

European emissions

In 2014, we recorded a 20% reduction in GHG emission from our European ammonia and nitric acid plants compared to a 2010 baseline. This achievement is well above our five-year target of a 13% reduction.

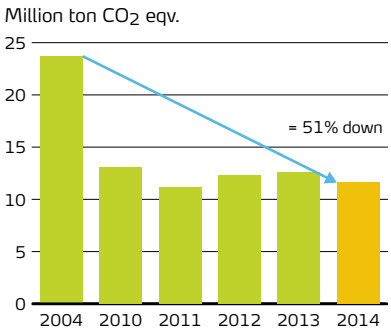
Emissions to air contributing to acidification

We have reached our five-year target to reduce acidifying emissions by 17% compared to a 2010 baseline. Total reductions achieved by 2014 represented a 28% improvement.



2.7 million GJ

In 2014, we exported 2.7 million gigajoules of surplus electricity, heat and steam.

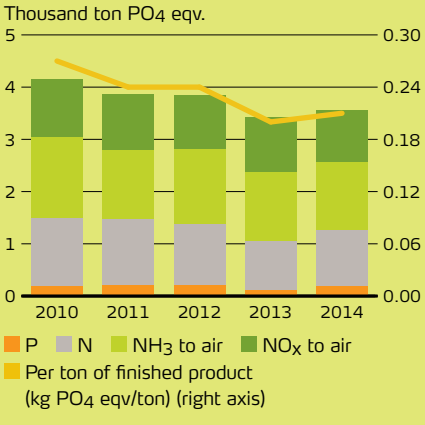


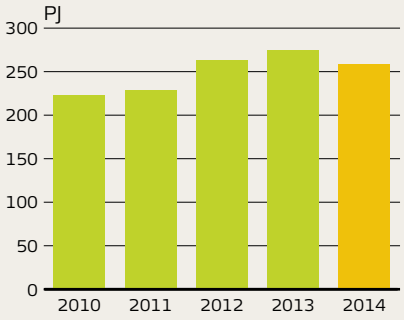
GHG emissions

We have reduced our greenhouse gas emissions by more than half since we demerged to become Yara in 2004. Our N_2O catalyst technology and energy improvements have been key to achieving this.

Emissions contributing to eutrophication

While we managed to reduce emission of ammonia and NO_x emissions, our total emissions with impact on eutrophication increased by about 4% in 2014.





Total energy consumption

We reduced our total energy consumption by about 6% from 2013 to 2014. While lower ammonia production explains about two thirds of the reduction in energy use, we also saw significant improvements from recent investments to increase energy efficiency in our plants.

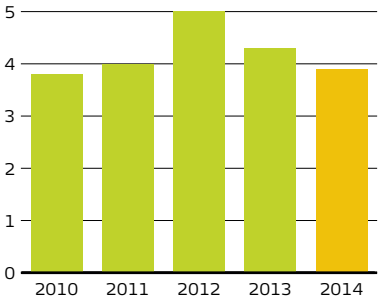
Health and safety

Safety is Yara's top priority in all our activities. We have an ambitious policy in the area of health and safety, based on our belief that every accident is preventable.

We work systematically to protect employees and contractors, and have seen significant improvements in our safety performance over the last two decades. Strong management commitment and active employee involvement are cornerstones in our efforts to map and manage processes and behavior that prevent accidents from occurring.

We recorded positive developments in our safety performance throughout 2014, particularly among contractors, a group that has been more prone to accidents than Yara employees. We also continued to roll out our Safe by Choice initiative to instill a common safety culture and lead the company to safety excellence. An independent audit reconfirmed that our operations in Europe are in full compliance with the Fertilizers Europe Product Stewardship program, and we continued efforts to have all our operations outside Europe certified to the IFA Protect & Sustain Initiative.

In 2014, a company-wide safety survey, conducted by the U.S. based National Safety Council, an independent non-profit organization, showed a high level of engagement among employees regarding safety issues. The survey results indicate a positive safety culture, with particularly high scores in the area of supervisor participation. The survey was carried out as part of the ongoing Safe by Choice initiative to excel in safety.



TRI rate

In 2014 our TRI (Total Recordable Injury) rate was 3.9 for employees and contractors combined, an improvement compared to 4.3 in 2013. We target a TRI rate of below 3.0 – towards the ultimate goal of zero accidents.

Yara has successfully implemented and certified seven non-European units to the IFA product stewardship program. In 2014, three new units (Yara South Africa, Malaysia and Mexico) reached the IFA Product Steward Excellence level, the highest certification level in IFA's program, in addition to the earlier achieved Excellence certificate in Yara North America.

Yara Safety Award 2014

Our employees in Rio Grande, Brazil, were awarded the Yara Safety Award 2014 for their excellent safety culture and their efforts to live by the rules and values of 'Safe by Choice'.

Yara Brunsbüttel, Germany, was awarded the 2015 IFA Green Leaf Award for outstanding safety and environmental standards.

Yara Industrial Germany was awarded the 2014 Industrial Gas Association Germany Safety Award for 690,000 consecutive safe work hours, as well as a bronze medal in the European Industrial Gases Association's (EIGA) Safety and Environment in the Workplace award.

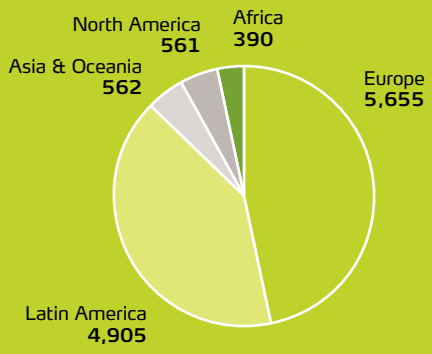
Workforce

Yara's People Strategy focuses on the knowledge and skill of our employees. We aim to attract, retain and develop the best talents and give all employees the opportunity to reach their full potential.

Good people management is the essence of our People Strategy, which focuses on talent development and retention, and on nurturing a performance culture. As a truly global company, we work across countries and cultures to attract talent, regardless of nationality, ethnicity, gender or age. We aim to offer career opportunities and development for all our employees.

In 2014, we gave high priority to integration processes following several major acquisitions the year before. The onboarding of new employees will continue well into 2015, most notably in Latin America. Here, we continued the integration of Bunge's fertilizer business and welcomed employees from OFD Holding Inc. and Galvani Indústria, Comércio e Serviços S/A. We also continued efforts to create better visibility on career opportunities and of available talents within the company.

Workforce by region



Yara's global workforce

Our contingent in Latin America has grown rapidly in recent years and now accounts for more than 40% of our total workforce.

22%

We aim to increase the proportion of women in key management positions to 23% by 2017. At year-end 2014, the percentage of women in this population was 22%. Keys to further progress are succession planning, talent programs and focus on diversity in recruiting.

Yara Voice

Yara Voice is our new employee engagement survey, which we launched in 2014. Results from the survey show a good engagement level and high scores within important areas such as safety, ethics and compliance.

12,073 employees

Our global workforce grew by 2,314 employees, or close to 24%, in 2014. The acquisitions of OFD Holding Inc. and a majority stake in Galvani Indústria, Comércio e Serviços S/A added more than 2,000 employees in seven Latin American countries.

Yara Explorer – onboarding program

We launched our new onboarding application, the Yara Explorer, in May 2014. It is an important new tool, designed to provide new employees an interactive and interesting introduction to Yara's organization, strategy, products, production processes and people, ensuring a speedy integration into the Yara family.

60 nationalities

More than 60 nationalities are represented in our workforce – a great set of diverse skills and competencies.

Leveraging scale and knowledge – from input to impact

Hydrocarbons

Hydrocarbons, mostly harvested from natural gas, are the most important feedstock in the production of nitrogen (N). We are the largest industrial buyer of natural gas in Europe, putting the gas to good use.

Minerals

We secure deliveries of key raw materials for plant growth through mining activities and large volume sourcing of phosphate (P) and potash (K).

Fertilizer production

Our value-added fertilizers are tailored to meet the needs of a large variety of crop or soil conditions by combining nitrates with essential minerals.

Ammonia production

Ammonia, along with urea and nitric acid, form the starting point for our extensive portfolio of mineral fertilizers, environmental solutions and industrial applications.

Marketing, shipping and storage

With our global marketing and distribution net work, we ensure reliable product deliveries and knowledge trans fer worldwide.

Industrial experience

We pioneered the production of nitrogen fertilizer a century ago. We have since then continuously perfected our industrial processes, setting standards for greenhouse gas emissions and energy efficiency.

Business model

We are the world's largest producer of nitrogen fertilizers, building on a unique business model: With our operational flexibility, supported by global ammonia trade, we pursue optimization and scale advantages, creating a competitive edge.

Yara has the ambition to lead and shape our industry by setting high performance standard. Our commitments are anchored in our strategy and detailed in our Code of Conduct and Ethic and Compliance Program, by which we commit to respect key international agreements on labor and human rights.

We have a clear Health, Environment, Safety and Quality Policy guiding our everyday activities and business developments. Our operations also adhere to the principles of product stewardship set out by Fertilizers Europe and the International Fertilizer Industry Association (IFA).

Crop nutrition
We offer the industry's most comprehensive product portfolio, ranging from standard nitrogen fertilizers to complete crop nutrition solutions.

Environmental solutions
We offer complete solutions for NO_X and SO_X emission abatement, odor control, water treatment and corrosion prevention in our growing environmental solutions portfolio.

Industrial applications
We offer a wide range of nitrogen and specialty chemicals along with CO_2, dry ice and civil explosives solutions.

Production of food, fiber and fuel
Our crop nutrition solutions, used on about 75 million hectares of land, help farmers around the world to improve productivity by increasing yields to meet the global challenge of food security.

Improved air and water quality
Our emission abatement solutions helped customers cleanse more than 1.1 million tons of NO_X emissions in 2014. We also help control odor in cities and improve water quality.

Efficient and safe industrial production
Our industrial solutions and chemicals are vital to the production of a wide range of everyday staples, incl. soap, glue, paint, plastics, electronics, food and beverages.

Agronomic expertise
We have developed crop-specific nutrition concepts tailored to local conditions, optimizing yields while minimizing inputs. We transfer knowledge to improve agricultural productivity, farming profitability and to support safe and efficient industrial production.

Global impact
We invest in developing solutions that address global challenges such as climate change, resource scarcity and food security. By engaging in partnerships, we leverage our knowledge, products and solutions; creating shared value.

We are committed to international standards by embracing the principles of the UN Global Compact (UNGC), participating in the Global Compact LEAD and subscribing to the UNGC Caring for Climate and the CEO Water Mandate initiatives. Equally, we are a signatory to the UNGC Call to Action on corruption.

In line with our ambition to create impact, we have signed the Business Manifesto in support of the post-2015 Sustainable Development Goals. As an industry partner to the World Economic Forum (WEF), we follow up on our commitments in the New Vision for Agriculture roadmap.

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YARA GROWS KNOWLEDGE to nurture life by delivering solutions for sustainable agriculture and the environment. Our fertilizers and crop nutrition programs help produce the food required for a growing world population. Our industrial products and solutions reduce emissions; improve air quality and support safe and efficient operations.

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